

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

### **I. Hurricane/Tropical Storms**

- A. Hurricane/Tropical Storms Description - Charlton County is frequently at risk of damage to life, property, and economic losses due to the impacts of Hurricanes/Tropical Storms.

The National Weather Service uses the Saffir-Simpson Hurricane Wind Scale to categorize hurricanes based on their intensity. A chart of the associated wind speeds is listed below. While several factors influence the amount of damage caused by a particular storm, typically, more intense storms tend to inflict a greater amount of damage to the affected areas.

Tropical Storm – 39-73 mph  
Category 1 Hurricane – 74-95 mph  
Category 2 Hurricane – 96-110 mph  
Category 3 Hurricane – 111-130 mph  
Category 4 Hurricane – 131-155 mph  
Category 5 Hurricane – greater than 155 mph

The next section will provide a little more detail with regards to past history and probability of occurrence of future events, but as a general rule Lowndes County has a high risk of being impacted by at least one tropical storm each year during the Atlantic Hurricane Season which runs from June 1 until November 30. This is due in large part to its proximity to coastal waters.

Considering many tropical storms and hurricanes are several hundred miles wide and are capable of producing damaging winds well inland, it is highly likely that a storm striking the Florida panhandle or the eastern coast of Georgia from Savannah down to the Florida coast in St Augustine would pose a threat to Charlton County as it moves inland. Historically, the greatest threat to this area has been from storms on the eastern coast.

- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

### GEMA Worksheet #3a

### Inventory of Assets

Jurisdiction: Charlton County (Including Folkston & Homeland)

Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat

**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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>6,212</b>	<b>6,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</b>	<b>100%</b>

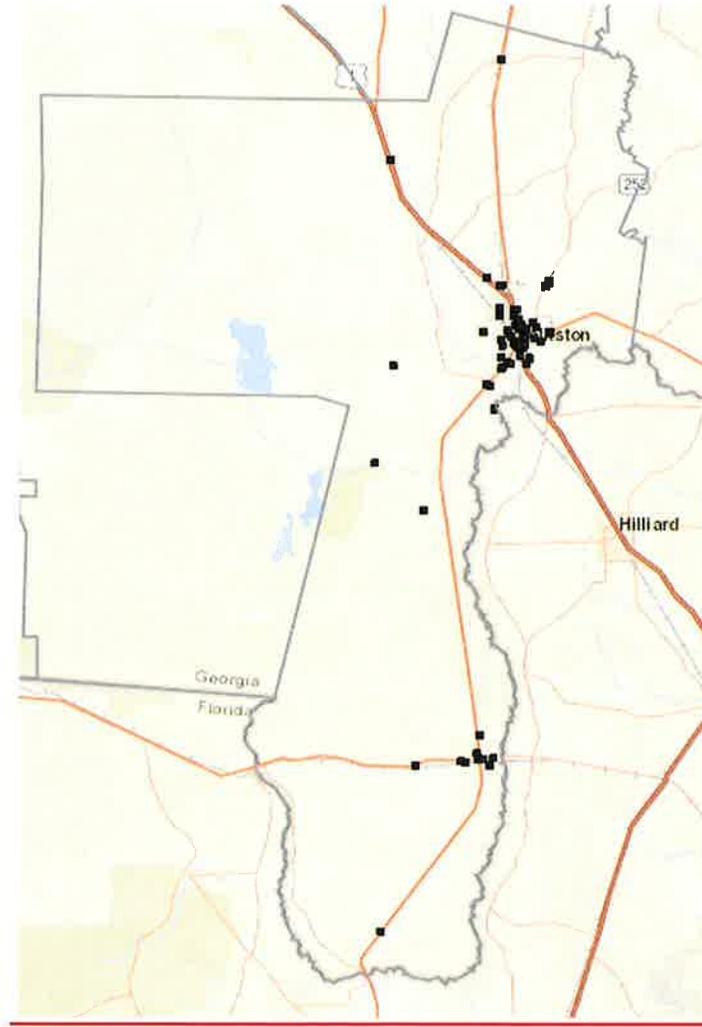
**Task B. Determine whether (and where) you want to collect additional inventory data.**

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

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
Charlton County	Charlton County EMA	3	8773200		2017	29224			0 Emergency Services, Emergency Services, EMA, EMA	0 Emergency Services, Emergency Services, Communications, Communications	Vulnerable Population
Charlton County	CITY OF Folkston Recycling Center	3	1080000		2017	3600	10000	2017	0 Government, Government, Landfill, Landfill	0 Government, Government, Landfill, Landfill	Important
Charlton County	CHESSER ISLAND ROAD LANDFILL, INC. MSWL	3	3000000		2017	1000			0 Government, Government, Landfill, Landfill	0 Government, Government, Landfill, Landfill	Important
Charlton County	Charlton County Fire Department Station #4 GA Bend	3	3600000		2017	1200	100000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #4 St. George	3	14670000		2017	4890	57000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #3 Racepoint	3	6250000		2017	1750	50000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County Airport #5 Winokur	3	7200000		2017	2400	50000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County Christian Academy	3	15000000		2017	800			0 Government, Transportation, Transportation	0 Government, Transportation, Transportation	Essential
Charlton County	Charlton County Antenna Repeater #2	3	5400000		2017	1800			0 Education, Education, K - 12, K - 12	0 Education, Education, K - 12, K - 12	Important, Vulnerable Population
Charlton County	Charlton County BOE St. George Elementary	3	3500000		2017	100	464000	2017	0 Emergency Services, Emergency Services, Communications, Communications	0 Emergency Services, Emergency Services, Communications, Communications	Vulnerable Population
Charlton County	Folkston Maintenance/Electrical Shop	3	7227000		2017	24090			0 Education, Education, K - 12, K - 12	0 Education, Education, K - 12, K - 12	Vulnerable Population
Charlton County	OREMC Radio Tower	3	5970000		2017	1990			0 Government, Transportation, Transportation	0 Government, Transportation, Transportation	Important
Charlton County	Georgia GA Forestry Commission GFC	3	6600000		2017	100			0 Emergency Services, Emergency Services, Communications, Communications	0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Charlton County	Trader's Hill Recreation Area	3	2175000		2017	725			0 Government, Government, Fire Fighters, Fire Fighters	0 Government, Government, Fire Fighters, Fire Fighters	Essential
Charlton County	Georgia GDOT Transportation Maintenance Facility	3	6750000		2017	2250			0 Government, Government, Fire Fighters, Fire Fighters	0 Government, Government, Fire Fighters, Fire Fighters	Historic Consideration, Important
Charlton County	Charlton County Maintenance Shop	3	5400000		2017	1800	1110000	2017	0 Government, Transportation, Transportation	0 Government, Transportation, Transportation	Essential, Lifeline
Charlton County	U.S. FW Service Okefenokee Refuge	3	2002500		2017	6675			0 Government, Transportation, Transportation	0 Government, Transportation, Transportation	Essential, Lifeline
Charlton County	Georgia GFC Forestry Gowen Tower	3	1500000		2017	100			0 Law Enforcement, Law Enforcement, Police, Police	0 Law Enforcement, Law Enforcement, Police, Police	Essential
Charlton County	Georgia GFC Forestry Commission-St. George	3	1500000		2017	100			0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County Transfer Station	3	7020000		2017	2340			0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	USPO-St. George	3	900000		2017	300			0 NGO, Landfill, Landfill	0 NGO, Landfill, Landfill	Important
Charlton County	Charlton County Antenna Repeater #3	3	3500000		2017	100			0 NGO, Communications, Communications	0 NGO, Communications, Communications	Important
Charlton County	Traders Hill Pump House	3	300000		2017	100	30000	2017	0 Emergency Services, Emergency Services, Communications, Communications	0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Charlton County	Charlton County EMS Station #2-St. George	3	2910000		2017	970	22000	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	St. George Pump House	3	450000		2017	150	30000	2017	0 Emergency Services, Emergency Services, EMS, EMS	0 Emergency Services, Emergency Services, EMS, EMS	Essential
Charlton County	Georgia Power Substation	3	7500000		2017	100			0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Kingland Drive Lift Station	3	300000		2017	100	100000	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	S.R. 252 Lift Station	3	300000		2017	100	100000	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Thomas Camp Lift Station	3	300000		2017	100	100000	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Pinehurst Subdivision Lift Station	3	300000		2017	100	100000	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	City of Folkston Water System-Homeland	3	7500000		2017	201	100000	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	OREMC Electric Substation #2	3	30800000		2017	100	53350	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Charlton County	Charlton County EMS 22140	3	0		2017	0			0 NGO, Private, Private	0 NGO, Private, Private	Lifeline
Charlton County	Camp Pineckey Baptist Church	3	4500000		2017	15000			0 Emergency Services, Emergency Services, EMS, EMS	0 Emergency Services, Emergency Services, EMS, EMS	Essential
Charlton County	St. George Church of God	3	5347500		2017	17825			0 Emergency Services, Emergency Services, Private, Private	0 Emergency Services, Emergency Services, Private, Private	Essential
Charlton County	Charlton County Road Dept. St. George	3	2000000		2017	100			0 Emergency Services, Emergency Services, Private, Private	0 Emergency Services, Emergency Services, Private, Private	Essential
Charlton County	Conceded Services Head Start	3	13200000		2017	6400			0 Government, Transportation, Transportation	0 Government, Transportation, Transportation	Vulnerable Population
Charlton County	New Life Baptist Church	3	28050000		2017	9350			0 Education, Education, Day Care, Day Care	0 Education, Education, Day Care, Day Care	Vulnerable Population
TOTAL		39	58634700		2017	140230	1377350		0 Emergency Services, Emergency Services, Private, Private	0 Emergency Services, Emergency Services, Private, Private	Essential
Folkston city	Charlton County FD Station 01 Folkston	3	17493000		2017	5813	70000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Folkston city	Charlton County Sheriff's Office	3	24000000		2017	8000	100000	2017	0 Law Enforcement, Law Enforcement, Sheriff, Sheriff	0 Law Enforcement, Law Enforcement, Sheriff, Sheriff	Essential, Vulnerable Population
Folkston city	Charlton County Courthouse	3	6945600		2017	23152	160000	2017	0 Law Enforcement, Law Enforcement, Court House, Court House	0 Law Enforcement, Law Enforcement, Court House, Court House	Essential
Folkston city	Vacant Charlton County Memorial Hospital	3	10825800		2017	36086			0 Emergency Services, Emergency Services, Hospital, Hospital	0 Emergency Services, Emergency Services, Hospital, Hospital	Essential, Vulnerable Population
Folkston city	City of Folkston (WPCP)	3	6501414		2017	100	350000	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Charlton County Water System	3	7500000		2017	201	53350	2017	0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	Charlton County BOE-High School	3	52142100		2017	173807	1626400	2017	0 Education, Education, K - 12, K - 12	0 Education, Education, K - 12, K - 12	Vulnerable Population
Folkston city	Vacant Charlton Memorial Hospital ER	3	0		2017	0			0 Medical, Hospital, Hospital	0 Medical, Hospital, Hospital	Essential, Vulnerable Population
Folkston city	Charlton County Antenna Repeater #1	3	3500000		2017	100			0 Emergency Services, Emergency Services, Communications, Communications	0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Folkston city	Charlton County Cooperative Extension	3	696000		2017	2232	81000	2017	0 Government, Government, Government Offices, Government Offices	0 Government, Government, Government Offices, Government Offices	Important
Folkston city	Charlton County Health Dept. Homecare	3	3000000		2017	1000	177000	2017	0 Medical, Medical Offices, Medical Offices	0 Medical, Medical Offices, Medical Offices	Essential, Vulnerable Population
Folkston city	Charlton County Health Dept. Homecare	3	2135700		2017	7119	177000	2017	0 Medical, Medical Offices, Medical Offices	0 Medical, Medical Offices, Medical Offices	Essential
Folkston city	Charlton County Public Library	3	2625000		2017	8750	500000	2017	0 Education, Education, Library, Library	0 Education, Education, Library, Library	Historic Consideration, Important
Folkston city	Charlton County Senior Center	3	1631100		2017	5437	100000	2017	0 Government, Day Care, Day Care	0 Government, Day Care, Day Care	Vulnerable Population
Folkston city	City of Folkston Water Line System	3	50000000		2017	0			0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	City of Folkston Sewerline System	3	50000000		2017	0			0 Government, Water/Sewer, Water/Sewer	0 Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	City of Folkston City Hall	3	12339000		2017	4113	138900	2017	0 Government, City Hall, City Hall	0 Government, City Hall, City Hall	Essential
Folkston city	City of Folkston Depot-Chamber of Commerce	3	1132800		2017	3776	195100	2017	0 Government, Government Offices, Government Offices	0 Government, Government Offices, Government Offices	Historic Consideration, Important
Folkston city	City of Folkston Housing Authority	3	12000000		2017	40000			0 Government, Private, Private	0 Government, Private, Private	Important, Vulnerable Population
Folkston city	City of Folkston Road Dept.	3	5850000		2017	1950	39000	2017	0 Government, Transportation, Transportation	0 Government, Transportation, Transportation	Transportation





**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND  
PDM GEMA HURRICANE/TROPICAL STORM HAZARD MAP**

*No Color = No Value*

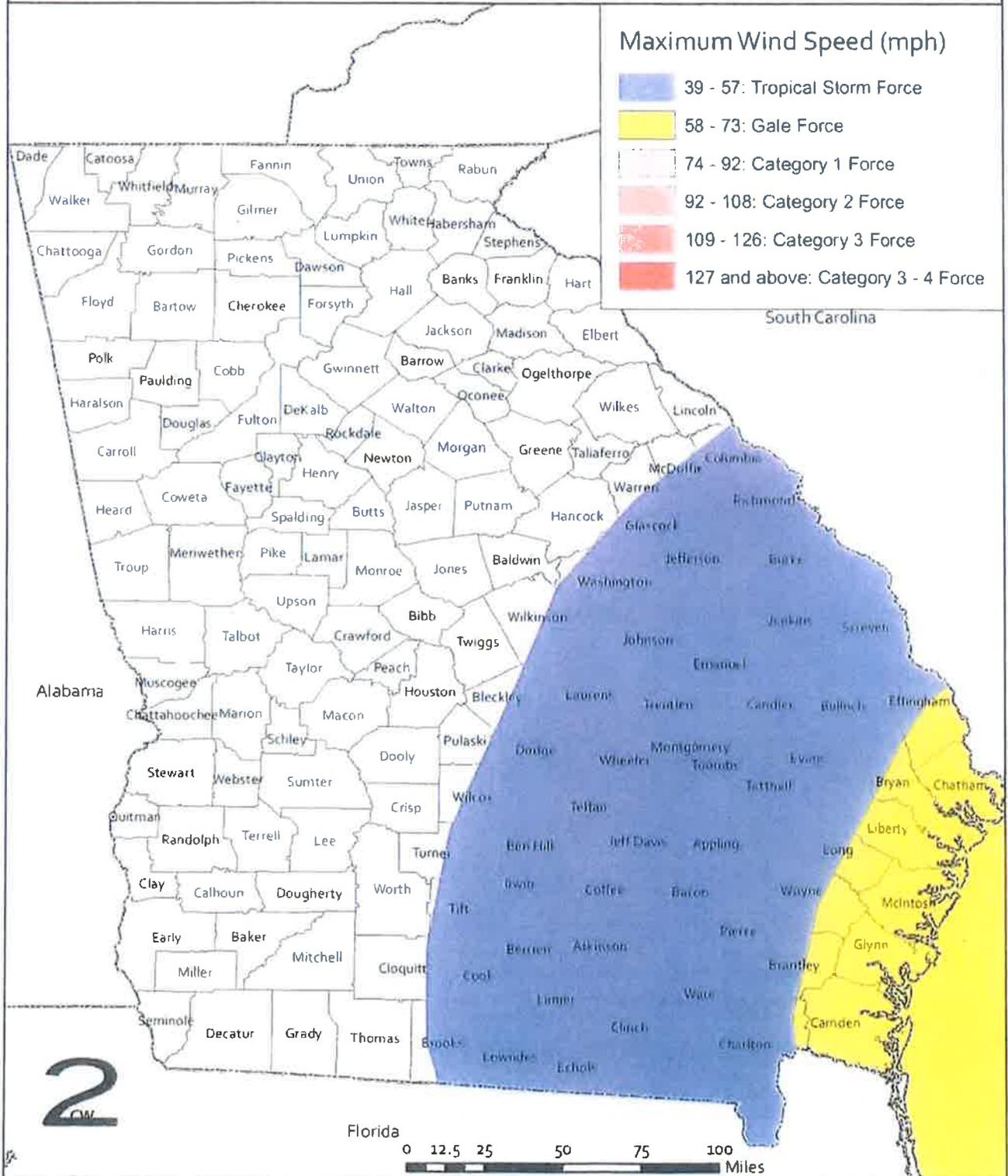
*Please see attached cover sheet regarding score definitions*



# Maximum Envelope of Wind

## Georgia Coast Landfall - Category 1 Hurricane

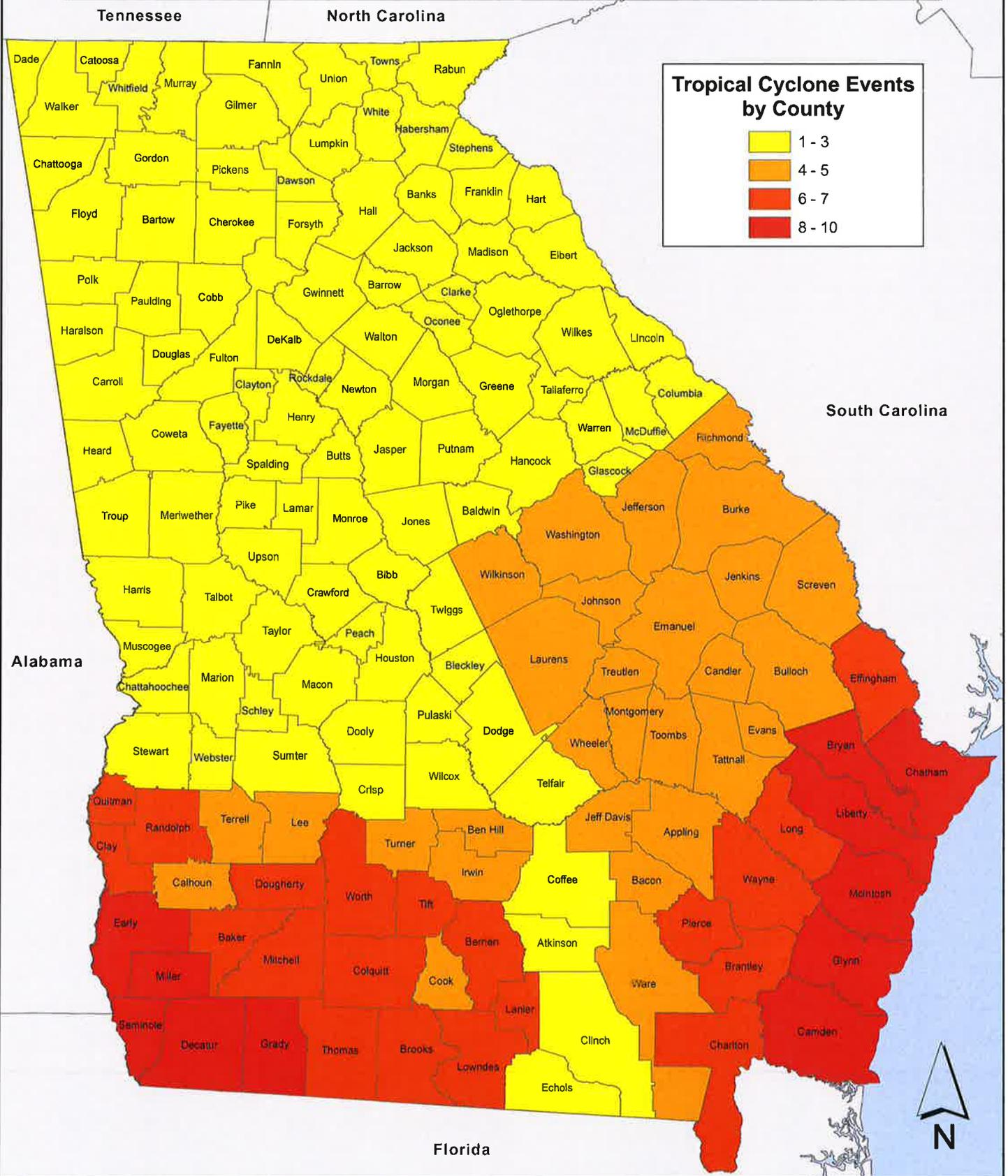
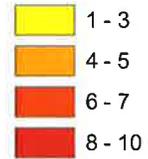
Sustained Winds of 75 mph - Forward Speed of 9 mph





# Tropical Cyclone Events 1960-2012 SHELDUS Data

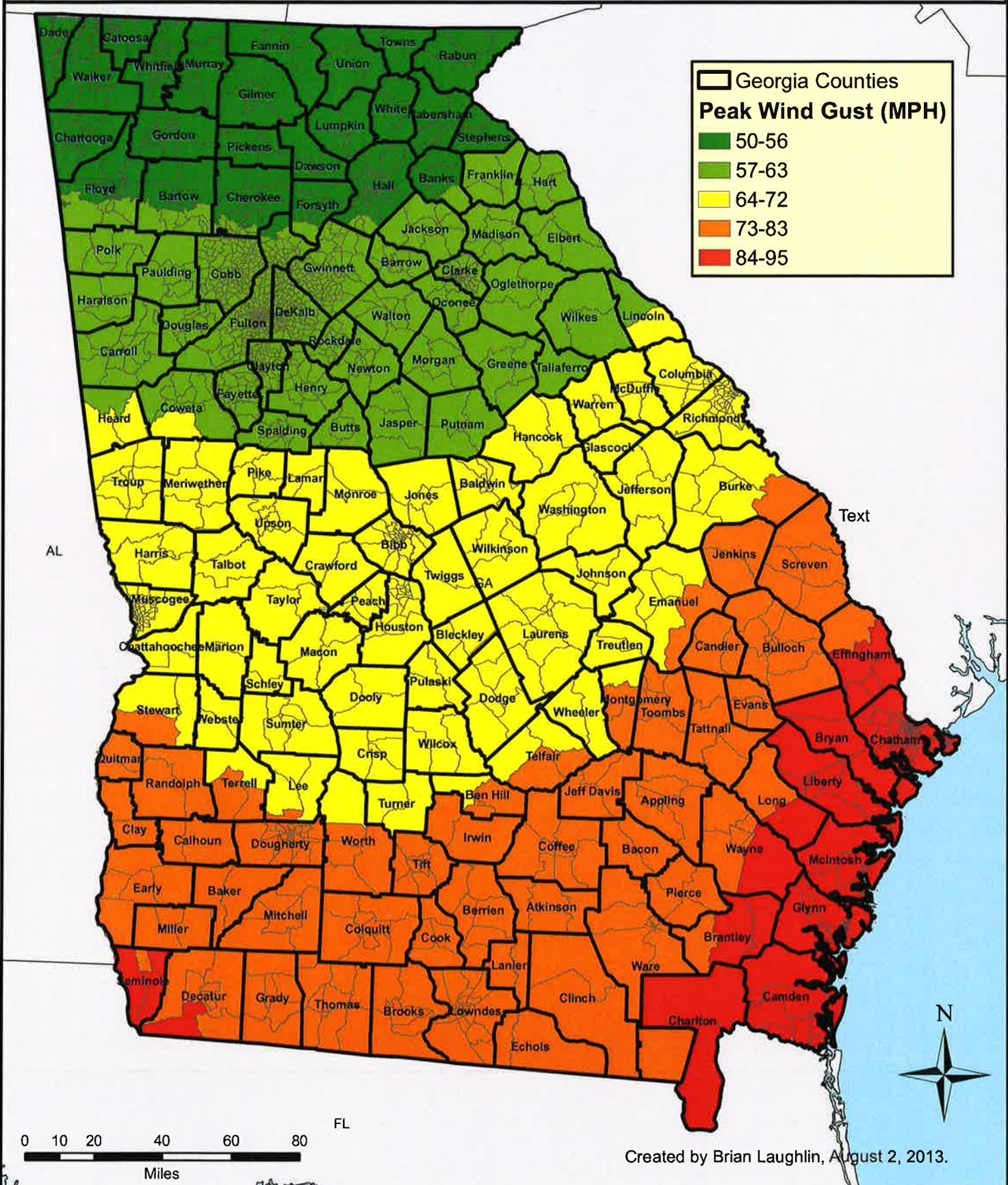
## Tropical Cyclone Events by County





# Georgia Hurricane Wind Extent

## 50 year Return Event

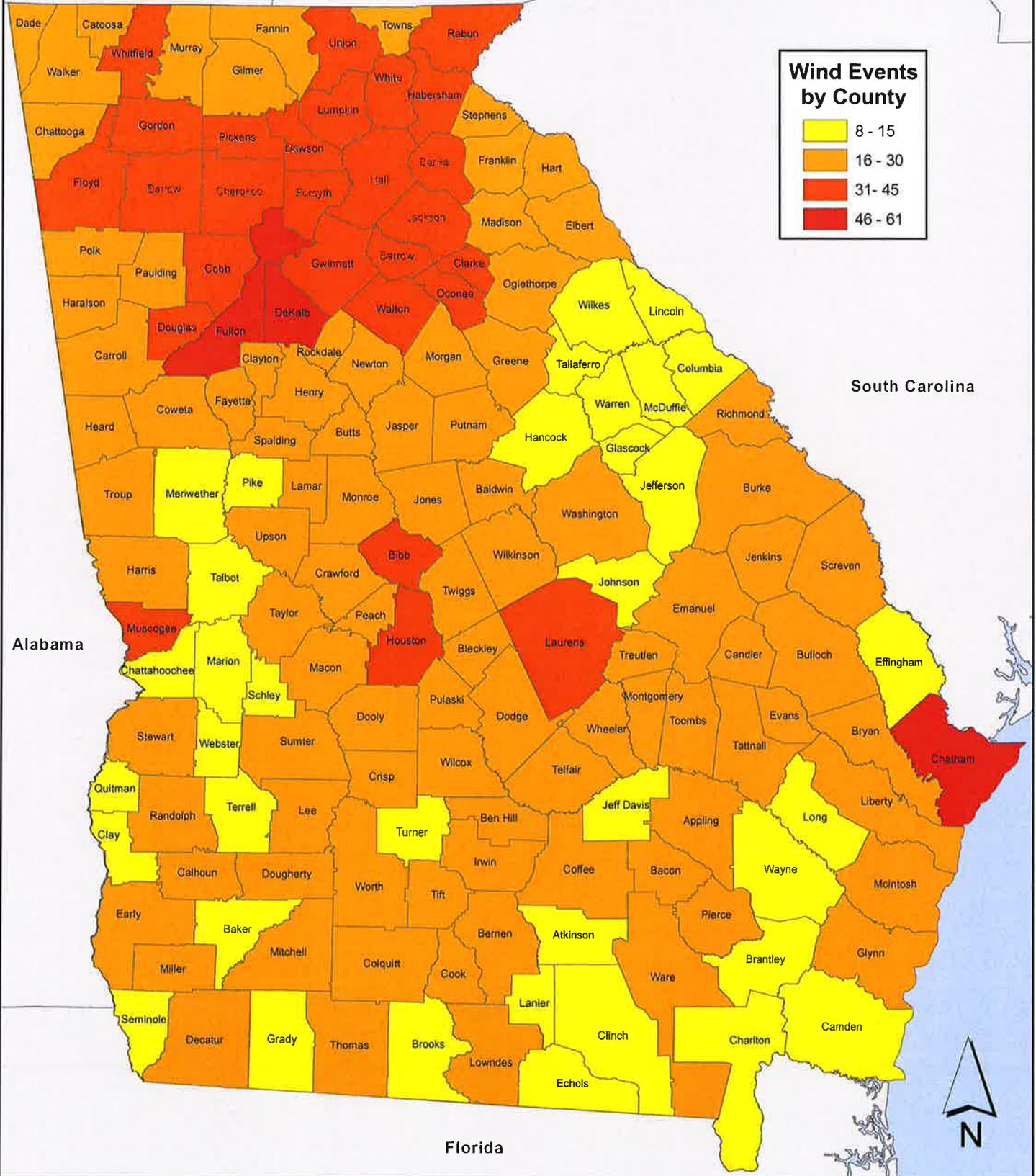




# Wind Events 1960-2012 SHELDUS Data

Tennessee

North Carolina

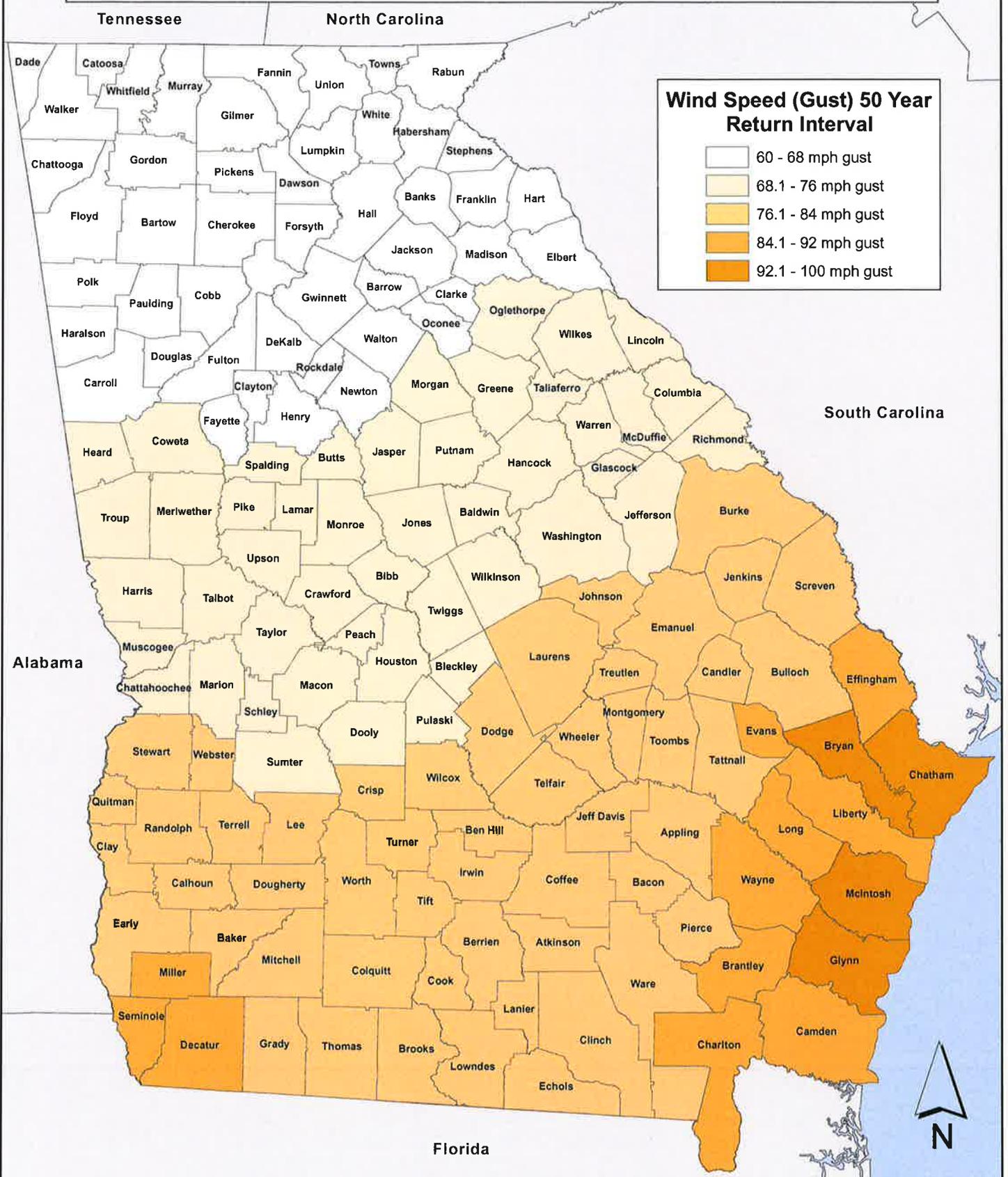
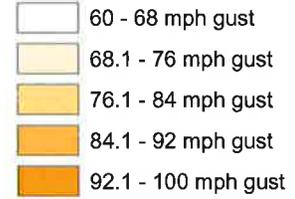




# Wind Risk

## 50 Year Gust Return Intervals

### Wind Speed (Gust) 50 Year Return Interval







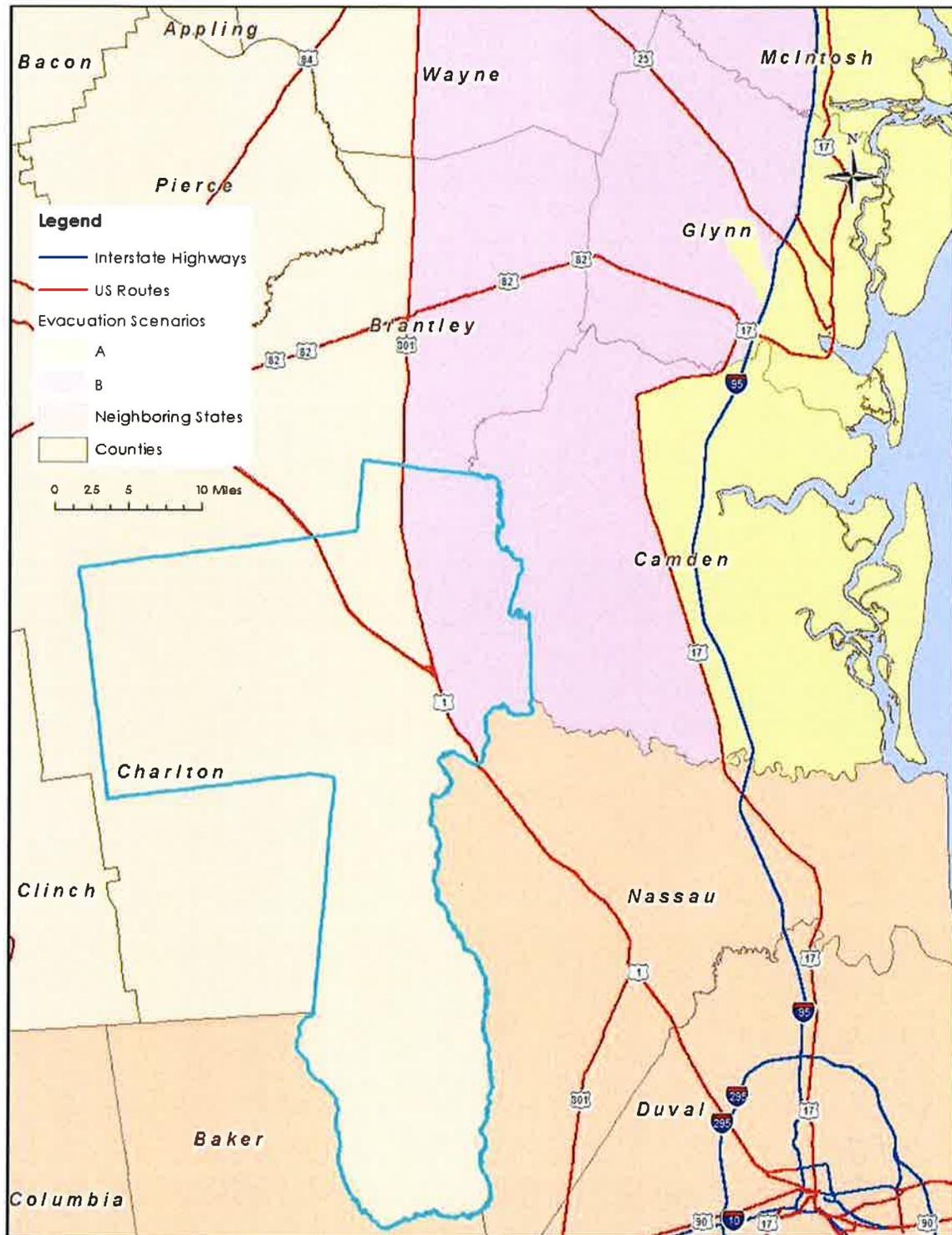
# Georgia Hurricane Incident Annex

Annex to:  
**Georgia Emergency Operations Plan**



**2013**

**Figure 12. Charlton County Hurricane Evacuation Scenarios**



## II. Flood/SLOSH

- A. Flood/SLOSH Hazard Description-Uncontrolled water (flooding) has been the costliest, repetitive natural hazard to Charlton County and its municipalities. Riverine flooding, which includes the overflow of streams and creeks designated as floodplains on the local FIRM maps due to heavy rain, have caused the most damage to government infrastructure and to individual property. In addition to riverine flooding, Charlton County also experiences localized flooding during brief periods of locally heavy rainfall, such as is commonly experienced during some thunderstorms and tropical storm events. This is particularly a problem in the urbanized areas where storm drainage systems can become overwhelmed by the intense amount of rainfall in a short period of time. While more frequent in nature, fortunately this type of flooding accounts for very little damage to local property and infrastructure.

SLOSH events, previously categorized as Flood take place as the result of Hurricanes/Tropical Storms and GEMA mapping has for the first time reached this far inland for it to be taken into account.

- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Unincorporated)**

**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	2,941	114	3.876%	241,162,000	9,348,000	3.876%	6,789	263	4%
Commercial	179	7	3.911%	3,991,863	156,106	3.911%	0	0	#DIV/0!
Industrial	23	1	4.348%	1,903,190	82,747	4.348%	0	0	#DIV/0!
Agricultural	508	20	3.937%	21,183,593	834,000	3.937%	0	0	#DIV/0!
Religious/ Non-profit	174	7	4.023%	6,794,260	273,332	4.023%	0	0	#DIV/0!
Government	82	3	3.659%	70,695,690	2,586,428	3.659%	0	0	#DIV/0!
Education	13	1	7.692%	1,123,803	86,446	7.692%	0	0	#DIV/0!
Utilities	17	1	5.882%	76,248,407	4,485,200	5.882%	0	0	#DIV/0!
<b>Total</b>	<b>3,937</b>	<b>154</b>	<b>3.912%</b>	<b>423,102,806</b>	<b>17,852,260</b>	<b>4.219%</b>	<b>6,789</b>	<b>263</b>	<b>4%</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?   |          | X        |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | X        |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X        |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X        |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X        |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X        |          |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | X        |

**GEMA Worksheet #3a**  
**Jurisdiction: City of Folkston**  
**Hazard: Flood**

**Inventory of Assets**

**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	1,160	45	3.879%	95,120,000	3,690,000	3.879%	5,313	208	4%
Commercial	465	18	3.871%	87,785,600	3,398,152	3.871%	0	0	#DIV/0!
Industrial	35	1	2.857%	4,619,400	131,983	2.857%	0	0	#DIV/0!
Agricultural	1	0	0.000%	26,100	0	0.000%	0	0	#DIV/0!
Religious/ Non-profit	74	3	4.054%	8,415,358	341,163	4.054%	0	0	#DIV/0!
Government	59	2	3.390%	14,663,830	497,079	3.390%	0	0	#DIV/0!
Education	10	0	0.000%	8,302,080	0	0.000%	0	0	#DIV/0!
Utilities	12	0	0.000%	9,665,763	0	0.000%	0	0	#DIV/0!
<b>Total</b>	<b>1,818</b>	<b>69</b>	<b>3.800%</b>	<b>228,598,131</b>	<b>8,058,377</b>	<b>3.525%</b>	<b>5,313</b>	<b>208</b>	<b>4%</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?   |   | X |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |   | X |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X |   |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X |   |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X |   |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X |   |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |   | X |

**GEMA Worksheet #3a**  
**Jurisdiction: City of Homeland**  
**Hazard: Flood**

**Inventory of Assets**

**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	335	13	3.881%	27,470,000	1,066,000	3.881%	1,028	40	4%
Commercial	39	2	5.128%	817,565	41,926	5.128%	0	0	#DIV/0!
Industrial	0	0	0.000%	0	0	0.000%	0	0	#DIV/0!
Agricultural	5	0	0.000%	310,400	0	0.000%	0	0	#DIV/0!
Religious/ Non-profit	30	1	3.333%	923,830	30,794	3.333%	0	0	#DIV/0!
Government	40	2	5.000%	942,443	47,122	5.000%	0	0	#DIV/0!
Education	0	0	0.000%	0	0	0.000%	0	0	#DIV/0!
Utilities	10	0	0.000%	3,426,565	0	0.000%	0	0	#DIV/0!
<b>Total</b>	<b>459</b>	<b>18</b>	<b>3.922%</b>	<b>33,890,803</b>	<b>1,185,843</b>	<b>3.498%</b>	<b>1,028</b>	<b>40</b>	<b>4%</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?   |          | X        |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | X        |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X        |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X        |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X        |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X        |          |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | X        |

Facility Flood Hazard All Hazard Scores

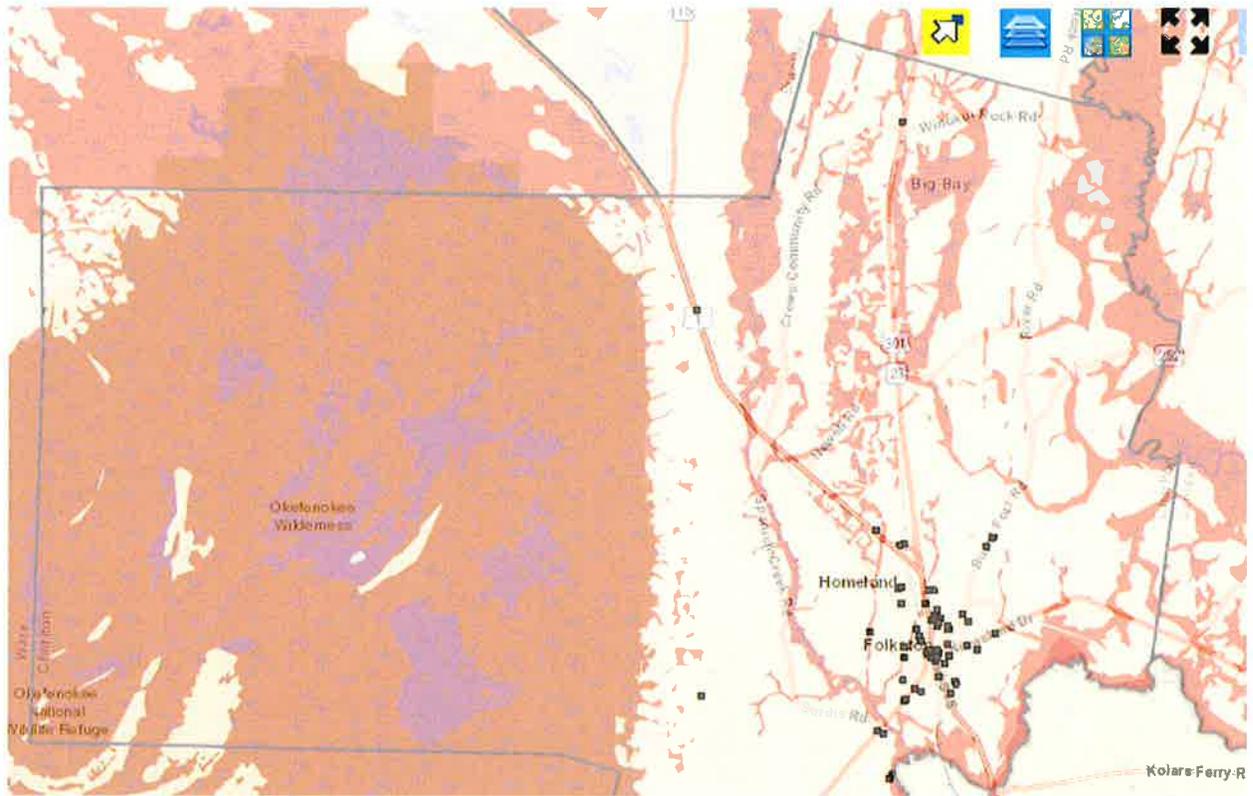
Jurisdiction	Name	Hazard Score	Value	Replacement Value	Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Charlton County	Charlton County EMA	0	8773200	2017	29224	0	0	0	Emergency Services, Emergency Services, EMA, EMA	0	Vulnerable Population
Charlton County	City of Folkston Recycling Center	0	1080000	2017	3600	0	10000	2017	0	Government, Government, Landfill, Landfill	Important
Charlton County	CHESSER ISLAND ROAD LANDFILL, INC. MSWL	0	3000000	2017	1000	0	0	0	Government, Government, Landfill, Landfill	0	Essential
Charlton County	Charlton County Fire Department Station #4 GA Bend	0	360000	2017	1200	0	100000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #2 St. George	0	1467000	2017	4850	0	570000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #3 Hapepond	0	5250000	2017	1750	0	50000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #5 Winokur	0	720000	2017	2400	0	50000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County Airport Davis Field	0	1500000	2017	800	0	50000	2017	0	Government, Government, Transportation, Transportation	Essential
Charlton County	Charlton County Christian Academy	0	540000	2017	1800	0	0	0	Education, Education, K - 12, K - 12	0	Important, Vulnerable Population
Charlton County	Charlton County Antenna Repeater #2	0	350000	2017	100	0	0	0	Emergency Services, Emergency Services, Communications, Communications	0	Essential, Ufeline
Charlton County	Charlton County BOE. St. George Elementary	0	7227000	2017	24050	0	464000	2017	0	Education, Education, K - 12, K - 12	Vulnerable Population
Charlton County	Folkston Maintenance/Electrical Shop	0	597000	2017	1990	0	0	0	Government, Government, Transportation, Transportation	0	Important
Charlton County	OREMC Radio Tower	0	350000	2017	100	0	0	0	Emergency Services, Emergency Services, Communications, Communications	0	Essential, Ufeline
Charlton County	Georgia GA Forestry Commission GFC	0	660000	2017	2200	0	0	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0	Essential
Charlton County	Trader's Hill Recreation Area	4	217500	2017	725	0	0	0	Government, Government, Government Offices, Government Offices	0	Essential
Charlton County	Georgia GDOT Transportation Maintenance Facility	0	675000	2017	2250	0	0	0	Government, Government, Transportation, Transportation	0	Historic Consideration, Important
Charlton County	Charlton County Maintenance Shop	0	540000	2017	1800	0	111000	2017	0	Government, Government, Transportation, Transportation	Essential, Transportation
Charlton County	U.S. FW Service Okfenokee Refuge	0	2002500	2017	6675	0	0	0	Law Enforcement, Law Enforcement, Police, Police	0	Essential, Transportation
Charlton County	Georgia GFC Forestry Gowen Tower	0	150000	2017	100	0	0	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0	Essential
Charlton County	Georgia GFC Forestry Commission-St. George	0	150000	2017	100	0	0	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	0	Essential
Charlton County	Charlton County Transfer Station	0	702000	2017	2340	0	0	0	NGO, NGO, Landfill, Landfill	0	Important
Charlton County	USPO-St. George	0	90000	2017	300	0	0	0	NGO, NGO, Communications, Communications	0	Important
Charlton County	Charlton County Antenna Repeater #3	0	350000	2017	100	0	0	0	Emergency Services, Emergency Services, Communications, Communications	0	Essential, Ufeline
Charlton County	Traders Hill Pump House	0	30000	2017	100	0	30000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline
Charlton County	Charlton County EMS Station #2-St. George	0	291000	2017	970	0	22000	2017	0	Emergency Services, Emergency Services, EMS, EMS	Essential
Charlton County	St. George Pump House	0	45000	2017	150	0	30000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline
Charlton County	Georgia Power Substation	0	7500000	2017	100	0	0	0	Government, Government, Water/Sewer, Water/Sewer	0	Ufeline
Charlton County	Kingsland Drive Lift Station	0	30000	2017	100	0	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline
Charlton County	S.R. 252 Lift Station	0	30000	2017	100	0	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline
Charlton County	Thomas Camp Lift Station	0	30000	2017	100	0	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline
Charlton County	Pinehurst Subdivision Lift Station	0	30000	2017	100	0	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline
Charlton County	City of Folkston Water System-Homeland	0	750000	2017	201	0	53350	2017	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Ufeline
Charlton County	OREMC Electric Substation #2	0	3080000	2017	100	0	0	0	NGO, NGO, Private, Private	0	Ufeline
Charlton County	Charlton County EMS 22140	0	0	2017	0	0	0	0	Emergency Services, Emergency Services, EMS, EMS	0	Essential
Charlton County	Camp Pinckney Baptist Church	0	4500000	2017	15000	0	0	0	Emergency Services, Emergency Services, Private, Private	0	Essential
Charlton County	St. George Church of God	0	5347500	2017	17825	0	0	0	Emergency Services, Emergency Services, Private, Private	0	Essential
Charlton County	Charlton County Road Dept. St. George	0	200000	2017	100	0	100	0	Government, Government, Transportation, Transportation	0	Essential
Charlton County	Concerted Services Head Start	0	1920000	2017	6400	0	0	0	Education, Education, Day Care, Day Care	0	Vulnerable Population
Charlton County	New Life Baptist Church	0	2805000	2017	9350	0	0	0	Emergency Services, Emergency Services, Private, Private	0	Essential
<b>TOTAL</b>		<b>1</b>	<b>(Score 4)</b>			<b>725</b>	<b>0</b>				
Folkston city	Charlton County FD Station 01 Folkston	0	1748900	2017	5813	0	70000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Folkston city	Charlton County Sheriff's Office	0	2400000	2017	8000	0	100000	2017	0	Law Enforcement, Law Enforcement, Sheriff, Sheriff	Essential, Vulnerable Population
Folkston city	Charlton County Courthouse	0	6945600	2017	23152	0	160000	2017	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential
Folkston city	Vacant Charlton County Memorial Hospital	0	10825800	2017	36086	0	0	0	Emergency Services, Emergency Services, Hospital, Hospital	0	Essential, Vulnerable Population
Folkston city	City of Folkston (WPCF)	0	6504434	2017	100	0	350000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline
Folkston city	City of Folkston Water System	0	7500000	2017	201	0	53350	2017	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Ufeline
Folkston city	Charlton County BOE-High School	0	52142100	2017	173807	0	1626400	2017	0	Education, Education, K - 12, K - 12	Vulnerable Population
Folkston city	Vacant Charlton Memorial Hospital ER	0	0	2017	0	0	0	0	Medical, Medical, Hospital, Hospital	0	Essential, Vulnerable Population
Folkston city	Charlton County Antenna Repeater #1	0	350000	2017	100	0	0	0	Emergency Services, Emergency Services, Communications, Communications	0	Essential, Ufeline
Folkston city	Charlton County Cooperative Extension	0	669600	2017	2232	0	81000	2017	0	Government, Government, Government Offices, Government Offices	Important
Folkston city	Charlton County Health Dept. Homecare	0	300000	2017	1000	0	177000	2017	0	Medical, Medical, Medical Offices, Medical Offices	Essential, Vulnerable Population
Folkston city	Charlton County Health Dept.	0	2135700	2017	7119	0	177000	2017	0	Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Charlton County Public Library	0	2625000	2017	8750	0	500000	2017	0	Education, Education, Library, Library	Historic Consideration, Important
Folkston city	Charlton County Senior Center	0	1631100	2017	5437	0	100000	2017	0	Government, Government, Day Care, Day Care	Vulnerable Population
Folkston city	City of Folkston Water Line System	0	50000000	2017	0	0	0	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Ufeline	
Folkston city	City of Folkston Sewerline System	0	50000000	2017	0	0	0	0	Government, Government, Water/Sewer, Water/Sewer	Ufeline	
Folkston city	City of Folkston City Hall	0	1233900	2017	4113	0	138900	2017	0	Government, Government, City Hall, City Hall	Essential
Folkston city	City of Folkston Depot-Chamber of Commerce	0	1132800	2017	3776	0	195100	2017	0	Government, Government, Government Offices, Government Offices	Historic Consideration, Important

Folkston city	City of Folkston Housing Authority	0	12000000	2017	40000	2017	39000	2017	0 Government, Government, Private, Private	Important, Vulnerable Population
Folkston city	City of Folkston Road Dept.	0	585000	2017	1950	2017	39000	2017	0 Government, Government, Transportation, Transportation	Transportation
Folkston city	Georgia GA DHR DFACS	0	15000000	2017	5000	2017	39000	2017	0 Law Enforcement, Law Enforcement, Police, Police	Essential
Folkston city	Coastal Pines Adult Ed.	0	0	2017	0	2017	70000	2017	0 Education, Education, Jr Colleges, Jr Colleges	Historic Consideration, Important
Folkston city	Charlton County Commission Offices	0	5625600	2017	18752	2017	70000	2017	0 Law Enforcement, Law Enforcement, Court House, Court House	Essential, Historic Consideration, Important
Folkston city	Charlton County Storage Building OERC	0	4800000	2017	16000	2017	70000	2017	0 Government, Government, Government Offices, Government Offices	Historic Consideration
Folkston city	Roberson Daycare	0	5400000	2017	1800	2017	70000	2017	0 Education, Education, Day Care, Day Care	Vulnerable Population
Folkston city	USPO-Folkston	0	960000	2017	3200	2017	70000	2017	0 Government, Government, Communications, Communications	Important
Folkston city	GEO Corrections State Prison	0	88701000	2017	295670	2017	1000000	2017	0 Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Vulnerable Population
Folkston city	GEO Corrections Water System	0	30000	2017	100	2017	1000000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	McKinney Community Health Center	0	720000	2017	2400	2017	1000000	2017	0 Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Visiting Nurses	0	90000	2017	300	2017	1000000	2017	0 Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Charlton County #11	0	0	2017	0	2017	1000000	2017	0 Emergency Services, Emergency Services, Communications, Communications	Essential
Folkston city	Folkston Park Care And Rehabilitation	0	8400000	2017	28000	2017	1000000	2017	0 Emergency Services, Emergency Services, Medical Offices	Essential
Folkston city	U.F. Health	0	1200000	2017	4000	2017	1000000	2017	0 Medical, Medical, A/LF, A/LF	Essential
Folkston city	Charlton County BOE-Folkston Elementary School	0	21415700	2017	71389	2017	626900	2017	0 Emergency Services, Emergency Services, EMA, EMA	Essential
Folkston city	Charlton County BOE-Bethune Middle School	0	27665300	2017	92221	2017	376000	2017	0 Education, Education, K - 12, K - 12	Vulnerable Population
Folkston city	City of Folkston Water System-BurntFork Road	0	1000000	2017	201	2017	53350	2017	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	Prison Lift Station	0	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	U.S. 301 N Lift Station	3	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Pinewood Street Lift Station	0	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Main Street Lift Station	3	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Paxton Road Lift Station	3	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Overpass Lift Station	0	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Okefenokee Drive Lift Station	0	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Henri Street Lift Station	0	30000	2017	100	2017	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Charlton County BOE Administration	0	3915000	2017	13050	2017	50000	2017	0 Education, Education, K - 12, K - 12	Important, Vulnerable Population
Folkston city	Charlton County BOE-Alternabve School	0	938400	2017	3128	2017	6000	2017	0 Education, Education, K - 12, K - 12	Vulnerable Population
Folkston city	Charlton County BOE-Bus Shop	0	1260000	2017	4200	2017	90000	2017	0 Education, Education, Transportation, Transportation	Transportation
Folkston city	Charlton County BOE-Maintenance	0	2925000	2017	9750	2017	95000	2017	0 Education, Education, K - 12, K - 12	Transportation
Folkston city	Folkston Police Department	0	642600	2017	2142	2017	95000	2017	0 Law Enforcement, Law Enforcement, Police, Police	Essential
Folkston city	Georgia Power Substation	0	3080000	2017	100	2017	100000	2017	0 NGO, NGO, Private, Private	Lifeline
Folkston city	OREMC Electric Substation #1	0	3080000	2017	100	2017	100000	2017	0 NGO, NGO, Private, Private	Lifeline
Folkston city	Conceded Services	0	1920000	2017	6400	2017	100000	2017	0 NGO, NGO, Clinics, Clinics	Important
Folkston city	First Baptist Church	0	4800000	2017	16000	2017	100000	2017	0 Emergency Services, Emergency Services, Private, Private	Essential
Folkston city	Amelia Care	0	2475000	2017	8250	2017	100000	2017	0 Medical, Medical, Medical Offices, Medical Offices	Essential
TOTAL	3 (Score 3)		90000		300		300000			
Homeland city	Satilla Community Service Center	0	2754000	2017	9180	2017	21900	2017	0 Medical, Medical, Medical Offices, Medical Offices	Essential
Homeland city	Homeland Police Department	0	153600	2017	512	2017	21900	2017	0 Law Enforcement, Law Enforcement, Police, Police	Essential
Homeland city	City of Homeland City Hall	0	647400	2017	2518	2017	72900	2017	0 Government, Government, City Hall, City Hall	Essential
Homeland city	City of Homeland Water System	0	750000	2017	469	2017	110660	2017	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Homeland city	City of Homeland Waterline System	0	11000000	2017	0	2017	19800	2017	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Homeland city	City of Homeland Machinery Enclosure	0	660000	2017	2200	2017	19800	2017	0 Government, Government, Transportation, Transportation	Important
Homeland city	City of Homeland Road Dept.	0	445200	2017	1484	2017	62700	2017	0 Government, Government, Transportation, Transportation	Essential, Transportation
Homeland city	Pineville Campground	0	600000	2017	2000	2017	62700	2017	0 NGO, NGO, Private, Private	Lifeline
Homeland city	Commercial Radio Tower	0	350000	2017	100	2017	62700	2017	0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Homeland city	OREMC Electric Substation 3	0	3080000	2017	100	2017	62700	2017	0 NGO, NGO, Private, Private	Lifeline
TOTAL			0		0		0			
<b>Grand Total 4 (1-4 &amp; 3-3)</b>			<b>307500</b>		<b>1025</b>		<b>300000</b>			

Facility SLOSH Hazard - All Hazard Scores

Jurisdiction	Name	Hazard Score	Value	Replacement Value	Building size	Content value	Content value year	Functional Use	Facility type	Risk
Charlton County	Charlton County EMA	0	8773200	2017	29224	10000	2017	0	Emergency Services, Emergency Services, EMA, EMA	Vulnerable Population
Charlton County	City Of Folkston Recycling Center	0	1080000	2017	3600	10000	2017	0	Government, Government, Landfill, Landfill	Important
Charlton County	CHESSER ISLAND ROAD LANDFILL, INC. MSWL	0	3000000	2017	1000	10000	2017	0	Government, Government, Landfill, Landfill	Important
Charlton County	Charlton County Fire Department Station #4 GA Bend	0	360000	2017	1200	100000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #2 St. George	0	1467000	2017	4890	57000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #3 Racepoint	0	525000	2017	1750	50000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #5 Winokur	0	720000	2017	2400	50000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County Airport Davis Field	0	1500000	2017	800	50000	2017	0	Government, Government, Transportation, Transportation	Essential, Transportation
Charlton County	Charlton County Christian Academy	0	540000	2017	1800	100	2017	0	Education, Education, K -12, K -12	Important, Vulnerable Population
Charlton County	Charlton County Antenna Repeater #2	0	350000	2017	100	464000	2017	0	Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Charlton County	Charlton County BOE-St. George Elementary	0	7227000	2017	24090	100	2017	0	Education, Education, K -12, K -12	Vulnerable Population
Charlton County	Folkston Maintenance/Electrical Shop	0	597000	2017	1990	100	2017	0	Government, Government, Transportation, Transportation	Important
Charlton County	OREMC Radio Tower	0	350000	2017	100	100	2017	0	Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Charlton County	Georgia GA Forestry Commission GFC	0	660000	2017	2200	100	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Trader's Hill Recreation Area	0	2175000	2017	725	100	2017	0	Government, Government, Government Offices, Government Offices	Historic Consideration, Important
Charlton County	Georgia GDOT Transportation Maintenance Facility	0	675000	2017	2250	111000	2017	0	Government, Government, Transportation, Transportation	Essential, Transportation
Charlton County	Charlton County Maintenance Shop	0	540000	2017	1800	100	2017	0	Government, Government, Transportation, Transportation	Essential, Transportation
Charlton County	U.S. PW Service Okfehenokee Refuge	0	2002500	2017	6675	100	2017	0	Law Enforcement, Law Enforcement, Police, Police	Essential
Charlton County	Georgia GFC Forestry Gowen Tower	0	150000	2017	100	100	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Georgia GFC Forestry Commission-St. George	0	150000	2017	100	100	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County Transfer Station	0	702000	2017	2340	30000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Important
Charlton County	USPO-St. George	0	90000	2017	300	100	2017	0	NGO, NGO, Communications, Communications	Important
Charlton County	Charlton County Antenna Repeater #3	0	350000	2017	100	100	2017	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Charlton County	Traders Hill Pump House	0	30000	2017	100	30000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Charlton County EMS Station #2-St. George	0	291000	2017	970	22000	2017	0	Emergency Services, Emergency Services, EMS, EMS	Essential
Charlton County	St. George Pump House	0	45000	2017	150	30000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Georgia Power Substation	0	750000	2017	100	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Kingsland Drive Lift Station	0	30000	2017	100	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	S.R. 252 Lift Station	0	30000	2017	100	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Thomas Camp Lift Station	0	30000	2017	100	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Pinehurst Subdivision Lift Station	0	30000	2017	100	100000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	City of Folkston Water System-Homeland	0	750000	2017	201	53350	2017	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Charlton County	OREMC Electric Substation #2	0	3080000	2017	100	100	2017	0	NGO, NGO, Private, Private	Essential
Charlton County	Charlton County EMS 22140	-1	0	2017	0	0	2017	0	Emergency Services, Emergency Services, EMS, EMS	Essential
Charlton County	Camp Pinckney Baptist Church	-1	4500000	2017	15000	100000	2017	0	Emergency Services, Emergency Services, Private, Private	Essential
Charlton County	St. George Church of God	-1	5347500	2017	17825	100	2017	0	Emergency Services, Emergency Services, Private, Private	Essential
Charlton County	Charlton County Road Dept. St. George	-1	200000	2017	100	100	2017	0	Government, Government, Transportation, Transportation	Essential
Charlton County	Concerted Services Head Start	-1	1920000	2017	6400	100	2017	0	Education, Education, Day Care, Day Care	Vulnerable Population
Charlton County	New Life Baptist Church	-1	2805000	2017	9350	70000	2017	0	Emergency Services, Emergency Services, Private, Private	Essential
Folkston city	Charlton County FD Station 01, Folkston	0	1749900	2017	5813	100000	2017	0	Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Folkston city	Charlton County Sheriff's Office	0	2400000	2017	8000	100000	2017	0	Law Enforcement, Law Enforcement, Sheriff, Sheriff	Essential, Vulnerable Population
Folkston city	Charlton County Courthouse	0	6945600	2017	23152	160000	2017	0	Law Enforcement, Law Enforcement, Court House, Court House	Essential
Folkston city	Vacant Charlton County Memorial Hospital	0	10825800	2017	36086	100	2017	0	Emergency Services, Emergency Services, Hospital, Hospital	Essential, Vulnerable Population
Folkston city	City of Folkston (WPCC)	0	6501414	2017	100	350000	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	City of Folkston Water System	0	750000	2017	201	53350	2017	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	Charlton County BOE-High School	0	52142100	2017	173807	1626400	2017	0	Education, Education, K -12, K -12	Vulnerable Population
Folkston city	Vacant Charlton Memorial Hospital ER	0	0	2017	0	0	2017	0	Medical, Medical, Hospital, Hospital	Essential, Vulnerable Population
Folkston city	Charlton County Antenna Repeater #1	0	350000	2017	100	81000	2017	0	Emergency Services, Emergency Services, Communications, Communications	Essential, Vulnerable Population
Folkston city	Charlton County Cooperative Extension	0	669600	2017	2232	177000	2017	0	Government, Government, Government Offices, Government Offices	Important
Folkston city	Charlton County Health Dept. Homecare	0	300000	2017	1000	100000	2017	0	Medical, Medical, Medical Offices, Medical Offices	Essential, Vulnerable Population
Folkston city	Charlton County Health Dept.	0	2135700	2017	7119	177000	2017	0	Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Charlton County Public Library	0	2625000	2017	8750	500000	2017	0	Education, Education, Library, Library	Historic Consideration, Important
Folkston city	Charlton County Senior Center	0	1631100	2017	5437	100000	2017	0	Government, Government, Day Care, Day Care	Vulnerable Population
Folkston city	City of Folkston Water Line System	0	50000000	2017	0	0	2017	0	Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	City of Folkston Sewerline System	0	50000000	2017	0	0	2017	0	Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	City of Folkston City Hall	0	1239000	2017	4113	138900	2017	0	Government, Government, City Hall, City Hall	Essential
Folkston city	City of Folkston Depot-Chamber of Commerce	0	1132800	2017	3776	195100	2017	0	Government, Government, Government Offices, Government Offices	Historic Consideration, Important
Folkston city	City of Folkston Housing Authority	0	12000000	2017	40000	100000	2017	0	Government, Government, Private, Private	Important, Vulnerable Population
Folkston city	City of Folkston Road Dept.	0	585000	2017	1950	39000	2017	0	Government, Government, Transportation, Transportation	Transportation

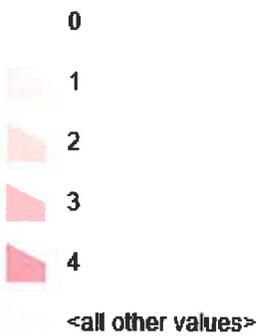


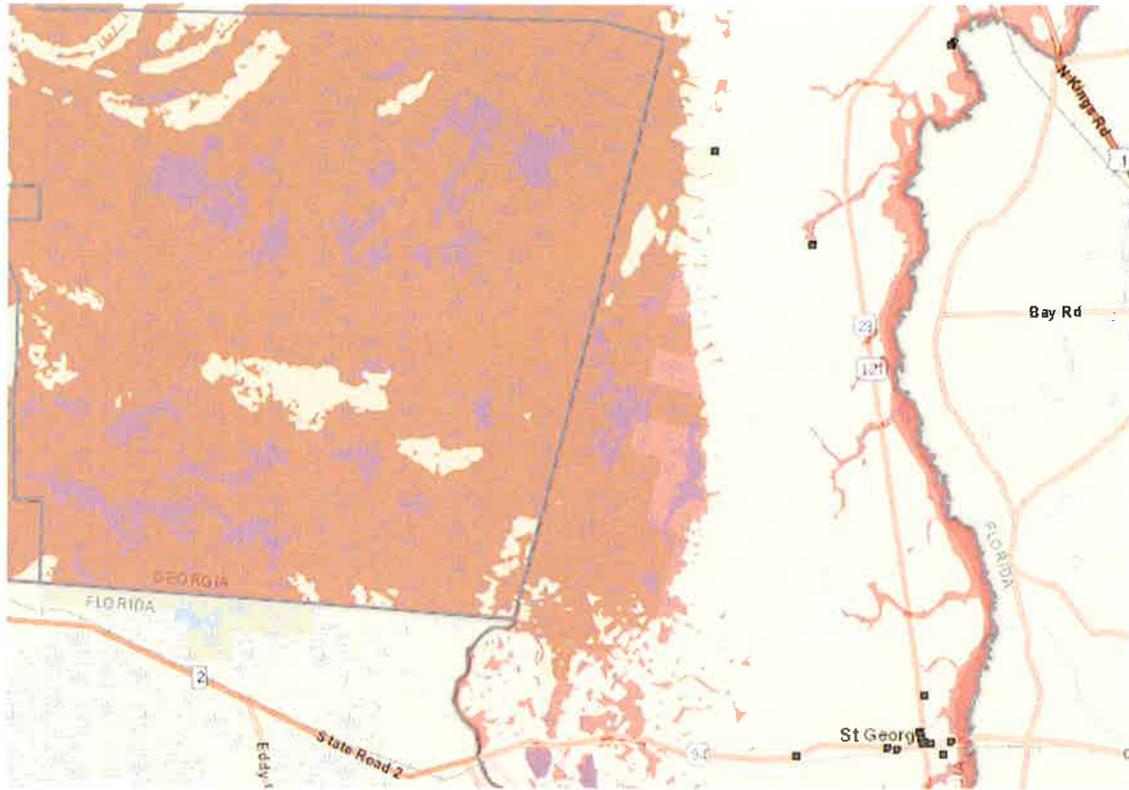


### CHARLTON COUNTY PDM GEMA FLOOD HAZARD MAP

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

#### Hazard - GEMA.flood





**CHARLTON COUNTY PDM GEMA FLOOD HAZARD MAP**

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

**Hazard - GEMA.flood**



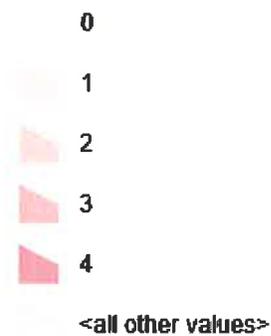
<all other values>

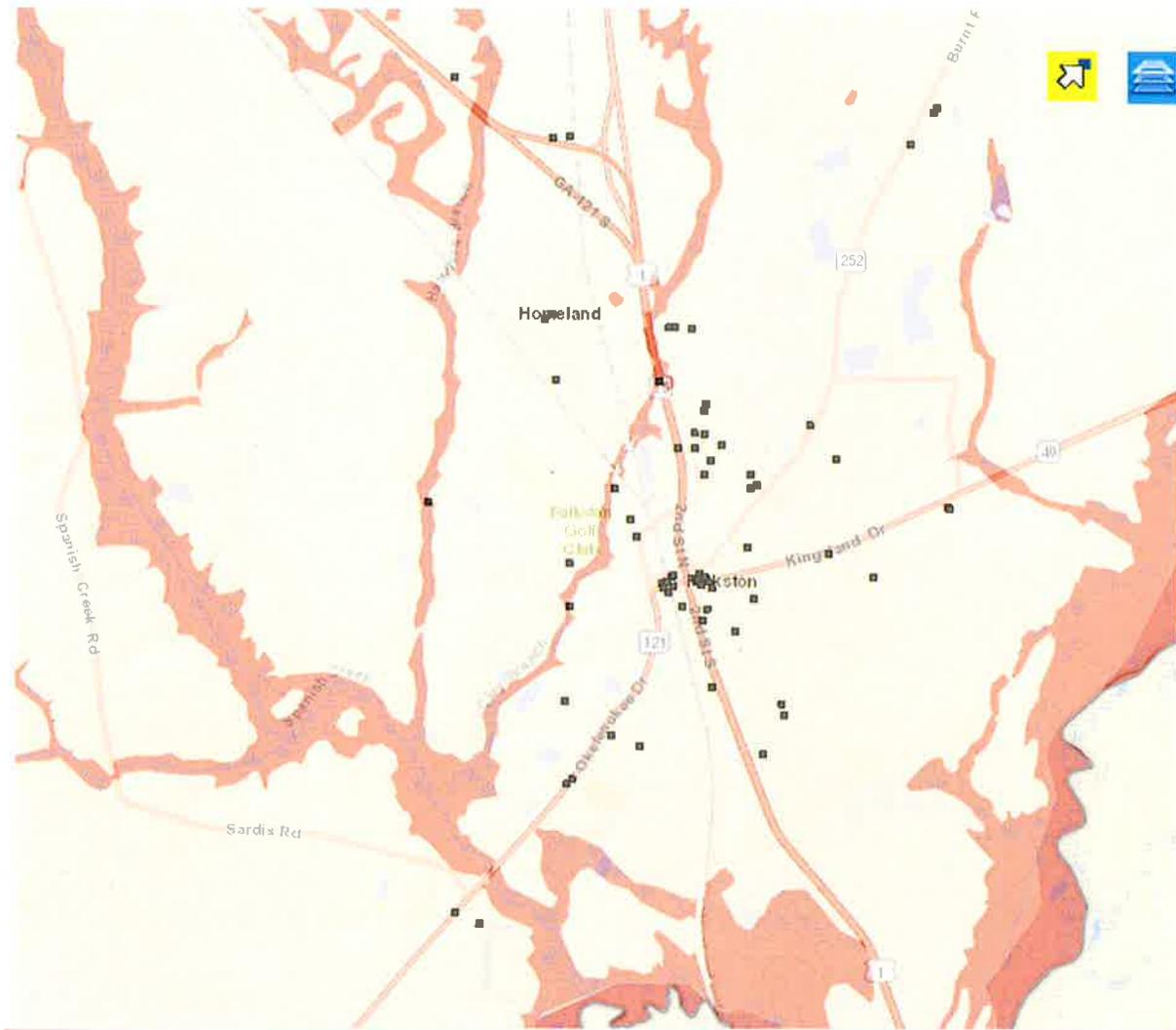


### CHARLTON COUNTY PDM GEMA FLOOD HAZARD MAP

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.

#### Hazard - GEMA.flood



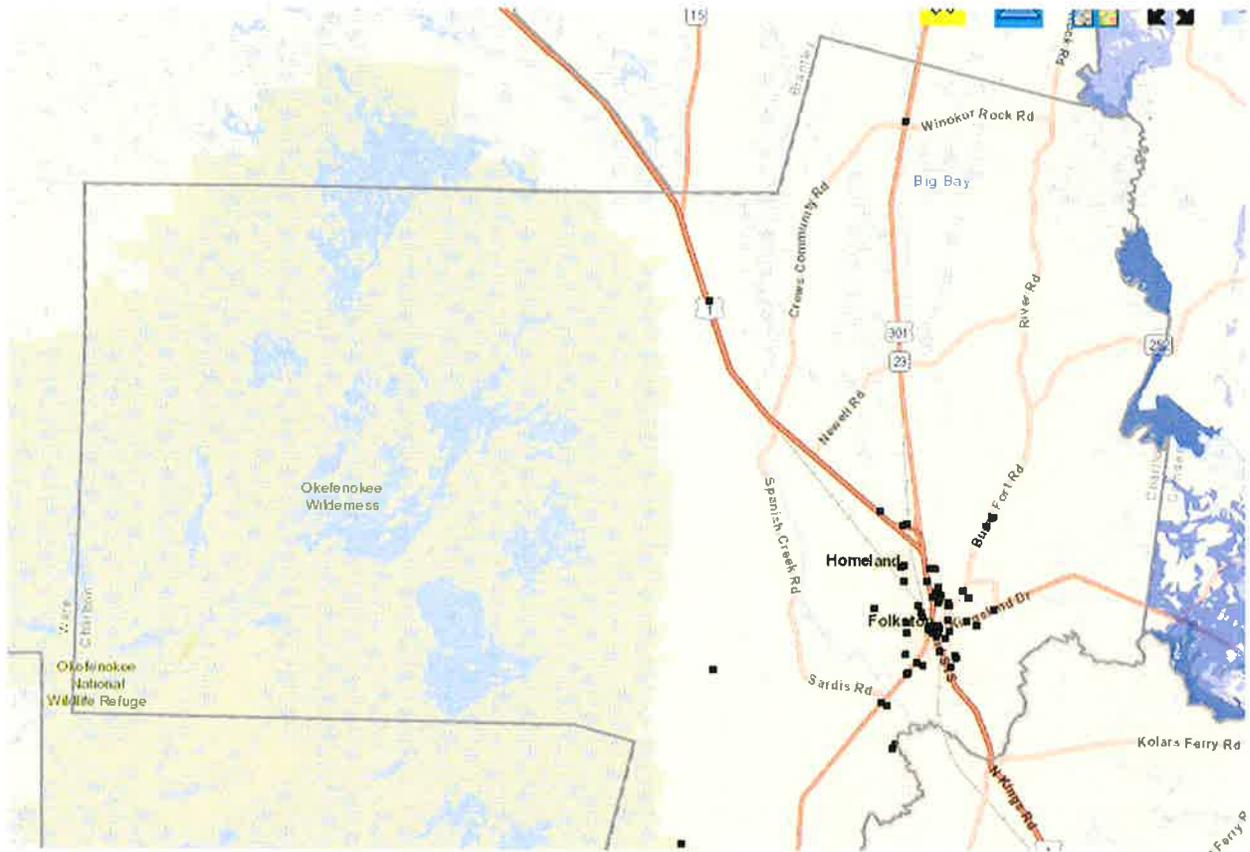


**CITIES OF FOLKSTON AND HOMELAND PDM GEMA FLOOD HAZARD MAP**

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

**Hazard - GEMA.flood**

- 0
- 1
- 2
- 3
- 4
- <all other values>



**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND PDM GEMA  
SLOSH HAZARD MAP**

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.

**Hazard - GEMA.slosh**



## Search Results for CHARLTON COUNTY ALL JURISDICTIONS

Click subscribe to receive email notifications when products are updated.

Please Note: Searching All Products by county displays all products for all communities within the county. You can refine your search results by specifying your specific jurisdiction location using the drop-down menus above.

Effective Products (45) 

FIRM Panels (40) 

Please note: Searches often result in many map files listed under a given section. You can determine the Product ID for the individual map panel needed by looking at the Map Index file. The index map files have "IND" within the Product ID and appear at the start of the list. These index files show an overview of a jurisdiction and how it is subdivided into map panels with the Product ID for each panel shown.

Show  entries

Showing 1 to 40 of 40 entries

Previous1Next

Product ID	Effective Date	LOMC	Size	Download	View
13049CIND0B	07/07/2014		1MB	 DL	 VIEW
13049C0025C	09/25/2009		35MB	 DL	 VIEW
13049C0050C	09/25/2009		67MB	 DL	 VIEW
13049C0075C	09/25/2009	 LOMC	61MB	 DL	 VIEW
13049C0100C	09/25/2009		116MB	 DL	 VIEW
13049C0125D	07/07/2014		30MB	 DL	 VIEW
13049C0150C	09/25/2009		70MB	 DL	 VIEW
13049C0175C	09/25/2009		126MB	 DL	 VIEW
13049C0200C	09/25/2009		119MB	 DL	 VIEW
13049C0225D	07/07/2014		31MB	 DL	 VIEW

Product ID	Effective Date	LOMC	Size	Download	View
13049C0250D	07/07/2014		31MB	 DL	 VIEW
13049C0275C	09/25/2009		75MB	 DL	 VIEW
13049C0300C	09/25/2009		133MB	 DL	 VIEW
13049C0325C	09/25/2009		121MB	 DL	 VIEW
13049C0335D	07/07/2014		28MB	 DL	 VIEW
13049C0345D	07/07/2014		28MB	 DL	 VIEW
13049C0350D	07/07/2014		18MB	 DL	 VIEW
13049C0355D	07/07/2014		28MB	 DL	 VIEW
13049C0360D	07/07/2014		28MB	 DL	 VIEW
13049C0365D	07/07/2014		28MB	 DL	 VIEW
13049C0400C	09/25/2009		101MB	 DL	 VIEW
13049C0410D	07/07/2014		28MB	 DL	 VIEW
13049C0420D	07/07/2014		28MB	 DL	 VIEW
13049C0425D	07/07/2014		17MB	 DL	 VIEW
13049C0430C	09/25/2009		71MB	 DL	 VIEW
13049C0440C	09/25/2009		68MB	 DL	 VIEW
13049C0450C	09/25/2009		74MB	 DL	 VIEW
13049C0460D	07/07/2014		28MB	 DL	 VIEW
13049C0470D	07/07/2014		28MB	 DL	 VIEW

Product ID	Effective Date	LOMC	Size	Download	View
13049C0475D	07/07/2014		17MB	DL	VIEW
13049C0480C	09/25/2009	LOMC	62MB	DL	VIEW
13049C0485C	09/25/2009		75MB	DL	VIEW
13049C0490C	09/25/2009		55MB	DL	VIEW
13049C0495C	09/25/2009		70MB	DL	VIEW
13049C0510D	07/07/2014		28MB	DL	VIEW
13049C0520D	07/07/2014		28MB	DL	VIEW
13049C0525D	07/07/2014		17MB	DL	VIEW
13049C0535C	09/25/2009		61MB	DL	VIEW
13049C0555C	09/25/2009		61MB	DL	VIEW
13049C0560D	07/07/2014		27MB	DL	VIEW

FIS Reports (1) DL ALL

Product ID	Effective Date	Size	Download
13049CV000B	07/07/2014	1MB	DL

LOMC (2)

LOMR (0) DL ALL

Product ID	Effective Date	Download

LOMA (1) DL ALL

Show  entries

Showing 1 to 1 of 1 entries

Previous1Next

Product ID	Effective Date	Download
11-04-4740A-130292	06/28/2011	

Revalidations (1) 

Show  entries

Showing 1 to 1 of 1 entries

Previous1Next

Product ID	Effective Date	Download
08-04-5776V-130292	09/26/2009	

NFHL Data-State (1)

Product ID	Latest Study Effective Date	Latest LOMR Effective Date	Size	Download
NFHL_13_20171204	11/17/2017	12/04/2017	898MB	

NFHL Data-County (1)

Product ID	Latest Study Effective Date	Latest LOMR Effective Date	Size	Download
NFHL_13049C	07/07/2014	N/A	17MB	

Preliminary Products (0) 

Preliminary FIRM Panels 

Please note: Searches often result in many map files listed under a given section. You can determine the Product ID for the individual map panel needed by looking at the Map Index file. The index map files have "IND" within the Product ID and appear at the start of the list. These index files show an overview of a jurisdiction and how it is subdivided into map panels with the Product ID for each panel shown.

Preliminary FIS Reports 

Preliminary FIRM Database

Pending Product (0) 

FIRM Panels (0) [DL ALL](#)

Please note: Searches often result in many map files listed under a given section. You can determine the Product ID for the individual map panel needed by looking at the Map Index file. The index map files have "IND" within the Product ID and appear at the start of the list. These index files show an overview of a jurisdiction and how it is subdivided into map panels with the Product ID for each panel shown.

FIS Reports (0) [DL ALL](#)

Product ID	Effective Date	Size	Download

---

LOMC (0)

LOMR (0) [DL ALL](#)

Product ID	Effective Date	Download

---

LOMA (0) [DL ALL](#)

Product ID	Effective Date	Download

---

Revalidations (0) [DL ALL](#)

Product ID	Effective Date	Download

---

FIRM Database (0)

Product ID	Effective Date	Description	Size	Download

---

Historic Products (66)

FIRM Panels (61) [DL ALL](#)

Please note: Searches often result in many map files listed under a given section. You can determine the Product ID for the individual map panel needed by looking at the Map Index file. The index map files have "IND" within the Product ID and appear at the start of the list. These index files show an overview of a jurisdiction and how it is subdivided into map panels with the Product ID for each panel shown.

Show  entries

Showing 1 to 61 of 61 entries

Previous 1 Next

Product ID	Effective Date	LOMC	Size	Download	View
13049CIND0A	09/25/2009		1MB	 DL	 VIEW
13049CIND0	09/21/1998		1MB	 DL	 VIEW
130291	04/11/1975		1MB	 DL	 VIEW
130292	05/14/1976		1MB	 DL	 VIEW
130290	08/08/1975		1MB	 DL	 VIEW
13049C0025B	09/21/1998		1MB	 DL	 VIEW
13049C0050B	09/21/1998		1MB	 DL	 VIEW
13049C0075B	09/21/1998		1MB	 DL	 VIEW
13049C0100B	09/21/1998		1MB	 DL	 VIEW
13049C0125B	09/21/1998		1MB	 DL	 VIEW
13049C0125C	09/25/2009		64MB	 DL	 VIEW
13049C0150B	09/21/1998		3MB	 DL	 VIEW
13049C0175B	09/21/1998		9MB	 DL	 VIEW
13049C0200B	09/21/1998	 LOMC	8MB	 DL	 VIEW
13049C0225B	09/21/1998		3MB	 DL	 VIEW
13049C0225C	09/25/2009		118MB	 DL	 VIEW

Product ID	Effective Date	LOMC	Size	Download	View
13049C0250B	09/21/1998	 LOMC	1MB	 DL	 VIEW
13049C0250C	09/25/2009		120MB	 DL	 VIEW
13049C0275B	09/21/1998		2MB	 DL	 VIEW
13049C0300B	09/21/1998		5MB	 DL	 VIEW
13049C0325B	09/21/1998		6MB	 DL	 VIEW
13049C0335C	09/25/2009		64MB	 DL	 VIEW
13049C0345B	09/21/1998		2MB	 DL	 VIEW
13049C0345C	09/25/2009		66MB	 DL	 VIEW
13049C0350B	09/21/1998		1MB	 DL	 VIEW
13049C0350C	09/25/2009		70MB	 DL	 VIEW
13049C0355B	09/21/1998	 LOMC	2MB	 DL	 VIEW
13049C0355C	09/25/2009	 LOMC	66MB	 DL	 VIEW
13049C0360B	09/21/1998		2MB	 DL	 VIEW
13049C0360C	09/25/2009		72MB	 DL	 VIEW
13049C0365B	09/21/1998		1MB	 DL	 VIEW
13049C0365C	09/25/2009		64MB	 DL	 VIEW
13049C0400B	09/21/1998		3MB	 DL	 VIEW
13049C0410B	09/21/1998		2MB	 DL	 VIEW
13049C0410C	09/25/2009		64MB	 DL	 VIEW

Product ID	Effective Date	LOMC	Size	Download	View
13049C0420B	09/21/1998		2MB	 DL	 VIEW
13049C0420C	09/25/2009		74MB	 DL	 VIEW
13049C0425B	09/21/1998		1MB	 DL	 VIEW
13049C0425C	09/25/2009		66MB	 DL	 VIEW
13049C0440B	09/21/1998		2MB	 DL	 VIEW
13049C0450B	09/21/1998		4MB	 DL	 VIEW
13049C0460B	09/21/1998		2MB	 DL	 VIEW
13049C0460C	09/25/2009		69MB	 DL	 VIEW
13049C0470B	09/21/1998		1MB	 DL	 VIEW
13049C0470C	09/25/2009		67MB	 DL	 VIEW
13049C0475B	09/21/1998		1MB	 DL	 VIEW
13049C0475C	09/25/2009		67MB	 DL	 VIEW
13049C0480B	09/21/1998		1MB	 DL	 VIEW
13049C0485B	09/21/1998		1MB	 DL	 VIEW
13049C0490B	09/21/1998		1MB	 DL	 VIEW
13049C0495B	09/21/1998		2MB	 DL	 VIEW
13049C0510B	09/21/1998		2MB	 DL	 VIEW
13049C0510C	09/25/2009		72MB	 DL	 VIEW
13049C0520B	09/21/1998		2MB	 DL	 VIEW

Product ID	Effective Date	LOMC	Size	Download	View
13049C0520C	09/25/2009		70MB	 DL	 VIEW
13049C0525B	09/21/1998		1MB	 DL	 VIEW
13049C0525C	09/25/2009		70MB	 DL	 VIEW
13049C0535B	09/21/1998		1MB	 DL	 VIEW
13049C0555B	09/21/1998		1MB	 DL	 VIEW
13049C0560B	09/21/1998		1MB	 DL	 VIEW
13049C0560C	09/25/2009		72MB	 DL	 VIEW

FIS Reports (2) 

Product ID	Effective Date	Size	Download
			
13049CV000	09/21/1998	3MB	 DL
13049CV000A	09/25/2009	1MB	 DL

LOMC (3)

LOMR (0) 

Product ID	Effective Date	Download
		

LOMA (3) 

Show  entries

Showing 1 to 3 of 3 entries

Previous1Next

Product ID	Effective Date	Download
03-04-8404A-130292	07/31/2003	 DL
06-04-BK55A-130292	06/15/2006	 DL
08-04-4663A-130292	09/25/2008	 DL

Revalidations (0) DL ALL

Product ID	Effective Date	Download
		

### Flood Risk Products (0)

Please note: Flood Risk Products have purposes that are different from regulatory flood hazard products (i.e., FIRM, FIS Report, and FIRM Database). Regulatory flood hazard products are mandated by law and used by the National Flood Insurance Program (NFIP) for rating flood insurance policies and enforcing the federal mandatory insurance purchase requirements. Flood Risk Products are supplementary resources for communicating flood risk to communities and may not entirely align with the regulatory flood maps. The information in these products reflect what was produced by the FEMA Risk MAP study in that area. Depending on the requirements of the study, the Flood Risk Products available for your community may consist of a Flood Risk Map, Flood Risk Report or Flood Risk Database.

### Flood Risk Maps

Product ID	MSC Posting Date	Size	Download
			

### Flood Risk Reports

Product ID	MSC Posting Date	Size	Download
			

### Flood Risk Database

Product ID	File Format	MSC Posting Date	Size	Download
				

 Share This Page.



[Home](#)

[Download Plug-ins](#)

[About Us](#)

[Privacy Policy](#)

[No Fear Act Data](#)

[Freedom of Information Act](#)

[Office of the Inspector General](#)

[Whitehouse.gov](#)

[DHS.gov](#)

[Ready.gov](#)

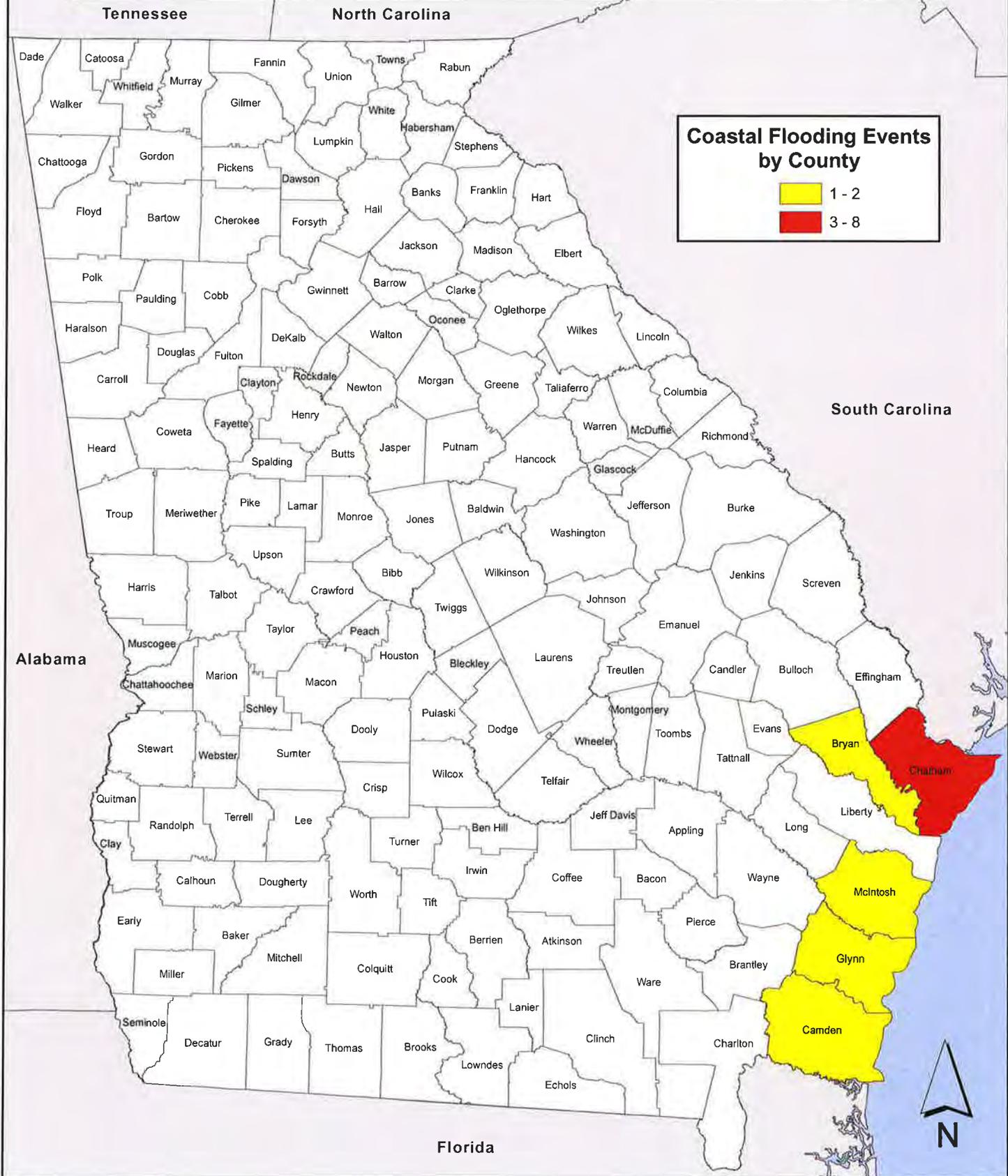
[USA.gov](#)

[DisasterAssistance.gov](#)

 [Official website of the Department of Homeland Security](#)



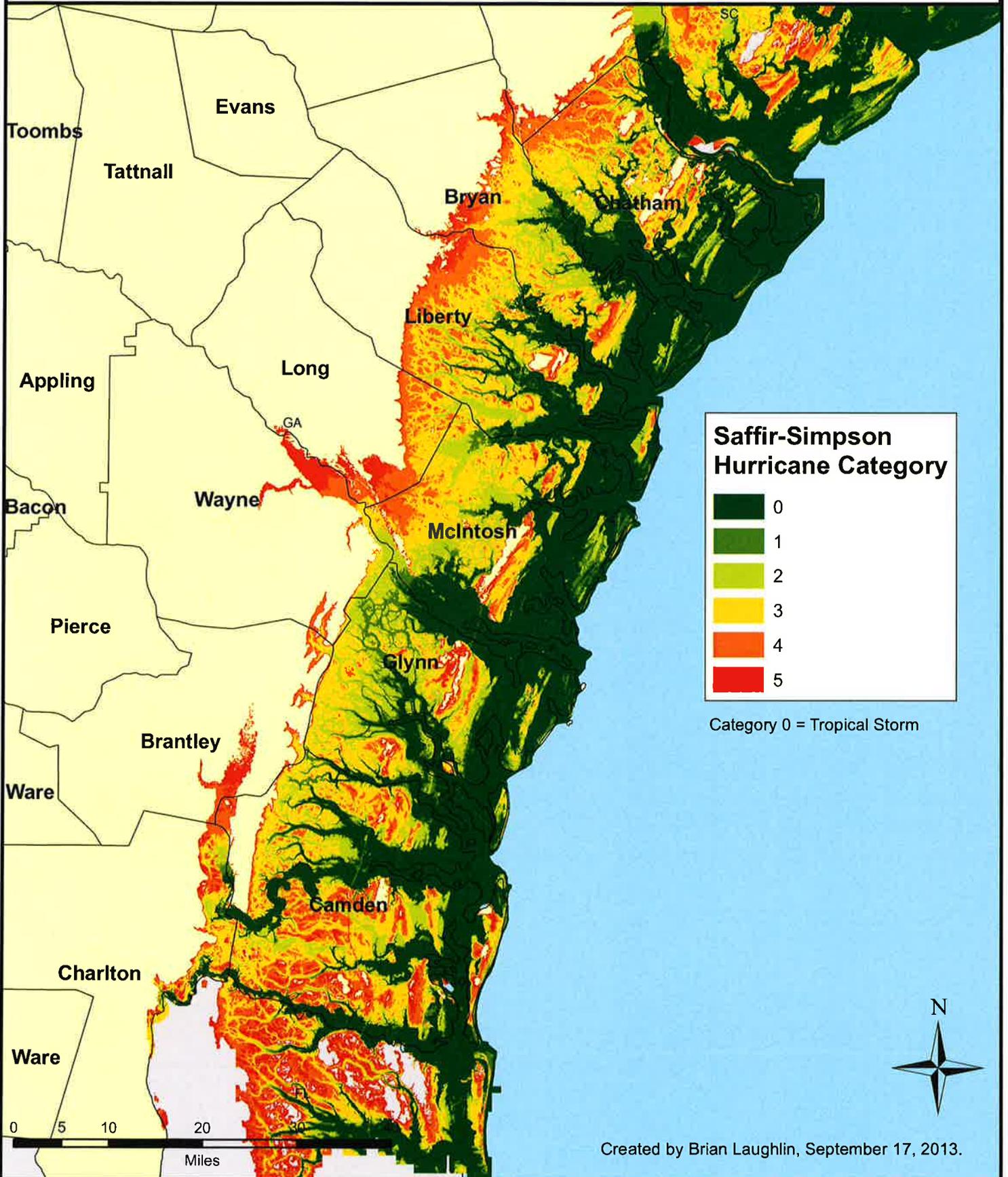
# Coastal Flooding Events 1960-2012 SHELDUS Data





# SLOSH Inundation by Hurricane Category

## US Army Corps of Engineers

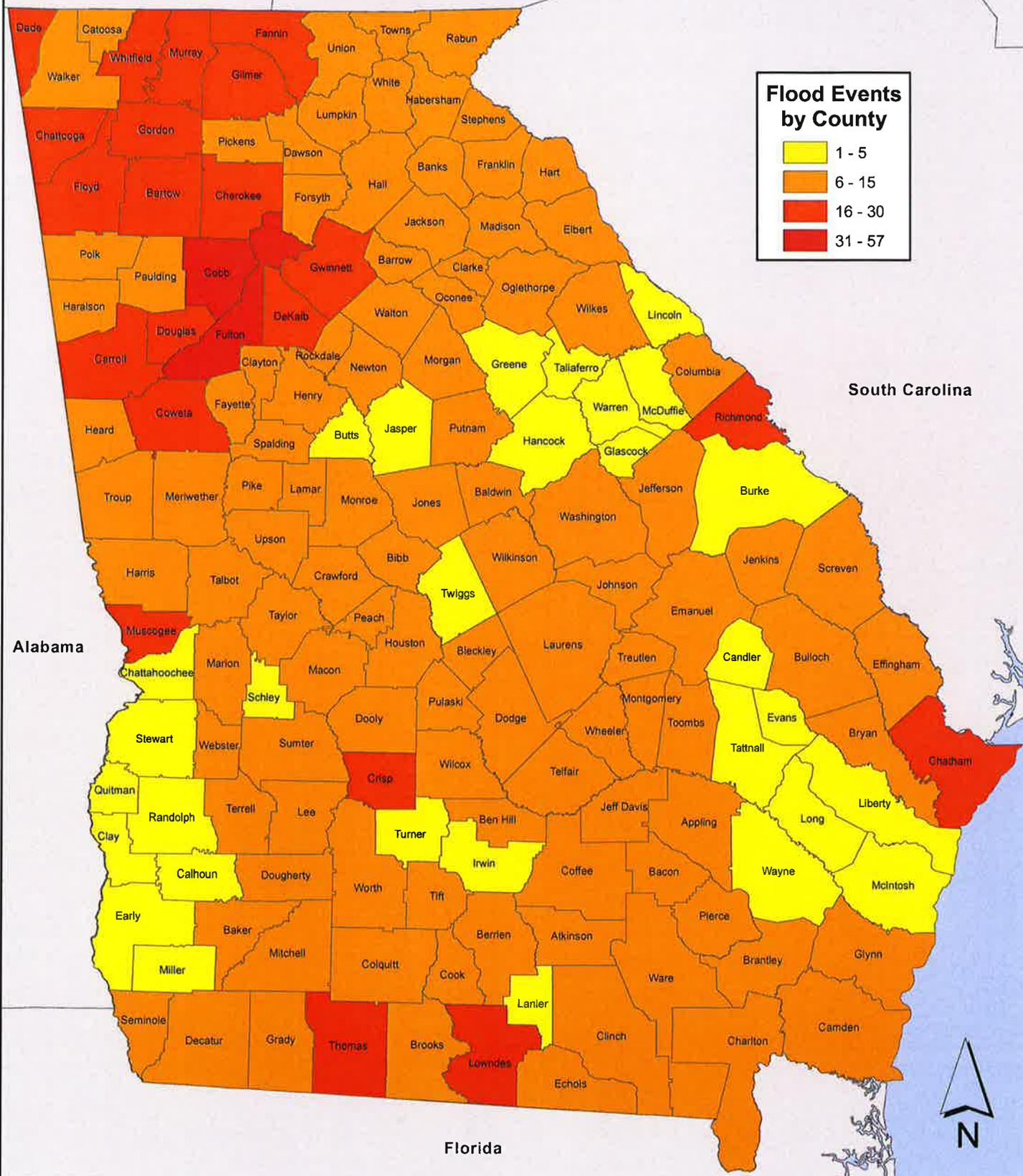




# Flood Events 1960-2012 SHELDUS Data

Tennessee

North Carolina



### III. Wildfire

- A. Wildfire Hazard Description – Wildfire is an uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures. Naturally occurring and non-native species of grasses, brush, and trees fuel the spread of wildfires. When a residential area, be it a single home or entire subdivision, comes in contact with an area containing vegetative fuels, such as a forest or other wooded area, this is referred to as a wildland urban interface area. These are areas at greatest risk for property damage due to wildfire. Because a large portion of Charlton County’s forested land is planted and harvested as a crop, wildfire in Charlton County also poses a significant risk of economic loss in addition to any potential property losses.
  
- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

# GEMA Worksheet #3a

# Inventory of Assets

Jurisdiction: Charlton County (Unincorporated)

Hazard: Wildfire

**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	2,941	2,706	92.010%	241,162,000	221,892,000	92.010%	6,789	6,247	92%
Commercial	179	165	92.179%	3,991,863	3,679,650	92.179%	0	0	#DIV/0!
Industrial	23	21	91.304%	1,903,190	1,737,695	91.304%	0	0	#DIV/0!
Agricultural	508	467	91.929%	21,183,593	19,473,894	91.929%	0	0	#DIV/0!
Religious/ Non-profit	174	160	91.954%	6,794,260	6,247,595	91.954%	0	0	#DIV/0!
Government	82	75	91.463%	70,695,690	64,660,692	91.463%	0	0	#DIV/0!
Education	13	12	92.308%	1,123,803	1,037,357	92.308%	0	0	#DIV/0!
Utilities	17	16	94.118%	76,248,407	71,763,207	94.118%	0	0	#DIV/0!
<b>Total</b>	<b>3,937</b>	<b>3,622</b>	<b>91.999%</b>	<b>423,102,806</b>	<b>390,482,090</b>	<b>92.292%</b>	<b>6,789</b>	<b>6,247</b>	<b>92%</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?   |   | X |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |   | X |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X |   |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X |   |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X |   |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X |   |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |   | X |

**GEMA Worksheet #3a**  
**Jurisdiction: City of Folkston**  
**Hazard: Wildfire**

**Inventory of Assets**

**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	1,160	360	31.034%	95,120,000	29,520,000	31.034%	5,313	1,649	31%
Commercial	465	144	30.968%	87,785,600	27,185,218	30.968%	0	0	#DIV/0!
Industrial	35	11	31.429%	4,619,400	1,451,811	31.429%	0	0	#DIV/0!
Agricultural	1	0	0.000%	26,100	0	0.000%	0	0	#DIV/0!
Religious/ Non-profit	74	23	31.081%	8,415,358	2,615,584	31.081%	0	0	#DIV/0!
Government	59	18	30.508%	14,663,830	4,473,711	30.508%	0	0	#DIV/0!
Education	10	3	30.000%	8,302,080	2,490,824	30.000%	0	0	#DIV/0!
Utilities	12	4	33.333%	9,665,763	3,221,921	33.333%	0	0	#DIV/0!
<b>Total</b>	<b>1,818</b>	<b>563</b>	<b>31.002%</b>	<b>228,598,131</b>	<b>70,958,870</b>	<b>31.041%</b>	<b>5,313</b>	<b>1,649</b>	<b>31%</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?   |   | X |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |   | X |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X |   |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X |   |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X |   |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X |   |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |   | X |

**GEMA Worksheet #3a**  
**Jurisdiction: City of Homeland**  
**Hazard: Wildfire**

**Inventory of Assets**

**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	335	335	100.000%	27,470,000	27,470,000	100.000%	1,028	1,028	100%
Commercial	39	39	100.000%	817,565	817,565	100.000%	0	0	#DIV/0!
Industrial	0	0	0.000%	0	0	0.000%	0	0	#DIV/0!
Agricultural	5	5	100.000%	310,400	310,400	100.000%	0	0	#DIV/0!
Religious/ Non-profit	30	30	100.000%	923,830	923,830	100.000%	0	0	#DIV/0!
Government	40	40	100.000%	942,443	942,443	100.000%	0	0	#DIV/0!
Education	0	0	0.000%	0	0	0.000%	0	0	#DIV/0!
Utilities	10	10	100.000%	3,426,565	3,426,565	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>459</b>	<b>459</b>	<b>100.000%</b>	<b>33,890,803</b>	<b>33,890,803</b>	<b>100.000%</b>	<b>1,028</b>	<b>1,028</b>	<b>100%</b>

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

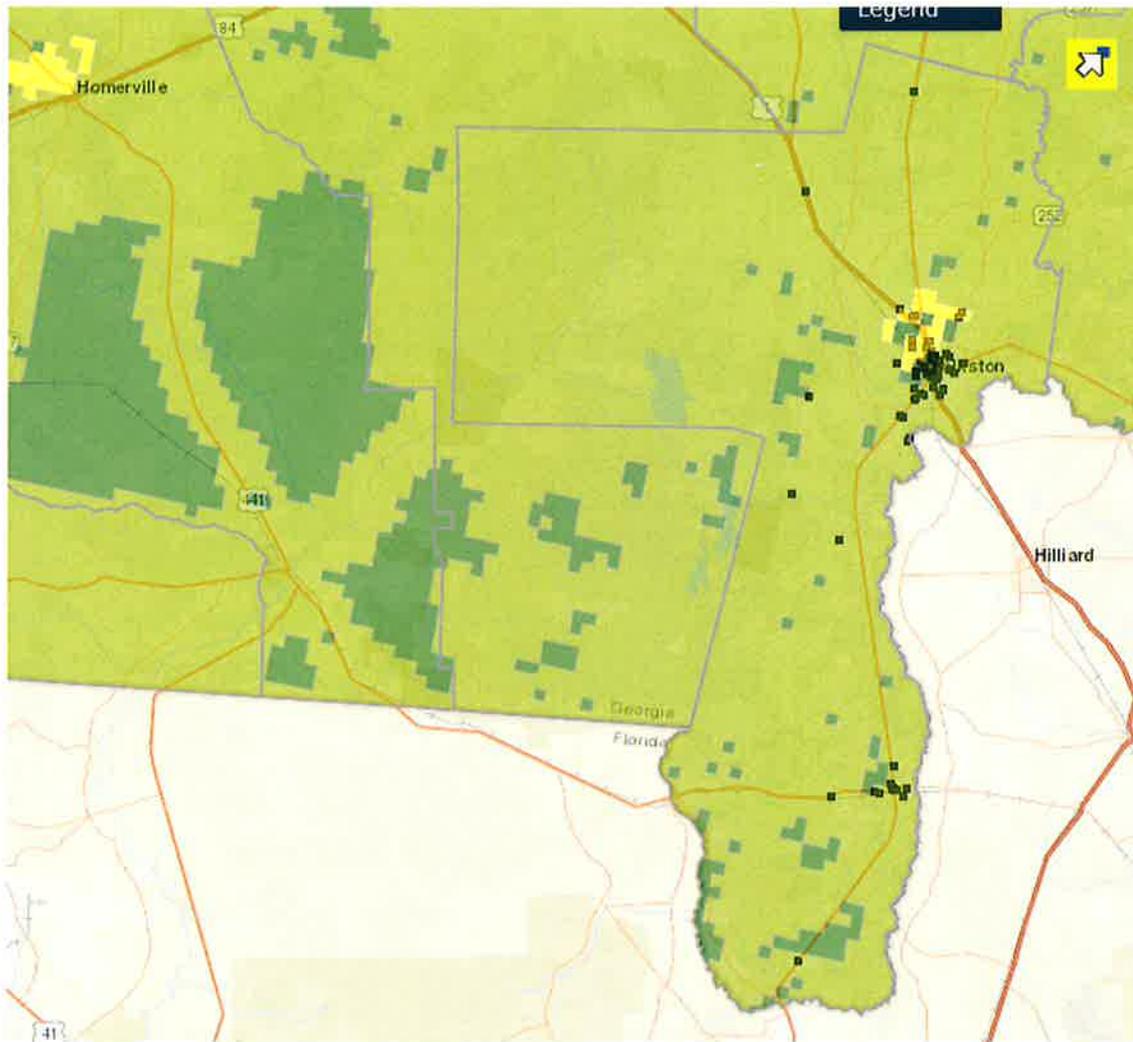
- |   | Y | N |
|---|---|---|
| 1. Do you know where the greatest damages may occur in your area?   |   | X |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |   | X |
| 3. Is there enough data to determine which assets are subject to the greatest potential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

Facility Wildfire Hazard All Hazard Scores

Jurisdiction	Name	Hazard Score	Replacement Value	Year	Building size	Content value	Content value year	Functional Use value	Facility type	Risk
Charlton County	CHESSER ISLAND ROAD LANDFILL, INC. MSWL	1	300000	2017	1000				0 Government, Government, Landfill, Landfill	Important
Charlton County	Thomas Camp Lift Station	1	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Charlton County	Pinehurst Subdivision Lift Station	1	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Charlton County	City of Folkston Water System-Homeland	2	750000	2017	201	53350	2017	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	
Charlton County	OREMC Electric Substation #2	1	3080000	2017	100			0 NGO, NGO, Private	Essential	
Charlton County	Charlton County EMS 22140	1	0	2017	0			0 Emergency Services, Emergency Services, EMS, EMS	Essential	
Charlton County	Camp Pinckney Baptist Church	1	4500000	2017	15000			0 Emergency Services, Emergency Services, Private, Private	Essential	
Charlton County	St. George Church of God	1	5347500	2017	17825			0 Emergency Services, Emergency Services, Private, Private	Essential	
Charlton County	Charlton County Road Dept. St. George	1	200000	2017	100			0 Government, Government, Transportation, Transportation	Essential	
Charlton County	Concerted Services Head Start	1	1920000	2017	6400			0 Education, Education, Day Care, Day Care	Vulnerable Population	
Charlton County	New Life Baptist Church	1	2805000	2017	9350	100000	2017	0 Emergency Services, Emergency Services, Private, Private	Essential	
Charlton County	S.R. 252 Lift Station	1	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Charlton County	Kingsland Drive Lift Station	1	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Charlton County	Georgia Power Substation	2	7500000	2017	100			0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Charlton County	St. George Pump House	1	45000	2017	150	30000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Essential	
Charlton County	Charlton County EMS Station #2-St. George	1	2910000	2017	970	22000	2017	0 Emergency Services, Emergency Services, EMS, EMS	Essential	
Charlton County	Traders Hill Pump House	1	30000	2017	100	30000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Charlton County	Charlton County Antenna Repeater #3	1	3500000	2017	100			0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline	
Charlton County	USPO-St. George	1	90000	2017	300			0 NGO, NGO, Communications, Communications	Important	
Charlton County	Charlton County Transfer Station	1	702000	2017	2340			0 NGO, NGO, Landfill, Landfill	Important	
Charlton County	Georgia GFC Forestry Commission-St. George	1	150000	2017	100			0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	
Charlton County	Georgia GFC Forestry Gowen Tower	0	150000	2017	100			0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	
Charlton County	U.S. FW Service Okfenokee Refuge	1	2002500	2017	6675	111000	2017	0 Law Enforcement, Law Enforcement, Police, Police	Essential	
Charlton County	Charlton County Maintenance Shop	1	540000	2017	1600			0 Government, Government, Transportation, Transportation	Essential, Transportation	
Charlton County	Georgia GDOT Transportation Maintenance Facility	1	675000	2017	2250			0 Government, Government, Transportation, Transportation	Essential, Transportation	
Charlton County	Trader's Hill Recreation Area	1	217500	2017	725			0 Government, Government, Government Offices, Government Offices	Historic Consideration, Important	
Charlton County	Georgia GA Forestry Commission GFC	1	660000	2017	2200			0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential, Lifeline	
Charlton County	OREMC Radio Tower	1	350000	2017	100			0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline	
Charlton County	Folkston Maintenance/Electrical Shop	0	597000	2017	1990			0 Government, Government, Transportation, Transportation	Important	
Charlton County	Charlton County BOE: St. George Elementary	1	7227000	2017	24090	464000	2017	0 Education, Education, K - 12, K - 12	Vulnerable Population	
Charlton County	Charlton County Antenna Repeater #2	1	350000	2017	100			0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline	
Charlton County	Charlton County Christian Academy	1	540000	2017	1800			0 Education, Education, K - 12, K - 12	Important, Vulnerable Population	
Charlton County	Charlton County Airport Davis Field	1	1500000	2017	800			0 Government, Government, Transportation, Transportation	Essential, Transportation	
Charlton County	Charlton County FD Station #5 Winokur	1	720000	2017	2400	50000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	
Charlton County	Charlton County FD Station #3 Racepond	1	525000	2017	1750	50000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	
Charlton County	Charlton County FD Station #2 St. George	1	1467000	2017	4890	57000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	
Charlton County	Charlton County Fire Department Station #4 GA Bend	1	360000	2017	1200	100000	2017	0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential	
Charlton County	City Of Folkston Recycling Center	0	1080000	2017	3600	10000	2017	0 Government, Government, Landfill, Landfill	Important	
Charlton County	Charlton County EMA	1	8773200	2017	29224			0 Emergency Services, Emergency Services, EMA, EMA	Vulnerable Population	
			56787700		134540	1367350				
Folkston city	U.S. 301 N Lift Station	2	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	Pinewood Street Lift Station	1	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	Main Street Lift Station	0	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	Paxton Road Lift Station	1	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	Overpass Lift Station	0	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	Okfenokee Drive Lift Station	0	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	Henri Street Lift Station	0	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	Charlton County BOE Administration	1	3915000	2017	13050	50000	2017	0 Education, Education, K - 12, K - 12	Important, Vulnerable Population	
Folkston city	Charlton County BOE- Alternative School	0	938400	2017	3128	6000	2017	0 Education, Education, K - 12, K - 12	Vulnerable Population	
Folkston city	Charlton County BOE-Bus Shop	0	1260000	2017	4200	90000	2017	0 Education, Education, Transportation, Transportation	Transportation	
Folkston city	Charlton County BOE-Maintenance	0	2925000	2017	9750	95000	2017	0 Education, Education, K - 12, K - 12	Transportation	
Folkston city	Folkston Police Department	0	642600	2017	2142			0 Law Enforcement, Law Enforcement, Police, Police	Essential	
Folkston city	Georgia Power Substation	0	3080000	2017	100			0 NGO, NGO, Private, Private	Lifeline	
Folkston city	OREMC Electric Substation #1	2	3080000	2017	100			0 NGO, NGO, Private, Private	Lifeline	
Folkston city	Concerted Services	0	1920000	2017	6400			0 NGO, NGO, Clinics, Clinics	Important	
Folkston city	First Baptist Church	1	4800000	2017	16000			0 Emergency Services, Emergency Services, Private, Private	Essential	
Folkston city	Amelia Care	1	2475000	2017	8250			0 Medical, Medical, Medical Offices, Medical Offices	Essential	
Folkston city	Prison Lift Station	2	30000	2017	100	100000	2017	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline	
Folkston city	City of Folkston Water System-Burntfort Road	0	1000000	2017	201	53350	2017	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline	
Folkston city	Charlton County BOE-Bethune Middle School	1	2766300	2017	92221	376000	2017	0 Education, Education, K - 12, K - 12	Vulnerable Population	

TOTAL 362-2834-1



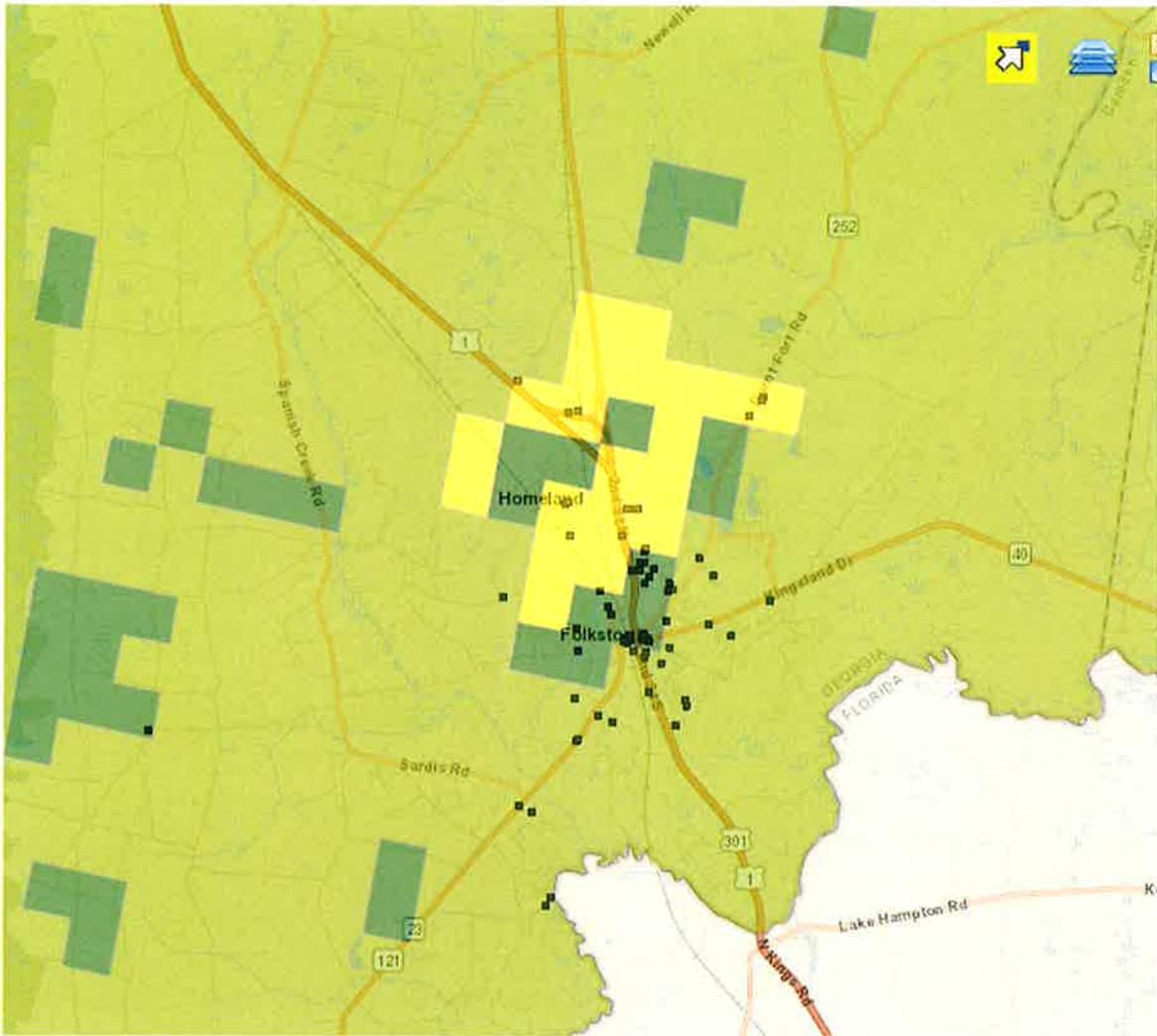


**CHARLTON COUNTY PDM GEMA WILDFIRE HAZARD MAP**

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.

**Hazard - GEMA.wildfire**

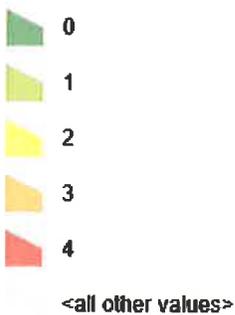




**CITIES OF FOLKSTON AND HOMELAND PDM GEMA WILDFIRE HAZARD MAP**

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.

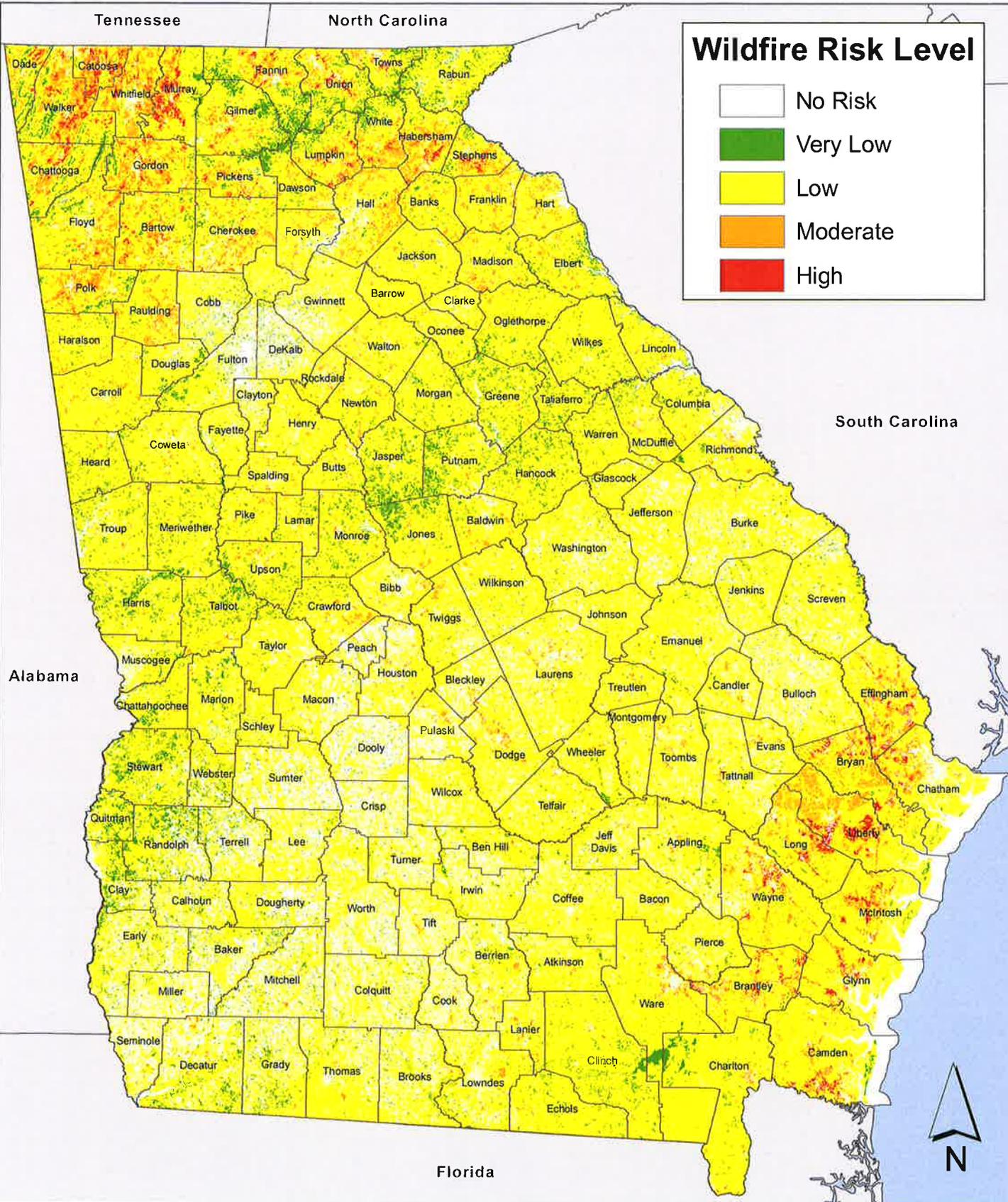
**Hazard - GEMA.wildfire**





# Wildfire Risk Level

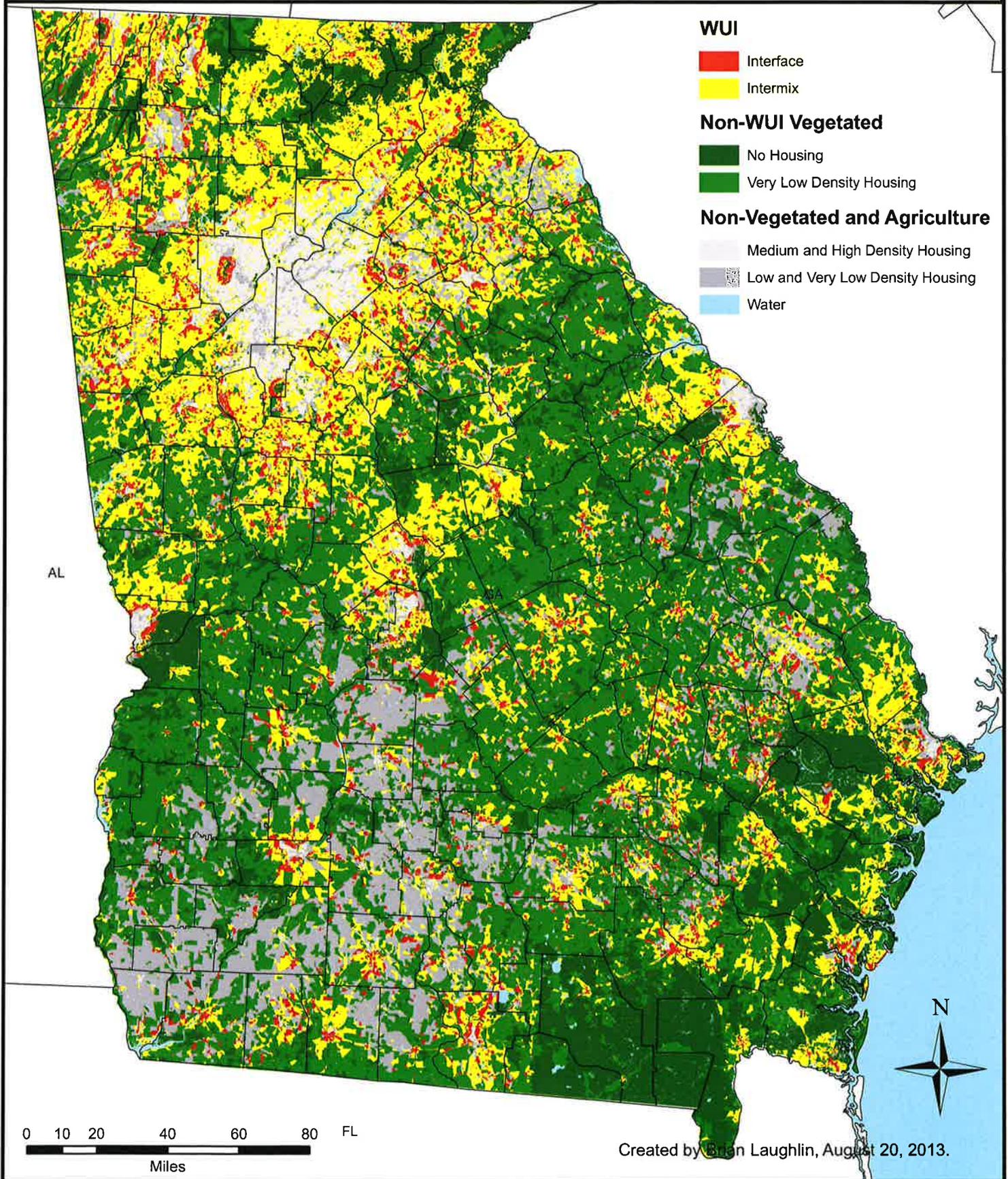
## Southern Fire Risk Assessment Data





# Georgia Wildland-Urban Wildfire Risk

## Block Level Housing Density 2010 Census



#### IV. Tornado

- A. Tornado Hazard Description - Charlton County is frequently at risk of damage to life, property, and economic losses due to the impacts of Tornadoes. The primary sources of these Tornado events are thunderstorms, hurricanes or tropical storms.

Tornados are a year round threat and often accompany thunderstorms or spawn off of tropical storms or hurricanes that pass in close proximity to the area. Unlike tropical storms, and to some extent even thunderstorms, which tend to blanket a wide area at one time, tornadoes usually affect a smaller area but the damage while concentrated is often more destructive in nature due to the potentially higher wind speeds often seen inside a tornado. The NWS uses the Enhanced Fujita Scale outlined below to categorize tornados.

EF0 – 65-85 mph

EF1 – 86-110 mph

EF2 – 111-135 mph

EF3 – 136-165 mph

EF4 – 166-200 mph

EF5 – over 200 mph

- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Including Folkston & Homeland)**

**Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat**

**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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>6,212</b>	<b>6,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</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?   |          | X        |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | X        |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X        |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X        |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X        |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X        |          |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | X        |

PLEASE SEE  
GMIS CRITICAL FACILITIES DATA IN  
APPENDIX A PART I  
FOR HAZARD AMOUNTS



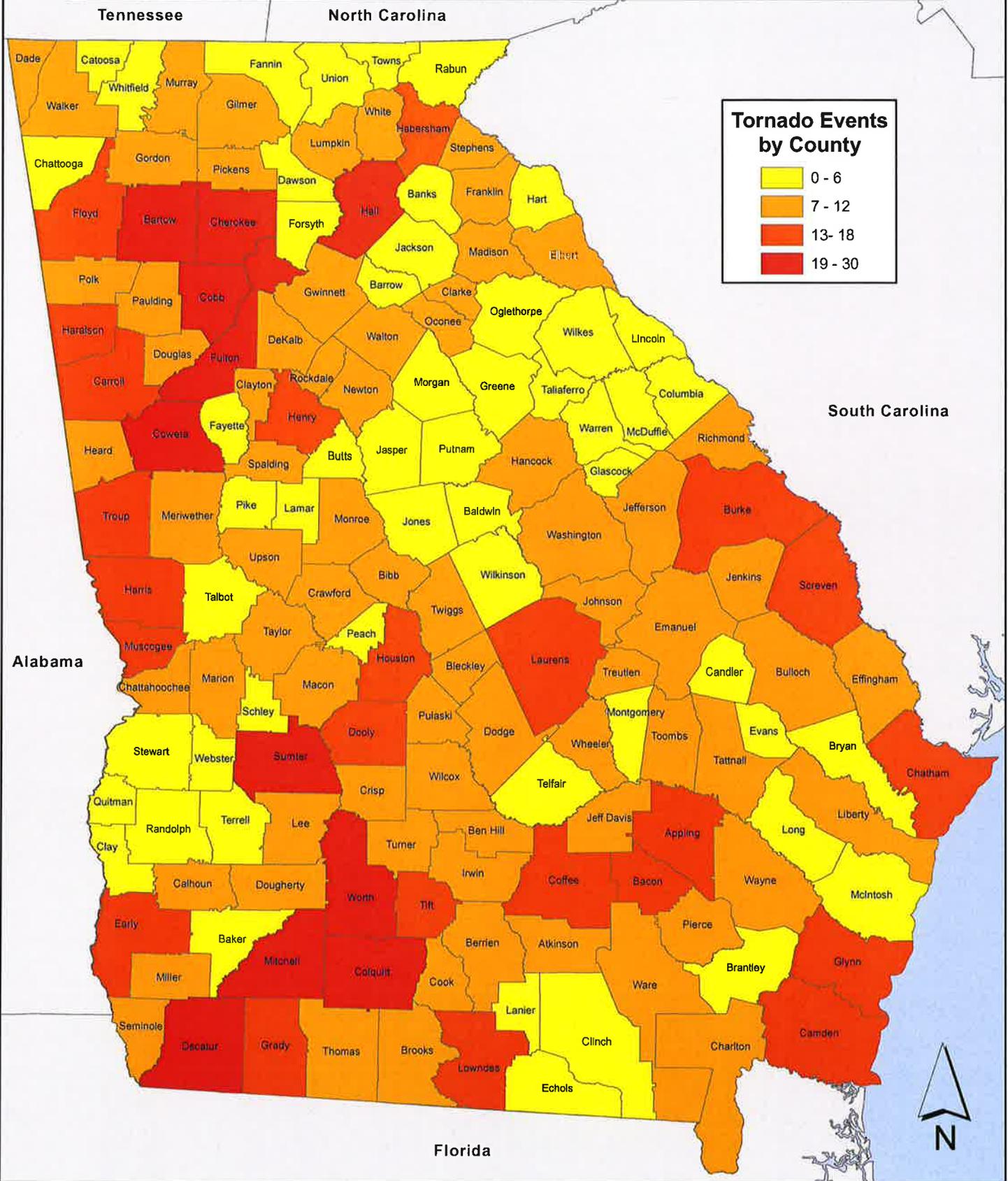
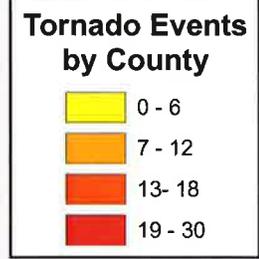
**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND  
PDM GEMA TORNADO HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*



# Tornado Events 1952-2012 SHELDUS Data





# Tornado Tracks

## SVRGIS

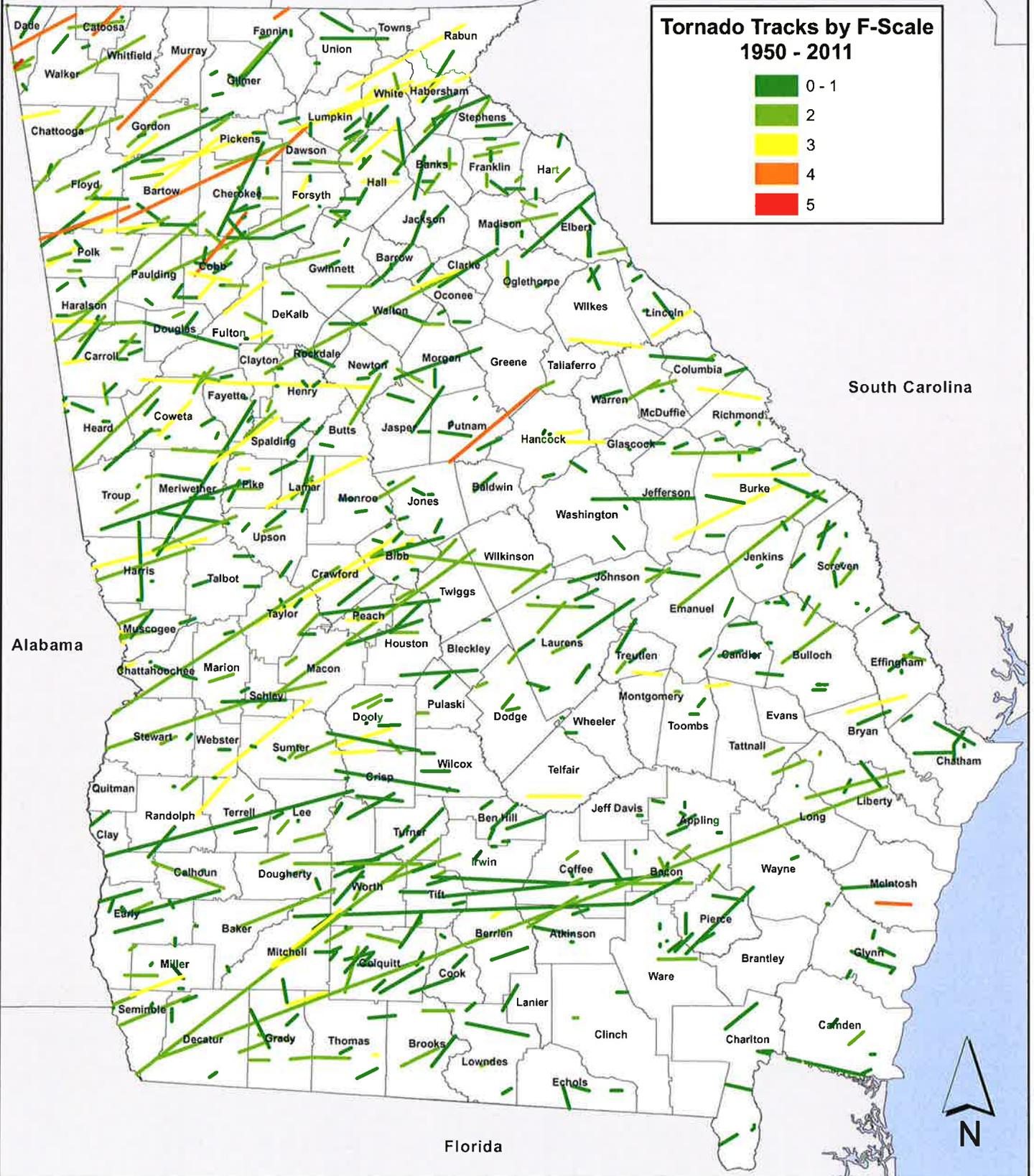
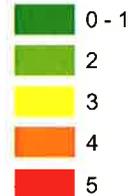
### 1950 - 2011

Tennessee

North Carolina

#### Tornado Tracks by F-Scale

##### 1950 - 2011



## V. Thunderstorms/Wind

- A. Thunderstorms/Wind Hazard Description - Charlton County is frequently at risk of damage to life, property, and economic losses due to the impacts of Thunderstorms/Wind.

The National Weather Service classifies a Severe Thunderstorm as one capable of producing winds of 58 mph or greater, hailstones 1 inch or larger, or a tornado. However, it is not uncommon for Charlton County to receive storms with winds slightly below this threshold but still capable of producing significant damage, so the lack of a Severe Thunderstorm Warning is not always indicative of damage potential.

- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Including Folkston & Homeland)**

**Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat**

**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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>8,212</b>	<b>8,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</b>	<b>100%</b>

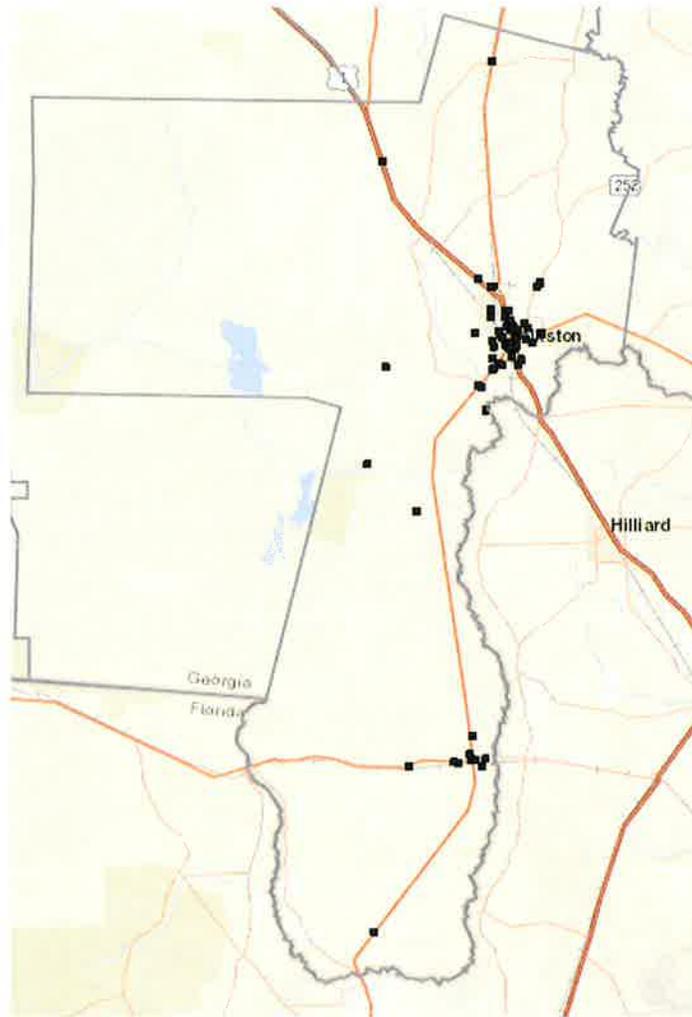
**Task B. Determine whether (and where) you want to collect additional inventory data.**

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

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
Charlton County	Charlton County EMA	3	8773000		2017	29224				0 Emergency Services, Emergency Services, EMA, EMA	Vulnerable Population
Charlton County	City Of Folkston Recycling Center	3	1089000		2017	3600	10000	2017		0 Government, Government, Landfill, Landfill	Important
Charlton County	CHESSER ISLAND ROAD LANDFILL, INC. MSWL	3	3000000		2017	1000	10000	2017		0 Government, Government, Landfill, Landfill	Important
Charlton County	Charlton County Fire Department Station #4 GA Bend	3	3600000		2017	1200	100000	2017		0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #2 St. George	3	1467000		2017	4890	57000	2017		0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #3 Racepoint	3	5250000		2017	1750	50000	2017		0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County FD Station #5 Winokur	3	7200000		2017	2400	50000	2017		0 Government, Government, Transportation, Transportation	Essential
Charlton County	Charlton County Airport Davis Field	3	1500000		2017	800				0 Education, Education, K-12, K-12	Important, Vulnerable Population
Charlton County	Charlton County Christian Academy	3	540000		2017	1800				0 Education, K-12, K-12	Essential, Lifeline
Charlton County	Charlton County Antenna Repeater #2	3	3500000		2017	100	464000	2017		0 Government, Government, Transportation, Transportation	Vulnerable Population
Charlton County	Charlton County BOE: St. George Elementary	3	7227000		2017	24090				0 Education, Education, K-12, K-12	Essential, Lifeline
Charlton County	Folkston Maintenance/Electrical Shop	3	597000		2017	1990				0 Government, Government, Transportation, Transportation	Important
Charlton County	OREM Radio Tower	3	3500000		2017	100				0 Government, Government, Transportation, Transportation	Important
Charlton County	Georgia GA Forestry Commission GFC	3	660000		2017	2200				0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Charlton County	Trader's Hill Recreation Area	3	217500		2017	725				0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Georgia GDOT Transportation Maintenance Facility	3	6750000		2017	2250				0 Government, Government, Government Offices, Government Offices	Historic Consideration, Important
Charlton County	Charlton County Maintenance Shop	3	540000		2017	1800	111000	2017		0 Government, Government, Transportation, Transportation	Essential, Transportation
Charlton County	U.S. FW Service Okfenokse Refuge	3	2002500		2017	6675				0 Law Enforcement, Law Enforcement, Police, Police	Essential
Charlton County	Georgia GFC Forestry Gowen Tower	3	150000		2017	100				0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Georgia GFC Forestry Commission-St. George	3	1500000		2017	100				0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Charlton County	Charlton County Transfer Station	3	702000		2017	2340				0 NGO, NGO, Landfill, Landfill	Important
Charlton County	USPO-St. George	3	90000		2017	300				0 NGO, NGO, Communications, Communications	Important
Charlton County	Charlton County Antenna Repeater #3	3	3500000		2017	100				0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Charlton County	Traders Hill Pump House	3	30000		2017	100	30000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Charlton County EMS Station #2-St. George	3	2910000		2017	970	22000	2017		0 Emergency Services, Emergency Services, EMS, EMS	Essential
Charlton County	St. George Pump House	3	45000		2017	150	30000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Georgia Power Substation	3	7500000		2017	100				0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Kingsland Drive Lift Station	3	30000		2017	100	100000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	S.R. 252 Lift Station	3	30000		2017	100	100000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Thomas Camp Lift Station	3	30000		2017	100	100000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	Pinehurst Subdivision Lift Station	3	30000		2017	100	100000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Charlton County	City of Folkston Water System-Homeland	3	7500000		2017	201	100000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Charlton County	OREM Electric Substation #2	3	30800000		2017	100	53350	2017		0 NGO, NGO, Private, Private	Lifeline
Charlton County	Charlton County EMS 22140	3	0		2017	0				0 Emergency Services, Emergency Services, EMS, EMS	Essential
Charlton County	Camp Pheokney Baptist Church	3	4500000		2017	15000				0 Emergency Services, Emergency Services, Private, Private	Essential
Charlton County	St. George Church of God	3	5347500		2017	17825				0 Emergency Services, Emergency Services, Private, Private	Essential
Charlton County	Charlton County Road Dept. St. George	3	200000		2017	100				0 Government, Government, Transportation, Transportation	Essential
Charlton County	Concerted Services Head Start	3	1920000		2017	6400				0 Education, Education, Day Care, Day Care	Vulnerable Population
Charlton County	New Life Baptist Church	3	2805000		2017	9550				0 Emergency Services, Emergency Services, Private, Private	Essential
<b>TOTAL</b>	<b>39</b>		<b>58614700</b>			<b>140230</b>	<b>1377550</b>				
Folkston city	Charlton County FD Station 01 Folkston	3	1743900		2017	5813	70000	2017		0 Emergency Services, Emergency Services, Fire Fighters, Fire Fighters	Essential
Folkston city	Charlton County Sheriff's Office	3	2400000		2017	8000	100000	2017		0 Law Enforcement, Law Enforcement, Sheriff, Sheriff	Essential, Vulnerable Population
Folkston city	Charlton County Courthouse	3	6945600		2017	23152	160000	2017		0 Law Enforcement, Court House, Court House	Essential
Folkston city	Vacant Charlton County Memorial Hospital	3	10825800		2017	36086				0 Emergency Services, Emergency Services, Hospital, Hospital	Essential, Vulnerable Population
Folkston city	City of Folkston (WPCC)	3	6501414		2017	100	350000	2017		0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	City of Folkston Water System	3	750000		2017	201	53350	2017		0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	Charlton County BOE-High School	3	51421200		2017	173807	1626400	2017		0 Education, Education, K-12, K-12	Vulnerable Population
Folkston city	Vacant Charlton Memorial Hospital ER	3	0		2017	0				0 Medical, Medical, Hospital, Hospital	Vulnerable Population
Folkston city	Charlton County Antenna Repeater #1	3	3500000		2017	100				0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Folkston city	Charlton County Cooperative Extension	3	669600		2017	2232	81000	2017		0 Government, Government, Government Offices, Government Offices	Important
Folkston city	Charlton County Health Dept. Homecare	3	300000		2017	1000	177000	2017		0 Medical, Medical, Medical Offices, Medical Offices	Essential, Vulnerable Population
Folkston city	Charlton County Health Dept.	3	2135700		2017	7119	177000	2017		0 Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Charlton County Public Library	3	2625000		2017	8750	500000	2017		0 Education, Education, Library, Library	Historic Consideration, Important
Folkston city	Charlton County Senior Center	3	1631100		2017	5437	100000	2017		0 Government, Government, Day Care, Day Care	Vulnerable Population
Folkston city	City of Folkston Water Line System	3	50000000		2017	0				0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	City of Folkston Sewerline System	3	50000000		2017	0				0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	City of Folkston City Hall	3	1233900		2017	4113	138900	2017		0 Government, Government, City Hall, City Hall	Essential
Folkston city	City of Folkston Depot-Chamber of Commerce	3	1132800		2017	3776	195100	2017		0 Government, Government, Government Offices, Government Offices	Historic Consideration, Important
Folkston city	City of Folkston Housing Authority	3	12000000		2017	40000				0 Government, Government, Private, Private	Important, Vulnerable Population
Folkston city	City of Folkston Road Dept.	3	585000		2017	1950	39000	2017		0 Government, Government, Transportation, Transportation	Transportation

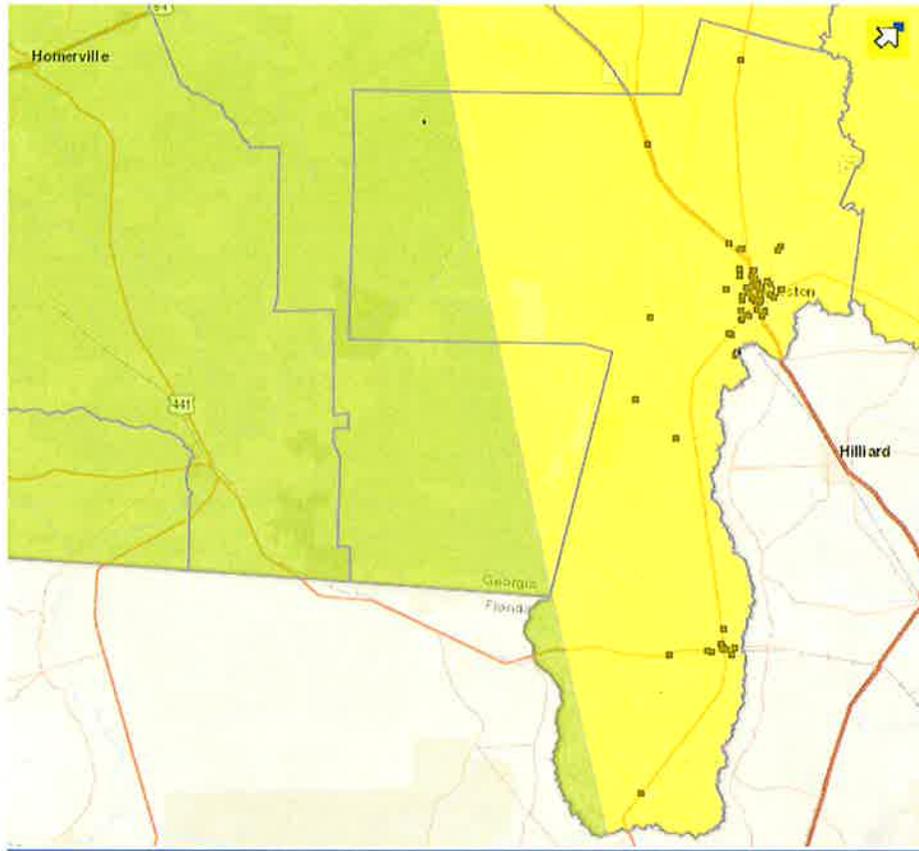
Folkston city	Georgia GA DHR DFACS	3	1500000	2017	5000		0 Law Enforcement, Law Enforcement, Police, Police	Essential
Folkston city	Coastal Pines Adult Ed.	3	0	2017	0		0 Education, Education, Jr Colleges, Jr Colleges	Historic Consideration, Important
Folkston city	Charlton County Commission Offices	3	5625600	2017	18752	70000	0 Law Enforcement, Law Enforcement, Court House, Court House	Essential, Historic Consideration, Important
Folkston city	Charlton County Storage Building OERC	3	4800000	2017	16000		0 Government, Government, Government Offices, Government Offices	Historic Consideration
Folkston city	Roberson Daycare	3	960000	2017	1800		0 Education, Education, Day Care, Day Care	Vulnerable Population
Folkston city	USPO-Folkston	3	540000	2017	3200		0 Government, Government, Communications, Communications	Important
Folkston city	GEO Corrections State Prison	3	88701000	2017	295670	1000000	0 Law Enforcement, Law Enforcement, Prisons, Prisons	Essential, Vulnerable Population
Folkston city	GEO Corrections Water System	3	30000	2017	100		0 Medical, Medical, ALF, ALF	Essential, Lifeline
Folkston city	Mckinney Community Health Center	3	720000	2017	2400		0 Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Visiting Nurses	3	90000	2017	300		0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	Charlton County 911	3	0	2017	0		0 Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Folkston Park Care And Rehabilitation	3	8400000	2017	28000		0 Emergency Services, Emergency Services, Communications, Communications	Essential, Vulnerable Population
Folkston city	U.F. Health	3	1200000	2017	4000		0 Medical, Medical, ALF, ALF	Essential, Vulnerable Population
Folkston city	Charlton County BOE-Folkston Elementary School	3	21416700	2017	71389	626900	0 Medical, Medical, Medical Offices, Medical Offices	Essential
Folkston city	Charlton County BOE-Bethune Middle School	3	27666300	2017	92221	376000	0 Emergency Services, Emergency Services, EMA, EMA	Essential
Folkston city	City of Folkston Water System-Burntfort Road	3	1000000	2017	201	53350	0 Education, Education, K - 12, K - 12	Vulnerable Population
Folkston city	Prison Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Folkston city	U.S. 301 N Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Pinewood Street Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Main Street Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Paxton Road Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Overpass Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Okefenokee Drive Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Henri Street Lift Station	3	30000	2017	100	100000	0 Government, Government, Water/Sewer, Water/Sewer	Lifeline
Folkston city	Charlton County BOE Administration	3	39150000	2017	13050	50000	0 Education, Education, K - 12, K - 12	Important, Vulnerable Population
Folkston city	Charlton County BOE-Alternative School	3	938400	2017	3128	6000	0 Education, Education, K - 12, K - 12	Vulnerable Population
Folkston city	Charlton County BOE-Bus Shop	3	1260000	2017	4200	90000	0 Education, Education, Transportation, Transportation	Transportation
Folkston city	Charlton County BOE-Maintenance	3	2925000	2017	9750	95000	0 Education, Education, K - 12, K - 12	Transportation
Folkston city	Folkston Police Department	3	642600	2017	2142		0 Law Enforcement, Law Enforcement, Police, Police	Essential
Folkston city	Georgia Power-Substation	3	3080000	2017	100		0 NGO, NGO, Private, Private	Lifeline
Folkston city	OREMC Electric Substation #1	3	3080000	2017	100		0 NGO, NGO, Private, Private	Lifeline
Folkston city	Concerted Services	3	1920000	2017	6400		0 NGO, NGO, Clinics, Clinics	Important
Folkston city	First Baptist Church	3	4800000	2017	16000		0 Emergency Services, Emergency Services, Private, Private	Essential
Folkston city	Amelia Care	3	2475000	2017	8250		0 Medical, Medical, Medical Offices, Medical Offices	Essential
<b>TOTAL</b>		<b>54</b>	<b>3911897514</b>		<b>924589</b>	<b>6935000</b>		
Homeland city	Satilla Community Service Center	3	2754000	2017	9180		0 Medical, Medical, Medical Offices, Medical Offices	Essential
Homeland city	Homeland Police Department	3	153600	2017	512	21900	0 Law Enforcement, Law Enforcement, Police, Police	Essential
Homeland city	City of Homeland City Hall	3	647400	2017	2518	72900	0 Government, Government, City Hall, City Hall	Essential
Homeland city	City of Homeland Water System	3	750000	2017	469	110660	0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Homeland city	City of Homeland Waterline System	3	11000000	2017	0		0 Government, Government, Water/Sewer, Water/Sewer	Essential, Lifeline
Homeland city	City of Homeland Machinery Enclosure	3	560000	2017	2200	19800	0 Government, Government, Transportation, Transportation	Important
Homeland city	City of Homeland Road Dept.	3	445200	2017	1484	62700	0 Government, Government, Transportation, Transportation	Essential, Transportation
Homeland city	Pineville Campground	3	600000	2017	2000		0 NGO, NGO, Private, Private	Lifeline
Homeland city	Commercial Radio Tower	3	350000	2017	100		0 Emergency Services, Emergency Services, Communications, Communications	Essential, Lifeline
Homeland city	OREMC Electric Substation 3	3	3080000	2017	100		0 NGO, NGO, Private, Private	Lifeline
<b>TOTAL</b>		<b>10</b>	<b>20440200</b>		<b>18563</b>	<b>287960</b>		
<b>GRAND TOTAL</b>		<b>103</b>	<b>470952414</b>		<b>1083382</b>	<b>8600310</b>		



**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND**  
**PDM GEMA THUNDERSTORM HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*



**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND**  
**PDM GEMA WIND HAZARD MAP**

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	

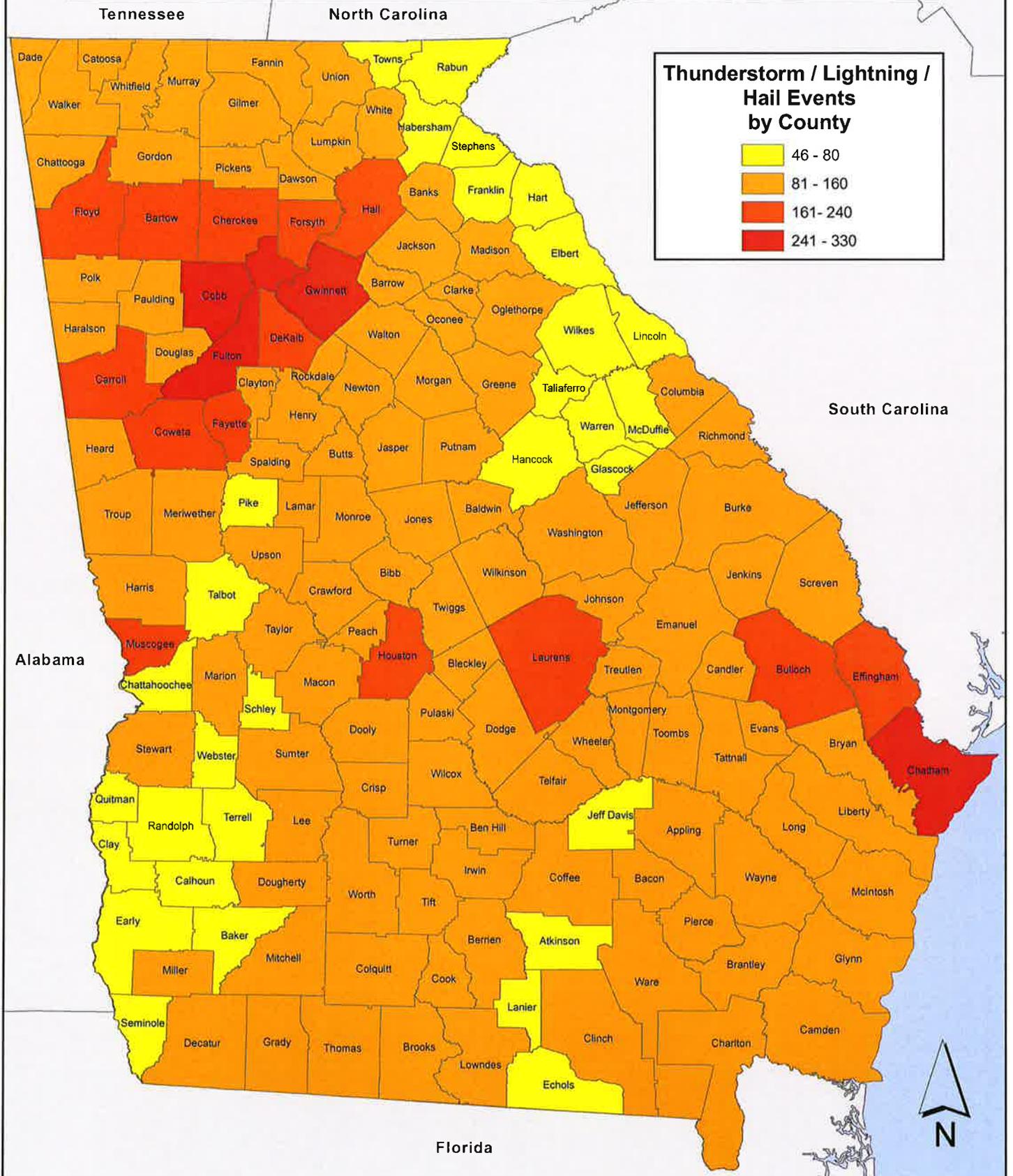
Hazard - GEMA.wind



<all other values>



# Thunderstorm / Lightning / Hail Events 1960-2012 SHELDUS Data

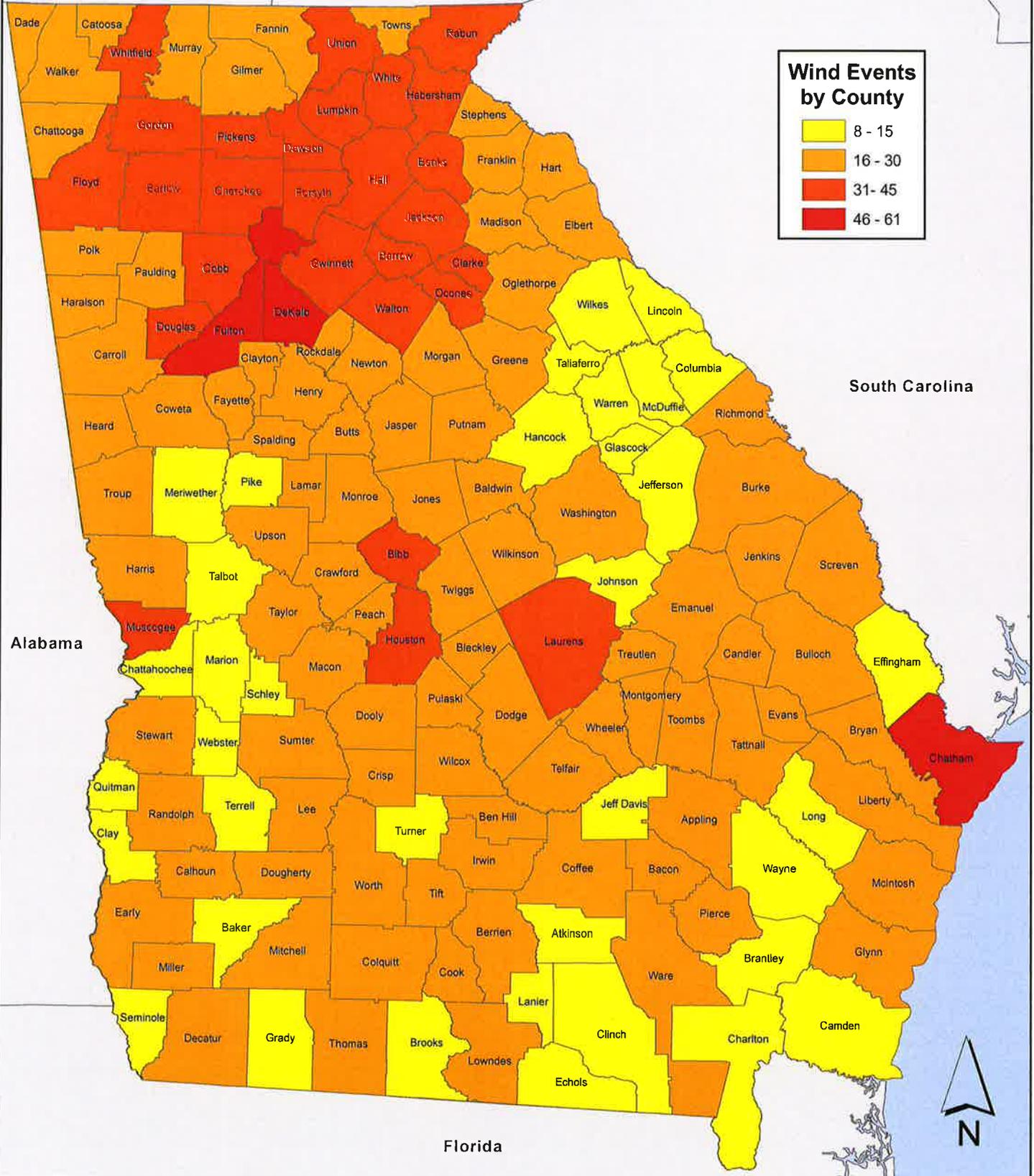




# Wind Events 1960-2012 SHELDUS Data

Tennessee

North Carolina







## VI. Severe Winter Storm

- A. Severe Winter Storm Description – As a general rule, Charlton County can be considered to have a moderate climate for the majority of the year. However, it is not immune to occasional temperature extremes and the inherent risks that accompany them.

Severe Winter Storms are not prevalent in Southeast GA but are an ever present hazard nonetheless. Historically, the southeastern part of the state has been known for its milder winter climate. However, in the past few years it has become more common for our region to experience abnormally cold periods which have ranged from a few days to a couple of weeks. By abnormally cold we are referring to hard freezes when temperatures drop well below freezing (26 degrees or lower) or several hours per day. These temperatures are usually the result of a cold front moving through the area and the speed with which the front passes determines the length and severity of the extreme temperatures. The fact that it is a more uncommon occurrence has a tendency to make it more of a risk since less people are prepared for it. Especially at risk are the low income, elderly and homeless who often do not have adequate means of heating to protect themselves from the dangerous effects of freezing temperatures.

- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

### GEMA Worksheet #3a

### Inventory of Assets

Jurisdiction: Charlton County (Including Folkston & Homeland)

Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat

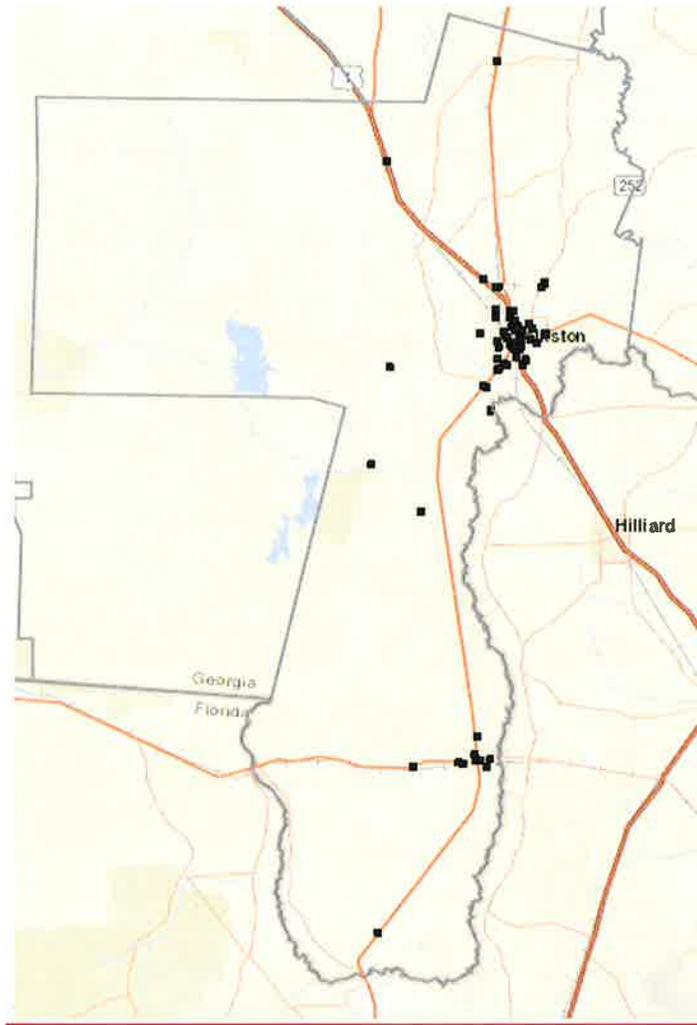
**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.**

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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>8,212</b>	<b>8,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</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?   |          | X        |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | X        |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X        |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X        |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X        |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X        |          |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | X        |

PLEASE SEE  
GMIS CRITICAL FACILITIES DATA IN  
APPENDIX A PART I  
FOR HAZARD AMOUNTS



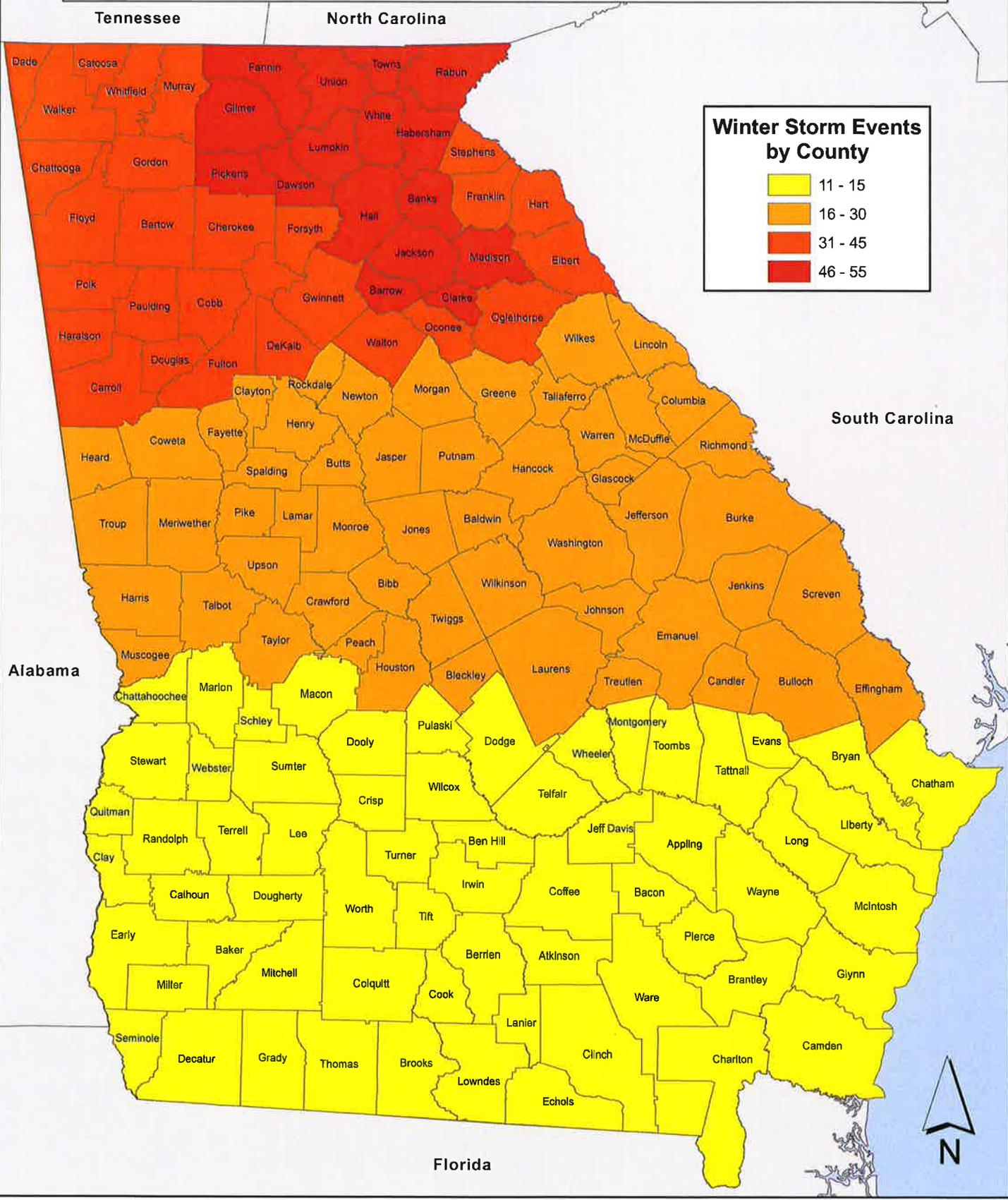
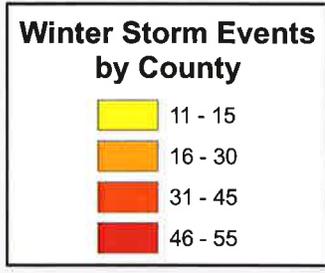
**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND**  
**PDM GEMA SEVERE WINTER STORM HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*



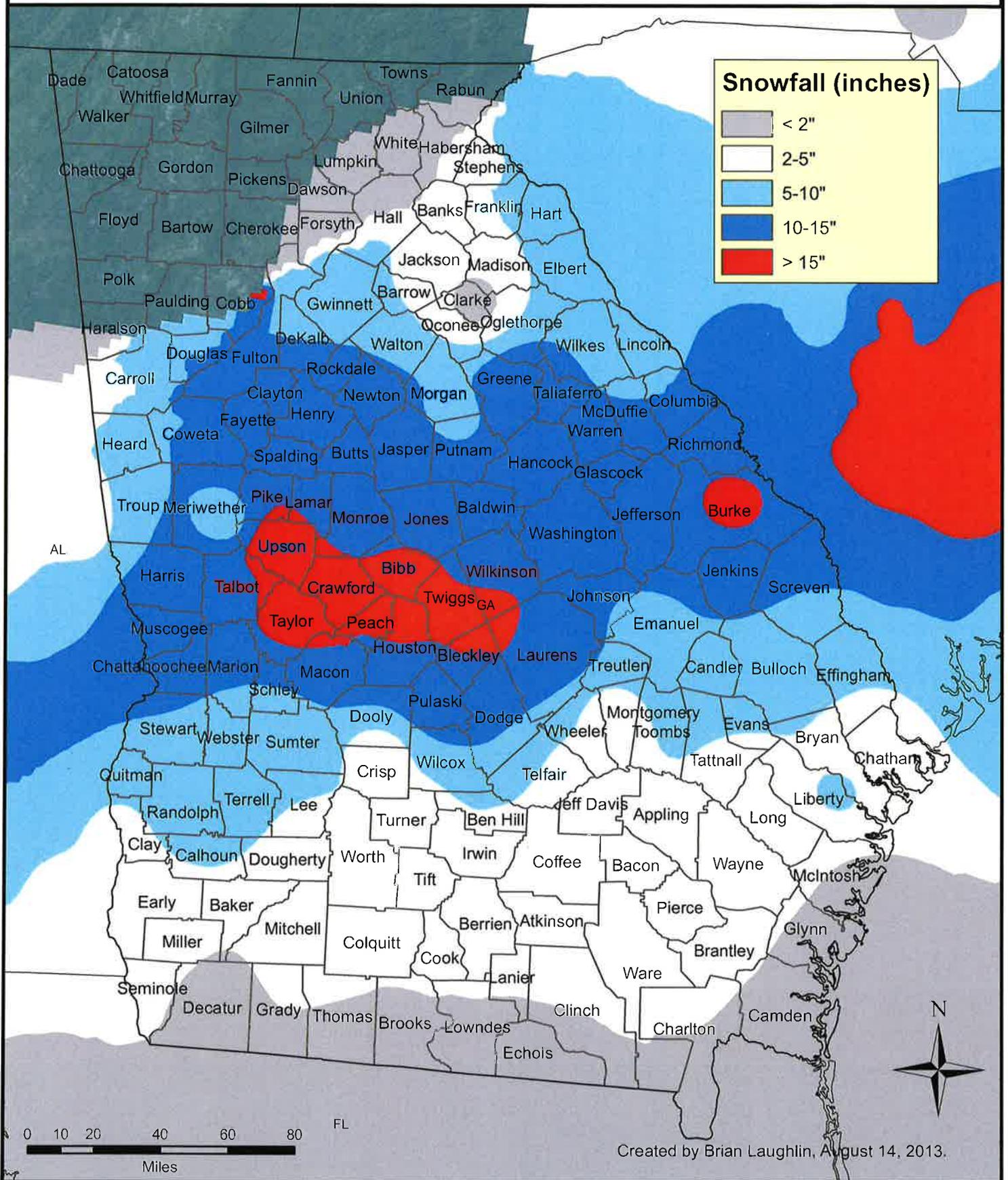
# Winter Storm Events 1960-2012 SHELDUS Data





# February 9-11, 1973 Winter Storm

RSI = 12.52, Category 4  
NOAA

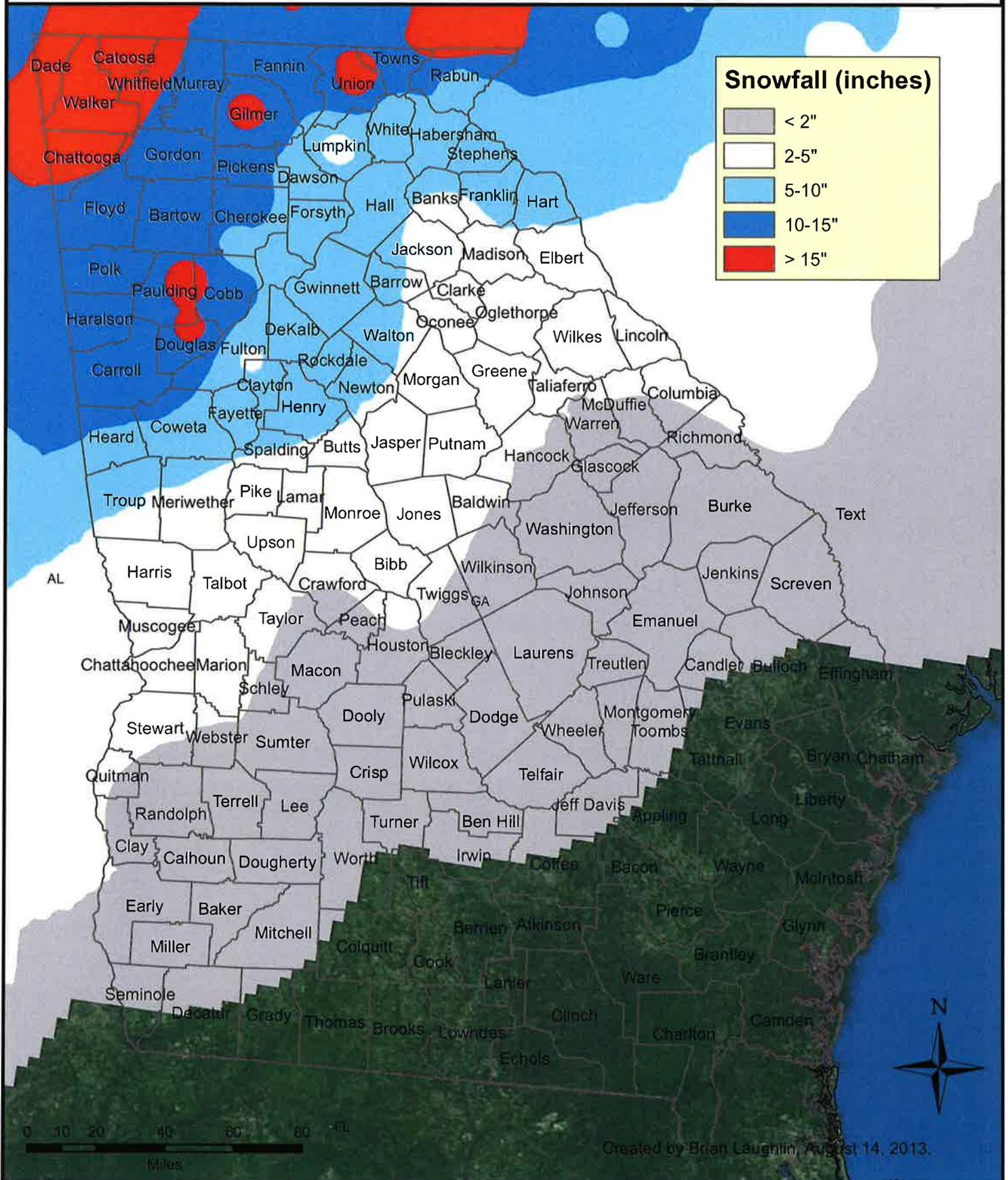




# March 12-15, 1993 Winter Storm

RSI = 20.572, Category 5

NOAA



## Snowfall (inches)

- < 2"
- 2-5"
- 5-10"
- 10-15"
- > 15"

Created by Brian Laughlin, August 14, 2013.

## VII. Hail

- A. Hail Hazard Description – Hail is formed when updraft currents within a thunderstorm carry water droplets to an altitude where freezing occurs. When these frozen ice particles become too heavy they fall to the ground in the form of hail stones. Hail can range in size from very small (pea sized) to large stones in excess of an inch in diameter. Generally speaking the larger stones are associated with more severe storms. Hail causes over \$1 billion in crop and property damage across the US each year. Fortunately, it has not historically been the cause of high amounts of damage in Charlton County, but with each storm the potential is still present. The greatest threat to crops is mainly to the numerous pecan orchards and cotton fields present in this and surrounding areas. There are also at least a handful of reports each year of hail damage to local vehicles and homes.
  
- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Including Folkston & Homeland)**

**Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat**

**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	4,436	4,436	100.000%	363,752,030	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>8,212</b>	<b>6,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</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?   |          | X        |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | X        |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X        |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X        |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X        |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X        |          |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | X        |

PLEASE SEE  
GMIS CRITICAL FACILITIES DATA IN  
APPENDIX A PART I  
FOR HAZARD AMOUNTS



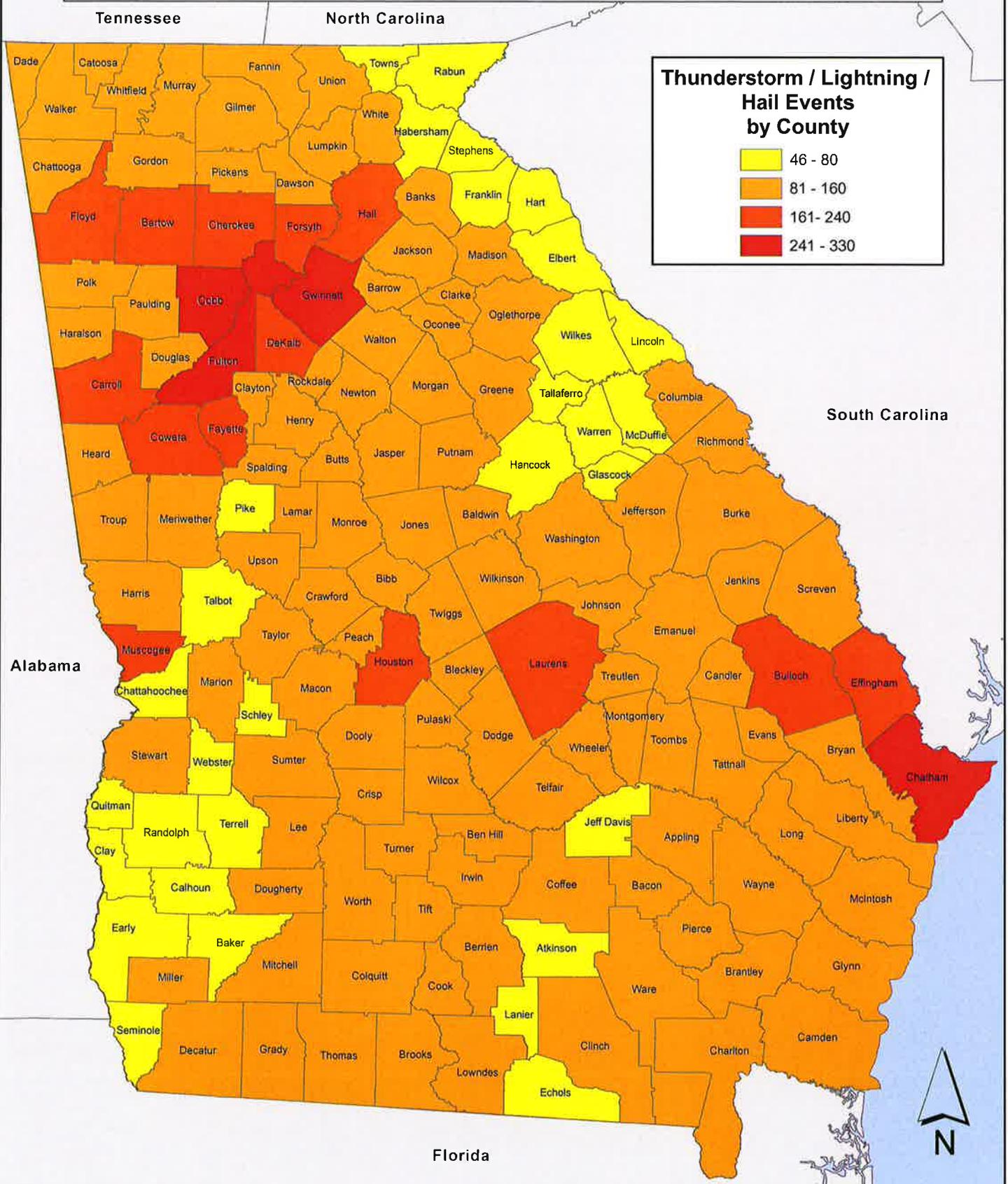
**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND**  
**PDM GEMA HAIL HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*



# Thunderstorm / Lightning / Hail Events 1960-2012 SHELDUS Data



## VIII. Drought

- A. Drought Hazard Description – A drought is a prolonged period without rain, particularly during the planting and growing season in agricultural areas. It can range from two weeks to six months or more and affects water availability and quality. Drought conditions pose a hazard in that they could cause disruption to public and private underground water sources for domestic use. The primary source of domestic water in Charlton County comes from underground sources. The Floridian Aquifer provides a significant amount of domestic water to the public in Charlton County. Water levels in the aquifer vary depending on the amount of recharge. Thus, during long periods of drought, water levels may drop below the levels of the wells, causing disruption in the water supply.
  
- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Including Folkston & Homeland)**

**Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat**

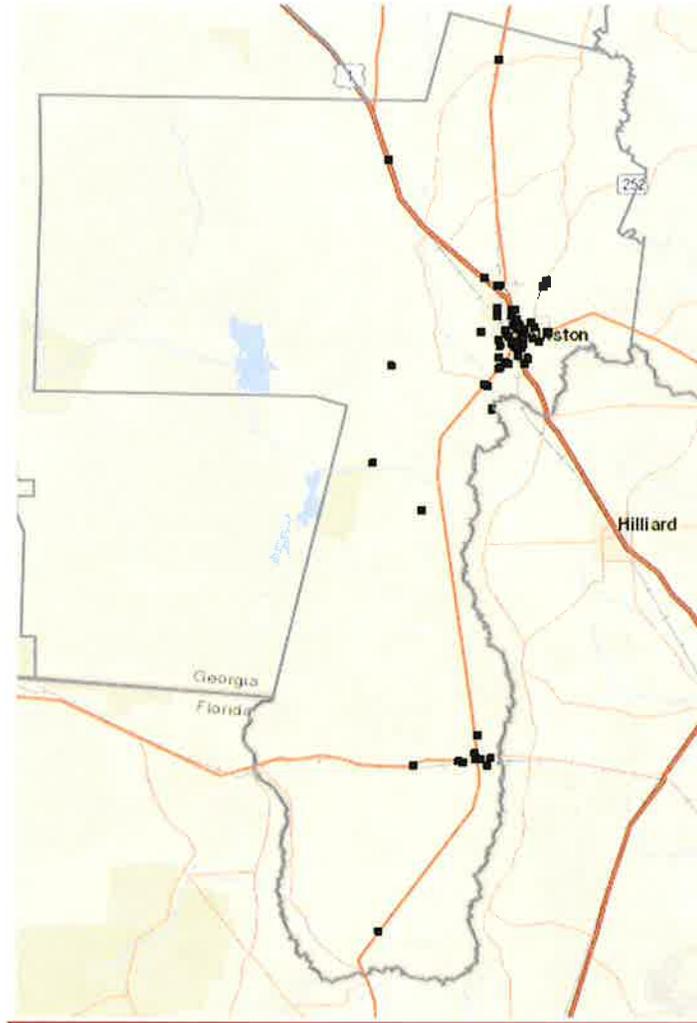
**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.**

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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>6,212</b>	<b>6,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</b>	<b>100%</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?   |   | X |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |   | X |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X |   |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X |   |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X |   |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X |   |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |   | X |

PLEASE SEE  
GMIS CRITICAL FACILITIES DATA IN  
APPENDIX A PART I  
FOR HAZARD AMOUNTS



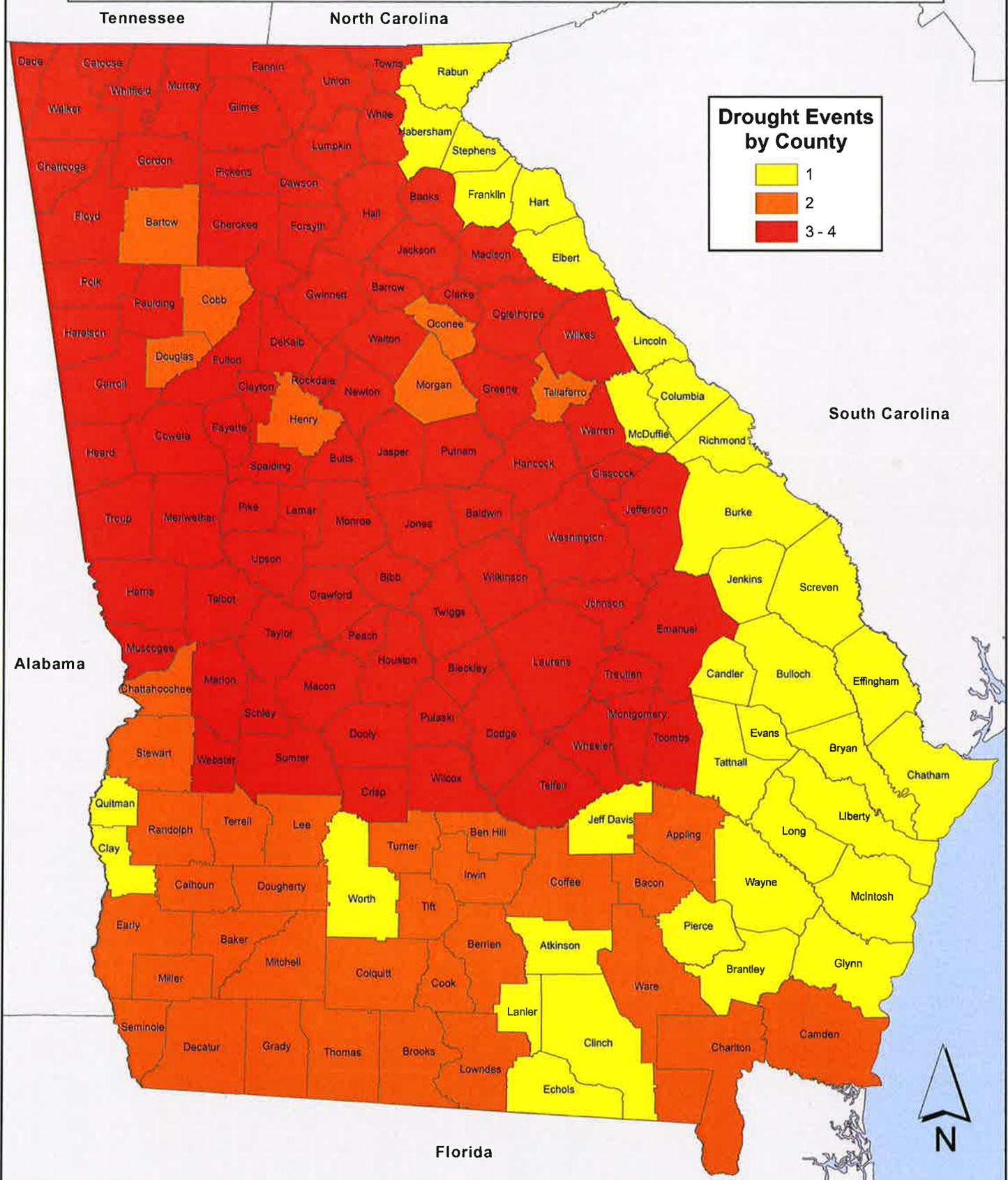
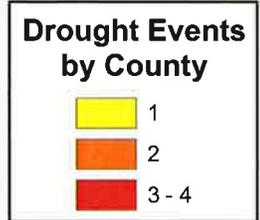
**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND**  
**PDM GEMA DROUGHT HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*



# Drought Events 1960-2012 SHELDUS Data



# U.S. Drought Monitor Georgia

**November 8, 2016**  
(Released Thursday, Nov. 10, 2016)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	15.69	84.31	64.43	50.63	42.02	17.22
<b>Last Week</b> <i>11/1/2016</i>	26.41	73.59	57.84	49.92	39.57	14.00
<b>3 Months Ago</b> <i>8/2/2016</i>	31.85	88.15	44.75	30.41	8.83	0.00
<b>Start of Calendar Year</b> <i>12/29/2015</i>	87.36	12.64	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <i>9/27/2016</i>	35.37	64.63	45.84	34.50	14.67	1.58
<b>One Year Ago</b> <i>11/19/2015</i>	91.60	8.40	1.73	0.00	0.00	0.00

**Intensity:**

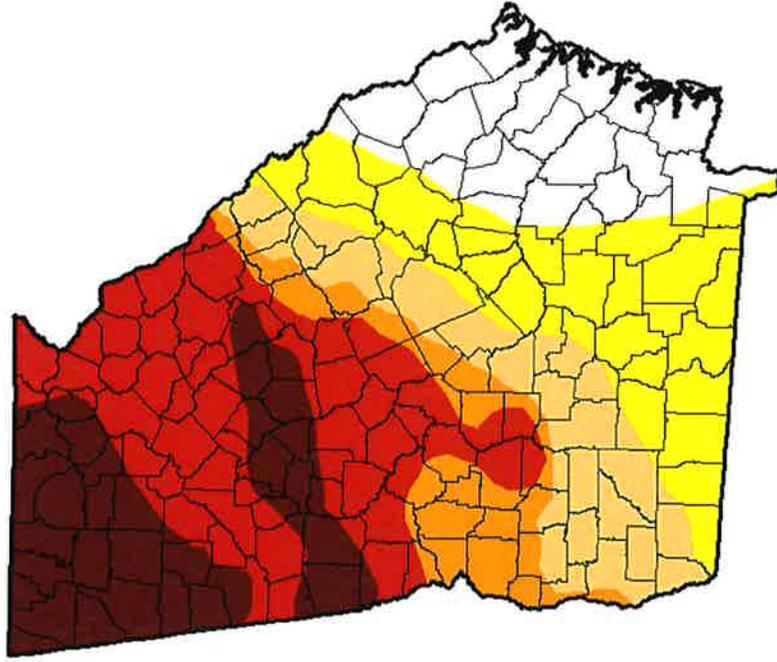
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Deborah Bathke  
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>



# U.S. Drought Monitor Georgia

**August 30, 2016**  
(Released Thursday, Sep. 1, 2016)  
Valid 8 a.m. EDT

*Drought Conditions (Percent Area)*

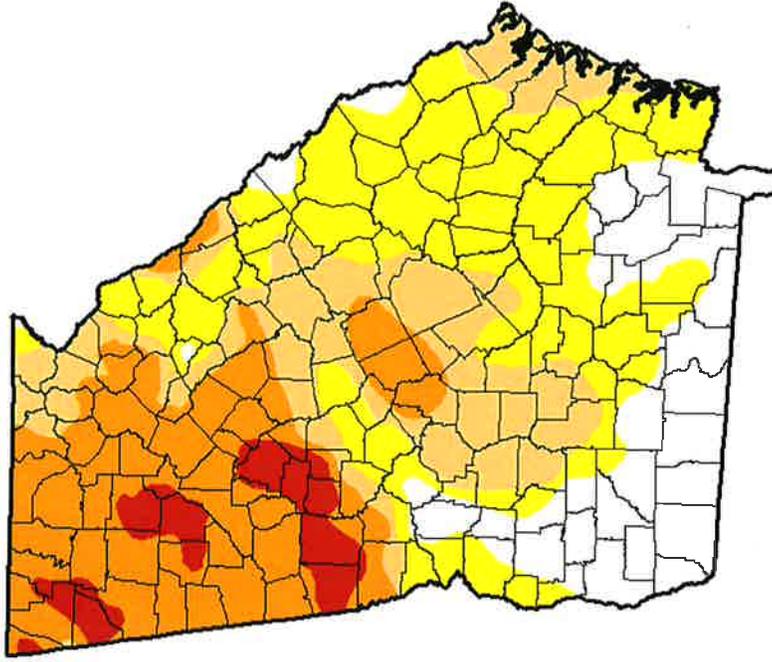
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	18.68	81.32	48.28	28.20	5.27	0.00
<b>Last Week</b> 8/23/2016	26.02	73.98	48.97	28.68	5.92	0.00
<b>3 Months Ago</b> 5/31/2016	62.64	37.36	27.96	4.06	0.00	0.00
<b>Start of Calendar Year</b> 1/2/2015	87.36	12.64	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> 9/25/2015	63.46	36.54	17.71	1.20	0.00	0.00
<b>One Year Ago</b> 8/1/2015	50.17	49.83	27.05	2.99	0.00	0.00

**Intensity**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

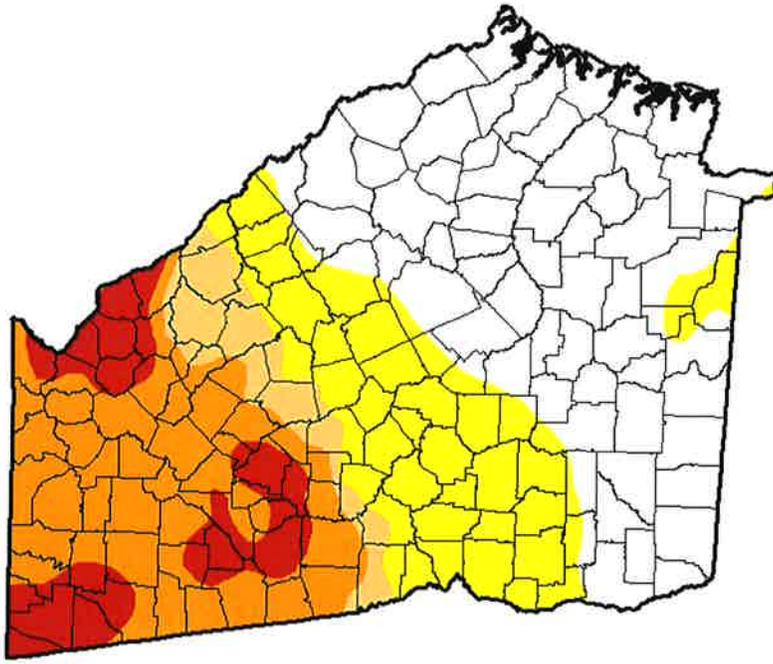
**Author:**  
Chris Fenimore  
NCEI/NESDIS/NOAA



<http://droughtmonitor.unl.edu/>

# U.S. Drought Monitor Georgia

**July 12, 2016**  
(Released Thursday, Jul. 14, 2016)  
Valid 8 a.m. EDT



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	44.72	55.28	33.76	28.13	8.88	0.00
<b>Last Week</b> 7/5/2016	51.69	48.31	33.76	28.12	6.77	0.00
<b>3 Months Ago</b> 4/12/2016	78.63	21.37	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 12/29/2015	87.36	12.64	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> 9/29/2015	63.46	36.54	17.71	1.20	0.00	0.00
<b>One Year Ago</b> 7/4/2015	54.87	45.13	15.82	2.46	0.00	0.00

*Intensity:*

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**Author:**  
David Miskus  
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

# U.S. Drought Monitor Georgia

**November 10, 2015**  
(Released Thursday, Nov. 12, 2015)  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	91.60	8.40	1.73	0.00	0.00	0.00
<b>Last Week</b> 11/3/2015	77.71	22.29	6.35	0.00	0.00	0.00
<b>3 Months Ago</b> 8/11/2015	38.96	61.04	31.32	0.00	0.00	0.00
<b>Start of Calendar Year</b> 12/31/2014	94.23	5.77	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> 9/29/2015	63.46	36.54	17.71	1.20	0.00	0.00
<b>One Year Ago</b> 11/10/2014	40.45	59.55	16.05	1.96	0.00	0.00

**Intensity**

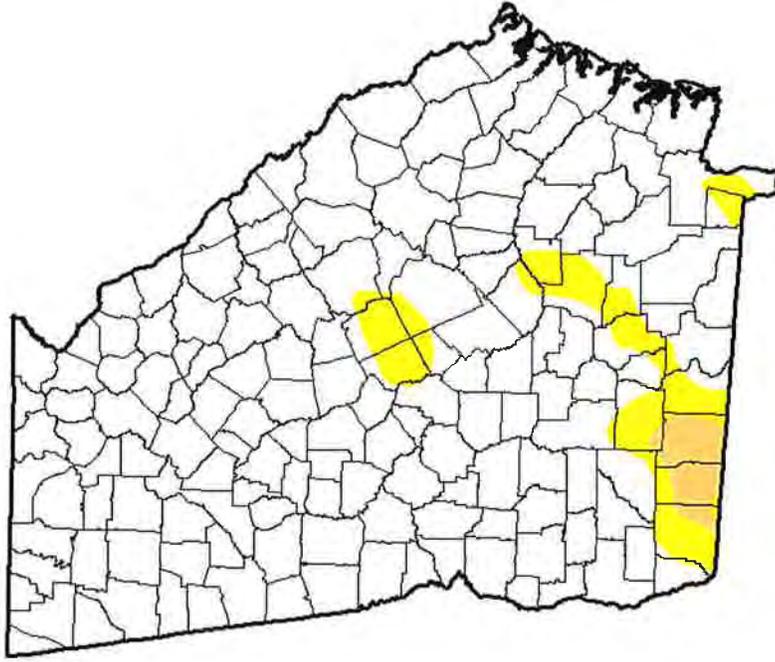
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**Author:**  
Richard Tinker  
OPC/NOAA/NWS/NCEP



<http://droughtmonitor.unl.edu/>



**U.S. Drought Monitor**  
**Georgia**

**May 12, 2015**  
(Released Thursday, May. 14, 2015)  
Valid 8 a.m. EDT

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	67.29	32.71	0.00	0.00	0.00	0.00
<b>Last Week</b> 5/5/2015	74.17	25.83	0.00	0.00	0.00	0.00
<b>3 Months Ago</b> 2/10/2015	86.03	13.97	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 12/31/2014	94.23	5.77	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> 6/30/2014	41.99	58.01	15.39	4.76	0.00	0.00
<b>One Year Ago</b> 5/13/2014	56.76	4.24	0.00	0.00	0.00	0.00

**Intensity:**

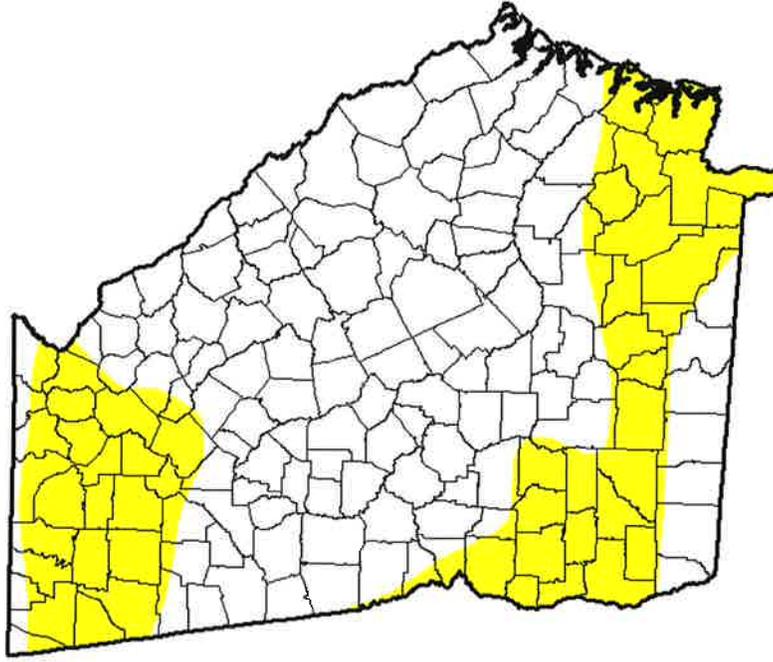
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Mark Svoboda  
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>



# U.S. Drought Monitor Georgia

**November 18, 2014**  
(Released Thursday, Nov. 20, 2014)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	41.51	58.49	14.03	0.70	0.00	0.00
<b>Last Week</b> 11/11/2014	40.45	59.55	16.05	1.96	0.00	0.00
<b>3 Months Ago</b> 8/18/2014	51.67	48.33	16.47	3.21	0.00	0.00
<b>Start of Calendar Year</b> 12/31/2013	92.36	7.64	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> 9/30/2014	41.99	58.01	15.39	4.76	0.00	0.00
<b>One Year Ago</b> 11/18/2013	47.02	52.98	0.00	0.00	0.00	0.00

**Intensity:**

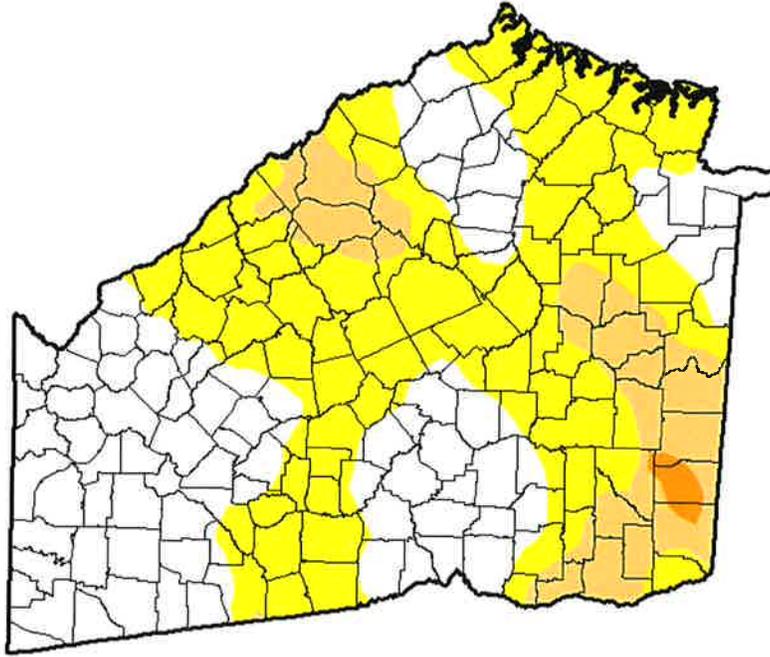
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Eric Luebbehusen  
U.S. Department of Agriculture

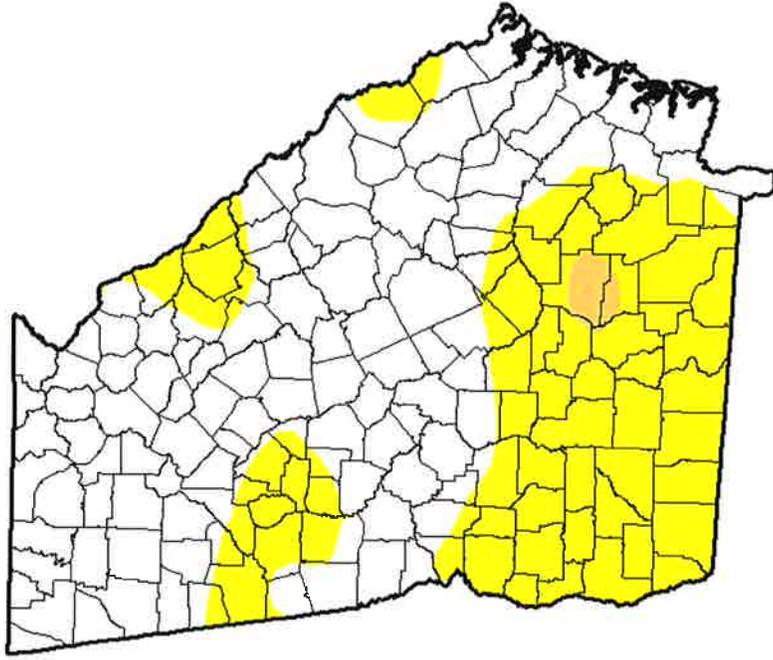


<http://droughtmonitor.unl.edu/>



# U.S. Drought Monitor Georgia

**July 29, 2014**  
(Released Thursday, Jul. 31, 2014)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D3-D4	D4
Current	61.29	38.71	1.00	0.00	0.00
Last Week 7/22/2014	80.28	19.72	0.00	0.00	0.00
3 Months Ago 4/29/2014	96.21	3.79	0.00	0.00	0.00
Start of Calendar Year 12/31/2013	92.36	7.64	0.00	0.00	0.00
Start of Water Year 10/1/2013	100.00	0.00	0.00	0.00	0.00
One Year Ago 7/30/2013	100.00	0.00	0.00	0.00	0.00

**Intensity:**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forest statements.

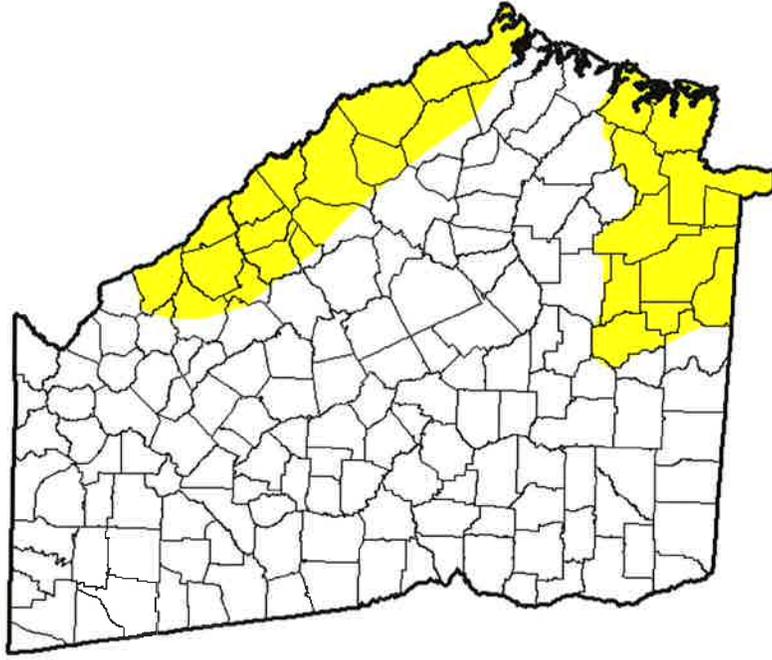
**Author:**  
Brad Rippey  
U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

# U.S. Drought Monitor Georgia

**October 22, 2013**  
(Released Thursday, Oct. 24, 2013)  
Valid 7 a.m. EDT



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	79.40	20.60	0.00	0.00	0.00	0.00
<b>Last Week</b> 10/15/2013	100.00	0.00	0.00	0.00	0.00	0.00
<b>3 Months Ago</b> 7/23/2013	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 1/1/2013	1.63	98.37	89.49	64.87	36.96	10.25
<b>Start of Water Year</b> 7/1/2013	100.00	0.00	0.00	0.00	0.00	0.00
<b>One Year Ago</b> 10/23/2012	39.60	60.40	47.11	40.12	23.25	10.03

**Intensity**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**Author:**  
Brian Fuchs  
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

# U.S. Drought Monitor Georgia

**November 20, 2012**  
(Released Thursday, Nov. 22, 2012)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	6.93	93.07	71.79	53.10	31.81	13.53
<b>Last Week</b> 11/13/2012	9.02	90.98	59.92	49.22	27.24	13.53
<b>3 Months Ago</b> 8/21/2012	31.03	68.97	57.36	45.36	37.67	16.98
<b>Start of Calendar Year</b> 1/2/2012	12.07	87.93	85.36	81.00	63.92	0.00
<b>Start of Water Year</b> 9/25/2011	37.30	62.70	52.44	42.66	34.04	17.18
<b>One Year Ago</b> 11/22/2011	4.77	95.23	91.50	83.66	64.26	0.00

**Intensity**

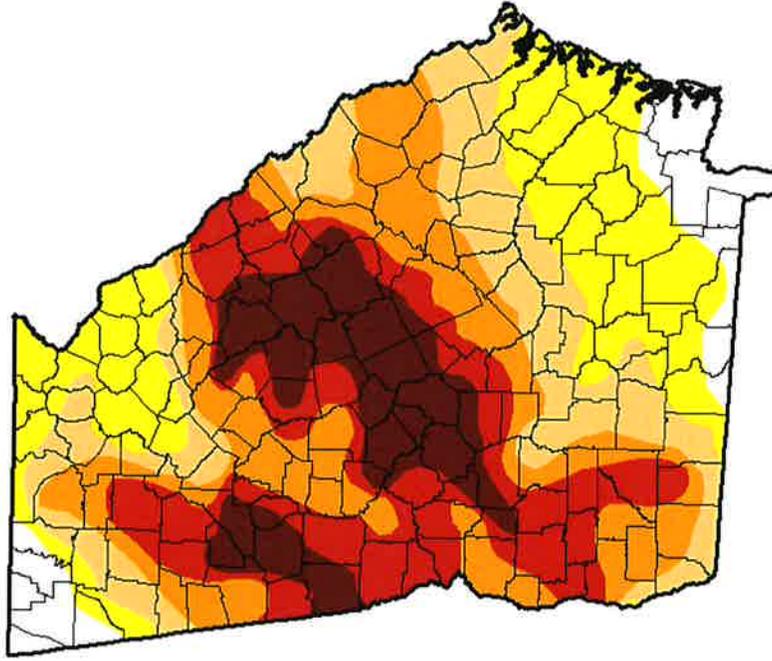
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Eric Luebehusen  
U.S. Department of Agriculture

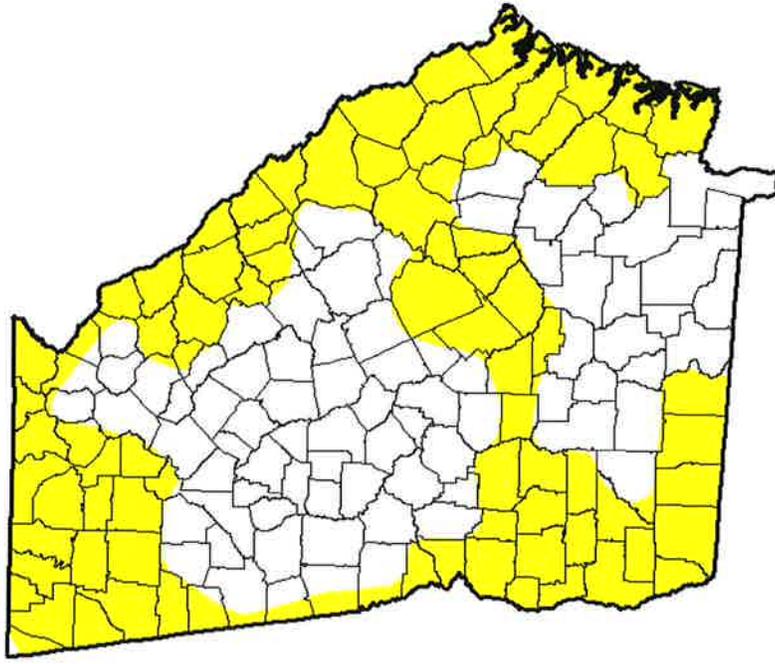


<http://droughtmonitor.unl.edu/>



# U.S. Drought Monitor Georgia

**July 20, 2010**  
(Released Thursday, Jul. 22, 2010)  
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	E2-D4	D3-D4	D4
<b>Current</b>	47.06	52.94	0.00	0.00	0.00	0.00
<b>Last Week</b> 7/13/2010	93.55	6.45	0.00	0.00	0.00	0.00
<b>3 Months Ago</b> 4/20/2010	97.21	2.79	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 12/29/2009	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> 9/29/2009	96.07	3.93	0.00	0.00	0.00	0.00
<b>One Year Ago</b> 7/21/2009	61.92	38.08	0.00	0.00	0.00	0.00

**Intensity:**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Anthony Artusa  
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

## IX. Lightning

- A. Lightning Hazard Description –Lightning is the discharge of electricity from cloud to ground and is most commonly associated with thunderstorms. The discharge is usually vertical from the cloud to ground, but can occur at angles from the storm, extending a good distance from the storm. Lightning is often referred to as one of nature’s number one killers due to the fact that it results in an average of nearly 60 deaths nationwide each year.
  
- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Including Folkston & Homeland)**

**Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat**

**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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>6,212</b>	<b>6,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</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?   |          | X        |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | X        |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X        |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X        |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X        |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X        |          |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | X        |

PLEASE SEE  
GMIS CRITICAL FACILITIES DATA IN  
APPENDIX A PART I  
FOR HAZARD AMOUNTS



**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND**  
**PDM GEMA LIGHTNING HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*

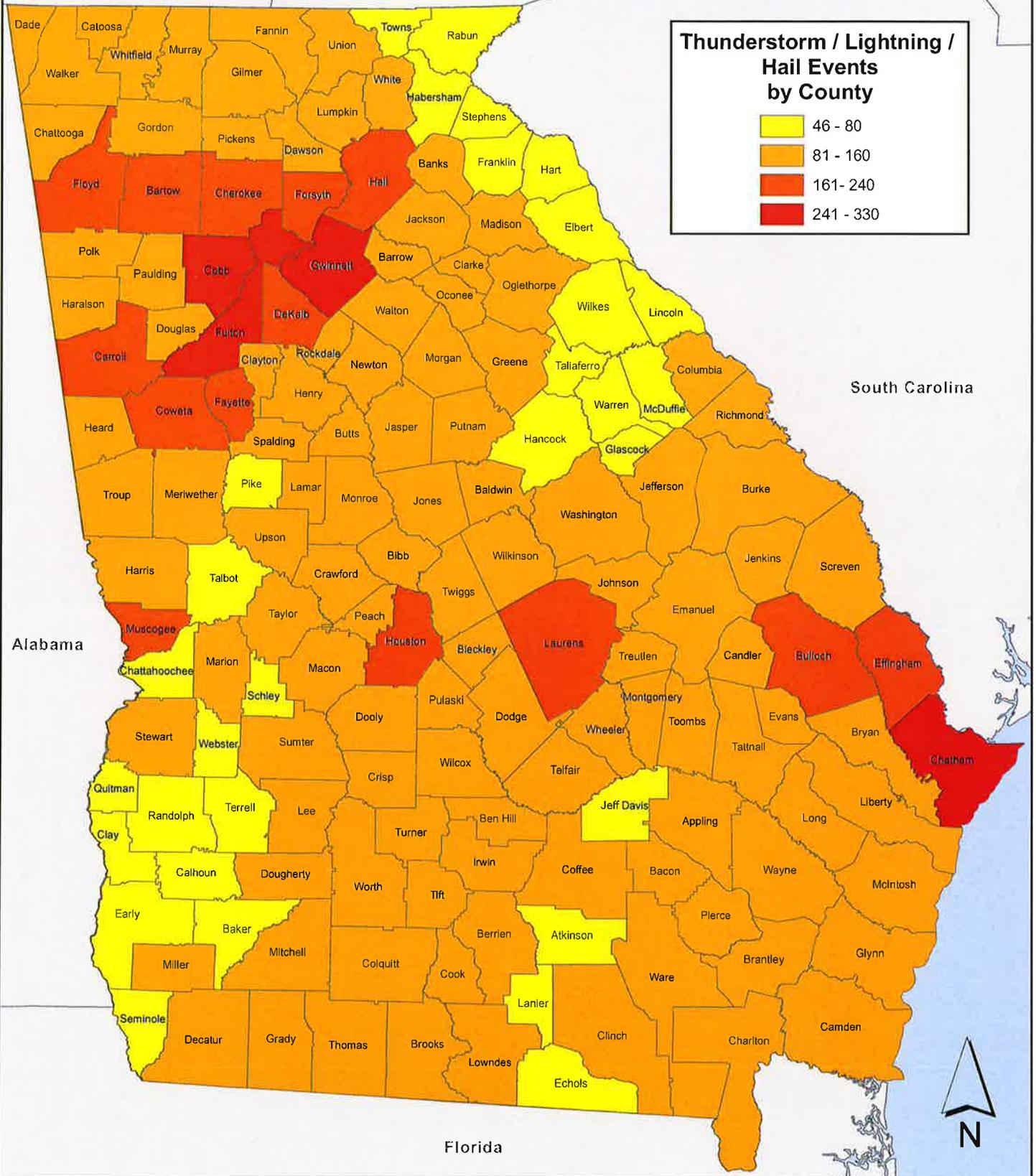
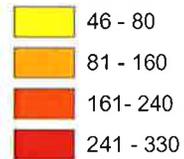


# Thunderstorm / Lightning / Hail Events 1960-2012 SHELDUS Data

Tennessee

North Carolina

## Thunderstorm / Lightning / Hail Events by County



## X. Extreme Heat

- A. Extreme Heat Description – As a general rule, Charlton County can be considered to have a moderate climate for the majority of the year. However, it is not immune to occasional temperature extremes and the inherent risks that accompany them.

The most prevalent temperature extreme is the high heat and humidity that often occurs beginning in late spring and sometimes occurring as late as the early fall months. The frequency and duration of these conditions varies, but in general they are a constant threat for several months out of every year. These elevated temperatures pose a number of significant risks, such as heat exhaustion and/or stroke, to those exposed to their effects.

- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Including Folkston & Homeland)**

**Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat**

**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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>6,212</b>	<b>6,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</b>	<b>100%</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?   |   | X |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |   | X |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X |   |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X |   |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X |   |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X |   |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |   | X |

PLEASE SEE  
GMIS CRITICAL FACILITIES DATA IN  
APPENDIX A PART I  
FOR HAZARD AMOUNTS



**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND**  
**PDM GEMA EXTREME HEAT HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*

## XI. Public Health Emergency

- A. Public Health Emergency Hazard Description–The [National Disaster Medical System Federal Partners Memorandum of Agreement](#) defines a public health emergency as "an emergency need for health care [medical] services to respond to a disaster, significant outbreak of an infectious disease, bioterrorist attack or other significant or catastrophic event. For purposes of NDMS activation, a public health emergency may include but is not limited to, public health emergencies declared by the [Secretary of HHS](#) [Health and Human Services] under 42 U.S.C. 247d, or a declaration of a major disaster or emergency under the [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#) (Stafford Act), 42 U.S.C. 5121-5206).

Source: Wikipedia “Public Health Emergency-United States”

[A Public Health Emergency from the Perspective of the U.S. National Disaster Medical System \(NDMS\)](#)". 2007-04-10.

[NATIONAL DISASTER MEDICAL SYSTEM MEMORANDUM OF AGREEMENT AMONG THE DEPARTMENTS OF HOMELAND SECURITY, HEALTH AND HUMAN SERVICES, VETERANS AFFAIRS, AND DEFENSE"](#) (PDF). 2005-09-26.

- B. Data – Worksheet 3A, GEMA Critical Facility Inventory Report, Maps, Etc.

**GEMA Worksheet #3a**

**Inventory of Assets**

**Jurisdiction: Charlton County (Including Folkston & Homeland)**

**Hazard: Hurricane/Tropical Storm, Tornado, Thunderstorms & Wind, Severe Winter Storms, Hail, Drought, Lightning, Extreme Heat**

**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	4,436	4,436	100.000%	363,752,000	363,752,000	100.000%	13,130	13,130	100%
Commercial	683	683	100.000%	92,595,028	92,595,028	100.000%	0	0	#DIV/0!
Industrial	58	58	100.000%	6,522,590	6,522,590	100.000%	0	0	#DIV/0!
Agricultural	514	514	100.000%	21,520,093	21,520,093	100.000%	0	0	#DIV/0!
Religious/ Non-profit	278	278	100.000%	16,133,448	16,133,448	100.000%	0	0	#DIV/0!
Government	181	181	100.000%	86,301,963	86,301,963	100.000%	0	0	#DIV/0!
Education	23	23	100.000%	9,425,883	9,425,883	100.000%	0	0	#DIV/0!
Utilities	39	39	100.000%	89,340,735	89,340,735	100.000%	0	0	#DIV/0!
<b>Total</b>	<b>6,212</b>	<b>6,212</b>	<b>100.000%</b>	<b>685,591,740</b>	<b>685,591,740</b>	<b>100.000%</b>	<b>13,130</b>	<b>13,130</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?   |          | X        |
| 2. Do you know whether your critical facilities will be operational after a hazard event?   |          | X        |
| 3. Is there enough data to determine which assets are subject to the greatest potential damages?  | X        |          |
| 4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?   | X        |          |
| 5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards? | X        |          |
| 6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?   | X        |          |
| 7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?   |          | X        |

PLEASE SEE  
GMIS CRITICAL FACILITIES DATA IN  
APPENDIX A PART I  
FOR HAZARD AMOUNTS



**CHARLTON COUNTY & CITIES OF FOLKSTON AND HOMELAND  
PDM GEMA PUBLIC HEALTH EMERGENCY HAZARD MAP**

*No Color = No Value*

*Please see attached cover sheet regarding score definitions*

Public Health Emergency data was determined by using the 1820, 1854, 1876-1888 Yellow Fever Epidemics, 1830-1851 Cholera Pandemic, 1916 Polio Epidemic, 1918 Influenza Pandemic, 1952 Polio Epidemic, 1957 Asian Flu Pandemic, H1N1, Enterovirus D68, MERS, Ebola Virus, Zika Virus and Opioid Epidemic in order to determine frequency of events.

## **Appendix B – Growth and Development Trends / Community Information**



## QuickFacts

## Charlton County, Georgia; UNITED STATES

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

## Table

ALL TOPICS	Charlton County, Georgia	UNITED STATES
Population estimates, July 1, 2016, (V2016)	12,497	323,127,513
PEOPLE		
<b>Population</b>		
Population estimates, July 1, 2016, (V2016)	12,497	323,127,513
Population estimates base, April 1, 2010, (V2016)	12,171	308,758,105
Population, percent change - April 1, 2010 (estimates base) to July 1, 2016, (V2016)	2.7%	4.7%
Population, Census, April 1, 2010	12,171	308,745,538
<b>Age and Sex</b>		
Persons under 5 years, percent, July 1, 2016, (V2016)	5.0%	6.2%
Persons under 5 years, percent, April 1, 2010	6.0%	6.5%
Persons under 18 years, percent, July 1, 2016, (V2016)	19.1%	22.8%
Persons under 18 years, percent, April 1, 2010	21.7%	24.0%
Persons 65 years and over, percent, July 1, 2016, (V2016)	14.4%	15.2%
Persons 65 years and over, percent, April 1, 2010	12.7%	13.0%
Female persons, percent, July 1, 2016, (V2016)	41.2%	50.8%
Female persons, percent, April 1, 2010	43.7%	50.8%
<b>Race and Hispanic Origin</b>		
White alone, percent, July 1, 2016, (V2016) (a)	65.6%	76.9%
Black or African American alone, percent, July 1, 2016, (V2016) (a)	31.2%	13.3%
American Indian and Alaska Native alone, percent, July 1, 2016, (V2016) (a)	0.7%	1.3%
Asian alone, percent, July 1, 2016, (V2016) (a)	0.7%	5.7%
Native Hawaiian and Other Pacific Islander alone, percent, July 1, 2016, (V2016) (a)	Z	0.2%
Two or More Races, percent, July 1, 2016, (V2016)	1.8%	2.6%
Hispanic or Latino, percent, July 1, 2016, (V2016) (b)	3.7%	17.8%
White alone, not Hispanic or Latino, percent, July 1, 2016, (V2016)	62.6%	61.3%
<b>Population Characteristics</b>		
Veterans, 2012-2016	938	19,535,341
Foreign born persons, percent, 2012-2016	9.0%	13.2%
<b>Housing</b>		
Housing units, July 1, 2016, (V2016)	4,392	135,697,926
Housing units, April 1, 2010	4,475	131,704,730
Owner-occupied housing unit rate, 2012-2016	74.5%	63.6%
Median value of owner-occupied housing units, 2012-2016	\$80,400	\$184,700
Median selected monthly owner costs -with a mortgage, 2012-2016	\$906	\$1,491
Median selected monthly owner costs -without a mortgage, 2012-2016	\$327	\$462
Median gross rent, 2012-2016	\$578	\$949
Building permits, 2016	20	1,206,642
<b>Families &amp; Living Arrangements</b>		
Households, 2012-2016	3,474	117,716,237
Persons per household, 2012-2016	3.39	2.64
Living in same house 1 year ago, percent of persons age 1 year+, 2012-2016	84.7%	85.2%
Language other than English spoken at home, percent of persons age 5 years+, 2012-2016	9.6%	21.1%
<b>Education</b>		
High school graduate or higher, percent of persons age 25 years+, 2012-2016	80.9%	87.0%
Bachelor's degree or higher, percent of persons age 25 years+, 2012-2016	9.0%	30.3%
<b>Health</b>		
With a disability, under age 65 years, percent, 2012-2016	12.1%	8.6%
Persons without health insurance, under age 65 years, percent	▲ 14.5%	▲ 10.1%

<b>Economy</b>		
In civilian labor force, total, percent of population age 16 years+, 2012-2016	49.8%	63.1%
In civilian labor force, female, percent of population age 16 years+, 2012-2016	54.4%	58.3%
Total accommodation and food services sales, 2012 (\$1,000) (c)	7,288	708,138,598
Total health care and social assistance receipts/revenue, 2012 (\$1,000) (c)	17,596	2,040,441,203
Total manufacturers shipments, 2012 (\$1,000) (c)	D	5,696,729,632
Total merchant wholesaler sales, 2012 (\$1,000) (c)	51,536	5,208,023,478
Total retail sales, 2012 (\$1,000) (c)	58,806	4,219,821,871
Total retail sales per capita, 2012 (c)	\$4,423	\$13,443
<b>Transportation</b>		
Mean travel time to work (minutes), workers age 16 years+, 2012-2016	31.0	26.1
<b>Income &amp; Poverty</b>		
Median household income (in 2016 dollars), 2012-2016	\$43,871	\$55,322
Per capita income in past 12 months (in 2016 dollars), 2012-2016	\$18,693	\$29,829
Persons in poverty, percent	▲ 27.2%	▲ 12.7%
 <b>BUSINESSES</b>		
<b>Businesses</b>		
Total employer establishments, 2015	149	7,663,938
Total employment, 2015	1,857	124,085,947
Total annual payroll, 2015 (\$1,000)	59,464	6,253,488,252
Total employment, percent change, 2014-2015	3.3%	2.5%
Total nonemployer establishments, 2015	486	24,331,403
All firms, 2012	489	27,626,360
Men-owned firms, 2012	303	14,844,597
Women-owned firms, 2012	148	9,878,397
Minority-owned firms, 2012	90	7,952,386
Nonminority-owned firms, 2012	366	18,987,918
Veteran-owned firms, 2012	48	2,521,682
Nonveteran-owned firms, 2012	406	24,070,685
 <b>GEOGRAPHY</b>		
<b>Geography</b>		
Population per square mile, 2010	15.7	87.4
Land area in square miles, 2010	773.58	3,531,905.43
FIPS Code	13049	00

**Value Notes**

 This geographic level of poverty and health estimates is not comparable to other geographic levels of these estimates

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographic areas statistically indistinguishable. Click the Quick Info  icon to the left of each row in TABLE view to learn about sampling error.

The vintage year (e.g., V2016) refers to the final year of the series (2010 thru 2016). *Different vintage years of estimates are not comparable.*

**Fact Notes**

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

**Value Flags**

- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because the median estimates falls in the lowest or upper interval of an open ended distribution.
- D Suppressed to avoid disclosure of confidential information
- F Fewer than 25 firms
- FN Footnote on this item in place of data
- NA Not available
- S Suppressed; does not meet publication standards
- X Not applicable
- Z Value greater than zero but less than half unit of measure shown

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Statistics, Economic Census, Survey of Business Owners, Building Permits.

## 6. Community Work Program – 2016 to 2020

### Charlton County Community Work Program

Development Patterns (Land Use, Housing, etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Responsible Agency	Estimated Cost	Revenue Source
Continue to provide funding for building and code enforcement program	x	x	x	x	x	Charlton County	\$40,000/yr	Fees, General Fund
As economy improves, lease or purchase a large tract of property for an industrial park in order to draw potential investors	x	x	x	x	x	Charlton County	\$150,000	General Funds, Grants, CDBG
Conduct review of ordinances on an as-needed basis	x	x	x	x	x	Charlton County	\$2,500	General Funds
Continue to support land uses that encourage growth, enhance economic development, provide employment opportunities, and promote environmental sustainability	x	x	x	x	x	Charlton County	\$2,500	General Funds
Establish & Maintain Firewise Community Programs/Plans for all communities within the county	x	x	x	x	x	Charlton County, City of Folkston, City of Homeland	\$80,000	Georgia Forestry Commission

Resource Conservation (Natural and Cultural Resources, etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Responsible Agency	Estimated Cost	Revenue Source
Promote and encourage outdoor recreation activities such as bird watching and bike riding.	x	x	x	x	x	Charlton County	\$5,000	General Funds
Continue funding and support of the St Marys River Management Committee	x	x	x	x	x	Charlton County	\$2,500	General Funds
Develop a plan for outdoor recreation programs that will not have adverse environmental impacts		x	x			Charlton County		

Community Facilities & Infrastructure (Infrastructure, Recreation, Transportation etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Responsible Agency	Estimated Cost	Revenue Source
Build Voting Precinct Building at GA Bend Area			x	x	x	Charlton County	\$50,000	SPLOST
Pave portions of Newell Road and other Connector Roads	x	x	x	x	x	Charlton County	\$500,000	General Funds, SPLOST, DOT
Continue Maintenance of Roads & Bridges	x	x	x	x	x	Charlton County	\$500,000 per year	General Funds, LMIG, DOT, CDBG

Community Facilities & Infrastructure (Infrastructure, Recreation, Transportation etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY2020	Responsible Agency	Estimated Cost	Revenue Source
Make general improvements to government buildings	x	x	x	x	x	Charlton County	\$100,000	General Funds
Schedule and implement park improvements, such as playgrounds and landscaping	x	x	x	x	x	Charlton County	\$175,000	SPLOST & Grants
Purchase Fire Trucks & Fire Equipment	x	x	x	x	x	Charlton County	\$400,000	SPLOST
Purchase Sheriff's Vehicles & Equipment	x	x	x	x	x	Charlton County	\$500,000	SPLOST & Grants
Expand the Public Library	x	x				Grant & Charlton County	\$700,000	Grant & SPLOST
Build Vehicle Fuel Centers - 2 Units		x	x			Charlton County	\$100,000	SPLOST
Renovate the Health Department building		x	x			Charlton County	\$50,000	SPLOST
Resurface Suwannee Canal Road with Bike Lane from Hwy 121 to Refuge	x	x				Charlton County & ONWLR	\$750,000	Federal Aid
Construct EMS Facility		x	x	x		Charlton County	\$200,000	SPLOST
Renovate and upgrade Fire Stations			x	x	x	Charlton County	\$200,000	SPLOST

Social & Economic Development (Economic Development, Population etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY2020	Responsible Agency	Estimated Cost	Revenue Source
Pursue industries that involve the manufacture and/or processing of native materials such as wood/fuel pellets.	x	x	x	x	x	Charlton County	\$150,000	General Funds, Available grants
Continue to provide funding for Charlton/Folkston Development Authority and its programs	x	x	x	x	x	Charlton County	\$29,000/yr	General Funds
Continue to use the Chamber of Commerce for promotion of the County to attract business and promote eco-tourism	x	x	x	x	x	Charlton County	\$10,000/yr	County promotion budget
Continue to participate in workforce development	x	x	x	x	x	Charlton County	\$7,500	General Funds/grants
Approve and construct General Class Business Airport	x	x	x	x	x	Charlton County	\$25,000/yr	General Fund, SPLOST
Develop Phase I of Certified Industrial Park	x	x	x			Charlton County	\$150,000	General Fund

Governmental Relations	FY 2016	FY 2017	FY 2018	FY2019	FY2020	Responsible Agency	Estimated Cost	Revenue Source
Hold Municipal Elections by Municipal Contracts	x	x	x	x	x	Charlton County	\$30,000	Municipal Payments
Implement County-wide Building Inspection & Permitting Services	x	x	x	x	x	Charlton County	\$40,000	Fees & General Fd
Implement County-wide Recreation Program	x	x	x	x	x	Charlton County	\$80,000	General Fund
Implement County-wide E-911 Service for Cities	x	x	x	x	x	Charlton County	\$10,000	General Fund
Implement County-wide Jail Services for Cities	x	x	x	x	x	Charlton County	\$50,000	General Fund
Implement County-wide Fire Services for Cities	x	x	x	x	x	Charlton County	\$100,000	General Fund

**City of Folkston Community Work Program**

Development Patterns (Land Use, Housing, etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Responsible Agency	Estimated Cost	Revenue Source
Encourage property owners to clean up and maintain areas using the Dangerous Building Ordinance	x	x	x	x	x	City of Folkston	\$10,000/yr	General Funds
Develop land use regulations to promote controlled growth	x	x	x	x	x	City of Folkston	\$45,000	General Funds, available DCA grants
Revise ordinances as needed that are in conflict with desired development and growth patterns	x	x	x	x	x	City of Folkston	\$15,000/yr	General Funds
Continue to support and enforce land use regulations	x	x	x	x	x	City of Folkston	\$10,000/yr	General Funds

Resource Conservation (Natural and Cultural Resources, etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Responsible Agency	Estimated Cost	Revenue Source
Support programs and agencies that promote and protect the historical and unique character of Folkston	x	x	x	x	x	City of Folkston	\$20,000	General Funds
Continue water audits to reduce number of gallons not metered	x	x	x	x	x	City of Folkston	\$10,000/yr	Water-sewer funds, grants
Support programs that encourage and promote eco-tourism for local businesses	x	x	x	x	x	City of Folkston	\$10,000/yr	General Funds

Community Facilities & Infrastructure (Infrastructure, Recreation, Transportation etc.)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Responsible Agency	Estimated Cost	Revenue Source
Continue to support drainage and paving of unpaved roads as funding is available	x	x	x	x	x	Charlton County, City of Folkston, and City of Homeland	\$1,000,000	LARP, DOT, General Funds CDBG
Build a community center	x	x				City of Folkston, Homeland and the County	\$300,000	SPLOST, CDBG
Maintain community facilities	x	x	x	x	x	City of Folkston	N/A	SPLOST, CDBG General Funds

<b>Community Facilities &amp; Infrastructure (Infrastructure, Recreation, Transportation etc.)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
Continue repair, refurbishment, and replacement of defective wastewater lift stations, manholes, and distribution lines	x	x	x	x	x	City of Folkston	\$100,000	General Funds
Continue funding and monthly support of the Charlton County Library	x	x	x	x	x	City of Folkston	\$25,000/yr	General Funds
Continue funding for rail viewing platform	x	x	x	x	x	City of Folkston	\$10,000/yr	General Funds
Continue repair and replacement of defective water/sewer lines	x	x	x	x	x	City of Folkston	\$25,000/yr	Water/Sewer Funds, Grants, SPLOST
Expand water system and build 1.5 MGD wastewater treatment plant	x	x	x	x		City of Folkston	\$10,000,000-\$12,000,000	USDA loan/grant program

<b>Social &amp; Economic Development (Economic Development, Population etc.)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
Continue to provide funding for the Charlton/Folkston Development Authority	x	x	x	x	x	City of Folkston	\$26,000	General Funds
Continue to revitalize core downtown business districts	x	x	x	x	x	City of Folkston	\$25,000	General Funds, Quality Growth grants
Continue funding and support of the Chamber of Commerce	x	x	x	x	x	City of Folkston	\$35,000	General Funds, water meter tax

<b>Governmental Relations</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
Continue participation in committees, groups, and organizations promoting intergovernmental coordination	x	x	x	x	x	City of Folkston	\$5,000/yr	General Funds
Continue to pursue intergovernmental cooperation between cities, county, and all boards and authorities	x	x	x	x	x	City of Folkston	\$5,000/yr	General Funds

**City of Homeland Community Work Program**

<b>Development Patterns (Land Use, Housing, etc.)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
Continue to fund the building and code enforcement program	x	x	x	x	x	City of Homeland	\$25,000	Fees, and General Funds

<b>Resource Conservation (Natural and Cultural Resources, etc.)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
No projects listed.								

<b>Community Facilities &amp; Infrastructure (Infrastructure, Recreation, Transportation etc.)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
Extend water service to Nature Trails Estates, including fire hydrants	x	x				City of Homeland	\$200,000	USDA, DCA grants, General Funds
Continue to upgrade all recreational facilities and parks on an as-needed basis	x	x	x	x	x	City of Homeland	\$20,000	General Funds
Pursue grant funding to construct new City Hall with built in fireproof value	x	x	x	x	x	City of Homeland	\$300,000	CDBG, USDA and General Funds
Continually seek available grants to maintain and replace existing fleet on an as-needed basis	x	x	x	x	x	City of Homeland	\$25,000 - \$30,000	DCA grants
Continue funding for the Homeland Economic Development Authority and its programs	x	x	x	x	x	City of Homeland	\$50,000	General Funds

<b>Social &amp; Economic Development (Economic Development, Population etc.)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
No projects listed.								

<b>Governmental Relations</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>Responsible Agency</b>	<b>Estimated Cost</b>	<b>Revenue Source</b>
No projects listed.								

## Michael Jacobs

---

**From:** etodd@charltoncountyga.gov  
**Sent:** Tuesday, October 10, 2017 1:11 PM  
**To:** Michael Jacobs  
**Subject:** FW: Charlton County 2017 Digest Figures  
**Attachments:** Charlton County 2017 Digest.pdf

Good Afternoon,  
Please find attached the 2017 Digest figures for Charlton County. I hope this is helpful to you.

Respectfully,  
Elaine Todd, Chief Appraiser  
Charlton County Board of Assessors  
68 Kingsland Dr., Suite c  
Folkston, GA 31537  
912-496-7437

**This communication and all attachments may contain privileged and confidential legal communications/attorney work product intended solely for the use of the addressee. If you are not the intended recipient, any reading, distribution, copying or other use of this communication and/or any attachments hereto is prohibited and you should delete this message from all locations, and advise the sender at 912-496-7437 and at [etodd@charltoncountyga.gov](mailto:etodd@charltoncountyga.gov). Thank you.**

CONSOLIDATION & EVALUATION OF DIGEST 2017  
 CHARLTON COUNTY

DATE RUN TIME RUN  
 9/19/17 9:59:17

COUNTY - WIDE

PROPERTY CLASSES & VALUES

CLASS AND STRATA CODE/DESCRIPTION	COUNT	ACRES	40% VALUE
R1 RESIDENTIAL IMPROVEMENTS	10,033		
R3 RESIDENTIAL LOTS	4,043	3,945.33	70,488,392
R4 RESIDENTIAL SMALL TRACTS	1,297	6,553.32	14,729,867
R5 RESIDENTIAL LARGE TRACTS	20	1,087.38	9,511,769
R6 RESIDENTIAL PROD/STGE/AUX	2		632,560
R9 RESIDENTIAL OTHER REAL	2		19,916
RA RESIDENTIAL AIRCRAFT	3		12,950
RB RESIDENTIAL BOATS	968		469,634
RF RESIDENTIAL FURN/FIXT/EQPT	3		1,732
RI RESIDENTIAL INVENTORY	16,396	11,596.03	95,872,535
<b>A1</b> AGRICULTURAL IMPROVEMENTS	514		8,608,027
A4 AGRICULTURAL LOTS	213	131.13	593,360
A5 AGRICULTURAL SMALL TRACTS	210	1,430.37	1,524,077
A6 AGRICULTURAL LARGE TRACTS	229	128,180.89	26,433,017
AB AGRICULTURAL PROD/STGE/AUX	4		1,836,263
AF AGRICULTURAL BOATS	35		1,020,628
AI AGRICULTURAL FURN/FIXT/EQPT	2,006	129,742.39	1,020,623
V3 CONSERVTN USE INVENTORY			39,517,101
V4 CONSERVTN USE LOTS	7	98.10	148,880
V5 CONSERVTN USE SMALL TRACTS	268	4,093.86	3,383,839
V6 CONSERVTN USE LARGE TRACTS	533	73,506.51	25,839,187
V6 CONSERVTN USE PROD/STGE/AUX	894	77,698.27	166,800
J3 FOREST LAND LOT	1	694.00	214,240
J5 FOREST LAND LARGE TRACT	48	82,807.34	21,352,359
F3 FLPA FMV LOT	49	83,501.34	21,566,799
F5 FLPA FMV LARGE TRACT	1	694.00	214,240
<b>C1</b> COMMERCIAL IMPROVEMENTS	683		443,813
C4 COMMERCIAL LOTS	190	82,807.34	31,023,465
C5 COMMERCIAL SMALL TRACTS	44	83,501.34	31,467,278
C6 COMMERCIAL LARGE TRACTS	5	144.34	37,038,011
CB COMMERCIAL BOATS	18	270.88	2,036,196
CF COMMERCIAL FURN/FIXT/EQPT	399	388.56	1,102,496
CP COMMERCIAL INVENTORY	162		1,543,800
CZ COMMERCIAL FREEPOR INV	2		7,074
CZ COMMERCIAL OTHER PERSONAL	13		9,835,887
<b>I1</b> INDUSTRIAL IMPROVEMENTS	1,516	803.78	3,912,597
I3 INDUSTRIAL LOTS	58		482,675
I4 INDUSTRIAL SMALL TRACTS	7		18,629
I5 INDUSTRIAL LARGE TRACTS	3		54,977,065
IF INDUSTRIAL FURN/FIXT/EQPT	7		2,609,036
II INDUSTRIAL INVENTORY	5	3.00	12,000
IP INDUSTRIAL FREEPOR INV	83	75.74	129,800
<b>U1</b> UTILITY OPERATING UTIL	39	935.72	672,560
U4 UTILITY SMALL TRACTS	41		12,737,067
E1 PUBLIC PROPERTY		1,014.46	855,218
E2 PLACES OF RELIGIOUS WORSHIP			1,438,374
E3 PROPERTY USED FOR CHARITABLE	181		18,454,055
E4 PLACES OF RELIGIOUS BURIAL	193		35,736,294
E5 CHARITY HOSPITALS	25		35,761,849
E6 EDUCATIONAL INSTITUTIONS	23		34,520,785
E9 OTHER EXEMPT	482		4,589,366
		193,607.80	4,315,253
		142.06	242,560
		241.96	1,018,476
		84.63	3,770,353
		160.08	287,524
		90.18	287,524
		194,326.71	44,744,517

CONSOLIDATION & EVALUATION OF DIGEST 2017  
 CHARLTON COUNTY

DATE RUN TIME RUN  
 9/19/17 9:59:17

DISTRICT 02 CITY OF FOLKSTON  
 PROPERTY CLASSES & VALUES

CLASS AND STRATA CODE/DESCRIPTION	COUNT	ACRES	40% VALUE
R1 RESIDENTIAL IMPROVEMENTS	1,185		13,152,572
R3 RESIDENTIAL LOTS	797	547.69	3,058,081
R4 RESIDENTIAL SMALL TRACTS	74	371.76	3,842,800
R5 RESIDENTIAL LARGE TRACTS	1	48.18	147,080
R6 RESIDENTIAL PROD/STRGE/AUX	1		147,880
R8 RESIDENTIAL BOATS	91		37,162
R1 RESIDENTIAL INVENTORY	1		125
	2,150	927.63	17,240,607
A1 AGRICULTURAL IMPROVEMENTS	1		10,440
A2 AGRICULTURAL SMALL TRACTS	10	76.66	167,760
A5 AGRICULTURAL LARGE TRACTS	2	42.05	33,928
A6 AGRICULTURAL PROD/STRGE/AUX	2		3,360
AP AGRICULTURAL FURN/FIXT/EQPT	3		20,002
	18	118.71	235,490
V4 CONSERVTN USE SMALL TRACTS	7	91.32	176,560
V5 CONSERVTN USE LARGE TRACTS	1	16.51	23,080
V6 CONSERVTN USE PROD/STRGE/AUX	9	107.83	200,320
	465		35,114,240
C1 COMMERCIAL IMPROVEMENTS	139	90.50	1,827,536
C2 COMMERCIAL LOTS	24	114.50	873,896
C4 COMMERCIAL SMALL TRACTS	3	181.11	383,920
C5 COMMERCIAL LARGE TRACTS	240		4,160,778
CF COMMERCIAL FURN/FIXT/EQPT	111		1,942,502
CI COMMERCIAL INVENTORY	1		448,204
CZ COMMERCIAL OTHER PERSONAL	3		1,330
	986	386.11	44,752,406
I1 INDUSTRIAL IMPROVEMENTS	35		1,847,760
I3 INDUSTRIAL LOTS	1	3.00	12,000
I4 INDUSTRIAL SMALL TRACTS	6	54.28	112,520
I5 INDUSTRIAL LARGE TRACTS	2	94.20	279,040
IF INDUSTRIAL FURN/FIXT/EQPT	2		1,397,039
II INDUSTRIAL INVENTORY	1		40,000
IP INDUSTRIAL FREEPORT INV	1		1,157,014
	48	151.48	4,845,373
U2 UTILITY OPERATING UTIL	12		3,866,305
U4 UTILITY SMALL TRACTS	1		24,228
	13		3,890,533
E1 PUBLIC PROPERTY	59	120.46	5,865,532
E2 PLACES OF RELIGIOUS WORSHIP	58	49.21	1,961,324
E3 PROPERTY USED FOR CHARITABLE	6	4.17	94,177
E4 PLACES OF RELIGIOUS BURIAL	3	21.83	93,520
E5 CHARITY HOSPITALS	3		1,018,476
E6 EDUCATIONAL INSTITUTIONS	10	122.47	3,320,832
E9 OTHER EXEMPT	4		198,646
	143	318.25	12,552,507
GROSS PROPERTY REAL			61,960,566
GROSS PROPERTY PERSONAL			9,204,163
GROSS PROPERTY PARCELS>	2,006	2,010.01	71,164,729
MOTOR VEHICLE	871		1,170,570
MOBILE HOMES	150		635,636
TIMBER 100%			
HEAVY TRUCK EQUIPMENT			
GROSS DIGEST TOTAL CITY OF FOLKSTON	COUNT		72,970,935
TAX TYPE 01 STATE			EXEMPTION AMT
S1 REGULAR HOMESTEAD	232		463,968

CONSOLIDATION & EVALUATION OF DIGEST 2017  
 CHARLTON COUNTY

DISTRICT 03 CITY OF HOMELAND

DATE RUN 9/19/17  
 TIME RUN 9:59:17

PROPERTY CLASSES & VALUES

CLASS AND STRATA CODE/DESCRIPTION	COUNT	ACRES	40% VALUE
R1 RESIDENTIAL IMPROVEMENTS	999		4,507,386
R3 RESIDENTIAL LOTS	437	319.57	891,583
R4 RESIDENTIAL SMALL TRACTS	40	161.52	270,840
R6 RESIDENTIAL PROD/SIRGE/AUX BOATS	72		1,536
	1,551	481.09	5,698,427
A1 AGRICULTURAL IMPROVEMENTS	5		124,160
A4 AGRICULTURAL LOTS	5	1.43	2,160
A4 AGRICULTURAL SMALL TRACTS	7	39.40	36,227
A5 AGRICULTURAL LARGE TRACTS	5	157.38	69,720
A6 AGRICULTURAL PROD/SIRGE/AUX	18		17,204
AF AGRICULTURAL FURN/FIXT/EQPT	41		672
V4 CONSERVYN USE SMALL TRACTS	9	198.21	253,143
V5 CONSERVYN USE LARGE TRACTS	4	125.88	113,893
	13	131.46	61,312
		257.34	175,205
C1 COMMERCIAL IMPROVEMENTS	39		327,026
C7 COMMERCIAL LOTS	9	8.92	28,440
C7 COMMERCIAL SMALL TRACTS	4	30.98	66,640
C7 COMMERCIAL FURN/FIXT/EQPT	22		54,097
C1 COMMERCIAL INVENTORY	7		35,900
	81	39.90	512,103
U2 UTILITY OPERATING UTIL	10		1,370,626
	10		1,370,626
E1 PUBLIC PROPERTY	40		
E2 PLACES OF RELIGIOUS WORSHIP	29	95.00	376,977
E4 PLACES OF RELIGIOUS BURIAL	1	14.57	363,892
	70	2.67	5,640
		112.24	746,509
GROSS PROPERTY REAL			7,891,753
GROSS PROPERTY PERSONAL			117,751
GROSS PROPERTY PARCELS>	555	1,088.78	8,009,504
MOTOR VEHICLE	338		370,760
MOBILE HOMES	92		522,312
TIMBER 100%	1		84,305
HEAVY TRUCK EQUIPMENT	1		
GROSS DIGEST TOTAL CITY OF HOMELAND			8,986,881
TAX TYPE 01 STATE	COUNT		EXEMPTION AMT
S1 REGULAR HOMESTEAD	135		270,000
SC AGE 65	34		825,867
S3 ELDERLY	3		6,000
S4 ELDERLY	2		52,320
SD AGE 65 100% DISABLED VETE	1		27,428
SP PERSONAL PROPERTY < 7,500	90		37,626
SV CONSERVATION USE	13		126,359
SN STATE INVENTORY EXEMPTION	33		35,220
NC SC PLUS CO & SCHOOL LOCAL SC	34		0
ND AGE 65 100% DISABLED VETE SD	1		0
TOTAL EXEMPTIONS			1,380,820
NET DIGEST			7,606,061
MILLAGE RATE			
ESTIMATED TAX LEVY			
TAX TYPE 02 COUNTY M&O	COUNT		EXEMPTION AMT
S1 REGULAR HOMESTEAD	135		270,000
SC AGE 65	34		68,000



DP04

SELECTED HOUSING CHARACTERISTICS

2011-2015 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.

**Tell us what you think.** Provide feedback to help make American Community Survey data more useful for you.

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.

A processing error was found in the Year Structure Built estimates since data year 2008. For more information, please see the errata note #110.

Subject	Charlton County, Georgia			
	Estimate	Margin of Error	Percent	Percent Margin of Error
<b>HOUSING OCCUPANCY</b>				
Total housing units	4,436	+/-155	4,436	(X)
Occupied housing units	3,524	+/-262	79.4%	+/-5.1
Vacant housing units	912	+/-227	20.6%	+/-5.1
Homeowner vacancy rate	0.7	+/-0.9	(X)	(X)
Rental vacancy rate	16.0	+/-11.5	(X)	(X)
<b>UNITS IN STRUCTURE</b>				
Total housing units	4,436	+/-155	4,436	(X)
1-unit, detached	2,440	+/-248	55.0%	+/-5.0
1-unit, attached	13	+/-18	0.3%	+/-0.4
2 units	21	+/-17	0.5%	+/-0.4
3 or 4 units	10	+/-13	0.2%	+/-0.3
5 to 9 units	39	+/-36	0.9%	+/-0.8
10 to 19 units	13	+/-22	0.3%	+/-0.5
20 or more units	5	+/-8	0.1%	+/-0.2
Mobile home	1,869	+/-214	42.1%	+/-4.8
Boat, RV, van, etc.	26	+/-28	0.6%	+/-0.6
<b>YEAR STRUCTURE BUILT</b>				
Total housing units	4,436	+/-155	4,436	(X)
Built 2014 or later	11	+/-19	0.2%	+/-0.4
Built 2010 to 2013	125	+/-96	2.8%	+/-2.1
Built 2000 to 2009	653	+/-144	14.7%	+/-3.2
Built 1990 to 1999	1,068	+/-204	24.1%	+/-4.5
Built 1980 to 1989	799	+/-163	18.0%	+/-3.8
Built 1970 to 1979	450	+/-139	10.1%	+/-3.1
Built 1960 to 1969	485	+/-145	10.9%	+/-3.2

Subject	Charlton County, Georgia			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Built 1950 to 1959	391	+/-139	8.8%	+/-3.1
Built 1940 to 1949	178	+/-103	4.0%	+/-2.3
Built 1939 or earlier	276	+/-94	6.2%	+/-2.1
<b>ROOMS</b>				
Total housing units	4,436	+/-155	4,436	(X)
1 room	7	+/-9	0.2%	+/-0.2
2 rooms	33	+/-30	0.7%	+/-0.7
3 rooms	156	+/-68	3.5%	+/-1.5
4 rooms	763	+/-204	17.2%	+/-4.5
5 rooms	1,180	+/-215	26.6%	+/-4.7
6 rooms	927	+/-196	20.9%	+/-4.5
7 rooms	639	+/-170	14.4%	+/-3.8
8 rooms	411	+/-143	9.3%	+/-3.2
9 rooms or more	320	+/-114	7.2%	+/-2.6
Median rooms	5.6	+/-0.3	(X)	(X)
<b>BEDROOMS</b>				
Total housing units	4,436	+/-155	4,436	(X)
No bedroom	13	+/-14	0.3%	+/-0.3
1 bedroom	111	+/-51	2.5%	+/-1.1
2 bedrooms	1,150	+/-219	25.9%	+/-4.8
3 bedrooms	2,423	+/-249	54.6%	+/-5.4
4 bedrooms	624	+/-172	14.1%	+/-3.8
5 or more bedrooms	115	+/-64	2.6%	+/-1.4
<b>HOUSING TENURE</b>				
Occupied housing units	3,524	+/-262	3,524	(X)
Owner-occupied	2,776	+/-251	78.8%	+/-4.6
Renter-occupied	748	+/-175	21.2%	+/-4.6
Average household size of owner-occupied unit	3.35	+/-0.26	(X)	(X)
Average household size of renter-occupied unit	3.24	+/-0.56	(X)	(X)
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>				
Occupied housing units	3,524	+/-262	3,524	(X)
Moved in 2015 or later	48	+/-54	1.4%	+/-1.5
Moved in 2010 to 2014	755	+/-176	21.4%	+/-4.7
Moved in 2000 to 2009	1,168	+/-198	33.1%	+/-4.6
Moved in 1990 to 1999	731	+/-162	20.7%	+/-4.3
Moved in 1980 to 1989	356	+/-106	10.1%	+/-3.0
Moved in 1979 and earlier	466	+/-136	13.2%	+/-3.9
<b>VEHICLES AVAILABLE</b>				
Occupied housing units	3,524	+/-262	3,524	(X)
No vehicles available	349	+/-129	9.9%	+/-3.5
1 vehicle available	1,021	+/-200	29.0%	+/-5.3
2 vehicles available	1,271	+/-200	36.1%	+/-5.1
3 or more vehicles available	883	+/-195	25.1%	+/-5.2
<b>HOUSE HEATING FUEL</b>				
Occupied housing units	3,524	+/-262	3,524	(X)
Utility gas	125	+/-96	3.5%	+/-2.7
Bottled, tank, or LP gas	166	+/-71	4.7%	+/-2.0
Electricity	3,219	+/-270	91.3%	+/-3.4
Fuel oil, kerosene, etc.	8	+/-12	0.2%	+/-0.3
Coal or coke	0	+/-20	0.0%	+/-1.1
Wood	0	+/-20	0.0%	+/-1.1
Solar energy	0	+/-20	0.0%	+/-1.1

Subject	Charlton County, Georgia			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Other fuel	0	+/-20	0.0%	+/-1.1
No fuel used	6	+/-9	0.2%	+/-0.3
<b>SELECTED CHARACTERISTICS</b>				
Occupied housing units	3,524	+/-262	3,524	(X)
Lacking complete plumbing facilities	4	+/-8	0.1%	+/-0.2
Lacking complete kitchen facilities	6	+/-9	0.2%	+/-0.2
No telephone service available	65	+/-49	1.8%	+/-1.4
<b>OCCUPANTS PER ROOM</b>				
Occupied housing units	3,524	+/-262	3,524	(X)
1.00 or less	3,501	+/-264	99.3%	+/-0.7
1.01 to 1.50	23	+/-26	0.7%	+/-0.7
1.51 or more	0	+/-20	0.0%	+/-1.1
<b>VALUE</b>				
Owner-occupied units	2,776	+/-251	2,776	(X)
Less than \$50,000	736	+/-152	26.5%	+/-5.1
\$50,000 to \$99,999	979	+/-181	35.3%	+/-5.3
\$100,000 to \$149,999	532	+/-164	19.2%	+/-5.4
\$150,000 to \$199,999	341	+/-108	12.3%	+/-3.9
\$200,000 to \$299,999	98	+/-59	3.5%	+/-2.1
\$300,000 to \$499,999	90	+/-62	3.2%	+/-2.2
\$500,000 to \$999,999	0	+/-20	0.0%	+/-1.3
\$1,000,000 or more	0	+/-20	0.0%	+/-1.3
Median (dollars)	82,000	+/-8,471	(X)	(X)
<b>MORTGAGE STATUS</b>				
Owner-occupied units	2,776	+/-251	2,776	(X)
Housing units with a mortgage	1,291	+/-235	46.5%	+/-6.6
Housing units without a mortgage	1,485	+/-211	53.5%	+/-6.6
<b>SELECTED MONTHLY OWNER COSTS (SMOC)</b>				
Housing units with a mortgage	1,291	+/-235	1,291	(X)
Less than \$500	43	+/-38	3.3%	+/-3.0
\$500 to \$999	748	+/-170	57.9%	+/-10.2
\$1,000 to \$1,499	365	+/-138	28.3%	+/-8.6
\$1,500 to \$1,999	105	+/-89	8.1%	+/-6.4
\$2,000 to \$2,499	14	+/-20	1.1%	+/-1.5
\$2,500 to \$2,999	9	+/-17	0.7%	+/-1.3
\$3,000 or more	7	+/-9	0.5%	+/-0.7
Median (dollars)	919	+/-68	(X)	(X)
Housing units without a mortgage	1,485	+/-211	1,485	(X)
Less than \$250	273	+/-90	18.4%	+/-5.2
\$250 to \$399	757	+/-160	51.0%	+/-8.3
\$400 to \$599	333	+/-114	22.4%	+/-7.0
\$600 to \$799	86	+/-65	5.8%	+/-4.2
\$800 to \$999	36	+/-39	2.4%	+/-2.7
\$1,000 or more	0	+/-20	0.0%	+/-2.5
Median (dollars)	316	+/-16	(X)	(X)
<b>SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI)</b>				
Housing units with a mortgage (excluding units where SMOCAPI cannot be computed)	1,280	+/-235	1,280	(X)
Less than 20.0 percent	575	+/-179	44.9%	+/-10.4
20.0 to 24.9 percent	178	+/-103	13.9%	+/-7.3
25.0 to 29.9 percent	170	+/-82	13.3%	+/-6.4
30.0 to 34.9 percent	37	+/-36	2.9%	+/-2.7

Subject	Charlton County, Georgia			
	Estimate	Margin of Error	Percent	Percent Margin of Error
35.0 percent or more	320	+/-105	25.0%	+/-7.3
Not computed	11	+/-20	(X)	(X)
Housing unit without a mortgage (excluding units where SMOCAPI cannot be computed)	1,411	+/-204	1,411	(X)
Less than 10.0 percent	802	+/-204	56.8%	+/-9.1
10.0 to 14.9 percent	208	+/-85	14.7%	+/-6.3
15.0 to 19.9 percent	153	+/-64	10.8%	+/-4.7
20.0 to 24.9 percent	73	+/-43	5.2%	+/-3.0
25.0 to 29.9 percent	42	+/-36	3.0%	+/-2.5
30.0 to 34.9 percent	48	+/-51	3.4%	+/-3.6
35.0 percent or more	85	+/-51	6.0%	+/-3.7
Not computed	74	+/-59	(X)	(X)
<b>GROSS RENT</b>				
Occupied units paying rent	494	+/-142	494	(X)
Less than \$500	134	+/-79	27.1%	+/-14.0
\$500 to \$999	354	+/-121	71.7%	+/-13.9
\$1,000 to \$1,499	6	+/-10	1.2%	+/-1.9
\$1,500 to \$1,999	0	+/-20	0.0%	+/-7.3
\$2,000 to \$2,499	0	+/-20	0.0%	+/-7.3
\$2,500 to \$2,999	0	+/-20	0.0%	+/-7.3
\$3,000 or more	0	+/-20	0.0%	+/-7.3
Median (dollars)	687	+/-99	(X)	(X)
No rent paid	254	+/-125	(X)	(X)
<b>GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI)</b>				
Occupied units paying rent (excluding units where GRAPI cannot be computed)	494	+/-142	494	(X)
Less than 15.0 percent	67	+/-48	13.6%	+/-9.1
15.0 to 19.9 percent	88	+/-69	17.8%	+/-13.3
20.0 to 24.9 percent	19	+/-17	3.8%	+/-3.5
25.0 to 29.9 percent	80	+/-69	16.2%	+/-12.9
30.0 to 34.9 percent	55	+/-52	11.1%	+/-10.0
35.0 percent or more	185	+/-90	37.4%	+/-14.3
Not computed	254	+/-125	(X)	(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.

Households not paying cash rent are excluded from the calculation of median gross rent.

Telephone service data are not available for certain geographic areas due to problems with data collection. See Errata Note #93 for details.

While the 2011-2015 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.
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.

## Michael Jacobs

---

**From:** John McCall <johnm@mccallinc.com>  
**Sent:** Wednesday, September 20, 2017 5:57 PM  
**To:** Michael Jacobs  
**Subject:** Re: Gov't Building Costs?

Michael,

If you are talking brand new govt building like a court house or city offices building then yes you are likely up at \$250-\$300 Psf.

All cost across the board have gone up. So I would figure at least an additional \$10-\$15 psf no matter the building type.

And just so you are aware, I am being told that we may very soon see another big price hike in construction materials and this will drive up lab our cost.

---

John M. "Mac" McCall - Vice President

The McCall Companies

Architecture - Construction - Management

T: 229-242-2551

F: 229-244-8358

Physical Address: 3308 Country Club Road, Valdosta, GA 31605

Mailing Address: PO Box 5146, Valdosta, GA 31603

Find out more about us at [www.mccallinc.com](http://www.mccallinc.com)

This message originates from The McCall Companies. This E-mail message and all attachments may contain legally privileged and confidential information intended solely for the use of the addressee.

On Sep 20, 2017, at 4:40 PM, Michael Jacobs <[mviacobs@sgrc.us](mailto:mviacobs@sgrc.us)> wrote:

Sorry, it looks like I had a straight \$300 sf for Charlton and the surrounding counties in 2011 from your dad. The numbers below were for Lowndes it looks like that I think you gave us this year that I did not have a precedent for. We were at \$135 sf it looks like for the Boys & Girls Club and that was a pre-engineered metal building.

Should I count on \$300 sf replacement costs do you think, or use another figure. These are all government buildings.

Michael V. Jacobs  
Senior Planner  
Southern Georgia Regional Commission  
1725 South Georgia Parkway, West  
Waycross, GA 31503

**Appendix C – Other Planning Documents**



# **Community Wildfire Protection Plan**

## ***An Action Plan for Wildfire Mitigation and Conservation of Natural Resources***

### **Charlton County, Georgia**

---

A Program of the Georgia Forestry Commission  
with support from the U.S. Forest Service

+



AUGUST 19, 2016

Prepared by;  
Roger Todd, Chief Ranger Charlton County  
Will Fell CWPP Specialist  
Georgia Forestry Commission  
33152 Hwy 121  
Folkston, GA 31537

The following report is a collaborative effort among various entities; the representatives listed below comprise the core decision-making team responsible for this report and mutually agree on the plan's contents:

Shawn Boatright  
Charlton County Administrator  
Office: (912) 496-2549  
Email: [sboatright@charltoncountyga.gov](mailto:sboatright@charltoncountyga.gov)

Chief Terry Johnson  
Chief of Department  
Charlton County Fire Rescue  
Office: (912) 496-3111  
Cell: (912) 390-2753  
Email: [charltonfirechief@gmail.com](mailto:charltonfirechief@gmail.com)

Roger Todd  
Chief Ranger Charlton County  
Office: (912) 496-2410  
Email: [rtodd@gfc.state.ga.us](mailto:rtodd@gfc.state.ga.us)

Terri Jenkins  
Fire Management Specialist  
Okefenokee NWR  
Office: (912) 496-1134  
Email: [terri\\_jenkins@fws.gov](mailto:terri_jenkins@fws.gov)

## **PLAN CONTENTS**

I. Objectives .....	1
II. Community Collaboration .....	1
III. Community Background and Existing Situation .....	2
IV. Community Base Map .....	5
V. Community Wildfire Risk Assessment .....	6
VI. Community Hazards Map .....	9
VII. Prioritized Mitigation Recommendations .....	11
VIII. Action Plan .....	16
IX. Appended Documents.....	20

**Charlton County Wildfire Pre-suppression Plan**

**NFPA 1141 Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas.**

## I. OBJECTIVES

The mission of the following report is to set clear priorities for the implementation of wildfire mitigation in Charlton County. The plan includes prioritized recommendations for the appropriate types and methods of fuel reduction and structure ignitability reduction that will protect this community and its essential infrastructure. It also includes a plan for wildfire suppression. Specifically, the plan includes community-centered actions that will:

- Educate citizens on wildfire, its risks, and ways to protect lives and properties,
- Support fire rescue and suppression entities,
- Focus on collaborative decision-making and citizen participation,
- Develop and implement effective mitigation strategies, and
- Develop and implement effective community ordinances and codes.

## II. COMMUNITY COLLABORATION

The core team convened on August 9, 2016 to assess risks and develop the Community Wildfire Protection Plan. The group is comprised of representatives from local government, local fire authorities, and the state agency responsible for forest management. Below are the groups included in the task force:

Charlton County Government  
*Charlton County Fire Rescue*  
*Emergency Management*  
*Board of County Commissioners*  
Georgia Forestry Commission  
US Fish and Wildlife Service.

It was decided to conduct community assessments on the basis of the on high risk communities and the individual fire districts in the county. The chiefs of the six fire departments in the county assessed their districts and reconvened on September 23, 2009 for the purpose of completing the following:

Risk Assessment	Assessed wildfire hazard risks and prioritized mitigation actions.
Fuels Reduction	Identified strategies for coordinating fuels treatment projects.
Structure Ignitability	Identified strategies for reducing the ignitability of structures within the Wildland interface.
Emergency Management	Forged relationships among local government and fire districts and developed/refined a pre-suppression plan.
Education and Outreach	Developed strategies for increasing citizen awareness and action and to conduct homeowner and community leader workshops.

### III. COMMUNITY BACKGROUND AND EXISTING SITUATION

#### Background

Charlton County, in southeast Georgia, is the state's 111th county. Comprising 781 square miles, the county borders Florida and includes most of the Okefenokee Swamp. It was carved from a part of Camden County and officially recognized by the state legislature in 1854. Portions of Ware County were added to Charlton in 1855. Charlton County was named for Robert Milledge Charlton, a nineteenth-century jurist, U.S. senator, and mayor of Savannah. The current courthouse was built in 1928 and placed on the National Register of Historic Places in 1980. The area was originally inhabited by Creek Indians, and the first white settlers came from neighboring counties in Florida, North Carolina, and South Carolina.

Folkston, the county seat of Charlton since 1901, became the focal point for transportation after the arrival of railroads in the 1880s and grew to become the county's largest city by the end of the nineteenth century. Named after William Brandon Folks of Waycross, Folkston was not officially incorporated until 1911. For many years it was the major stopping point for railroad passengers traveling between Florida and points north, giving rise to a number of fine hotels around the train depot. The depot has today been restored, and it now houses the Okefenokee Chamber of Commerce and the Folkston–Charlton County Development Authority.

The major attraction in the county is the Okefenokee Swamp. Floyds Island Hammock (also known as the Hebard Cabin) in the swamp is the site of a cabin used by naturalists and writers in the 1930s. Folkston Train Depot and the "Folkston Funnel" Train Viewing Platform have been restored, allowing railroad fans to see as many as sixty trains go by within one twenty-four-hour period. Old Folkston Grammar School, built in 1926 and recently renovated, is now the home of the Okefenokee Education and Research Center. Sponsored by the City of Folkston and the Georgia Wildlife Federation, the center includes a 2,700-square-foot exhibit area and the Okefenokee Heritage Garden, representing four local habitats. The William Mizell House, on four acres of "urban forest," is a two-story wood-frame house with a greenhouse and pavilion and is included on the National Register of Historic Places. Located on Route 2, Sardis Church, built around 1821, is the oldest church in the county. (New Georgia Encyclopedia)

More than 98 percent of the county's land is forest, making it the most timbered of Georgia's counties. Rich titanium deposits lie between Charlton and neighboring Ware County, much of it bordering the Okefenokee National Wildlife Refuge. In 1997 concerned county residents protested the DuPont Company's plan for a titanium strip mine, resulting in the company's eventual donation of 16,000 acres to the people of Georgia—the largest land preservation gift in Georgia history.

Annual events include Sandhill Crane Awareness Day, Wings over the Swamp, National Wildlife Week and Earth Day Art Festival, the Okefenokee Festival, the Folkston RailWatch, the Cherokee of Georgia Council Spring Pow Wow, and the Mizell House Gala.

According to the 2010 U.S. census, the county population was 12,171 (68.6 percent white, 28.5 percent black, and 2.5 percent Hispanic, .6 percent Native American, .4 percent Asian), a 6.5 percent increase since 2010. (US Census Bureau 2016)

## Existing Situation

Charlton County, one of the largest counties in Georgia in land area, is also one of the most heavily forested with 98% of the land area in forest. Even though a large portion of the western part of the county is within the confines of Okefenokee National Wildlife Refuge, there are still almost 300,000 acres of commercial timberland within the confines of the county. The county is oriented such that it is over 50 road miles from the southernmost Big Bend area to the Brantley County line on the north. While the main population center is Folkston near the center of the county there are several small communities and developments spread the length of the county with a significant risk as wildland urban interface around them.

Charlton County is protected by Charlton County Fire Rescue (CCFR) consisting of 5 strategically placed fire stations in the main communities of Charlton County; Folkston, Saint George, Race Pond, Winokur and Georgia Bend Communities. The CCFR is a combination Department consisting of 2 career position the Fire Chief and Deputy Fire Chief with Volunteer Firefighters filling the remainder of the department's personnel. As of August 2016 the CCFR manpower consisted of 60 members including the Chief and Deputy Chief. The Georgia Forestry Commission maintains a county protection unit located about three miles south of Folkston on Hwy 121 to respond to wildfires throughout the county. The city of Folkston and the adjacent incorporated town of Homeland are serviced by a pressurized water system with well placed hydrants throughout.

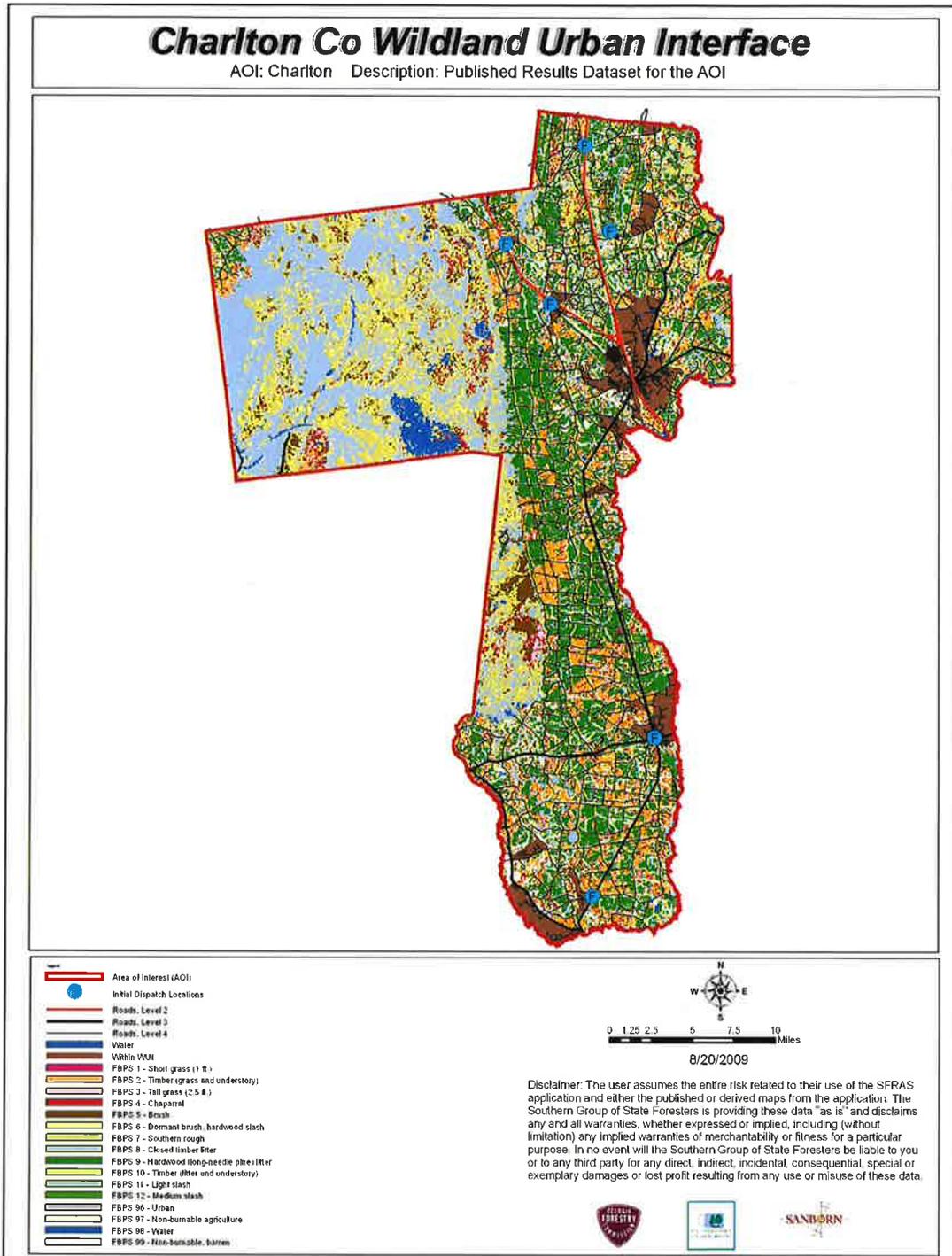
Over the past fifty years, Charlton County has averaged 74 reported wildland fires per year. The occurrence of these fires is fairly uniform throughout the year with a slight peak in the months of February and March and a slight decrease during the fall months. These fires have burned an average of 1,002 acres annually. While the numbers of fires remain fairly similar every month, there is a marked difference in the monthly acreage lost. The monthly acres lost during the late winter through summer period show a ten-fold increase over the acres lost during the fall and early winter. Additionally, while the annual numbers of fires have not increased noticeably during the 50-year period that records are available, the annual acreage lost appears to have increased in later years. This perhaps a result of the decrease in the practice of prescribed burning and the resultant increase in wildland fuel loadings. Despite this alarming trend in fire behavior, more homes are being built outside of traditional communities into the wildland urban interface.

The leading causes of these fires, was lightning and debris burning causing 23% and 22% respectively of the fires and 12% and 32% respectively of the acres burned. More alarming is that incendiary or arson while causing only 17% of the fires account for 45% of the acres lost.

Georgia Forestry Commission Wildfire Records show that in the past five years, 3 Homes have been lost or damaged by wildfire in Charlton County resulting in estimated losses of \$40,000 along with 3 outbuildings valued at \$2,000. According to reports during this period 13 homes

have been directly or indirectly threatened by these fires. Additionally, 7 vehicles valued at \$74,550 were lost. This is a substantial loss of non timber property attributed to wildfires in Charlton County.

## IV. COMMUNITY BASE MAP



## V. COMMUNITY WILDFIRE RISK ASSESSMENT

### The Wildland-Urban Interface

There are many definitions of the Wildland-Urban Interface (WUI), however from a fire management perspective it is commonly defined as an area where structures and other human development meet or intermingles with undeveloped wildland or vegetative fuels. As fire is dependent on a certain set of conditions, the National Wildfire Coordinating Group has defined the wildland-urban interface as a set of conditions that exists in or near areas of wildland fuels, regardless of ownership. This set of conditions includes type of vegetation, building construction, accessibility, lot size, topography and other factors such as weather and humidity. When these conditions are present in certain combinations, they make some communities more vulnerable to wildfire damage than others. This “set of conditions” method is perhaps the best way to define wildland-urban interface areas when planning for wildfire prevention, mitigation, and protection activities.

There are three major categories of wildland-urban interface. Depending on the set of conditions present, any of these areas may be at risk from wildfire. A wildfire risk assessment can determine the level of risk.

**1. “Boundary” wildland-urban interface** is characterized by areas of development where homes, especially new subdivisions, press against public and private wildlands, such as private or commercial forest land or public forests or parks. This is the classic type of wildland-urban interface, with a clearly defined boundary between the suburban fringe and the rural countryside.

**2. “Intermix” wildland-urban interface** areas are places where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated rural homes or an area that is just beginning to go through the transition from rural to urban land use.

**3. “Island” wildland-urban interface**, also called occluded interface, are areas of wildland within predominately urban or suburban areas. As cities or subdivisions grow, islands of undeveloped land may remain, creating remnant forests. Sometimes these remnants exist as parks, or as land that cannot be developed due to site limitations, such as wetlands.

*(Fire Ecology and Wildfire Mitigation in Florida 2004)*

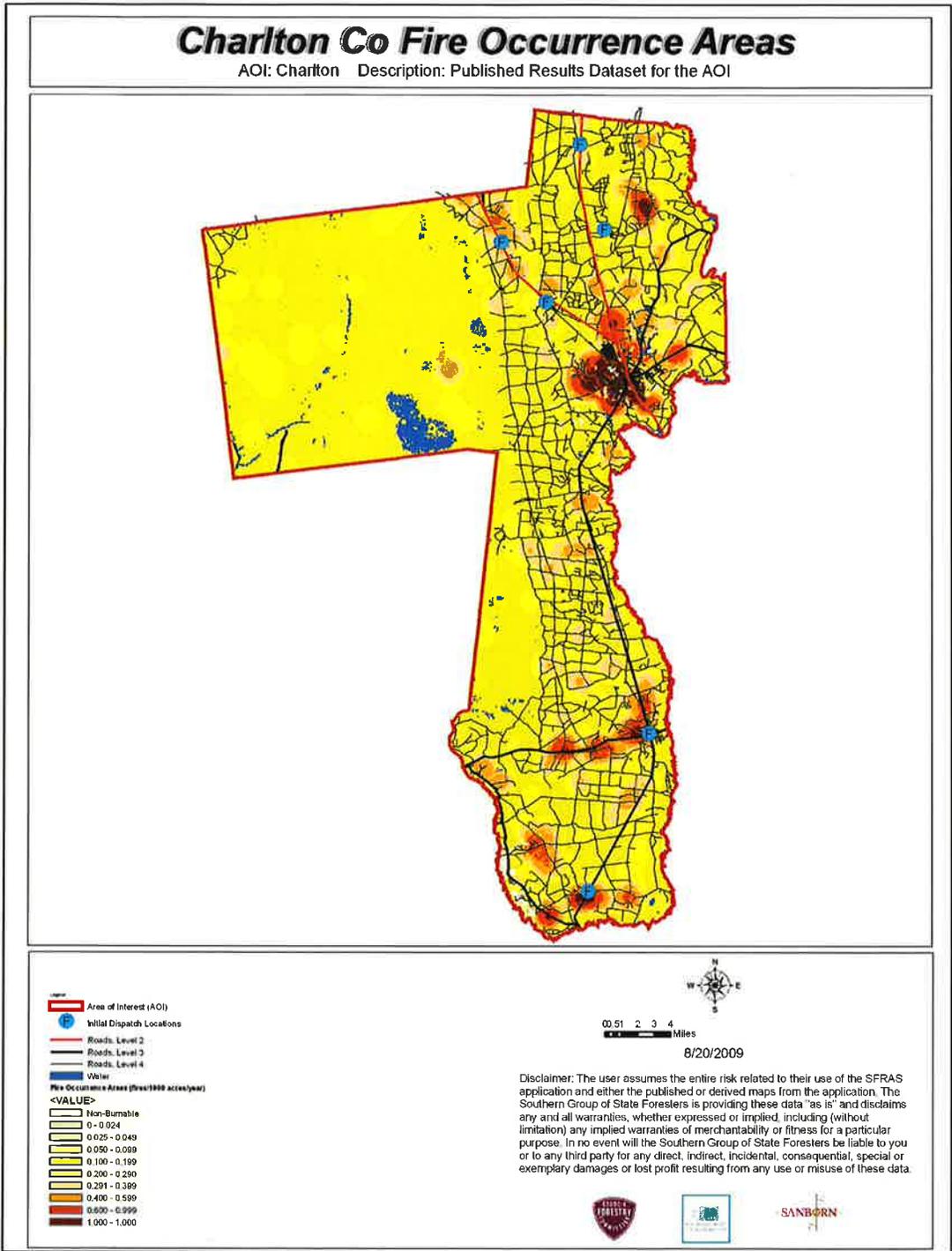
The wildland fire risk assessments conducted in 2015 by the Charlton County Fire Rescue (CCFR) returned an average score of 109, placing Charlton County in the “very high” hazard range. The risk assessment instrument used to evaluate wildfire hazards to Charlton County’s WUI was the Hazard and Wildfire Risk Assessment Checklist. The instrument takes into consideration accessibility, vegetation (based on fuel models), roofing assembly, building construction, and availability of fire protection resources, placement of gas and electric utilities, and additional rating factors. The following factors contributed to the wildfire hazard score for Charlton County:

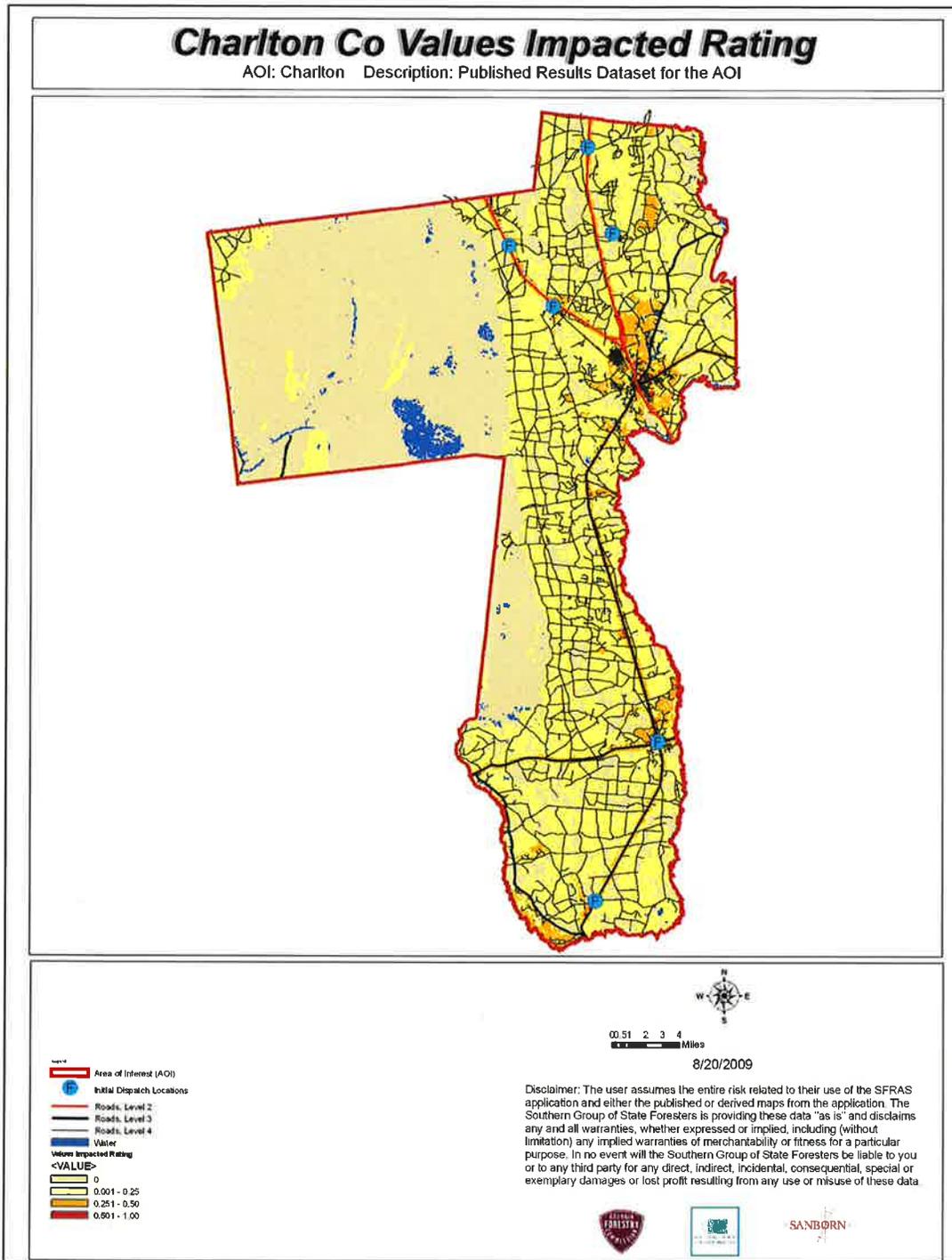
- Dead end roads with inadequate turn arounds
- Narrow roads without drivable shoulders
- Long, narrow, and poorly labeled driveways
- Limited street signs and homes not clearly addressed
- Thick, highly flammable vegetation surrounding many homes
- Minimal defensible space around structures
- Homes with wooden siding and roofs with heavy accumulations of vegetative debris
- No pressurized or non-pressurized water systems available
- Above ground utilities
- Large, adjacent areas of forest or wildlands
- Heavy fuel buildups in adjacent wildlands
- Undeveloped lots comprising half the total lots in many rural communities.
- High occurrence of wildfires in the several locations
- Distance from fire stations
- Lack of homeowner or community organizations

**Summary of Charlton County Assessment Ratings**

Community	Fire Dept	Access	Surrounding Vegetation	Bldg Construction	Fire Protection	Utilities	Additional Factors	Score	Hazard Rating
Homeland	Folkston	10	20	15	14	9	39	107	Very High
Dixie Lake	Folkston	10	20	10	14	9	45	108	Very High
Traders Hill Camp	Folkston	15	20	25	25	9	43	137	Extreme
Pinckney Live Oak Estates	Folkston	12	20	5	17	9	30	93	High
Yankee Forest	Folkston	16	20	0	20	9	35	100	Very High
Colrain	Folkston	10	20	10	17	9	31	97	High
May Bluff	Folkston	20	20	20	25	9	38	132	Extreme
Spring Lake	Folkston	13	20	20	27	9	39	128	Extreme
Forest Lake	Folkston	11	20	10	15	9	21	86	High
Black River	Folkston	23	20	10	15	9	37	114	Very High
Stokes Lake	Folkston	9	10	5	18	9	43	94	High
Folkston District	Folkston	13	20	5	18	9	31	96	High
Sam Howard Rd	Folkston	18	35	15	29	4	17	118	Very High
	Racepond	20	20	25	16	3	23	107	High
Uptonville	Racepond	5	30	20	18	6	23	102	Very High
Racepond District	Racepond	5	30	20	18	7	23	103	Very High
St. Marys Bluff	Ga Bend	18	45	15	29	4	17	128	Extreme
Ga Bend Dist	Ga Bend	11	30	10	25	4	16	96	High
Winokur Dist	Winokur	20	30	10	22	7	28	117	Very High
Average		14	24	13	20	8	30	109	High

## VI. COMMUNITY HAZARDS MAPS





## **VII. PRIORITIZED MITIGATION RECOMMENDATIONS**

### **Executive Summary**

As Southeast Georgia continues to see increased growth from other areas seeking less crowded and warmer climates, new development will occur more frequently on forest and wildland areas. The County will have an opportunity to significantly influence the wildland fire safety of new developments. It is important that new development be planned and constructed to provide for public safety in the event of a wildland fire emergency.

Over the past 20 years, much has been learned about how and why homes burn during wildland fire emergencies. Perhaps most importantly, case histories and research have shown that even in the most severe circumstances, wildland fire disasters can be avoided. Homes can be designed, built and maintained to withstand a wildfire even in the absence of fire services on the scene. The national Firewise Communities program is a national awareness initiative to help people understand that they don't have to be victims in a wildfire emergency. The National Fire Protection Association has produced two standards for reference: NFPA 1144 Standard for Reducing Structure Ignition Hazards from Wildland Fire. 2010 Edition and NFPA 1141 Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas.

When new developments are built in the Wildland/Urban Interface, a number of public safety challenges may be created for the local fire services: (1) the water supply in the immediate areas may be inadequate for fire suppression; (2) if the development is in an outlying area, there may be a longer response time for emergency services; (3) in a wildfire emergency, the access road(s) may need to simultaneously support evacuation of residents and the arrival of emergency vehicles; and (4) when wildland fire disasters strike, many structures may be involved simultaneously, quickly exceeding the capability of even the best equipped fire departments.

The following recommendations were developed by the Charlton County CWPP Core team as a result of surveying and assessing fuels and structures and by conducting meetings and interviews with county and city officials. A priority order was determined based on which mitigation projects would best reduce the hazard of wildfire in the assessment area.

**Proposed Community Hazard and Structural Ignitability Reduction Priorities**

Primary Protection for Community and Its Essential Infrastructure		
Treatment Area	Treatment Types	Treatment Method(s)
1. All Structures	Create minimum of 50-foot of defensible space**	Trim shrubs and vines to 50-feet from structures, trim overhanging limbs, replace flammable plants near homes with less flammable varieties, remove vegetation around chimneys.
2. Applicable Structures	Reduce structural ignitability**	Clean flammable vegetative material from roofs and gutters, store firewood appropriately, install skirting around raised structures, store water hoses for ready access, and replace pine straw and mulch around plantings with less flammable landscaping materials.
3. Community Clean-up Day	Cutting, mowing, pruning**	Cut, prune, and mow vegetation in shared community spaces.
4. Driveway Access	Culvert installation	See that adequate lengths of culverts are installed to allow emergency vehicle access.
5. Road Access	Identify needed road improvements	As roads are upgraded, widen to minimum standards with at least 50-foot diameter cul-de sacs or turn arounds.
6. Codes and Ordinances	Examine existing codes and ordinances.	Amend and enforce existing building codes as they relate to skirting, propane tank locations, public nuisances (trash/debris on property), Property address marking standards and other relevant concerns  Review Subdivision and development ordinances for public safety concerns.  Adopt uniform addressing ordinance.

<b>Proposed Community Wildland Fuel Reduction Priorities</b>		
Treatment Area	Treatment Types	Treatment Method(s)
1. Adjacent WUI Lands	Reduce hazardous fuels	Encourage prescribed burning for private landowners and industrial timberlands particularly adjacent to residential areas.  County resolution to state recommending that the Ga Forestry Commission not charge for prescribed burning in WUI areas.  Seek grant for WUI mitigation team.
2. Railroad Corridors	Reduce hazardous fuels	Encourage railroads to better maintain their ROW eliminating brush and grass through herbicide and mowing. Maintain firebreaks along ROW adjacent to residential areas.
3. Existing Fire Lines	Reduce hazardous fuels	Clean and re-harrow existing lines.
<b>Proposed Improved Community Wildland Fire Response Priorities</b>		
1. Water Sources	Dry Hydrants	Inspect, maintain and improve access to existing dry hydrants. Add signage along road to mark the hydrants.  Locate additional dry hydrants as needed.
2. Fire Stations	Equipment	Wildland hand tools. Lightweight Wildland PPE Gear. Investigate need for "brush" trucks.
3. Water Sources	Drafting equipment	Investigate need for additional drafting pumps.
4. Personnel	Training	Obtain Wildland Fire Suppression training for Fire Personnel.
<b>**Actions to be taken by homeowners and community stakeholders</b>		

**Proposed Education and Outreach Priorities**

<p><b>1. Conduct “How to Have a Firewise Home” Workshop for Charlton County Residents</b></p>
<p>Set up and conduct a workshop for homeowners that teach the principles of making homes and properties safe from wildfire. Topics for discussion include defensible space, landscaping, building construction, etc. Workshop will be scheduled for evenings or weekends when most homeowners are available and advertised through local media outlets.</p> <p>Distribute materials promoting firewise practices and planning through local community and governmental meetings.</p>
<p><b>2. Conduct “Firewise” Workshop for Community Leaders</b></p>
<p>Arrange for GFC Firewise program to work with local community leaders and governmental officials on the importance of “Firewise Planning” in developing ordinances and codes as the county as the need arises. Identify “Communities at Risk” within the county for possible firewise community recognition.</p>
<p><b>3. Spring Clean-up Event</b></p>
<p>Conduct clean-up event every spring involving the Georgia Forestry Commission, Charlton County Fire Departments and community residents. Set up information table with educational materials and refreshments. Initiate the event with a morning briefing by GFC Firewise coordinator and local fire officials detailing plans for the day and safety precautions. Activities to include the following:</p> <ul style="list-style-type: none"> <li>• Clean flammable vegetative material from roofs and gutters</li> <li>• Trim shrubs and vines to 30 feet away from structures</li> <li>• Trim overhanging limbs</li> <li>• Clean hazardous or flammable debris from adjacent properties</li> </ul> <p>Celebrate the work with a community cookout, with Community officials, GFC and Charlton Fire Departments discussing and commending the work accomplished.</p>
<p><b>4. Informational Packets</b></p>
<p>Develop and distribute informational packets to be distributed by realtors and insurance agents. Included in the packets are the following:</p> <ul style="list-style-type: none"> <li>• Be Firewise Around Your Home</li> <li>• Firewise Guide to Landscape and Construction</li> <li>• Firewise Communities USA Bookmarks</li> </ul>

**5. Wildfire Protection Display**

Create and exhibit a display for the general public at the local events. Display can be independent or combined with the Georgia Forestry Commission display.

**6. Press**

Invite the Folkston and Waycross news media to community “Firewise” functions for news coverage and regularly submit press releases documenting wildfire risk improvements in Charlton County.

Add READY – SET – GO to the ongoing FIRE WISE Programs

The Ready, Set, Go! Program seeks to develop and improve the dialogue between fire departments and the residents they serve. Engaging in this dialogue is particularly important for the fire service, because national studies have shown that firefighters are uniquely respected in their communities and can project a trusted voice to the public preparedness appeal. They can also explain what fire resources are available during an event and the role that individuals can play in preparedness and early evacuation – if called for by their local officials – to increase the safety of residents and responding firefighters to a wildland fire.

The RSG! Program works in complimentary and collaborative fashion with Firewise and other existing wildland fire public education efforts. It amplifies their preparedness messages to individuals to better achieve the common goal we all share of fire-adapted communities. When firefighters encourage residents to take personal responsibility for preparing their property and family for WUI/wildland fire, residents become an active part of the solution to the problem of increasing fire losses.

The Ready, Set, Go! (RSG) Program is managed by the International Association of Fire Chiefs (IAFC). Launched nationally in March 2011 at the Wildland-Urban Interface (WUI 2011) Conference, the program helps fire departments to teach individuals who live in high risk wildfire areas – and the wildland-urban interface – how to best prepare themselves and their properties against fire threats.

## VIII. ACTION PLAN

### Roles and Responsibilities

The following roles and responsibilities have been developed to implement the action plan:

Role	Responsibility
<b>Hazardous Fuels and Structural Ignitability Reduction</b>	
Charlton County WUI Fire Council	Create this informal team or council comprised of residents, GFC officials, Charlton County Fire Rescue, a representative from the city and county government and the EMA Director for Charlton County. Meet periodically to review progress towards mitigation goals, appoint and delegate special activities, work with federal, state, and local officials to assess progress and develop future goals and action plans. Work with residents to implement projects and firewise activities.
Key Messages to focus on	<ol style="list-style-type: none"> <li>1 Defensible Space and Firewise Landscaping</li> <li>2 Debris Burning Safety</li> <li>3 Firewise information for homeowners</li> <li>4 Prescribed burning benefits</li> </ol>
Communications objectives	<ol style="list-style-type: none"> <li>1 Create public awareness for fire danger and defensible space issues</li> <li>2 Identify most significant human cause fire issues</li> <li>3 Enlist public support to help prevent these causes</li> <li>4 Encourage people to employ fire prevention and defensible spaces in their communities.</li> </ol>
Target Audiences	<ol style="list-style-type: none"> <li>1 Homeowners</li> <li>2 Forest Landowners and users</li> <li>3 Civic Groups</li> <li>4 School Groups</li> </ol>
Methods	<ol style="list-style-type: none"> <li>1 News Releases</li> <li>2 Personal Contacts</li> <li>3 Key messages and prevention tips</li> <li>4 Visuals such as signs, brochures and posters</li> </ol>

Spring Clean-up Day	
Event Coordinator	Coordinate day's events and schedule, catering for cookout, guest attendance, and moderate activities the day of the day of the event.
Event Treasurer	Collect funds from residents to cover food, equipment rentals, and supplies.
Publicity Coordinator	Advertise event through neighborhood newsletter, letters to officials, and public service announcements (PSAs) for local media outlets. Publicize post-event through local paper and radio PSAs.
Work Supervisor	Develop volunteer labor force of community residents; develop labor/advisory force from Georgia Forestry Commission, Charlton County Fire Departments, and Emergency Management Agency. Procure needed equipment and supplies. In cooperation with local city and county officials, develop safety protocol. Supervise work and monitor activities for safety the day of the event.

### Funding Needs

The following funding is needed to implement the action plan:

Project	Estimated Cost	Potential Funding Source(s)
1. Create a minimum of 50 feet of defensible space around structures	Varies	Residents will supply labor and fund required work on their own properties.
2. Reduce structural ignitability by cleaning flammable vegetation from roofs and gutters; appropriately storing firewood, installing skirting around raised structures, storing water hoses for ready access, replacing pine needles and mulch around plantings with less flammable material.	Varies	Residents will supply labor and fund required work on their own properties.
3. Amend codes and ordinances to provide better driveway access, increased visibility of house numbers, properly stored firewood, minimum defensible space brush clearance, required Class A roofing materials and skirting around raised structures, planned maintenance of community lots.	No Cost	To be adopted by city and county government.
4. Spring Cleanup Day	Varies	Community Business Donations.
5. Fuel Reduction Activities	\$15 / acre	FEMA & USFS Grants

#### POTENTIAL FUNDING SOURCES:

As funding is questionable in these times of tight government budgets and economic uncertainty, unconventional means should be identified whereby the need for funding can be reduced or eliminated.

##### Publications / Brochures –

- FIREWISE materials are available for cost of shipping only at [www.firewise.org](http://www.firewise.org).
- Another source of mitigation information can be found at [www.nfpa.org](http://www.nfpa.org).
- Access to reduced cost or free of charge copy services should be sought whereby publications can be reproduced.
- Free of charge public meeting areas should be identified where communities could gather to be educated regarding prevention and firewise principles.

##### Mitigation –

- Community Protection Grant:
  - USFS sponsored prescribed burn program. Communities with at risk properties that lie within 3 miles of the USFS border may apply with the GFC to have their forest land prescribed burned free of charge.
- FEMA Mitigation Policy MRR-2-08-01: through GEMA - Hazard Mitigation Grant Program (HMGP) and Pre Disaster Mitigation (PDM)
  - To provide technical and financial assistance to local governments to assist in the implementation of long term cost effective hazard mitigation measures.
  - This policy addresses wildfire mitigation for the purpose of reducing the threat to all-risk structures through creating defensible space, structural protection through the application of ignition resistant construction, and limited hazardous fuels reduction to protect life and property.
  - With a complete and registered plan (addendum to the State plan) counties can apply for pre-mitigation funding. They will also be eligible for HMGP if the county is declared under a wildfire disaster.
- GFC - Plowing and burning assistance can be provided through the Georgia Forestry Commission as a low cost option for mitigation efforts.
- Individual Homeowners –
  - In most cases of structural protection ultimately falls on the responsibility of the community and the homeowner. They will bear the cost; yet they will reap the benefit from properly implemented mitigation efforts.
  - GEMA Grant - PDM (See above)

Ultimately it is our goal to help the communities by identifying the communities threatened with a high risk to wildfire and educate those communities on methods to implement on reducing those risks.

### **Assessment Strategy**

To accurately assess progress and effectiveness for the action plan, the Charlton County WUI Fire Council will implement the following:

- Annual wildfire risk assessment will be conducted to re-assess wildfire hazards and prioritize needed actions.
- Mitigation efforts that are recurring (such as mowing, burning, and clearing of defensible space) will be incorporated into an annual renewal of the original action plan.
- Mitigation efforts that could not be funded in the requested year will be incorporated into the annual renewal of the original action plan.
- Continuing educational and outreach programs will be conducted and assessed for effectiveness. Workshops will be evaluated based on attendance and post surveys that are distributed by mail 1 month and 6 months following workshop date.
- The Charlton County WUI Council will publish an annual report detailing mitigation projects initiated and completed, progress for ongoing actions, funds received, funds spent, and in-kind services utilized. The report will include a “state of the community” section that critically evaluates mitigation progress and identifies areas for improvement. Recommendations will be incorporated into the annual renewal of the action plan.
- An annual survey will be distributed to residents soliciting information on individual mitigation efforts on their own property (e.g., defensible space). Responses will be tallied and reviewed at the next Charlton County WUI Council meeting. Needed actions will be discussed and delegated.

This plan should become a working document that is shared by local, state, and federal agencies that will use it to accomplish common goals. An agreed-upon schedule for meeting to review accomplishments, solve problems, and plan for the future should extend beyond the scope of this plan. Without this follow up this plan will have limited value

GEORGIA FORESTRY  
COMMISSION



**P. O. Box 819Macon, GA 31201-800-GA-  
TREESGaTrees.org**

***The Georgia Forestry Commission provides leadership,  
service, and education in the protection and conservation of  
Georgia's forest resources. An Equal Opportunity Employer and  
Service Provider***



Hazard Risk Analyses  
Supplement to the Charlton County  
Joint Hazard Mitigation Plan



# TABLE OF CONTENTS

TABLE OF CONTENTS .....	1
Introduction .....	4
Risk Assessment Process Overview .....	4
County Inventory Changes .....	4
General Building Stock Updates.....	5
Essential Facility Updates.....	7
Assumptions and Exceptions.....	8
Hurricane Risk Assessment.....	9
Hazard Definition.....	9
Probabilistic Hurricane Scenario.....	12
Wind Damage Assessment .....	12
Wind-Related Building Damages.....	12
Essential Facility Losses.....	13
Shelter Requirements .....	14
Debris Generated from Hurricane Wind.....	15
Flood Risk Assessment.....	16
Hazard Definition.....	16
Riverine 1% Flood Scenario.....	17
Riverine 1% Flood Building Damages.....	18
Riverine 1% Flood Essential Facility Losses.....	19
Riverine 1% Flood Shelter Requirements.....	20
Riverine 1% Flood Debris .....	21
Tornado Risk Assessment .....	22
Hazard Definition.....	22
Hypothetical Tornado Scenario.....	23
EF3 Tornado Building Damages.....	25
EF3 Tornado Essential Facility Damage.....	26
Exceptions Report .....	27
Statewide Inventory Changes.....	27
County Inventory Changes .....	27
General Building Stock Updates.....	27
User Defined Facilities.....	29

List of Tables

Table 1: GBS Building Exposure Updates by Occupancy Class\* ..... 5

Table 2: Updated Essential Facilities..... 7

Table 3: Saffir-Simpson Hurricane Wind Scale..... 10

Table 4: Tropical Systems affecting Charlton County ..... 11

Table 5: Hurricane Wind Building Damage ..... 13

Table 6: Wind-Damaged Essential Facility Losses..... 14

Table 7: Displaced Households and People ..... 14

Table 8: Wind-Related Debris Weight (Tons) ..... 15

Table 9: Charlton County Riverine 1% Building Losses ..... 18

Table 10: Expected Damage to Essential Facilities in 1% Riverine Flood ..... 19

Table 11: Enhanced Fujita Tornado Rating ..... 22

Table 12: Tornado Path Widths and Damage Curves ..... 23

Table 13: EF3 Tornado Zones and Damage Curves..... 24

Table 14: Estimated Building Losses by Occupancy Type ..... 25

Table 15: Essential Facility Updates..... 27

Table 16: Building Inventory Default Adjustment Rates..... 28

Table 17: Building Count and Exposure for County and Riverine Flood Area ..... 29

List of Figures

Figure 1: Charlton County Overview ..... 6

Figure 2: Continental United States Hurricane Strikes: 1950 to 2014 ..... 9

Figure 3: Wind Speeds by Storm Category ..... 12

Figure 4: Hurricane Wind GBS Loss Ratios ..... 13

Figure 5: Hurricane Wind Shelter Requirements ..... 14

Figure 6: Wind-Related Debris Weight (Tons) ..... 15

Figure 7: Riverine 1% Flood Inundation ..... 17

Figure 8: Potential UDF Loss Ratios from the 1% Riverine Flood ..... 18

Figure 9: Damaged Buildings in 1% Riverine Flood ..... 19

Figure 10: Estimated Flood Shelter Requirements in 1% Riverine Flood ..... 20

Figure 11: Flood Debris Weight (Tons) in 1% Riverine Flood ..... 21

Figure 12: EF Scale Tornado Zones ..... 23

Figure 13: Hypothetical EF3 Tornado Path ..... 24

Figure 14: Modeled EF3 Tornado Damage Buffers ..... 25

Figure 15: Modeled Essential Facility Damage in Charlton County ..... 26

# Introduction

The Federal Disaster Mitigation Act of 2000 (DMA2K) requires state, local, and tribal governments to develop and maintain a mitigation plan to be eligible for certain federal disaster assistance and hazard mitigation funding programs.

Mitigation seeks to reduce a hazard's impacts, which may include loss of life, property damage, disruption to local and regional economies, and the expenditure of public and private funds for recovery. Sound mitigation must be based on a sound risk assessment that quantifies the potential losses of a disaster by assessing the vulnerability of buildings, infrastructure, and people.

In recognition of the importance of planning in mitigation activities, FEMA Hazus-MH, a powerful disaster risk assessment tool based on geographic information systems (GIS). This tool enables communities of all sizes to predict estimated losses from floods, hurricanes, earthquakes, and other related phenomena and to measure the impact of various mitigation practices that might help reduce those losses.

In **2017**, the Georgia Department of Emergency Management partnered with The **Southern Georgia Regional Commission** (SGRC) to develop a detailed risk assessment focused on defining hurricane, riverine flood and tornado impacts for Georgia. This assessment identifies the characteristics and potential consequences of the disaster, how much of the community could be affected by the disaster, and the impact on community assets. In the following years, the Georgia Association of Regional Commissions (GARC) are utilizing this workflow to define impacts in other counties in Georgia. This document provides the results for Charlton County.

## Risk Assessment Process Overview

Hazus-MH Version 2.2 SP1 was used to perform the analyses for Charlton County. The Hazus-MH application includes default data for every county in the US. This Hazus-MH data was derived from a variety of national sources and in some cases the data are also several years old. Whenever possible, using local provided data is preferred. Charlton County provided building inventory information from the county's property tax assessment system. This section describes the changes made to the default Hazus-MH inventory and the modeling parameters used for each scenario.

## County Inventory Changes

The default Hazus-MH site-specific point inventory was updated using data compiled from the Georgia Emergency Management Agency (GEMA). The default Hazus-MH aggregate inventory (General Building Stock) was also updated prior to running the scenarios. Reported losses reflect the updated data sets.

## General Building Stock Updates

General Building Stock (GBS) is an inventory category that consists of aggregated data (grouped by census geography — tract or block). Hazus-MH generates a combination of site-specific and aggregated loss estimates based on the given analysis and user input.

The GBS records for Charlton County were replaced with data derived from parcel and property assessment data obtained from Charlton County. The county provided property assessment data was current as of August 2017 and the parcel data current as of August 2017. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary; then, each parcel point was linked to an assessor record based upon matching parcel numbers. The parcel assessor match-rate for Charlton County is 96.8%. The

generated building inventory represents the approximate locations (within a parcel) of structures. The building inventory was aggregated by census block. Both the tract and block tables were updated. Table 1 shows the results of the changes to the GBS tables by occupancy class.

Table 1: GBS Building Exposure Updates by Occupancy Class\*

Occupancy Classification	Default Count	Updated Count	Default Exposure	Updated Exposure
Agricultural	9	0	\$ 2,279,000	\$ -
Commercial	151	208	\$ 87,395,000	\$ 92,936,000
Education	6	24	\$ 9,223,000	\$ 13,478,000
Government	5	20	\$ 2,627,000	\$ 72,548,000
Industrial	43	76	\$ 22,600,000	\$ 75,143,000
Religious	25	46	\$ 15,063,000	\$ 24,816,000
Residential	4336	4099	\$ 591,524,000	\$ 403,964,000
<b>Total</b>	<b>4575</b>	<b>4473</b>	<b>\$ 730,711,000</b>	<b>\$ 682,885,000</b>

\*The exposure values represent the total number and replacement cost for all Charlton County Buildings

For Charlton County, the updated GBS was used to calculate hurricane wind losses. The flood losses and tornado losses were calculated from building inventory modeled in Hazus-MH as User-Defined Facility (UDF)<sup>1</sup>, or site-specific points. Figure 1 shows the distribution of buildings as points based on the county provided data.

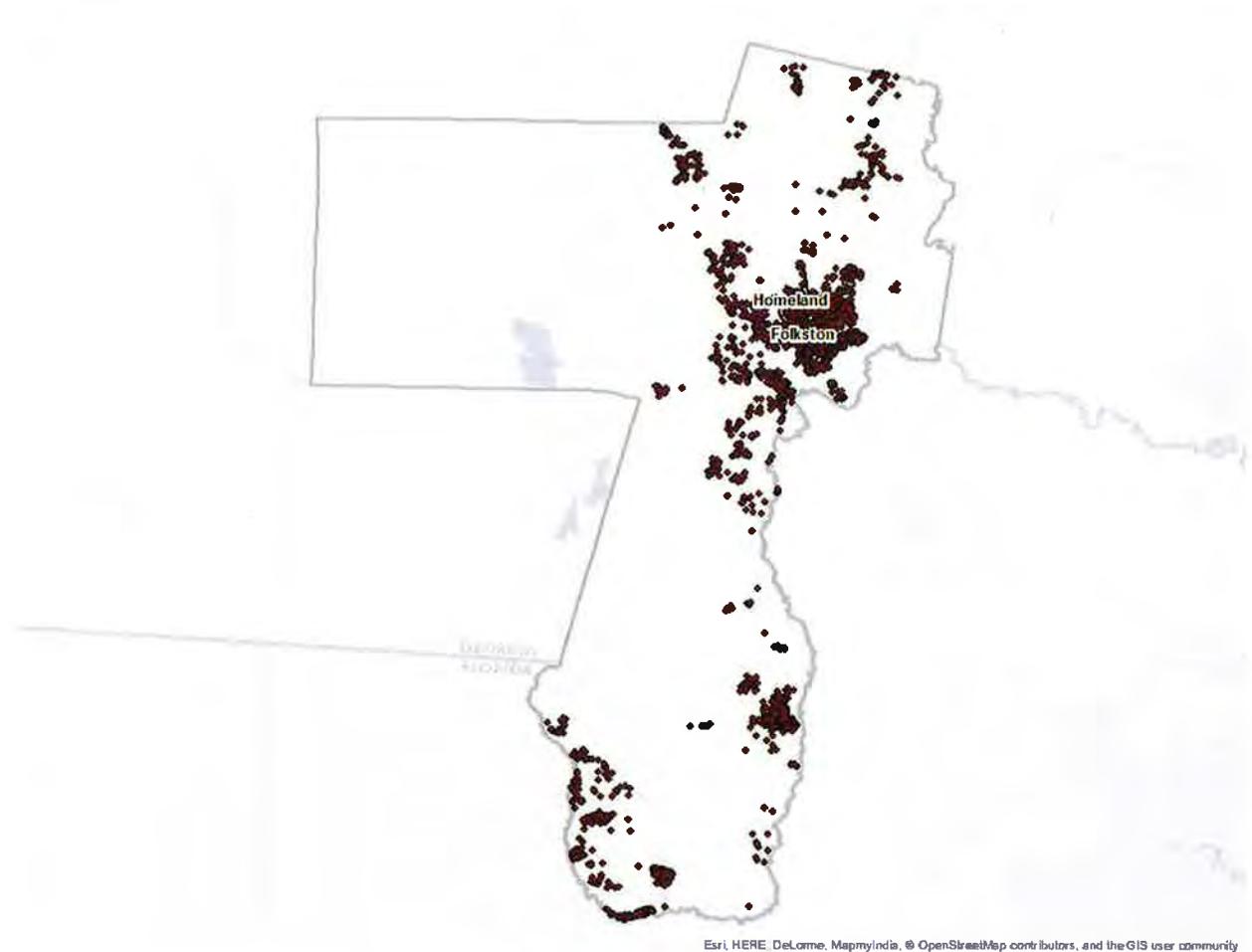


Figure 1: Charlton County Overview

---

<sup>1</sup> The UDF inventory category in Hazus-MH allows the user to enter site-specific data in place of GBS data.

## Essential Facility Updates

The default Hazus-MH essential facility data was updated to reflect improved information available in the Georgia Mitigation Information System (GMIS). For these risk analyses, only GMIS data for buildings that Hazus-MH classified as Essential Facilities was integrated into Hazus-MH because the application provides specialized reports for these five types of facilities. Essential Facility inventory was updated for the analysis conducted for this report. The following table summarizes the counts and exposures, where available, by Essential Facility classification of the updated data for the county.

Essential facilities include:

- Care facilities
- EOCs
- Fire stations
- Police stations
- Schools

Table 2: Updated Essential Facilities

Classification	Updated Count	Updated Exposure
Charlton County		
EOC	1	\$ 880,000
Care	8	\$ 17,894,000
Fire	8	\$ 5,775,000
Police	6	\$ 11,542,000
School	11	\$ 121,130,000
<b>Total</b>	<b>34</b>	<b>\$ 157,221,000</b>

Classification	Updated Count	Updated Exposure
Folkston		
EOC	0	\$ -
Care	6	\$ 13,185,000
Fire	1	\$ 1,743,000
Police	4	\$ 9,387,000
School	7	\$ 111,563,000
<b>Total</b>	<b>18</b>	<b>\$ 135,878,000</b>

Classification	Updated Count	Updated Exposure
Homeland		
EOC	0	\$ -
Care	0	\$ -
Fire	0	\$ -
Police	1	\$ 153,000
School	0	\$ -
<b>Total</b>	<b>1</b>	<b>\$ 153,000</b>

# Assumptions and Exceptions

Hazus-MH loss estimates may be impacted by certain assumptions and process variances made in this risk assessment.

- The Charlton County analysis used Hazus-MH Version 2.2 SP1, which was released by FEMA in May 2015.
- County provided parcel and property assessment data may not fully reflect all buildings in the county. For example, some counties do not report not-for-profit buildings such as government buildings, schools and churches in their property assessment data. This data was used to update the General Building Stock as well as the User Defined Facilities applied in this risk assessment.
- GBS updates from assessor data will skew loss calculations. The following attributes were defaulted or calculated:
  - Foundation Type was set from Occupancy Class
  - First Floor Height was set from Foundation Type
  - Content Cost was calculated from Replacement Cost
- It is assumed that the buildings are located at the centroid of the parcel unless building footprints are used. For this analysis of Charlton County, parcel centroids were used.
- The essential facilities extracted from the GMIS were only used in the portion of the analysis designated as essential facility damage. They were not used in the update of the General Building Stock or the User Defined Facility inventory.

The hazard models included in this risk assessment included:

- Hurricane assessment which was comprised of a wind only damage assessment
- Flood assessment based on the 1% annual chance event that includes riverine assessments
- Tornado assessment based on GIS modeling

# Hurricane Risk Assessment

## Hazard Definition

The National Hurricane Center describes a hurricane as a tropical cyclone in which the maximum sustained wind is, at minimum, 74 miles per hour (mph)<sup>2</sup>. The term hurricane is used for Northern Hemisphere tropical cyclones east of the International Dateline to the Greenwich Meridian. The term typhoon is used for Pacific tropical cyclones north of the Equator west of the International Dateline. Hurricanes in the Atlantic Ocean, Gulf of Mexico, and Caribbean form between June and November with the peak of hurricane season occurring in the middle of September. Figure 2 shows that many hurricanes have impacted the Atlantic and Gulf coasts of the United States.

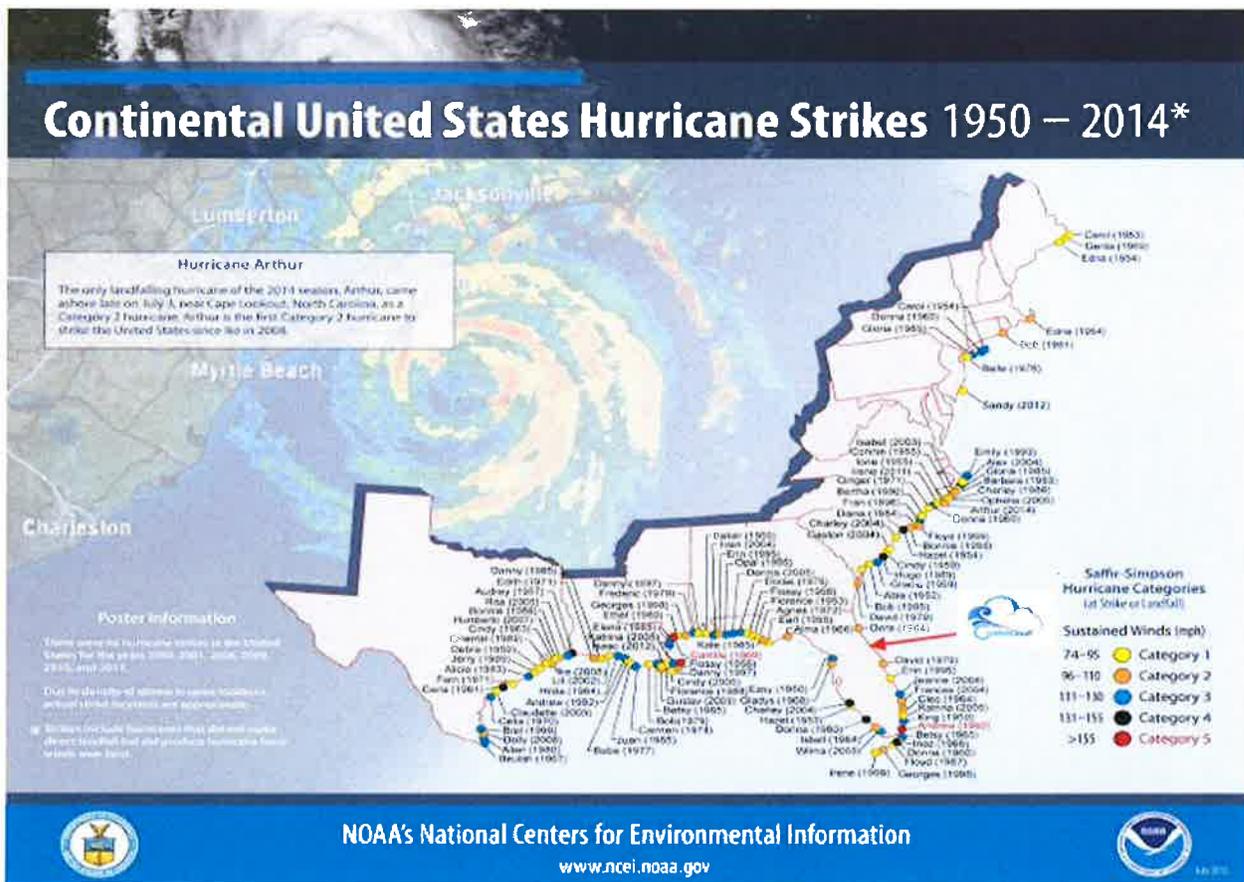


Figure 2: Continental United States Hurricane Strikes: 1950 to 2014<sup>3</sup>

Hurricane intensities are measured using the Saffir-Simpson Hurricane Wind Scale (Table 3). This scale is a 1 to 5 categorization based on the hurricane's intensity at the indicated time.

<sup>2</sup> National Hurricane Center (2011). "Glossary of NHC Terms." National Oceanic and Atmospheric Administration. <http://www.nhc.noaa.gov/aboutgloss.shtml#h>. Retrieved 2-23-2012.

<sup>3</sup> Source: NOAA National Climatic Data Center

Table 3: Saffir-Simpson Hurricane Wind Scale

Category	Wind Speed (mph)	Damage
1	74 – 95	Very dangerous winds will produce some damage
2	96 – 110	Extremely dangerous winds will cause extensive damage
3	111 - 130	Devastating damage will occur
4	131 -155	Catastrophic damage will occur
5	> 155	Catastrophic damage will occur

Hurricanes bring a complex set of impacts. The winds from a hurricane produce a rise in the water level at landfall called storm surge. Storm surges produce coastal flooding effects that can be as damaging as the hurricane's winds. Hurricanes bring very intense inland riverine flooding. Hurricanes can also produce tornadoes that can add to the wind damages inland. In this risk assessment, only hurricane winds, and coastal storm surge are considered.

The National Oceanic and Atmospheric Administration's National Hurricane Center created the HURDAT database, which contains all of the tracks of tropical systems since the mid-1800s. This database was used to document the number of tropical systems that have affected Charlton County by creating a 20-mile buffer around the county to include storms that didn't make direct landfall in Charlton County but impacted the county. Since 1851, Charlton County has had 76 tropical systems within 20 miles of its county borders (Table 4).

Table 4: Tropical Systems affecting Charlton County

Year	Month	Day	Name	Wind (Knots)	Category	Year	Month	Day	Name	Wind (Knots)	Category
1868	October	4	NOTNAMED	50	TS	1926	July	28	NOTNAMED	60	TS
1868	October	5	NOTNAMED	40	TS	1928	September	18	NOTNAMED	80	H1
1871	August	18	NOTNAMED	60	TS	1932	September	15	NOTNAMED	45	TS
1871	August	18	NOTNAMED	60	TS	1938	October	24	NOTNAMED	40	TS
1871	August	18	NOTNAMED	50	TS	1946	October	8	NOTNAMED	40	TS
1871	August	23	NOTNAMED	60	TS	1946	October	8	NOTNAMED	35	TS
1871	August	23	NOTNAMED	50	TS	1946	November	2	NOTNAMED	25	TD
1871	September	6	NOTNAMED	50	TS	1946	November	2	NOTNAMED	25	TD
1873	June	2	NOTNAMED	40	TS	1947	September	24	NOTNAMED	50	TS
1873	June	2	NOTNAMED	40	TS	1947	September	24	NOTNAMED	45	TS
1873	September	19	NOTNAMED	60	TS	1947	October	7	NOTNAMED	40	TS
1874	September	28	NOTNAMED	60	TS	1947	October	7	NOTNAMED	35	TS
1877	September	20	NOTNAMED	40	TS	1950	September	7	EASY	40	TS
1877	September	20	NOTNAMED	40	TS	1953	September	20	NOTNAMED	40	TS
1878	October	11	NOTNAMED	40	TS	1960	July	29	BRENDA	30	TD
1880	September	8	NOTNAMED	40	TS	1964	June	6	NOTNAMED	30	TD
1882	October	11	NOTNAMED	50	TS	1964	October	5	HILDA	35	E
1885	August	31	NOTNAMED	40	TS	1968	June	7	ABBY	50	TS
1885	September	21	NOTNAMED	40	TS	1970	May	25	ALMA	25	TD
1885	September	30	NOTNAMED	30	TD	1970	May	25	ALMA	25	TD
1885	October	12	NOTNAMED	50	TS	1972	May	27	ALPHA	50	SS
1888	September	9	NOTNAMED	45	TS	1972	May	28	ALPHA	30	SD
1888	September	9	NOTNAMED	40	TS	1976	May	23	SUBTROP1	40	SS
1893	June	16	NOTNAMED	50	TS	1976	May	24	SUBTROP1	40	SS
1896	September	29	NOTNAMED	100	H3	1984	September	28	ISIDORE	45	TS
1898	October	2	NOTNAMED	115	H4	1985	October	10	ISABEL	35	TS
1898	October	2	NOTNAMED	90	H2	1985	October	11	ISABEL	30	TD
1900	October	12	NOTNAMED	35	TS	1985	October	11	ISABEL	30	TD
1907	June	29	NOTNAMED	45	TS	1994	November	21	GORDON	20	TD
1910	October	19	NOTNAMED	50	TS	1994	November	21	GORDON	20	TD
1912	July	15	NOTNAMED	45	TS	1996	October	8	JOSEPHINE	60	TS
1912	July	15	NOTNAMED	40	TS	1996	October	8	JOSEPHINE	45	E
1914	September	17	NOTNAMED	60	TS	1998	October	1	GEORGES	25	TD
1914	September	17	NOTNAMED	40	TS	2000	September	18	GORDON	40	TS
1915	August	2	NOTNAMED	40	TS	2000	September	18	GORDON	30	TD
1915	August	2	NOTNAMED	40	TS	2004	August	12	BONNIE	30	TD
1919	October	1	NOTNAMED	40	TS	2005	October	6	TAMMY	45	TS
1924	September	16	NOTNAMED	40	TS	2007	June	2	BARRY	30	TD

Category Definitions:

TS – Tropical storm

TD – Tropical depression

CAT\_1 – Category 1 (same format for 2, 3, 4 and 5)

E – Extra-tropical cyclone

# Probabilistic Hurricane Scenario

The following probabilistic wind damage risk assessment modeled a Category 1 storm with maximum winds of 90 mph.

## Wind Damage Assessment

Wind losses were determined from probabilistic models run for the Category 1 storm which equates to the 1% chance storm event. Figure 3 shows wind speeds for the modeled hurricane.

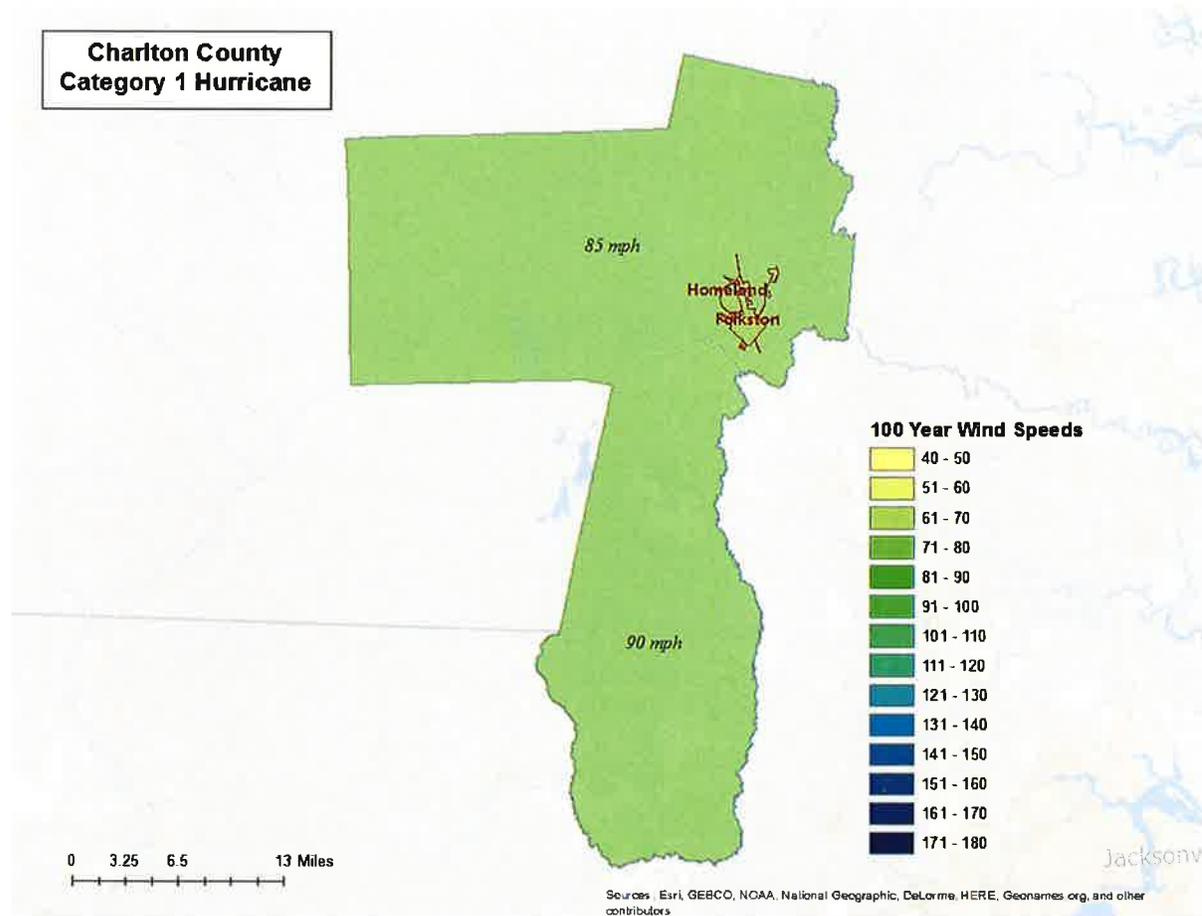


Figure 3: Wind Speeds by Storm Category

## Wind-Related Building Damages

Buildings in Charlton County are vulnerable to storm events, and the cost to rebuild may have significant consequences to the community. The following table shows a summary of the results of wind-related building damage in Charlton County for the Category 1 (100 Year Event) storm. The loss ratio expresses building losses as a percentage of total building replacement cost in the county. Figure 4 illustrates the building loss ratios of the modeled Category 1 storm.

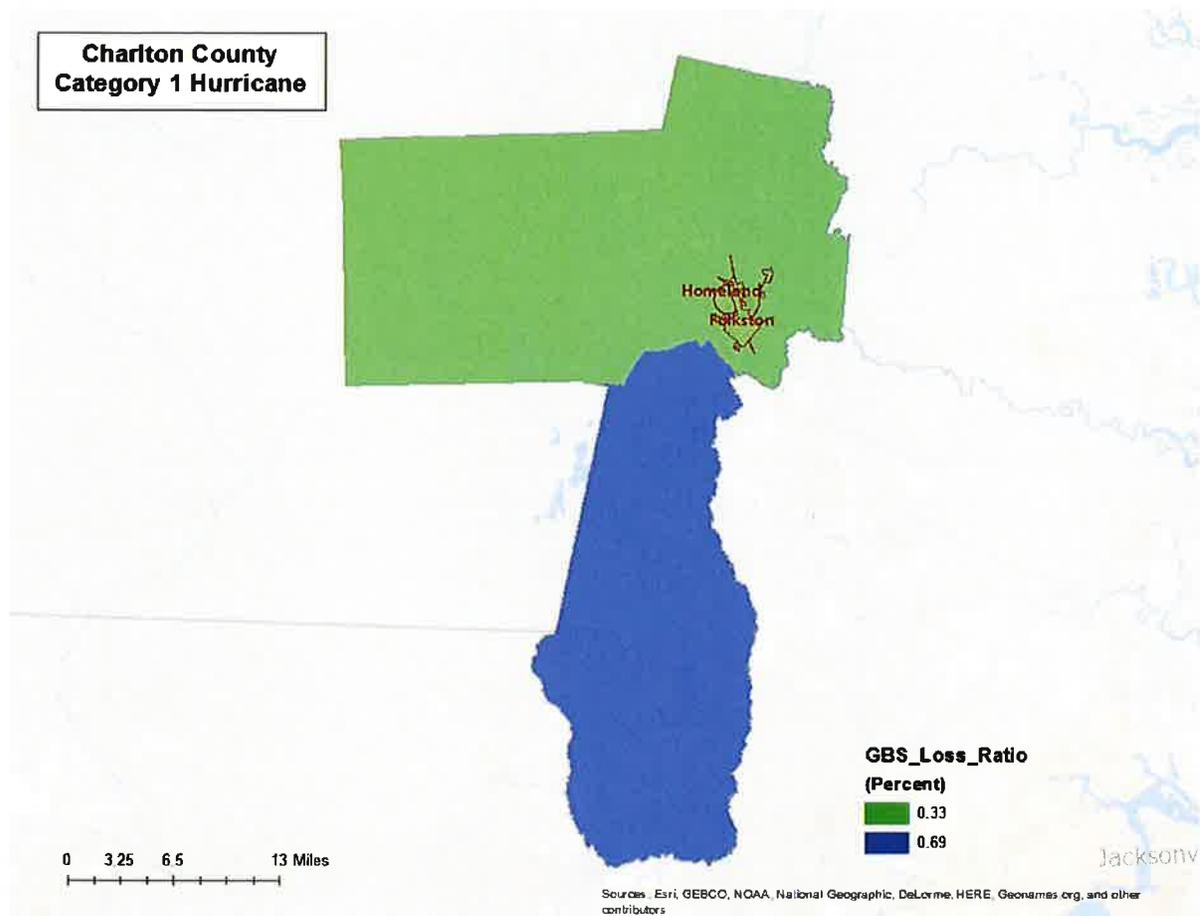


Figure 4: Hurricane Wind GBS Loss Ratios

Table 5 shows the Hurricane Wind Building Damage results including the number of buildings damaged, total building damage, and economic loss.

Table 5: Hurricane Wind Building Damage

Storm Classification	Number of Damaged Buildings	Building Damages	Total Economic Loss	Loss Ratio
Category 1	156	\$ 2,759,610	\$ 3,979,840	0.4

## Essential Facility Losses

Essential facilities are also vulnerable to storm events, and the potential loss of functionality may have significant consequences to the community. Hazus-MH identified the essential facilities that may be moderately or severely damaged by winds. The results are compiled in Table 6.

There are 34 essential facilities in Charlton County.

Classification	Number
EOC	1
Care	8
Fire	8
Police	6
School	11
<b>Total</b>	<b>34</b>

Table 6: Wind-Damaged Essential Facility Losses

Storm Classification	Facilities Moderately Damaged (>50%)	Facilities Completely Damaged (>50%)	Facilities with expected loss (<1day)
Category 1	0	0	34

## Shelter Requirements

Hazus-MH estimates the number of households evacuated from buildings with severe damage from high velocity winds as well as the number of people who will require short-term sheltering. The results are listed in Table 7 and mapped in Figure 5.

Table 7: Displaced Households and People

Storm Classification	# of Displaced Households	# of People Needing Short-Term Shelter
Category 1	1	0

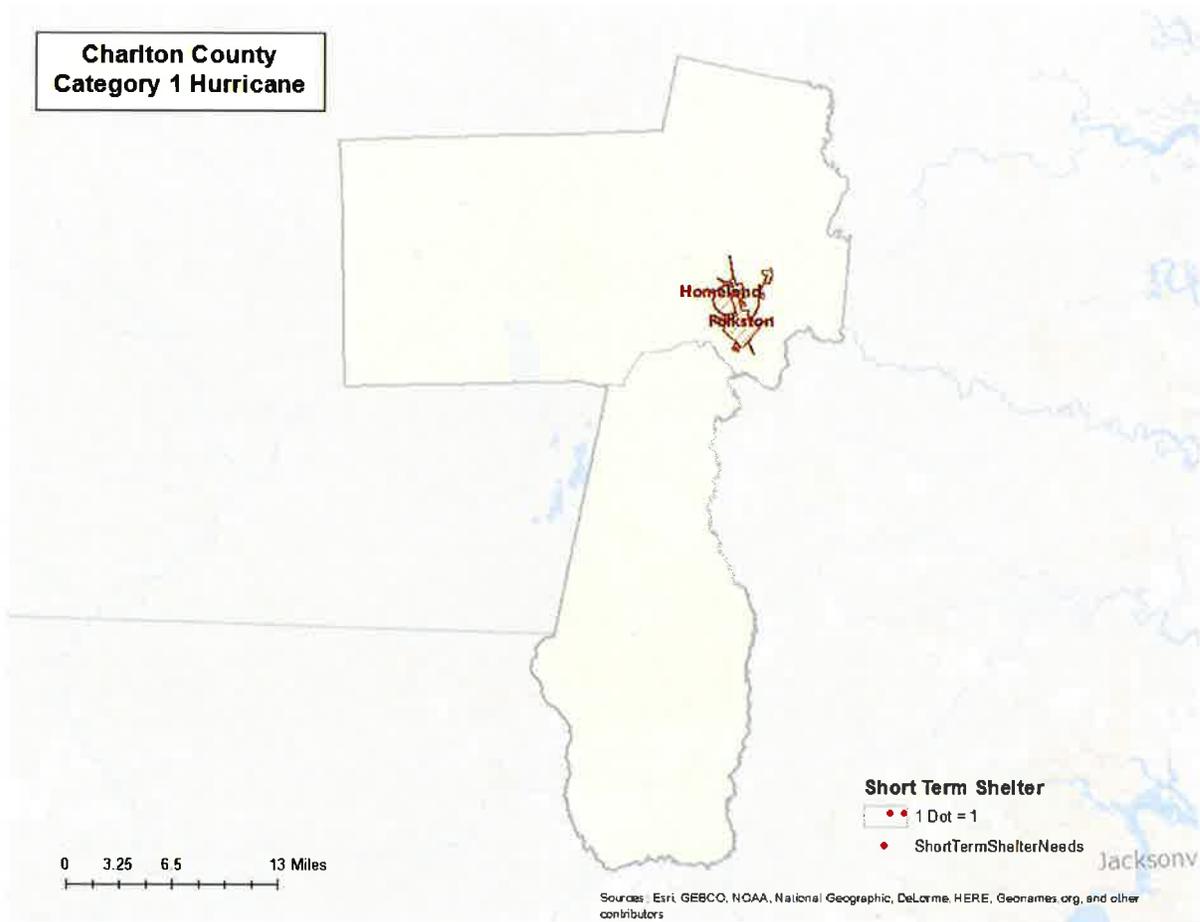


Figure 5: Hurricane Wind Shelter Requirements

## Debris Generated from Hurricane Wind

Hazus-MH estimates the amount of debris that will be generated by high velocity hurricane winds and quantifies it into three broad categories to determine the material handling equipment needed:

- Reinforced Concrete and Steel Debris
- Brick and Wood and Other Building Debris
- Tree Debris

Different material handling equipment is required for each category of debris. The estimates of debris for this scenario are listed in Table 8. The amount of hurricane wind related tree debris that is estimated to require pick up at the public's expense is listed in the eligible tree debris column.

Table 8: Wind-Related Debris Weight (Tons)

Storm Classification	Brick, Wood, and Other	Reinforced Concrete/Steel	Tree Debris	Other Tree Debris	Total
Category 1	291	-	7,915	246,435	254,641

Figure 6 shows the distribution of all wind related debris resulting from a Category 1 hurricane. Each dot represents 20 tons of debris within the census tract in which it is located. The dots are randomly distributed within each census tract and therefore do not represent the specific location of debris sites.

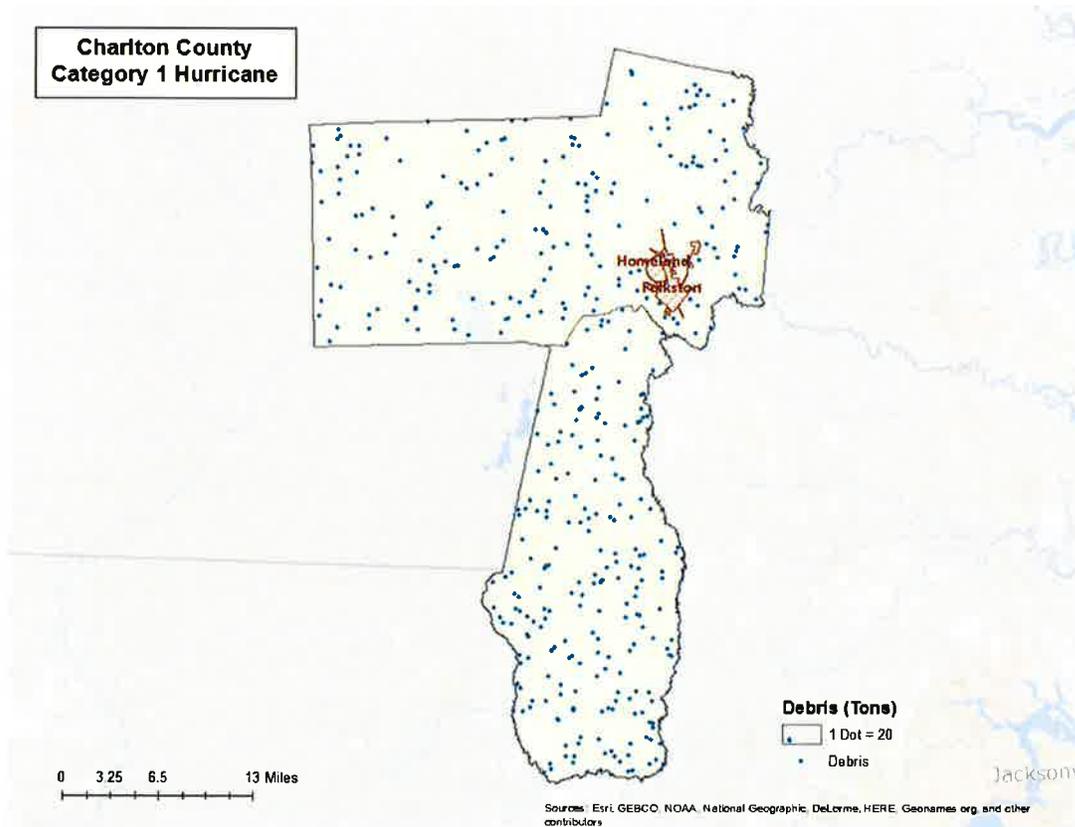


Figure 6: Wind-Related Debris Weight (Tons)

# Flood Risk Assessment

## Hazard Definition

Flooding is a significant natural hazard throughout the United States. The type, magnitude, and severity of flooding are functions of the amount and distribution of precipitation over a given area, the rate at which precipitation infiltrates the ground, the geometry and hydrology of the catchment, and flow dynamics and conditions in and along the river channel. Floods can be classified as one of three types: upstream floods, downstream floods, or coastal floods.

Upstream floods, also called flash floods, occur in the upper parts of drainage basins and are generally characterized by periods of intense rainfall over a short duration. These floods arise with very little warning and often result in locally intense damage, and sometimes loss of life, due to the high energy of the flowing water. Flood waters can snap trees, topple buildings, and easily move large boulders or other structures. Six inches of rushing water can upend a person; another 18 inches might carry off a car. Generally, upstream floods cause damage over relatively localized areas, but they can be quite severe in the local areas in which they occur. Urban flooding is a type of upstream flood. Urban flooding involves the overflow of storm drain systems and can be the result of inadequate drainage combined with heavy rainfall or rapid snowmelt. Upstream or flash floods can occur at any time of the year in Georgia, but they are most common in the spring and summer months.

Downstream floods, also called riverine floods, refer to floods on large rivers at locations with large upstream catchments. Downstream floods are typically associated with precipitation events that are of relatively long duration and occur over large areas. Flooding on small tributary streams may be limited, but the contribution of increased runoff may result in a large flood downstream. The lag time between precipitation and time of the flood peak is much longer for downstream floods than for upstream floods, generally providing ample warning for people to move to safe locations and, to some extent, secure some property against damage.

Coastal floods occurring on the Atlantic and Gulf coasts may be related to hurricanes or other combined offshore, nearshore, and shoreline processes. The effects of these complex interrelationships vary significantly across coastal settings, leading to challenges in the determination of the base (1-percent-annual-chance) flood for hazard mapping purposes. Land area covered by floodwaters of the base flood is identified as a Special Flood Hazard Area (SFHA). The Charlton County flood risk assessment analyzed at risk structures in the SFHA.

The SFHA is the area where the National Flood Insurance Program's (NFIP) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The owner of a structure in a high-risk area must carry flood insurance, if the owner carries a mortgage from a federally regulated or insured lender or servicer.

The following probabilistic risk assessment involves an analysis of a 1% annual chance riverine flood event.

## Riverine 1% Flood Scenario

Riverine losses were determined from the 1% flood boundaries downloaded from the FEMA Flood Map Service Center in October 2017. The flood boundaries were overlaid with the USGS 10 meter DEM using the Hazus-MH Enhanced Quick Look tool to generate riverine depth grids. The riverine flood depth grid was then imported into Hazus-MH to calculate the riverine flood loss estimates. Figure 7 illustrates the riverine inundation boundary associated with the 1% annual chance. Please note that the riverine flooding may not take into account elevated housing or raised Base Flood Elevation.

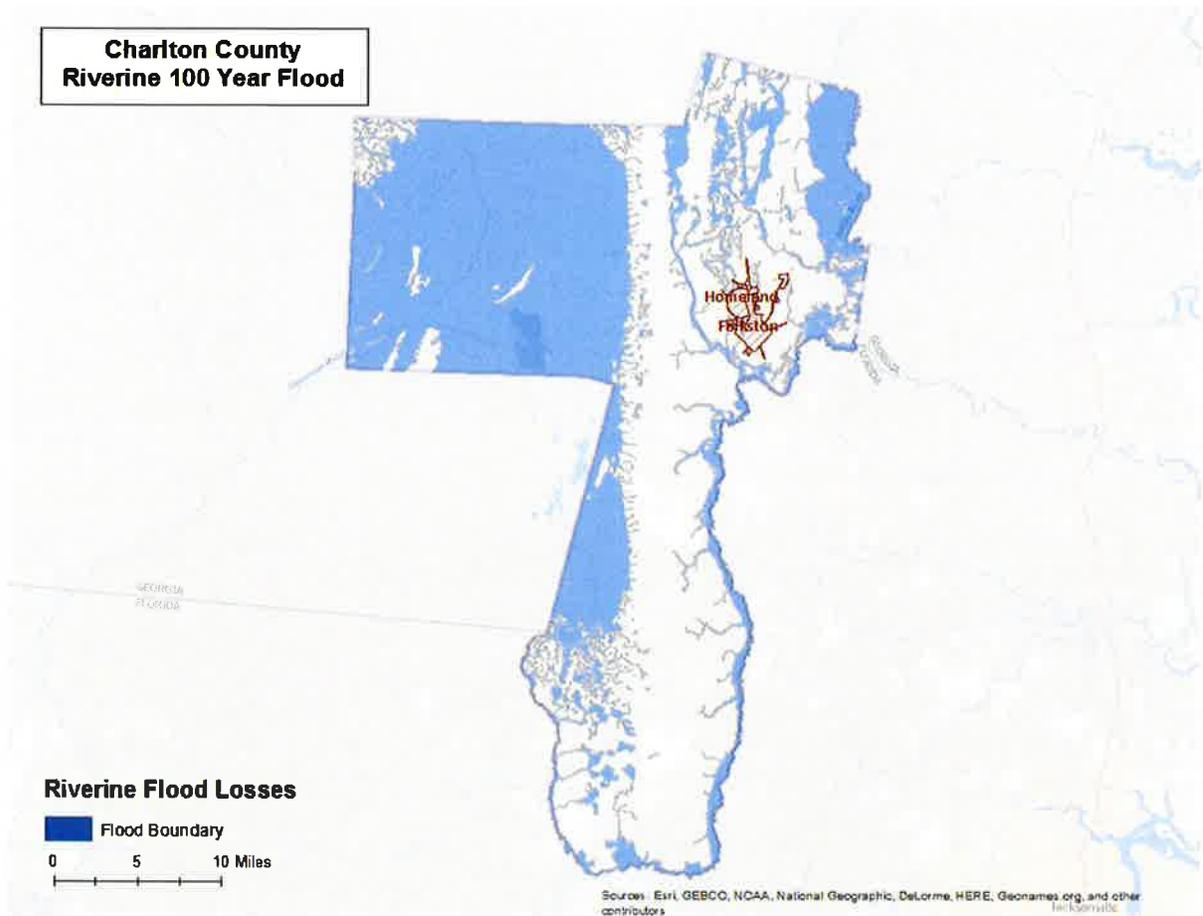


Figure 7: Riverine 1% Flood Inundation

## Riverine 1% Flood Building Damages

Buildings in Charlton County are vulnerable to flooding from events equivalent to the 1% riverine flood. The economic and social impacts from a flood of this magnitude can be significant. Table 9 provides a summary of the potential flood-related building damage in Charlton County by jurisdiction that might be experienced from the 1% flood. Figure 8 maps the potential loss ratios of total building exposure to losses sustained to buildings from the 1% flood by 2010 census block and Figure 9 illustrates the relationship of building locations to the 1% flood inundation boundary.

Table 9: Charlton County Riverine 1% Building Losses

Occupancy Classification	Total Buildings	Total Buildings Damaged	Total Building Exposure	Total Losses to Buildings	Loss Ratio of Exposed to Damaged
<b>Folkston</b>					
Residential	784	1	\$ 103,691,765	\$ 36,498	0.04%
Industrial	58	1	\$ 58,855,142	\$ 574	0.00%
Commercial	159	1	\$ 70,562,718	\$ 444	0.00%
<b>Homeland</b>					
Residential	339	2	\$ 25,418,442	\$ 16,390	0.06%
<b>Unincorporated</b>					
Residential	2,976	89	\$ 274,860,428	\$ 1,570,140	0.57%
<b>County Total</b>					
Total	4,316	94	533,388,495	1,624,046	

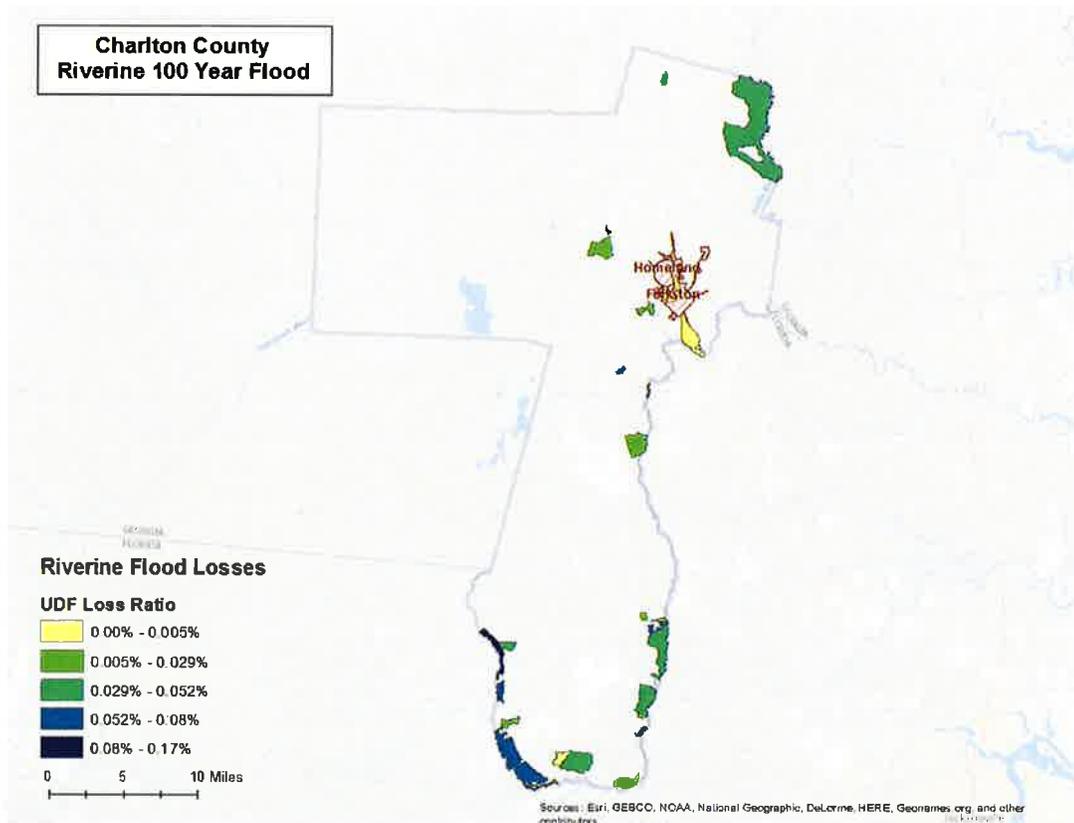


Figure 8: Potential UDF Loss Ratios from the 1% Riverine Flood

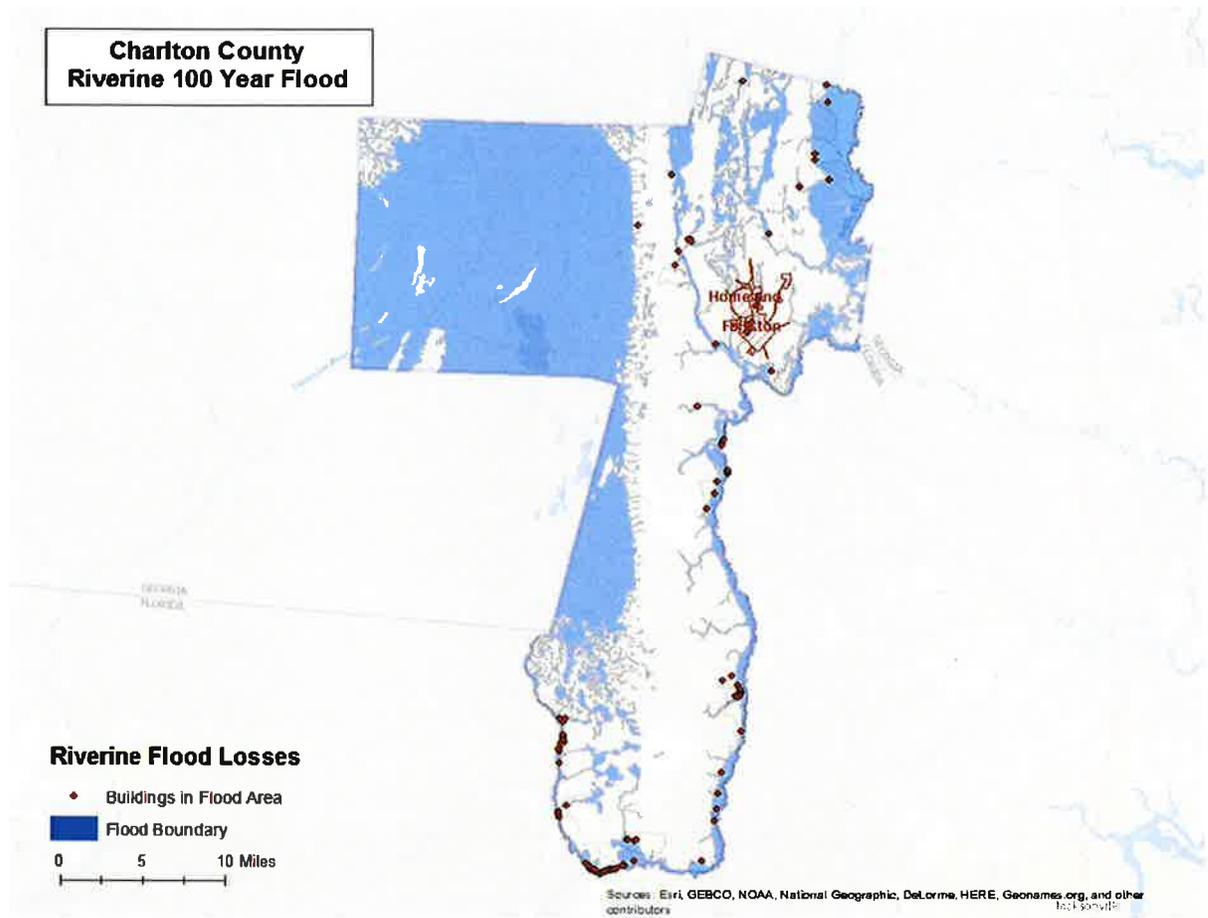


Figure 9: Damaged Buildings in 1% Riverine Flood

## Riverine 1% Flood Essential Facility Losses

An essential facility may encounter many of the same impacts as other buildings within the flood boundary. These impacts can include structural failure, extensive water damage to the facility and loss of facility functionality (e.g. a damaged police station will no longer be able to serve the community). The analysis has identified that were 0 Essential Facilities subject to damage in the Charlton County riverine 1% probability floodplain.

Table 10: Expected Damage to Essential Facilities in 1% Riverine Flood

Classification	Total	Moderate	Substantial	Loss of Use
Fire Station	8	0	0	0
Hospitals	7	0	0	0
Police Stations	6	0	0	0
Schools	11	0	0	0
EOCs	0	0	0	0

## Riverine 1% Flood Shelter Requirements

Hazus-MH estimates that the number of households that are expected to be displaced from their homes due to riverine flooding and the associated potential evacuation. The model estimates 332 households might be displaced due to the flood. Displacement includes households evacuated within or very near to the inundated area. Displaced households represent 997 individuals, of which 473 may require short term publicly provided shelter. The results are mapped in Figure 10. These numbers may be overestimated for two reasons: elevated housing not taken into account and parcel centroids (not aligned exactly with actual structures).

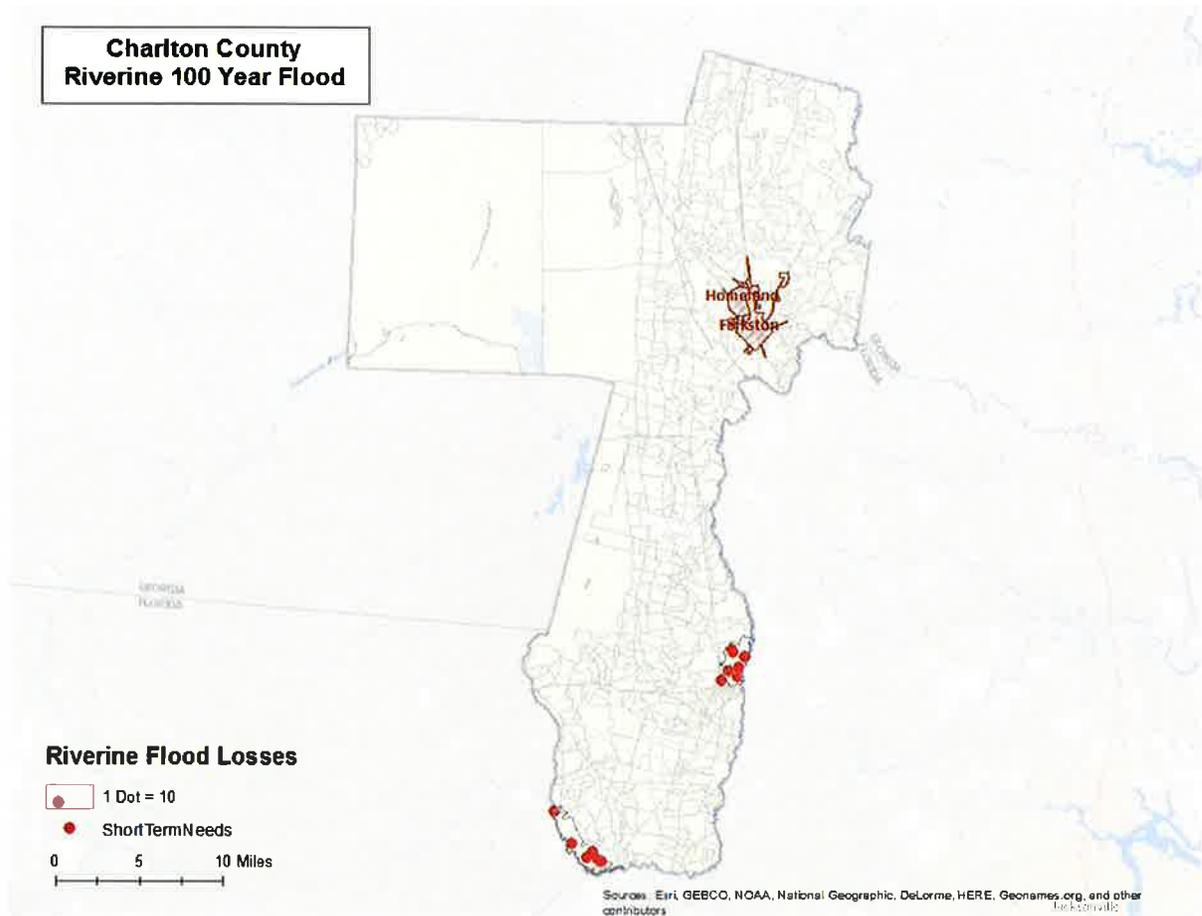


Figure 10: Estimated Flood Shelter Requirements in 1% Riverine Flood

## Riverine 1% Flood Debris

Hazus-MH estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories:

- Finishes (dry wall, insulation, etc.)
- Structural (wood, brick, etc.)
- Foundations (concrete slab, concrete block, rebar, etc.)

Different types of material handling equipment will be required for each category. Debris definitions applied in Hazus-MH are unique to the Hazus-MH model and so do not necessarily conform to other definitions that may be employed in other models or guidelines.

The analysis estimates that an approximate total of 3,437 tons of debris might be generated: 1) Finishes – 1,205 tons; 2) Structural - 790 tons; and 3) Foundations- 1,442 tons. The results are mapped in Figure 11.

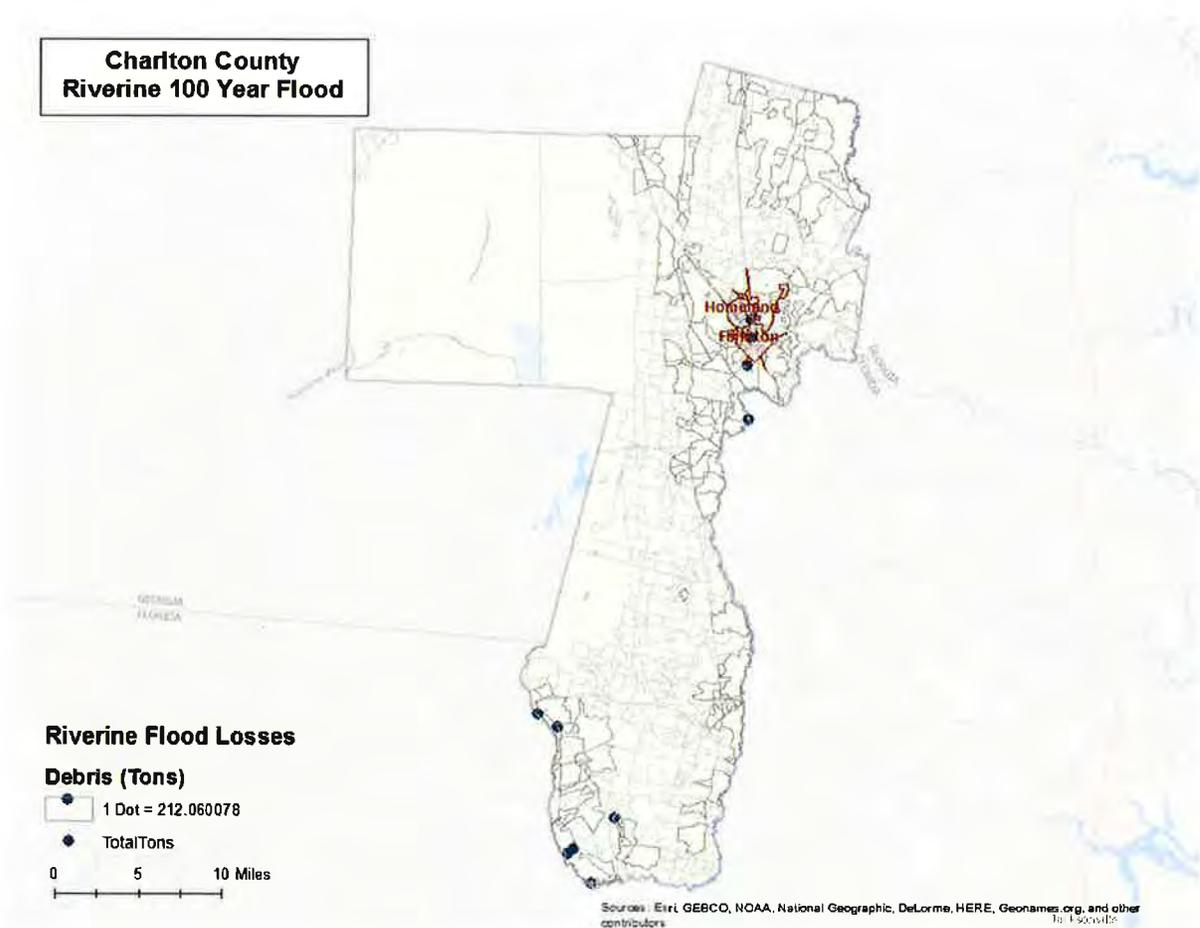


Figure 11: Flood Debris Weight (Tons) in 1% Riverine Flood

# Tornado Risk Assessment

## Hazard Definition

Tornadoes pose a great risk to the state of Georgia and its citizens. Tornadoes can occur at any time during the day or night. They can also happen during any month of the year. The unpredictability of tornadoes makes them one of Georgia’s most dangerous hazards. Their extreme winds are violently destructive when they touch down in the region’s developed and populated areas. Current estimates place the maximum velocity at about 300 miles per hour, but higher and lower values can occur. A wind velocity of 200 miles per hour will result in a wind pressure of 102.4 pounds per square foot of surface area—a load that exceeds the tolerance limits of most buildings. Considering these factors, it is easy to understand why tornadoes can be so devastating for the communities they hit.

Tornadoes are defined as violently-rotating columns of air extending from thunderstorms and cyclonic events. Funnel clouds are rotating columns of air not in contact with the ground; however, the violently-rotating column of air can reach the ground very quickly and become a tornado. If the funnel cloud picks up and blows debris, it has reached the ground and is a tornado.

Tornadoes are classified according to the Fujita tornado intensity scale. Originally introduced in 1971, the scale was modified in 2006 to better define the damage and estimated wind scale. The Enhanced Fujita Scale ranges from low intensity EF0 with effective wind speeds of 65 to 85 miles per hour, to EF5 tornadoes with effective wind speeds of over 200 miles per hour. The Enhanced Fujita intensity scale is included in Table 11.

Table 11: Enhanced Fujita Tornado Rating

Fujita Number	Estimated Wind Speed	Path Width	Path Length	Description of Destruction
EF0 <i>Gale</i>	65-85 mph	6-17 yards	0.3-0.9 miles	Light damage, some damage to chimneys, branches broken, sign boards damaged, shallow-rooted trees blown over.
EF1 <i>Moderate</i>	86-110 mph	18-55 yards	1.0-3.1 miles	Moderate damage, roof surfaces peeled off, mobile homes pushed off foundations, attached garages damaged.
EF2 <i>Significant</i>	111-135 mph	56-175 yards	3.2-9.9 miles	Considerable damage, entire roofs torn from frame houses, mobile homes demolished, boxcars pushed over, large trees snapped or uprooted.
EF3 <i>Severe</i>	136-165 mph	176-566 yards	10-31 miles	Severe damage, walls torn from well-constructed houses, trains overturned, most trees in forests uprooted, heavy cars thrown about.
EF4 <i>Devastating</i>	166-200 mph	0.3-0.9 miles	32-99 miles	Complete damage, well-constructed houses leveled, structures with weak foundations blown off for some distance, large missiles generated.
EF5 <i>Incredible</i>	Over 200 mph	1.0-3.1 miles	100-315 miles	Foundations swept clean, automobiles become missiles and thrown for 100 yards or more, steel-reinforced concrete structures badly damaged.

Source: <http://www.srh.noaa.gov>

## Hypothetical Tornado Scenario

For this report, an EF3 tornado was modeled to illustrate the potential impacts of tornadoes of this magnitude in the county. The analysis used a hypothetical path based upon an EF3 tornado event running along the predominant direction of historical tornadoes (southeast to northwest). The tornado path was placed to travel through Folkston. The selected widths were modeled after a re-creation of the Fujita-Scale guidelines based on conceptual wind speeds, path widths, and path lengths. There is no guarantee that every tornado will fit exactly into one of these categories. Table 12 depicts tornado path widths and expected damage.

Table 12: Tornado Path Widths and Damage Curves

Enhanced Fujita Scale	Path Width (feet)	Maximum Expected Damage
EF5	2,400	100%
EF4	1,800	100%
EF3	1,200	80%
EF2	600	50%
EF1	300	10%

Within any given tornado path there are degrees of damage. The most intense damage occurs within the center of the damage path, with decreasing amounts of damage away from the center. After the hypothetical path is digitized on a map, the process is modeled in GIS by adding buffers (damage zones) around the tornado path. Figure 12 describes the zone analysis.

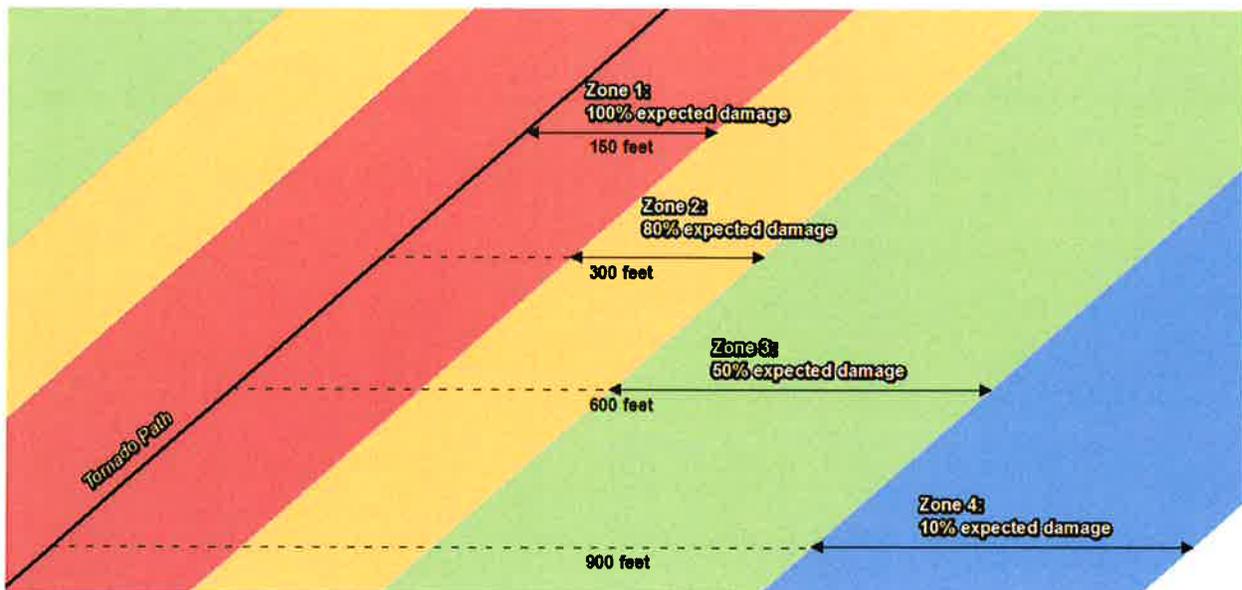


Figure 12: EF Scale Tornado Zones

An EF3 tornado has four damage zones, depicted in Table 13. Major damage is estimated within 150 feet of the tornado path. The outer buffer is 900 feet from the tornado path, within which buildings will not experience any damage. The selected hypothetical tornado path is depicted in Figure 13 and the damage curve buffer zones are shown in Figure 14.

Table 13: EF3 Tornado Zones and Damage Curves

Zone	Buffer (feet)	Damage Curve
1	0-150	80%
2	150-300	50%
3	300-600	10%
4	600-900	0%

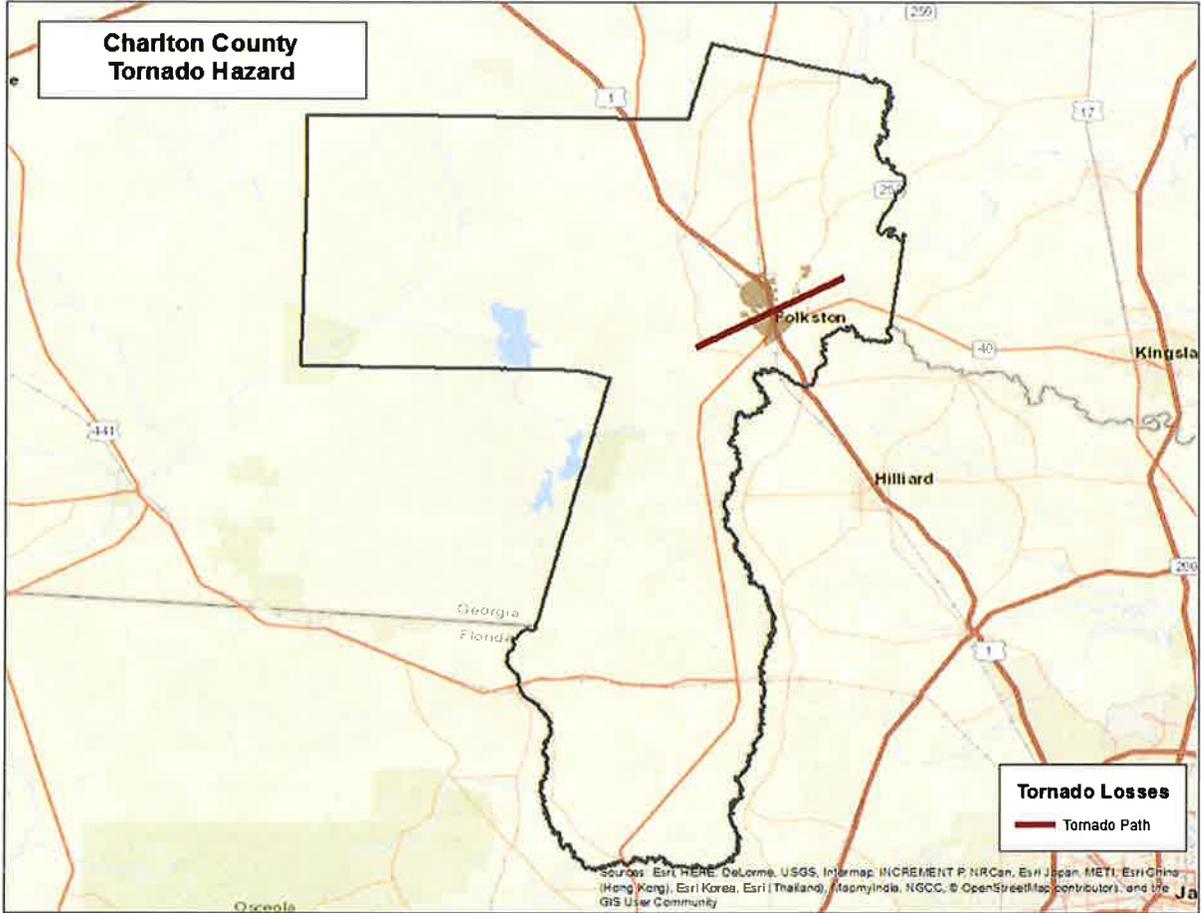


Figure 13: Hypothetical EF3 Tornado Path

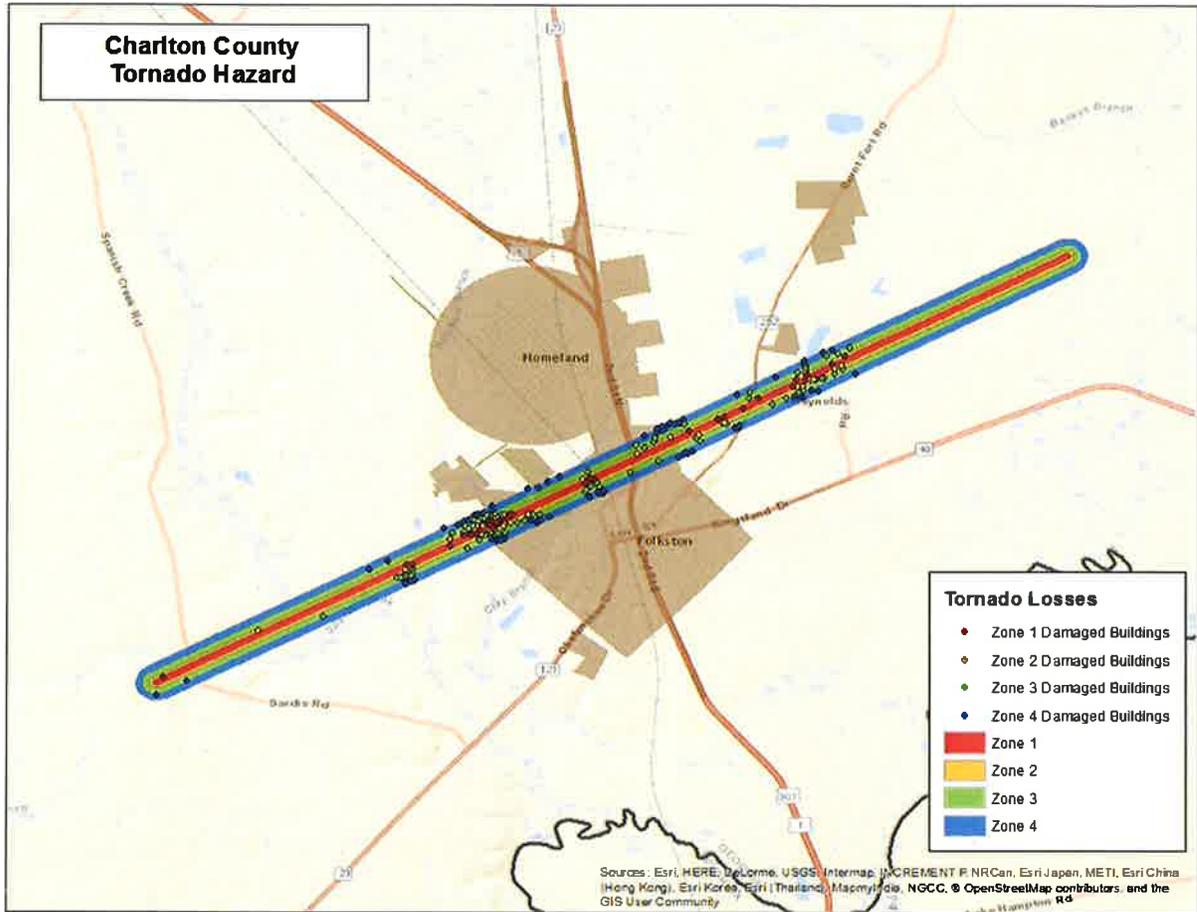


Figure 14: Modeled EF3 Tornado Damage Buffers

### EF3 Tornado Building Damages

The analysis estimated that approximately 260 buildings could be damaged, with estimated building losses of approximately \$7.1 million. The building losses are an estimate of building replacement costs multiplied by the percentages of damage. The overlay was performed against parcels provided by Charlton County that were joined with Assessor records showing estimated property replacement costs. The Assessor records often do not distinguish parcels by occupancy class if the parcels are not taxable and thus the number of buildings and replacement costs may be underestimated. The results of the analysis are depicted in Table 14.

Table 14: Estimated Building Losses by Occupancy Type

Occupancy Classification	Buildings Damaged	Building Losses
Commerical	5	\$ 207,447
Educational	3	\$ 1,228,751
Industrial	2	\$ 20,275
Religious	2	\$ 491,474
Residential	248	\$ 5,193,128
<b>Total</b>	<b>260</b>	<b>\$ 7,141,075</b>

### EF3 Tornado Essential Facility Damage

There were 5 essential facilities located in the tornado path according to the modeling, these 5 facilities would suffer moderate to major damage should such a tornado strike occur.

The location of the damaged Essential Facilities is mapped in Figure 15.

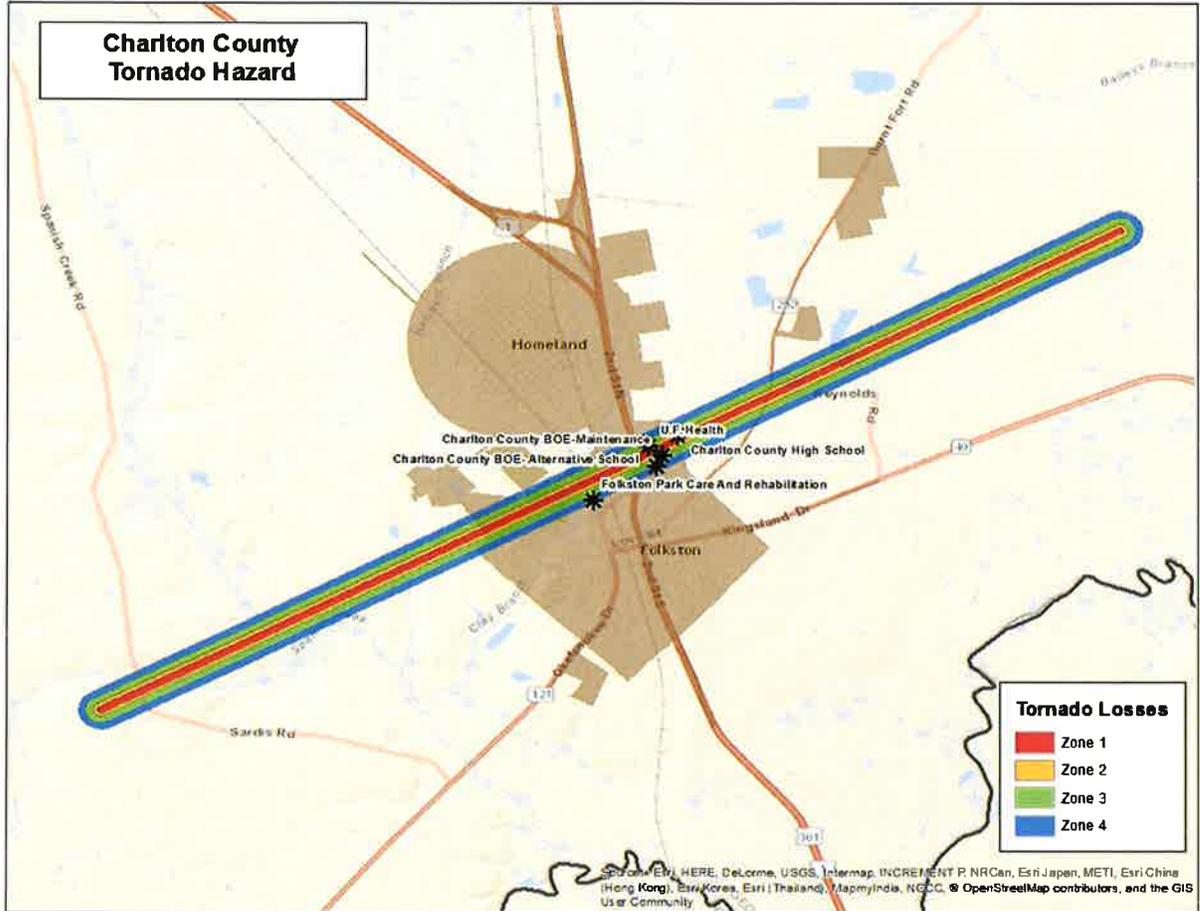


Figure 15: Modeled Essential Facility Damage in Charlton County

# Exceptions Report

Hazus Version 2.2 SP1 was used to perform the loss estimates for Charlton County, Georgia. Changes made to the default Hazus-MH inventory and the modeling parameters used to setup the hazard scenarios are described within this document.

Reported losses reflect the updated data sets. Steps, algorithms and assumptions used during the data update process are documented in the project workflow developed by the Polis Center.

## Statewide Inventory Changes

The default Hazus-MH Essential Facility inventory was updated for the entire state prior to running the hazard scenarios for Charlton County.

Statewide facility data were supplied by GEMA through the GMIS in June 2015. The Regional Commission updated the essential facilities in 2017. The updated data was used for this analysis. Table 15 summarizes the difference between the original Hazus-MH default data and the updated data for Charlton County.

Table 15: Essential Facility Updates

Occupancy Classification	Default		Updated	
	Replacement Cost	Default Count	Replacement Cost	Updated Count
Care	\$ 24,583,000	7	\$ 17,894,000	8
EOC	\$ 880,000	1	\$ 880,000	1
Fire	\$ 8,686,000	10	\$ 5,775,000	8
Police	\$ 15,150,000	9	\$ 11,542,000	6
School	\$ 61,761,000	9	\$ 121,130,000	11

## County Inventory Changes

The GBS records for Charlton County were replaced with data derived from parcel and property assessment data obtained from Charlton County. The county provided property assessment data was current as of August 2017 and the parcel data current as of August 2017.

## General Building Stock Updates

The parcel boundaries and assessor records were obtained from Charlton County. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary unless there were building footprints. Each parcel point was linked to an assessor record based upon matching parcel numbers. The generated Building Inventory represents the approximate locations (within a parcel) of building exposure. The Building Inventory was aggregated by Census Block and imported into Hazus-MH using the Hazus-MH Comprehensive Data Management System (CDMS). Both the 2010 Census Tract and Census Block tables were updated.

The match between parcel records and assessor records was based upon a common Parcel ID. For this type of project, unless the hit rate is better than 85%, the records are not used to update the default aggregate inventory in Hazus-MH. The Parcel-Assessor hit rate for Charlton County was 96.8%.

Adjustments were made to records when primary fields did not have a value. In these cases, default values were applied to the fields. Table 16 outlines the adjustments made to Charlton County records.

Table 16: Building Inventory Default Adjustment Rates

Type of Adjustment	Building Count	Percentage
Area Unknown	413	9%
Construction Unknown	430	10%
Condition Unknown	162	4%
Foundation Unknown	431	10%
Year Built Unknown	139	3%

Portions of the CAMA values were either missing (<Null> or '0'), did not match CAMA domains or were unusable ('Unknown', 'Other', 'Pending'). These were replaced with 'best available' values. Missing YearBuilt values were populated from average values per Census Block. Missing Condition, Construction and Foundation values were populated with the highest-frequency CAMA values per Occupancy Class. Missing Area values were populated with the average CAMA values per Occupancy Class.

The resulting Building Inventory was used to populate the Hazus-MH General Building Stock and User Defined Facility tables. The updated General Building Stock was used to calculate flood and tornado losses. Changes to the building counts and exposure that were modeled in Charlton County are sorted by General Occupancy in Table 1 at the beginning of this report. If replacements cost or building value were not present for a given record in the Assessor data, replacement costs were calculated from the Building Area (sqft) multiplied by the Hazus-MH RS Means (\$/sqft) values for each Occupancy Class.

Differences between the default and updated data are due to various factors. The Assessor records often do not distinguish parcels by occupancy class when the parcels are not taxable; therefore, the total number of buildings and the building replacement costs for government, religious/non-profit, and education may be underestimated.

## User Defined Facilities

Local parcel and CAMA data were used to develop points representing the locations of buildings in the county, referred to as User Defined Facilities (UDF) in the Hazus model. For the flood model, this includes only buildings located in the 1% Annual Chance Riverine Flood Area. Table 17 identifies the total building count & exposure for the county and the total building count & exposure for buildings located in the 1% Annual Chance Riverine Flood Area.

Table 17: Building Count and Exposure for County and Riverine Flood Area

Feature	Counts	Exposure
Total buildings in the County	4,473	\$682,901,401
Total buildings inside the 1% Annual Chance Riverine Flood Area	159	\$15,349,722

It should be noted that UDFs are only used in the flood modeling process, due to the fact that it is important to identify if individual buildings are located within the flood area to obtain the depth of flood.

### Assumptions

- Flood analysis was performed on UDF. The point locations are parcel centroid accuracy.
- The analysis is restricted to the county boundary within the flood area. Events that occur near the county boundary do not contain loss estimates from adjacent counties.
- The following attributes were defaulted or calculated:
  - First Floor Height was set from Foundation Type
  - Content Cost was calculated from Building Cost

**Appendix D – Worksheets used in planning process**

- I. Completed GEMA/local worksheets except Worksheet 3A

CHARLTON COUNTY (INCLUDING THE CITIES OF FOLKSTON AND HOMELAND)  
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/Tropical Storm	6	68	3	6	6	11.33	8.82	0.3	0.3	0.12
Flood/SLOSH	19	68	6	17	19	3.58	27.94	0.6	0.85	0.38
Wildfire	3623	50	465	1106	3623	0.01	7246.00	46.5	55.3	72.46
Tornado	11	68	3	7	11	6.18	16.18	0.3	0.35	0.22
Thunderstorm/Wind	104	68	40	89	104	0.65	152.94	4	4.45	2.08
Severe Winter Storm	13	56	2	12	12	4.31	23.21	0.2	0.6	0.24
Hail	49	68	12	46	49	1.39	72.06	1.2	2.3	0.98
Drought	303	18	148	303	303	0.06	1683.33	14.8	15.15	6.06
Lightning	1	68	1	1	1	68.00	1.47	0.1	0.05	0.02
Extreme Heat	39	12	32	39	39	0.31	325.00	3.2	1.95	0.78

**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 10-20 years.**



# GEMA Worksheet #2

# Profile Hazard Events Step 2

County: Charlton

Date: 8/9/2016

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
USGS Topographic Quarter Quad Maps	1: 12,000	Various

**Task B. Obtain a hazard event profile.****Task C. Record your hazard event profile information.**

Avalanche

Coastal Storm / Coastal Erosion

1. Get a copy of your FIRM. \_\_\_\_\_
2. Verify that the FIRM is up-to-date and complete.
3. Determine the annual rate of coastal erosion. \_\_\_\_\_
4. Find your design wind speed. \_\_\_\_\_

1. Transfer the boundaries of your coastal storm hazard areas onto your base map.
2. Transfer the BFEs onto your base map.
3. Record the erosion rates on your base map: \_\_\_\_\_
4. Record the design wind speed here and on your base map: \_\_\_\_\_

Dam Failure X

Drought X

Earthquake

1. Go to the <http://geohazards.cr.usgs.gov> Website.
2. Locate your planning area on the map.
3. Determine your PGA.

1. Record your PGA: \_\_\_\_\_
2. If you have more than one PGA print, download or order your PGA map.

Expansive Soils

Extreme Heat X

Flood X

1. Get a copy of your FIRM. Various
2. Verify the FIRM is up-to-date and complete. 9/08

1. Transfer the boundaries from your firm onto your base map (floodway, 100-yr flood, 500-yr flood).
2. Transfer the BFEs onto your base map.

Hailstorm X

Hurricane X

Land Subsidence

Landslide

1. Map location of previous landslides. \_\_\_\_\_
2. Map the topography. \_\_\_\_\_
3. Map the geology. \_\_\_\_\_
4. Identify three high-hazard areas on your map. \_\_\_\_\_

1. Mark the areas susceptible to landslides onto your base map.

Severe Winter Storm X

Tornado X

1. Find your design wind speed. 90-99, 100-109

1. Record your design wind speed: 90-99/100-109
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.

Tsunami

Wildfire X

1. Map the fuel models located within the urban-wildland interface areas. GFC
2. Map the topography. GFC
3. Determine your critical fire weather frequency. GFC
4. Determine your fire hazard severity. GFC

1. Draw the boundaries of your wildfire hazard areas onto your base map.

Other: Windstorm, Lightning, Public Health Emer.

1. Map the hazard. Yes

1. Record hazard event info on your base map.

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. *Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).*
2. *Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.*
3. **Scoring:** *For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.*

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Hurricanes/Tropical Storms in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, and the public, due to Hurricanes/Tropical Storms.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)			E (Economic)				E (Environmental)				
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Continue to work with C.E.R.Ts (Community Emergency Response Teams) in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
If possible, design new educational facilities to the level that they could be used as public shelters for emergency purposes and test current shelters and educational facilities for safety and effectiveness in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Work with GDOT to improve unsafe roads in Charlton County and in the Cities of Folkston and Homeland that already are, or could be, evacuation routes including St. Mary's River Bluff Road.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Construct a storage building for storage of emergency materials needed for shelters, etc., relocate materials from other areas, secure additional cots and materials, medications and dehydrated foods for shelters.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Cut made to fit plywood window covers and install construction materials necessary for use during Hurricanes/Tropical Storms at Critical Facilities in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

Designate and attempt to supply new Red Cross Shelters in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Work with GDOT to improve highways in Charlton County and in the Cities of Folkston and Homeland that already are, or could be, evacuation routes., including US 1 in Downtown Folkston, SR 40 at same spot previously expanded.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Order 2 new ambulances, an assisted lift mechanism, cardiac monitors, additional Supplies and Equipment for Charlton County EMS.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).
2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.
3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Hurricanes/Tropical Storms in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #2 - Advise the public of health & safety precautions and procedures necessary during Hurricanes/Tropical Storms and other events and on hazard mitigation, in general, in Charlton County, the City of Folkston and the City of Homeland.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)		E (Economic)				E (Environmental)					
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Acquire and distribute literature from state agencies regarding disaster health & safety issues in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Order additional road signage for emergency traffic circulation and publish most efficient routes in advance in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Distribute information concerning hazard mitigation to area news markets and by speaking at schools and civic clubs in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Provide funding for programs that enhance public safety and health in Charlton County.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. *Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).*
2. *Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.*
3. **Scoring:** *For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.*

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Hurricanes/Tropical Storms in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #3 - Ensure reliable electrical power and communications efficiency at Critical Facilities and among agencies during Hurricanes/Tropical Storms and other events in Charlton County, the City of Folkston and the City of Homeland.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)		E (Economic)				E (Environmental)					
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT /Waste Sites	Consistent with Community Environmental Goals
Purchase generators and trailer for use at Critical Facilities (including EMS/EMA Main Building, Folkston Elementary School Shelter serving 500, First Baptist Church serving 100, St. George Church of God serving 100, Camp Pinckney Baptist Church serving 100, St. George New Life Baptist Church serving 60, Winoker EOC, Folkston EOC, St. George EOC, Charlton Rd. Dept. Fuel Pumps, Charlton Road Dept. St. George Fuel Pumps, Lift Station Portable and pre-wire Critical Facilities & gas pumps for generator use in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Purchase communications equipment (radios, pagers, batteries and chargers) that have multi-channel capabilities and store them at certain Critical Facilities in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Install new and/or repair existing radio repeaters and antennas, which will be automated and zone specific, in Charlton County (especially at Winoker, Race Pond, Georgia Bend and Rayonnier Land at south end of county) and in the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

Install GPS location systems in Emergency Vehicles.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
In Charlton County, purchase 15 Sheriff Vehicles for emergency use.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
In the City of Homeland, purchase 1 Police Vehicle for emergency use.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
In the City of Folkston, purchase 5 Police Vehicle for emergency use.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
In the City of Homeland, purchase 2 generators for water facilities use during emergencies and pre-wire for generators, to serve entire population of 910 persons.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
In the City of Folkston, purchase 6 generators for the 3 water facilities use during emergencies and pre-wire for generators, to serve entire population of 2,502 persons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Identify kitchens, restaurants and fast food establishments that use natural gas or propane for use if electricity is out for long periods during emergency situations.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Floods/SLOSH in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Floods/SLOSH.**





Work to alleviate present & future evacuation & emergency access problems in subdivision areas in Charlton County and the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Work to preserve wetland areas in Charlton County and the City of Folkston and the City of Homeland to assure that excess water can be captured.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
After Flood/SLOSH events, or other hazard events in Charlton County and the City of Folkston and the City of Homeland, attempt to perform analysis on properties effected to determine if events have occurred in the past and attempt to mitigate or purchase, if necessary.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Plan flood and drainage projects in the City of Homeland in Nature Trail Estates area and in other flood-prone areas including installing and replacing culverts.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Continue membership in the NFIP by adopting updated ordinances and FIRM maps as updates are available	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## **Worksheet #4      Evaluate Alternative Mitigation Actions**

*1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).*

*2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.*

*3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.*

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the “expert” or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Wildfire in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, and woodlands due to Wildfire.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)		L (Legal)			E (Economic)				E (Environmental)					
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Action Step #1: Provide additional first responder training, training manequins, extrication equipment, air units, air unit chargers, 1 Class A Pumper and/or Fire Knocker trucks, tankers, and other equipment to all Charlton County Volunteer Fire Stations for Wildfire use.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #2: Plan to acquire property for new Charlton County Volunteer Fire Stations (including Georgia Bend [New], moving Race Pond Station, & Station #1), new additions & modifications to existing stations.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #3: In the City of Folkston and the City of Homeland (on Reynolds Road [New], Robin Lane [New], Paxton Road area and other areas), replace the four inch (4") or less water lines with 6" to 8" water lines and hydrants, tie in Robin Lane and connect Homeland Water System.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #4: In the City of Folkston, extend water into the Spring Lake areas.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #5: In the City of Folkston, improve accuracy, effectiveness, efficiency and safety of the City's water supply.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A

<p>Action Step #6: In the City of Folkston, complete the preparation of a comprehensive set of water system maps to identify problem areas.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
<p>Action Step #7: Work with CSX and other railroads to reduce inadequate slopes that impeded heavy fire equipment from crossing tracks including: Maddox Rd. (marginal), Martha Dowling Rd. (poor), Mizell Rd. (poor), Sawfly Rd. (poor), Old Racepond Rd. (not passable), Lidia Rd. (not passable) and others.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
<p>Action Step #8: Install four (4) deep wells and generator systems to run them with one (1) in Moniac and the other three (3) in roughly each county quadrant for emergency water usage, slowly replacing dry hydrants in those areas.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	+	+

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Wildfire in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #2– Obtain a FireWise Community Status by educating the Charlton County, City of Folkston and the City of Homeland Fire Department personnel and the public on the hazards of Wildfire and the pre-disaster mitigation thereof.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)			E (Economic)				E (Environmental)				
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/ Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/ Water	Effect on Endangered Species	Effect on HAZMAT/ Waste Sites	Consistent with Community Environmental Goals
Action Step #1: Maintain good public relations between the citizens of Charlton County and the City of Folkston and the City of Homeland and the County Fire Departments and plan to increase levels of awareness and resources during peak hazard conditions through the use of education sessions, community meetings, citizens academy, etc.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #2: Partner with the Georgia Forestry Commission to provide education to Charlton County and City of Folkston and the City of Homeland communities and citizens on the pre-disaster mitigation of Wildfire and use & develop grade school based programs to educate children.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #3: Plan RFD meetings in Charlton County and the Cities of Folkston and Homeland and hold joint mock fire drills for all fire stations.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #4: Work to implement the National Cohesive Wildland Fire Management Strategy and educate the public on its merits.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #5: Work to bring a Prevention Education Team (FPET) or Community Mitigation Assistance Team (CMAT) event to the area during periods of high wildfire activity or preparedness.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A



## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Wildfire in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #3: Implement priorities, projects and recommendations contained in GA Forestry Commission's "Community Wildfire Protection Plan".**

STAPLEE Criteria	S (Social)		T (Technical)			A (Administrative)		P (Political)		L (Legal)		E (Economic)				E (Environmental)							
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent With Federal Law?
Action Step #1: Create a minimum of 50 feet of defensible space around all governmental structures and recommend to homeowners & community stakeholders that they create same space through the trimming of shrubs and vines, overhanging limbs, replacement of flammable plants with less flammable varieties and remove vegetation around chimneys.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	+	+
Action Step #2: Reduce structural ignitability by cleaning flammable vegetative materials from roofs and gutters, store firewood appropriately, install skirting around raised structures, store water hoses for easy access and replace pine straw and mulch around plantings with less flammable landscaping materials around all governmental structures and recommend same to homeowners and community stakeholders.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A	N/A
Action Step #3: Hold Community Spring Clean Up Day on the 3rd Saturday in May and cut, prune and mow vegetation in shared community spaces.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A	N/A
Action Step #4: Insure Driveway Access/Right-Of-Way Clearance by maintaining vertical and horizontal clearance for emergency equipment and seeing that adequate lengths and weight bearing capacity of culverts are installed to allow emergency	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A	N/A

<p>Action Step #5: Insure Road Access by identifying needed road improvements and as roads are upgraded, widen to minimum standards with at least 50 foot diameter cul-de-sacs or turn arounds.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Action Step #10: Improve existing fire lines by reducing hazardous fuels through the cleaning and re-harrowing of existing lines.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #11: Insure access to water sources and dry hydrants by inspecting, maintaining and improving access to existing dry hydrants, adding signage along roads to mark the hydrants and locating additional dry hydrants as needed.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #12: Insure all fire stations and firefighters are equipped with wildland hand tools & lightweight PPE gear and investigate need for brush trucks.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #13: Investigate need for additional drafting pumps and apply for grants, if necessary.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #14: Insure that all personnel are trained in Wildfire Suppression.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #15: Conduct "Fire Adapted Communities" Workshop for Charlton County residents.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #16: Conduct "Fire Adapted Communities" Workshop for Charlton County community leaders.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Action Step #17: Develop and distribute Fire Adapted Communities informational packets to code enforcement, realtors & insurance agents.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A

<p>Action Step #18:          Create and Exhibit a Wildfire Protection Display for the general public at the local events. The display can be independent or combined with the GA Forestry Commission display.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
<p>Action Step #19:          Invite Folkston &amp; Waycross news media to community "Fire Adapted Communities" functions for news coverage and regularly submit press releases documenting wildfire risk improvements in Charlton County.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
<p>Action Step #20:          Create a Charlton County WUI Fire Council to review progress towards mitigation goals, appoint &amp; delegate special activities, work with Federal, State and Local officials to assess progress and develop future goals &amp; action plans and work with residents to implement projects and Fire Adapted Communities activities.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
<p>Action Step #21:          Work to implement the Ready, Set, Go! (RSG) Program and educate the public on its merits.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Wildfire in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #4: Obtain Fire Adapted Communities status for St. George and Georgia Bend (both new Firewise Communities), and other areas, by starting work on multi-agency, multi-county and multi-state (GA & FL) wildfire mitigation projects to address Wildfire risks.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)			E (Economic)				E (Environmental)				
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Action Step #1: Maintain good public relations between the citizens of Charlton County and the City of Folkston, the City of Homeland and the surrounding Georgia counties of Brantley, Camden, Clinch and Ware & the Florida counties of Baker, Columbia & Nassau.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #2: Coordinate work with all adjoining counties, planning increased levels of awareness and resources during peak wildfire hazard conditions through the use of education sessions, community meetings, citizen academies, etc.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #3: Participate annually in National Community Wildfire Preparedness Day.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Tornadoes in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Tornadoes.**

STAPLEE Criteria ↓ Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)			P (Political)			L (Legal)		E (Economic)				E (Environmental)				
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Use building inspection program to inspect for adequate tie-downs on manufactured housing in Charlton County and the City of Folkston and the City of Homelands.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Plan for pre-disaster mitigation in Tornado & other hazard seasons by preparing public service announcements, brochures and solicit business participation in distributing information	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Promote safe shelter rooms in areas of Charlton County and the City of Folkston and the City of Homelands where Tornadoes and other disasters frequent.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Develop grid pattern/address based system to physically notify and check on high risk residents both before and after natural disaster events in the City of Folkston, the City of Homelands and in populated areas of Charlton County.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Apply for Response & Recovery Grant and secure funding for an automated hazardous weather alert system in Charlton County, the City of Folkston and the City of Homelands.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
GPS 3 mile radius around Okfenokee Swamp	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Thunderstorms & Wind in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Thunderstorms & Wind.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)		E (Economic)				E (Environmental)					
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT /Waste Sites	Consistent with Community Environmental Goals
Increase public awareness of weather radio distribution, shelters, emergency procedures and the use of a local radio station as the emergency broadcast system station in Charlton County and in the Cities of Folkston and Homeland through public safety announcements, publications and other means.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
If possible, design new educational facilities to the level that they could be used as public shelters for emergency purposes and test current shelters and educational facilities for safety and effectiveness in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Determine wind ratings and plan to wind retrofit Critical Facilities, in Charlton County and in the Cities of Folkston and Homeland as funds become available to do so.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Disseminate information to the public concerning wind ratings and champion new construction being built to those minimum wind standards, and champion the wind retrofitting of existing buildings, in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<p>Enforce existing dangerous building ordinances to prevent or reduce the amount of loose materials blowing around and causing damage in Charlton County and the Cities of Folkston and Homeland.</p>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A	N/A
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----	-----	-----	-----	-----	-----

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Severe Winter Storms in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Severe Winter Storms.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)		E (Economic)			E (Environmental)						
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Continue the policy of wrapping exposed piping with insulation and installing new insulation layers at Critical Facilities in Chariton County and the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Maintain temperatures above 32 degrees to prevent freezing in government owned occupied and unoccupied structures in Chariton County and the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Disseminate information to the public concerning Severe Winter Storms, champion new construction being built to appropriate low temperature ratings and existing buildings being retrofitted in Chariton County and in the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Hail in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Hail.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)		E (Economic)			E (Environmental)						
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenances / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Install storm windows and/or ballistic film on new and existing Critical Facilities and promote their installation on new and existing private buildings in Charlton County and the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Encourage public to include hail damage under insurance coverage and store equipment & vehicles under shelters in Charlton County and the Cities of Folkston and Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Drought in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Drought.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)		P (Political)			L (Legal)			E (Economic)				E (Environmental)				
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT /Waste Sites	Consistent with Community Environmental Goals
Seek input from State and Federal agencies to enact procedures during Drought to limit water usage in Charlton County and the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Replace antiquated water & sewer lines and equipment prone to failure in the City of Folkston and the City of Homeland through CDBG grant funds and other funds when available.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Work with the County Extension Agent to distribute literature related to best management practices in Charlton County and the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Promote increased usage of surface water and surface artesian flow for irrigation instead of well systems in Charlton County and the City of Folkston and the City of Homeland.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. *Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).*
2. *Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.*
3. **Scoring:** *For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.*

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Prevent or reduce damage caused by Lightning in Charlton County, the City of Folkston and the City of Homeland.**

**Objective: Objective #1 - Minimize losses to existing and future structures, especially Critical Facilities and Infrastructure, due to Lightning.**

STAPLEE Criteria	S (Social)		T (Technical)			A (Administrative)		P (Political)		L (Legal)			E (Economic)			E (Environmental)							
Considerations → for Alternative Actions ↓	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent With Federal Laws
Provide every public outdoor recreation facility and every public school outdoor recreation facility with automatic warning device, if feasible.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Educate the public on the risks of Lightning	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## **Worksheet #4      Evaluate Alternative Mitigation Actions**

*1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).*

*2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.*

*3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.*

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Ensure the citizens of Charlton County, the City of Folkston and the City of Homeland are warned about the dangers of Extreme Heat.**

**Objective: Objective #1 - Educate area citizens about the dangers of Extreme Heat events.**

STAPLEE Criteria	S (Social)		T (Technical)			A (Administrative)		P (Political)		L (Legal)			E (Economic)			E (Environmental)						
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals
Provide community education materials	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

## Worksheet #4 Evaluate Alternative Mitigation Actions

1. Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).

2. Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.

3. **Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.

*When you complete the scoring; negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.*

**Goal: Mitigation Goal #1 – Protect the population of Charlton County from the effects of Public Health Emergencies.**

**Objective: Objective #1 – Prepare ways to reduce public exposure to potential or active Public Health Emergencies.**

STAPLEE Criteria Considerations → for Alternative Actions ↓	S (Social)		T (Technical)			A (Administrative)			P (Political)			L (Legal)			E (Economic)			E (Environmental)					
	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance / Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent With Federal Laws
Action Step #1: Increase immunization education, prevention and pre-planning efforts, particularly for the homeless and low income individuals in the community, and host flu shot and other immunization clinics.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #2: Identify vulnerable populations (homeless, migrants, low income, etc.) and identify community groups to work with in order to reach and educate these populations regarding health issues.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #3: Develop plan to identify community locations to obtain and distribute medical countermeasures, safe drinking water, food, ice, tarps, etc.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A
Action Step #4: Approach large businesses about working with the EMA on developing public health emergency plans.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A	N/A

<b>Alternative Actions</b>	<b>Comments</b>

**Appendix E – Copies of Required Planning Documentation**

- I. Public Notices (notice for 2<sup>nd</sup> public hearing is pending)
- II. Sign-In Sheets
- III. Adoption Resolutions (pending adoption)

I. Public Notices



## II. Sign-In Sheets

## Hazard Mitigation Meeting

**Charlton County**

**Date: 7/26/2016**

Name	Organization	Position	Phone	Email
BRUCE YOUNG	CHARLTON EMA	EMA DIRECTOR	912-496-1080	CHARLTONEMA@GMAIL.COM
Shawn Boatright	Charlton BOC	County Administrator	912-390-0080	Sboatright@charltoncountyga.gov
Scott Sherman	GEM HSA	Mitigation Planner	912-496-7939	SCOTT.SHERMAN@GEMA.GA.GOV
Roger Todd	Georgia Forestry Comm.	Chief Ranger	912-276-0585	rtodd@gfc.state.ga.us
Terry Johnson	Charlton County F/R	Fire Chief	912-390-2833	charltonfirechief@gmail.com
Leonard H. Lloyd	City of Folkston	City Mgr.	912-496-2563	Folkston1@windstream.NET
Mia [Signature]	SGLC			

**Charlton County**

**Hazard Mitigation Meeting**

**Date: 8/9/2016**

Name	Organization	Position	Phone	Email
Shawn Boatright	Administration	County Administrator	912-390-0080	sboatright@charltoncountyga.gov
Terry Johnson	CCFR Charlton County	Fire Chief Supervisor of	912-390-2753	charltonfirechief@gmail.com
Brenda Hodges	Commission	Elections	912-390-1786	bhodges@charltoncountyga.gov
BRUCE YOUNG	CHARLTON EMA	EMA DIRECTOR	912-390-2022	CHARLTONEMA@GMAIL.COM
Chris Mehr	GFC	Ranger	912-496-2410	cmehr@gfc.state.us.gov
Leonard H. Lloyd	City of Folkston	City Manager	912 496-2563	penderlloyd@yamac.com
MARTHA OBERDORFER	NASSAU EM	SR PLANNER	904 548 0900	MLWAGAMAN@NASSAUSO.COM
Mik Jacobs	SERC			

## Hazard Mitigation Meeting

**Charlton County**

**Date: 8/30/2016**

<u>Name</u>	<u>Organization</u>	<u>Position</u>	<u>Phone</u>	<u>Email</u>
TERRI JENKINS	US FWS Oklawaha NWR	FIRE MGT Specialist	912-313-4225	terri-jenkins@fws.gov
BRUCE YOUNG	CHARLTON EMA	EMA DIRECTOR	912-496-1090	CHARLTONEMA@GMAIL.COM
Brenda Hodges	Charlton County	Supervisor of Elections	912-390-1786	bhodges@charltoncountyga.gov
Jed Knowles	Charlton Co.	Road Sup	912-276-0864	charltonroads@gmail.com
Geni King	Charlton Co	Public Works Cord.	912-496-4321	charltonroads@gmail.com
BLAIR Nixon	City of Homelands	PW Sup	496-7332	cityofhomelands@yahoo.com
Sheva Boatright	Charlton County	County Administrator	912-396-0080	sboatright@charltoncountyga.gov
Darlene Williamson	City of Folkston	City Clerk	912-496-2563	dwilliamson@cityoffolkston-ga.gov
Quida Johnson	Homelands	Mayor	912 496 7332	HomelandsCity@.com
Joseph K Taylor	Homelands	Councilman	720 854 4968	JKT628@gmail.com

Mike Sachs

461C

9/27/16

Mike Jacobs

SGRC

MVJACOBSESGRC.US  
johnson.HL@DCH.net

912. 285 6091

Terry Johnson

CCFR

912-390-2753

Terri Jenkins

USFWS

terri\_jenkins@fws.gov

912-496-7366x236

BRUCE YOUNG

CHARLTON EMA

BYOUNG@CHARLTONCOUNTYGA.GOV

912-496-1080

Darlene Williamson

City of Folkston

dwilliamson@cityoffolkston-ga.gov

912-496-2563

BLAIR NIXON

City of Homeland

cityofhomeland@yahoo.com

912-276-1340

Shawn Boatright

Charlton County

sboatright@charltoncountyga.gov

912-390-0080

Pender Lloyd

City of Folkston

penderlloyd@yahoo.com

912-496-2563

Onida Jahna

Homeland

CityHomeland@yahoo.com

## Hazard Mitigation Meeting

**Charlton County**

**Date: 1/31/2017**

Name	Organization	Position	Phone	Email
BRUCE YOUNG	CHARLTON CO EMA	EMA DIRECTOR	912-390-2022	BYOUNG@CHARLTONCOUNTYGA.GOV
Ouida Johnson	Homeland Gr	Mayor	912-496-7337	<del>Homeland City Hall @ yahoo.com</del>
BLAIR NIXON	City of Homeland (RD Dept)	PW Super	912-270-1340	City of Homeland @ yahoo.com ↑
Erin King	Charlton Co Boc	PW coordinator	912-270-1800	eking@charltoncountyga.gov
Shaun Bradright	Charlton County	County Administrator	912-390-0080	sbradright@charltoncountyga.gov
Pender Lloyd	Folkston	City Mgr.	912-717-0320	
Brenda Hodges	Charlton County	Supervisor of Elections	912-390-1786	bhodges@charltoncountyga.gov
C.L. Lewis	Charlton County	Fire Chief	912-390-9658	charltondeputyfirechief@gmail.com

Charlton County

Hazard Mitigation Meeting

Date: 2/28/2017

Name	Organization	Position	Phone	Email
Shawn Boatright	Charlton County	Administrator	912-496-2549	Sboatright@charltoncountyga.gov
BLAIR NIXON	CITY OF HOMELAND	PW SUPERVISOR	912-496-7332	cityofhomeland@yahoo.com
C.L. Lewis	Charlton County Fire/Rescue	Chief	912-390-9688	CLewis@charltoncountyga.gov
Quida Johnson	City of Homeland	MAYOR	912-496 7332	City of Homeland @ yahoo.com
Pendera Lloyd	City of Folkston	City Manager	912-496-2563	
BRUCE YOUNG	CHARLTON EMA	DIRECTOR	912-3902082	

**Southern Georgia Regional Commission  
Charlton County and Cities of Folkston and Homeland  
Hazard Mitigation Plan Update – Final Public Hearing  
Date: August 28, 2018**

Name	Organization	Title	Email
Hampton Raulerson	Charlton County BOC	County Admin,	hraulerson@charltoncountyga.gov
BRUCE YOUNG	CHARLTON COUNTY	EMA DIRECTOR	byoung@charltoncountyga.gov
Roger Todd	Georgia Forestry Commission	Chief Ranger	rtodd@gfc.state.ga.us
Brenda Hodges	Charlton County	Supervisor of Elections	bhodges@charltoncountyga.gov
C.L. Lewis	Charlton County	Fire Chief	clewis@charltoncountyga.gov
Ouida Johnson	Homeland	Mayor	<del>Homeland</del> City of Homeland@yahoo.com
Ariel Godwin	SGRC	Planner	agodwin@sgrc.us

### III. Adoption Resolutions

**A RESOLUTION OF THE  
CHARLTON COUNTY BOARD OF COMMISSIONERS  
PURSUANT TO THE DISASTER MITIGATION ACT OF 2000  
AUTHORIZING ADOPTION OF THE  
CHARLTON COUNTY HAZARD MITIGATION PLAN**

---

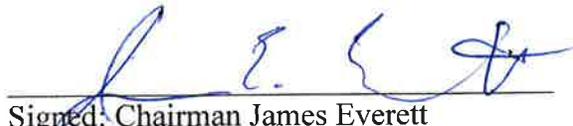
WHEREAS, Charlton County and its municipal governments are required to complete a Hazard Mitigation Plan by the Disaster Mitigation Act of 2000; and

WHEREAS, under the provisions of the Disaster Mitigation Act of 2000, local governments that complete Hazard Mitigation Plans will remain eligible for Federal mitigation funding; and

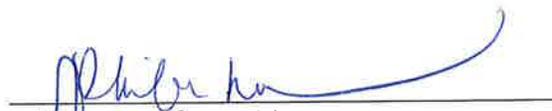
WHEREAS, Charlton County and its municipal governments have completed an updated Hazard Mitigation Plan that fulfills the Federal requirements of the Disaster Mitigation Act of 2000.

**NOW THEREFORE LET IT BE RESOLVED THAT THE CHARLTON COUNTY COMMISSION FORMALLY ADOPTS THIS UPDATED HAZARD MITIGATION PLAN.**

RESOLVED THIS 6<sup>th</sup> DAY OF September, 2018

  
Signed: Chairman James Everett  
Charlton County Commission Chairman

(County Seal)

  
Attest: Jennifer Nobles  
Charlton County County Clerk

**A RESOLUTION OF THE  
FOLKSTON CITY COUNCIL  
PURSUANT TO THE DISASTER MITIGATION ACT OF 2000  
AUTHORIZING ADOPTION OF THE  
CHARLTON COUNTY HAZARD MITIGATION PLAN**

---

WHEREAS, Charlton County and its municipal governments are required to complete a Hazard Mitigation Plan by the Disaster Mitigation Act of 2000; and

WHEREAS, under the provisions of the Disaster Mitigation Act of 2000, local governments that complete Hazard Mitigation Plans will remain eligible for Federal mitigation funding; and

WHEREAS, Charlton County and its municipal governments have completed an updated Hazard Mitigation Plan that fulfills the Federal requirements of the Disaster Mitigation Act of 2000.

**NOW THEREFORE LET IT BE RESOLVED THAT THE FOLKSTON CITY COUNCIL FORMALLY ADOPTS THIS UPDATED HAZARD MITIGATION PLAN.**

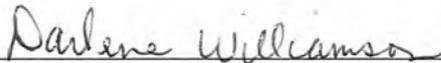
**RESOLVED THIS 17 DAY OF 09, 2018**



Signed: Honorable Lee Gowen  
City of Folkston Mayor



(City Seal)



Attest: Darlene Williamson  
City of Folkston City Clerk

**A RESOLUTION OF THE  
HOMELAND CITY COUNCIL  
PURSUANT TO THE DISASTER MITIGATION ACT OF 2000  
AUTHORIZING ADOPTION OF THE  
CHARLTON COUNTY HAZARD MITIGATION PLAN**

---

WHEREAS, Charlton County and its municipal governments are required to complete a Hazard Mitigation Plan by the Disaster Mitigation Act of 2000; and

WHEREAS, under the provisions of the Disaster Mitigation Act of 2000, local governments that complete Hazard Mitigation Plans will remain eligible for Federal mitigation funding; and

WHEREAS, Charlton County and its municipal governments have completed an updated Hazard Mitigation Plan that fulfills the Federal requirements of the Disaster Mitigation Act of 2000.

**NOW THEREFORE LET IT BE RESOLVED THAT THE HOMELAND CITY COUNCIL FORMALLY ADOPTS THIS UPDATED HAZARD MITIGATION PLAN.**

**RESOLVED THIS 18 DAY OF Oct, 2018**



Signed: Honorable Ouida Johnson  
City of Homeland Mayor

(City Seal)





Attest: Bernice Pascal  
City of Homeland City Clerk

## Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Hurricane \(Typhoon\)](#), [Tropical Storm](#)

Charlton county contains the following zones:

'Charlton'

6 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

### Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	6
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By:  ▼

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:							0	0	0.00K	0.00K	
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	09/05/2004	00:01	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	09/25/2004	12:00	EST	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	06/01/2007	16:38	EST-5	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	09/01/2016	07:00	EST-5	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	10/06/2016	07:00	EST-5	Tropical Storm	0	0	0.00K	0.00K	
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	09/10/2017	11:00	EST-5	Tropical Storm	0	0	0.00K	0.00K	
Totals:							0	0	0.00K	0.00K	

# Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Flash Flood](#), [Flood](#), [Heavy Rain](#)

Charlton county contains the following zones:

'Charlton'

19 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

Summary Info:

Number of County/Zone areas affected:	2
Number of Days with Event:	15
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	5
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	3

Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By:  ▼

<a href="#">Location</a>	<a href="#">County/Zone</a>	<a href="#">St.</a>	<a href="#">Date</a>	<a href="#">Time</a>	<a href="#">T.Z.</a>	<a href="#">Type</a>	<a href="#">Mag</a>	<a href="#">Dth</a>	<a href="#">Inj</a>	<a href="#">PrD</a>	<a href="#">CrD</a>
Totals:								0	0	225.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	09/30/1996	09:55	EST	Flash Flood		0	0	15.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	10/07/1996	12:30	EST	Flash Flood		0	0	160.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	03/01/1998	00:01	EST	Flood		0	0	25.00K	0.00K
<a href="#">COUNTYWIDE</a>	CHARLTON CO.	GA	09/29/1998	23:00	EST	Flash Flood		0	0	10.00K	0.00K
<a href="#">NORTH PORTION</a>	CHARLTON CO.	GA	10/04/1998	16:15	EST	Flash Flood		0	0	15.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	09/09/2004	11:00	EST	Flood		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	09/09/2004	11:00	EST	Flood		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	09/10/2004	15:13	EST	Flood		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	06/25/2005	12:55	EST	Flood		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	06/25/2005	13:00	EST	Flood		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	06/25/2005	13:00	EST	Flood		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	06/25/2005	16:45	EST	Flood		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	07/02/2005	13:40	EST	Flood		0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/31/2009	20:07	EST-5	Heavy Rain		0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/26/2010	16:55	EST-5	Heavy Rain		0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	05/29/2012	23:21	EST-5	Heavy Rain		0	0	0.00K	0.00K
<a href="#">PAXTON</a>	CHARLTON CO.	GA	06/25/2012	07:47	EST-5	Heavy Rain		0	0	0.00K	0.00K
<a href="#">TRADERS HILL</a>	CHARLTON CO.	GA	08/04/2015	13:00	EST-5	Heavy Rain		0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	06/11/2017	23:00	EST-5	Heavy Rain		0	0	0.00K	0.00K
Totals:								0	0	225.00K	0.00K

## Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Wildfire](#)

Charlton county contains the following zones:

'[Charlton](#)'

4 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

### Summary Info:

Number of County/Zone areas affected:	2
Number of Days with Event:	4
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By:  ▼

<a href="#">Location</a>	<a href="#">County/Zone</a>	<a href="#">St.</a>	<a href="#">Date</a>	<a href="#">Time</a>	<a href="#">I.Z.</a>	<a href="#">Type</a>	<a href="#">Mag</a>	<a href="#">Dth</a>	<a href="#">Inj</a>	<a href="#">PrD</a>	<a href="#">CrD</a>
Totals:								0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	CHARLTON CO.	GA	05/30/1999	16:00	EST	Wildfire		0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	07/11/2000	19:00	EST	Wildfire		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	05/01/2007	00:00	EST-5	Wildfire		0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	05/01/2017	00:00	EST-5	Wildfire		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Data Source: Georgia Forestry Commission

<b>Acreage Burned /Number of Fires For Charlton County For FY 1968-2018</b>		
<b>Year</b>	<b>Acreage Burned</b>	<b>Number of Fires</b>
1968	967.81	60
1969	152.24	65
1970	78.41	44
1971	815.1	137
1972	150.08	84
1973	244.29	133
1974	238.66	80
1975	118.24	43
1976	722.5	162
1977	1,125.88	139
1978	257.44	112
1979	1,985.69	152
1980	101.4	64
1981	816.56	133
1982	803.39	104
1983	258.16	54
1984	414.32	89
1985	724.98	153
1986	240.98	67
1987	267.26	42
1988	649.61	100
1989	474.91	60
1990	503.49	66
1991	2,899.62	65
1992	339.79	76
1993	113.81	47
1994	454.41	53
1995	226.09	38
1996	573.1	57
1997	124.56	38
1998	16,451.78	73
1999	468.03	91
2000	8,931.82	103
2001	283.56	73
2002	314.72	44
2003	110.49	24
2004	692.39	54
2005	78.31	29
2006	177.03	41
2007	3,135.15	109
2008	519.91	51

2009	281.36	29
2010	202	30
2011	7,366.94	101
2012	228	49
2013	196.74	19
2014	155.93	36
2015	380.64	50
2016	470.91	45
2017	29,180.07	55

## Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Funnel Cloud](#), [Tornado](#)

11 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

### Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	10
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	1
Number of Days with Event and Property Damage:	4
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	2

### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Select:

Sort By:

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>I.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
Totals:								0	1	167.50K	0.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	03/31/1961	13:20	CST	Tornado	F1	0	1	0.00K	0.00K
<a href="#">MATTOX</a>	CHARLTON CO.	GA	02/02/1996	19:20	EST	Tornado	F0	0	0	12.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	11/08/1996	11:15	EST	Tornado	F0	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	02/22/1998	17:05	EST	Tornado	F0	0	0	5.00K	0.00K
<a href="#">MATTOX</a>	CHARLTON CO.	GA	08/14/1998	16:35	EST	Funnel Cloud		0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	03/30/2000	14:45	EST	Tornado	F0	0	0	0.50K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	12/24/2002	11:43	EST	Tornado	F1	0	0	100.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	12/24/2002	11:50	EST	Tornado	F0	0	0	50.00K	0.00K
<a href="#">CLARKING</a>	CHARLTON CO.	GA	03/07/2008	10:20	EST-5	Tornado	EF1	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	01/21/2010	12:45	EST-5	Tornado	EF0	0	0	0.00K	0.00K
<a href="#">TRADERS HILL</a>	CHARLTON CO.	GA	04/23/2017	18:00	EST-5	Funnel Cloud		0	0	0.00K	0.00K
Totals:								0	1	167.50K	0.00K

# Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Thunderstorm Wind](#)

104 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	86
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	1
Number of Days with Event and Property Damage:	31
Number of Days with Event and Crop Damage:	2
Number of Event Types reported:	1

Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Wind Magnitude Definitions:

Measured Gust:'MG', Estimated Gust:'EG', Measured Sustained:'MS', Estimated Sustained:'ES'

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Select:

Sort By:

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	2	216.50K	51.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	04/26/1975	18:15	CST	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	02/27/1984	09:30	CST	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	10/11/1990	18:30	CST	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	08/05/1992	18:15	PST	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	08/18/1992	17:15	PST	Thunderstorm Wind	0 kts.	0	0	0.00K	0.00K
<a href="#">Folkston</a>	CHARLTON CO.	GA	02/11/1995	22:00	EST	Thunderstorm Wind	0 kts.	0	0	135.00K	50.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	11/07/1995	20:05	EST	Thunderstorm Wind	0 kts.	0	0	3.00K	0.00K
<a href="#">RIVERSIDE</a>	CHARLTON CO.	GA	02/02/1996	19:00	EST	Thunderstorm Wind	55 kts.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	02/02/1996	19:00	EST	Thunderstorm Wind	55 kts.	0	0	2.00K	0.00K
<a href="#">MATTOX</a>	CHARLTON CO.	GA	02/02/1996	19:10	EST	Thunderstorm Wind	60 kts.	0	0	2.50K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/07/1996	18:05	EST	Thunderstorm Wind	60 kts.	0	0	2.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	08/05/1996	16:50	EST	Thunderstorm Wind	60 kts.	0	0	2.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	09/16/1997	15:45	EST	Thunderstorm Wind		0	0	1.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	11/02/1997	00:10	EST	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	02/16/1998	10:00	EST	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	04/08/1998	13:40	EST	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	04/08/1998	16:00	EST	Thunderstorm Wind		0	0	1.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/19/1998	18:45	EST	Thunderstorm Wind		0	0	0.50K	0.00K
<a href="#">UPTONVILLE</a>	CHARLTON CO.	GA	06/22/1998	16:45	EST	Thunderstorm Wind		0	0	1.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/22/1998	15:25	EST	Thunderstorm Wind		0	0	1.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/28/1998	16:30	EST	Thunderstorm Wind		0	0	1.50K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	08/08/1998	13:30	EST	Thunderstorm Wind		0	0	1.50K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	08/09/1998	14:20	EST	Thunderstorm Wind		0	0	1.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	01/02/1999	22:50	EST	Thunderstorm Wind		0	0	1.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	08/02/1999	19:45	EST	Thunderstorm Wind		0	0	3.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	09/07/1999	16:38	EST	Thunderstorm Wind		0	0	2.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	01/24/2000	08:11	EST	Thunderstorm Wind		0	0	2.50K	0.00K

<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	02/27/2000	13:45	EST	Thunderstorm Wind		0	0	0.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/27/2000	17:05	EST	Thunderstorm Wind		0	0	2.50K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	03/27/2000	17:30	EST	Thunderstorm Wind		0	0	3.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/27/2000	19:40	EST	Thunderstorm Wind		0	0	2.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/15/2000	17:00	EST	Thunderstorm Wind		0	0	2.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/11/2000	18:00	EST	Thunderstorm Wind		0	0	2.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/13/2001	05:00	EST	Thunderstorm Wind		0	0	2.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/13/2001	05:00	EST	Thunderstorm Wind		0	0	2.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/15/2001	16:10	EST	Thunderstorm Wind		0	0	0.50K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/16/2001	16:35	EST	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/14/2002	20:30	EST	Thunderstorm Wind		0	0	5.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	07/20/2002	14:20	EST	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">MONIAC</a>	CHARLTON CO.	GA	11/06/2002	05:40	EST	Thunderstorm Wind		0	0	10.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	02/22/2003	15:10	EST	Thunderstorm Wind	60 kts. EG	0	0	5.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/13/2003	11:15	EST	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	04/25/2003	12:45	EST	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	05/18/2003	17:00	EST	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	CHARLTON CO.	GA	06/11/2003	16:00	EST	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	07/26/2003	17:00	EST	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/30/2003	14:35	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	01/26/2004	17:30	EST	Thunderstorm Wind	50 kts. ES	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/01/2004	16:05	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/03/2004	16:50	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/29/2004	19:25	EST	Thunderstorm Wind	56 kts. MG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/15/2004	11:40	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	07/15/2004	11:55	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	07/15/2004	16:10	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	05/10/2006	20:45	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/29/2006	16:30	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/29/2006	16:30	EST	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	03/02/2007	05:00	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	04/15/2007	06:15	EST-5	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/11/2007	13:35	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/13/2007	14:55	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	07/20/2007	18:33	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">PAXTON</a>	CHARLTON CO.	GA	07/21/2007	20:45	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	08/11/2007	18:50	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">TRADERS HILL</a>	CHARLTON CO.	GA	06/10/2008	15:57	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/10/2008	16:00	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/28/2008	15:25	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	07/23/2008	10:00	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	08/13/2008	13:40	EST-5	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	08/13/2008	14:00	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	08/13/2008	14:15	EST-5	Thunderstorm Wind	50 kts. EG	0	2	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	08/13/2008	14:15	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	04/13/2009	16:00	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/22/2009	18:05	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/29/2009	16:15	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	01/21/2010	12:20	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">COLERAIN</a>	CHARLTON CO.	GA	06/18/2010	17:25	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/26/2010	16:28	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/26/2010	16:30	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/06/2011	13:15	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/23/2011	13:30	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/23/2011	14:06	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/23/2011	14:15	EST-5	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">COLERAIN</a>	CHARLTON CO.	GA	09/20/2011	13:55	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">NEWELL</a>	CHARLTON CO.	GA	05/06/2012	15:30	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

<a href="#">PAXTON</a>	CHARLTON CO.	GA	06/12/2012	12:20	EST-5	Thunderstorm Wind	45 kts. EG	0	0	0.00K	1.00K
<a href="#">UPTONVILLE</a>	CHARLTON CO.	GA	07/30/2012	14:10	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">PAXTON</a>	CHARLTON CO.	GA	08/15/2012	14:40	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">PAXTON</a>	CHARLTON CO.	GA	09/18/2012	09:40	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	09/20/2012	13:08	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">PAXTON</a>	CHARLTON CO.	GA	01/30/2013	09:30	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">STOKESVILLE</a>	CHARLTON CO.	GA	05/19/2013	20:45	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">PAXTON</a>	CHARLTON CO.	GA	02/21/2014	10:30	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">NEWELL</a>	CHARLTON CO.	GA	06/20/2014	17:50	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	06/24/2014	17:13	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	08/19/2014	14:45	EST-5	Thunderstorm Wind	45 kts. EG	0	0	0.50K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	04/19/2015	15:58	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	04/19/2015	21:00	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/30/2015	13:34	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">FOLKSTON DAVIS ARPT</a>	CHARLTON CO.	GA	07/16/2016	16:17	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	07/16/2016	16:25	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">UPTONVILLE</a>	CHARLTON CO.	GA	07/17/2016	16:26	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	01/22/2017	18:20	EST-5	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/15/2017	16:35	EST-5	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Totals:								0	2	216.50K	51.00K

## Storm Events Database

### Search Results for Charlton County, Georgia

Event Types: [Blizzard](#), [Cold/Wind Chill](#), [Extreme Cold/Wind Chill](#), [Freezing Fog](#), [Frost/Freeze](#), [Heavy Snow](#), [Ice Storm](#), [Sleet](#), [Winter Storm](#), [Winter Weather](#)

Charlton county contains the following zones:

'[Charlton](#)'

1 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

#### Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	1
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

#### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By:  ▼

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>I.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
Totals:								0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	01/29/2014	14:30	EST-5	Sleet		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

# Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Hail](#)

49 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	33
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Select:

Sort By:

Location	County/Zone	St.	Date	Time	I.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	04/30/1971	07:00	CST	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">CHARLTON CO.</a>	CHARLTON CO.	GA	04/26/1975	18:00	CST	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	09/16/1997	15:30	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	06/19/1998	16:45	EST	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	06/19/1998	16:55	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/19/1998	17:35	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/28/1998	16:37	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	01/02/1999	17:40	EST	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	11/21/1999	13:50	EST	Hail	1.50 in.	0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	03/27/2000	16:50	EST	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/27/2000	17:00	EST	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/27/2000	17:15	EST	Hail	2.00 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/27/2000	17:30	EST	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	03/27/2000	18:35	EST	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	04/24/2000	12:50	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	04/24/2000	14:47	EST	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/13/2000	16:45	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	05/27/2001	17:14	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/18/2001	13:15	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/26/2001	18:15	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	05/31/2002	16:00	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	06/22/2004	13:45	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	07/15/2004	11:40	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	07/15/2004	11:55	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	07/15/2004	16:10	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	07/15/2004	16:45	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/14/2005	16:52	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/25/2005	06:15	EST	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	03/26/2005	12:20	EST	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	02/03/2006	19:00	EST	Hail	1.00 in.	0	0	0.00K	0.00K

<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	02/03/2006	20:40	EST	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">MONIAC</a>	CHARLTON CO.	GA	04/08/2006	17:35	EST	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	05/15/2006	13:00	EST	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	05/15/2006	15:15	EST	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">RACEPOND</a>	CHARLTON CO.	GA	05/15/2006	15:30	EST	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	05/15/2006	18:15	EST	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	06/13/2007	12:40	EST-5	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">ST GEORGE</a>	CHARLTON CO.	GA	06/25/2008	16:36	EST-5	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	10/09/2008	11:30	EST-5	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">UPTONVILLE</a>	CHARLTON CO.	GA	10/09/2008	12:00	EST-5	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	04/13/2009	16:40	EST-5	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	04/13/2009	16:43	EST-5	Hail	1.25 in.	0	0	0.00K	0.00K
<a href="#">MATTOX</a>	CHARLTON CO.	GA	06/18/2009	22:06	EST-5	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">NEWELL</a>	CHARLTON CO.	GA	04/25/2010	15:55	EST-5	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">PAXTON</a>	CHARLTON CO.	GA	05/21/2010	17:35	EST-5	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	06/26/2010	16:18	EST-5	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">TRADERS HILL</a>	CHARLTON CO.	GA	05/12/2011	15:35	EST-5	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">FOLKSTON</a>	CHARLTON CO.	GA	05/14/2011	11:40	EST-5	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">WINOKUR</a>	CHARLTON CO.	GA	05/25/2014	15:40	EST-5	Hail	1.75 in.	0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

## Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Drought](#)

Charlton county contains the following zones:

['Charlton'](#)

1 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

### Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	1
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By:  ▼

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>I.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
Totals:								0	0	0.00K	0.00K
<a href="#">CHARLTON (ZONE)</a>	CHARLTON (ZONE)	GA	12/01/2006	00:00	EST-5	Drought		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

CHARLTON COUNTY DROUGHT EVENTS 2000-2018

Source: US Drought Monitor Date: March 8, 2018

Row Labels	Sum of CountD4	Sum of CountD3-D4	Sum of CountD2-D4	Sum of CountD1-D4
2000	0	3	32	35
2001	0	6	21	39
2002	0	4	15	29
2003	0	0	0	0
2004	0	0	0	3
2005	0	0	0	0
2006	0	0	5	14
2007	0	6	15	35
2008	0	0	0	4
2009	0	0	0	7
2010	0	4	14	16
2011	3	46	52	52
2012	11	23	24	25
2013	0	1	8	12
2014	0	0	0	2
2015	0	0	5	9
2016	0	0	0	5
2017	0	3	8	16
2018	0	0	0	10
<b>Grand Total</b>	<b>14</b>	<b>96</b>	<b>199</b>	<b>313</b>

**Sum of CountD0-D4**

47  
43  
51  
10  
14  
0  
24  
44  
29  
19  
24  
52  
31  
29  
14  
25  
36  
23  
10

**525**

## Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Lightning](#)

1 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

### Summary Info:

Number of County/Zone areas affected:	1
Number of Days with Event:	1
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	1
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By:  ▼

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>T.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
Totals:								0	0	2.00K	0.00K
<a href="#">HOMELAND</a>	CHARLTON CO.	GA	08/15/2012	15:00	EST-5	Lightning		0	0	2.00K	0.00K
Totals:								0	0	2.00K	0.00K

## Storm Events Database

Search Results for Charlton County, Georgia

Event Types: [Excessive Heat](#)

Charlton county contains the following zones:

'Charlton'

0 events were reported between 01/01/1950 and 12/31/2017 (24837 days)

### Summary Info:

Number of County/Zone areas affected:	0
Number of Days with Event:	0
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	0

### Column Definitions:

'Mag': Magnitude, 'Dth': Deaths, 'Inj': Injuries, 'PrD': Property Damage, 'CrD': Crop Damage

Click on Location below to display details.

Available Event Types have changed over time. Please refer to the [Database Details](#) for more information.

Sort By:  ▼

<u>Location</u>	<u>County/Zone</u>	<u>St.</u>	<u>Date</u>	<u>Time</u>	<u>I.Z.</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
Totals:								0	0	0.00K	0.00K



Hazard Risk Analyses  
Supplement to the Charlton County  
Joint Hazard Mitigation Plan



# TABLE OF CONTENTS

TABLE OF CONTENTS .....	1
Introduction.....	4
Risk Assessment Process Overview.....	4
County Inventory Changes.....	4
General Building Stock Updates .....	5
Essential Facility Updates .....	7
Assumptions and Exceptions .....	8
Hurricane Risk Assessment.....	9
Hazard Definition .....	9
Probabilistic Hurricane Scenario .....	12
Wind Damage Assessment.....	12
Wind-Related Building Damages .....	12
Essential Facility Losses .....	13
Shelter Requirements.....	14
Debris Generated from Hurricane Wind .....	15
Flood Risk Assessment .....	16
Hazard Definition .....	16
Riverine 1% Flood Scenario .....	17
Riverine 1% Flood Building Damages .....	18
Riverine 1% Flood Essential Facility Losses.....	19
Riverine 1% Flood Shelter Requirements .....	20
Riverine 1% Flood Debris.....	21
Tornado Risk Assessment.....	22
Hazard Definition .....	22
Hypothetical Tornado Scenario .....	23
EF3 Tornado Building Damages .....	25
EF3 Tornado Essential Facility Damage .....	26
Exceptions Report .....	27
Statewide Inventory Changes .....	27
County Inventory Changes.....	27
General Building Stock Updates .....	27
User Defined Facilities .....	29

List of Tables

Table 1: GBS Building Exposure Updates by Occupancy Class\* .....5

Table 2: Updated Essential Facilities .....7

Table 3: Saffir-Simpson Hurricane Wind Scale .....10

Table 4: Tropical Systems affecting Charlton County.....11

Table 5: Hurricane Wind Building Damage .....13

Table 6: Wind-Damaged Essential Facility Losses .....14

Table 7: Displaced Households and People.....14

Table 8: Wind-Related Debris Weight (Tons).....15

Table 9: Charlton County Riverine 1% Building Losses .....18

Table 10: Expected Damage to Essential Facilities in 1% Riverine Flood .....19

Table 11: Enhanced Fujita Tornado Rating .....22

Table 12: Tornado Path Widths and Damage Curves.....23

Table 13: EF3 Tornado Zones and Damage Curves .....24

Table 14: Estimated Building Losses by Occupancy Type .....25

Table 15: Essential Facility Updates .....27

Table 16: Building Inventory Default Adjustment Rates .....28

Table 17: Building Count and Exposure for County and Riverine Flood Area .....29

List of Figures

Figure 1: Charlton County Overview .....6

Figure 2: Continental United States Hurricane Strikes: 1950 to 2014 .....9

Figure 3: Wind Speeds by Storm Category .....12

Figure 4: Hurricane Wind GBS Loss Ratios .....13

Figure 5: Hurricane Wind Shelter Requirements .....14

Figure 6: Wind-Related Debris Weight (Tons).....15

Figure 7: Riverine 1% Flood Inundation .....17

Figure 8: Potential UDF Loss Ratios from the 1% Riverine Flood .....18

Figure 9: Damaged Buildings in 1% Riverine Flood .....19

Figure 10: Estimated Flood Shelter Requirements in 1% Riverine Flood .....20

Figure 11: Flood Debris Weight (Tons) in 1% Riverine Flood .....21

Figure 12: EF Scale Tornado Zones.....23

Figure 13: Hypothetical EF3 Tornado Path.....24

Figure 14: Modeled EF3 Tornado Damage Buffers .....25

Figure 15: Modeled Essential Facility Damage in Charlton County .....26

# Introduction

The Federal Disaster Mitigation Act of 2000 (DMA2K) requires state, local, and tribal governments to develop and maintain a mitigation plan to be eligible for certain federal disaster assistance and hazard mitigation funding programs.

Mitigation seeks to reduce a hazard's impacts, which may include loss of life, property damage, disruption to local and regional economies, and the expenditure of public and private funds for recovery. Sound mitigation must be based on a sound risk assessment that quantifies the potential losses of a disaster by assessing the vulnerability of buildings, infrastructure, and people.

In recognition of the importance of planning in mitigation activities, FEMA Hazus-MH, a powerful disaster risk assessment tool based on geographic information systems (GIS). This tool enables communities of all sizes to predict estimated losses from floods, hurricanes, earthquakes, and other related phenomena and to measure the impact of various mitigation practices that might help reduce those losses.

In **2017**, the Georgia Department of Emergency Management partnered with The **Southern Georgia Regional Commission** (SGRC) to develop a detailed risk assessment focused on defining hurricane, riverine flood and tornado impacts for Georgia. This assessment identifies the characteristics and potential consequences of the disaster, how much of the community could be affected by the disaster, and the impact on community assets. In the following years, the Georgia Association of Regional Commissions (GARC) are utilizing this workflow to define impacts in other counties in Georgia. This document provides the results for Charlton County.

## Risk Assessment Process Overview

Hazus-MH Version 2.2 SP1 was used to perform the analyses for Charlton County. The Hazus-MH application includes default data for every county in the US. This Hazus-MH data was derived from a variety of national sources and in some cases the data are also several years old. Whenever possible, using local provided data is preferred. Charlton County provided building inventory information from the county's property tax assessment system. This section describes the changes made to the default Hazus-MH inventory and the modeling parameters used for each scenario.

### County Inventory Changes

The default Hazus-MH site-specific point inventory was updated using data compiled from the Georgia Emergency Management Agency (GEMA). The default Hazus-MH aggregate inventory (General Building Stock) was also updated prior to running the scenarios. Reported losses reflect the updated data sets.

## General Building Stock Updates

General Building Stock (GBS) is an inventory category that consists of aggregated data (grouped by census geography — tract or block). Hazus-MH generates a combination of site-specific and aggregated loss estimates based on the given analysis and user input.

The GBS records for Charlton County were replaced with data derived from parcel and property assessment data obtained from Charlton County. The county provided property assessment data was current as of August 2017 and the parcel data current as of August 2017. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary; then, each parcel point was linked to an assessor record based upon matching parcel numbers. The parcel assessor match-rate for Charlton County is 96.8%. The

generated building inventory represents the approximate locations (within a parcel) of structures. The building inventory was aggregated by census block. Both the tract and block tables were updated. Table 1 shows the results of the changes to the GBS tables by occupancy class.

Table 1: GBS Building Exposure Updates by Occupancy Class\*

Occupancy Classification	Default Count	Updated Count	Default Exposure	Updated Exposure
Agricultural	9	0	\$ 2,279,000	\$ -
Commercial	151	208	\$ 87,395,000	\$ 92,936,000
Education	6	24	\$ 9,223,000	\$ 13,478,000
Government	5	20	\$ 2,627,000	\$ 72,548,000
Industrial	43	76	\$ 22,600,000	\$ 75,143,000
Religious	25	46	\$ 15,063,000	\$ 24,816,000
Residential	4336	4099	\$ 591,524,000	\$ 403,964,000
<b>Total</b>	<b>4575</b>	<b>4473</b>	<b>\$ 730,711,000</b>	<b>\$ 682,885,000</b>

\*The exposure values represent the total number and replacement cost for all Charlton County Buildings

For Charlton County, the updated GBS was used to calculate hurricane wind losses. The flood losses and tornado losses were calculated from building inventory modeled in Hazus-MH as User-Defined Facility (UDF)<sup>1</sup>, or site-specific points. Figure 1 shows the distribution of buildings as points based on the county provided data.

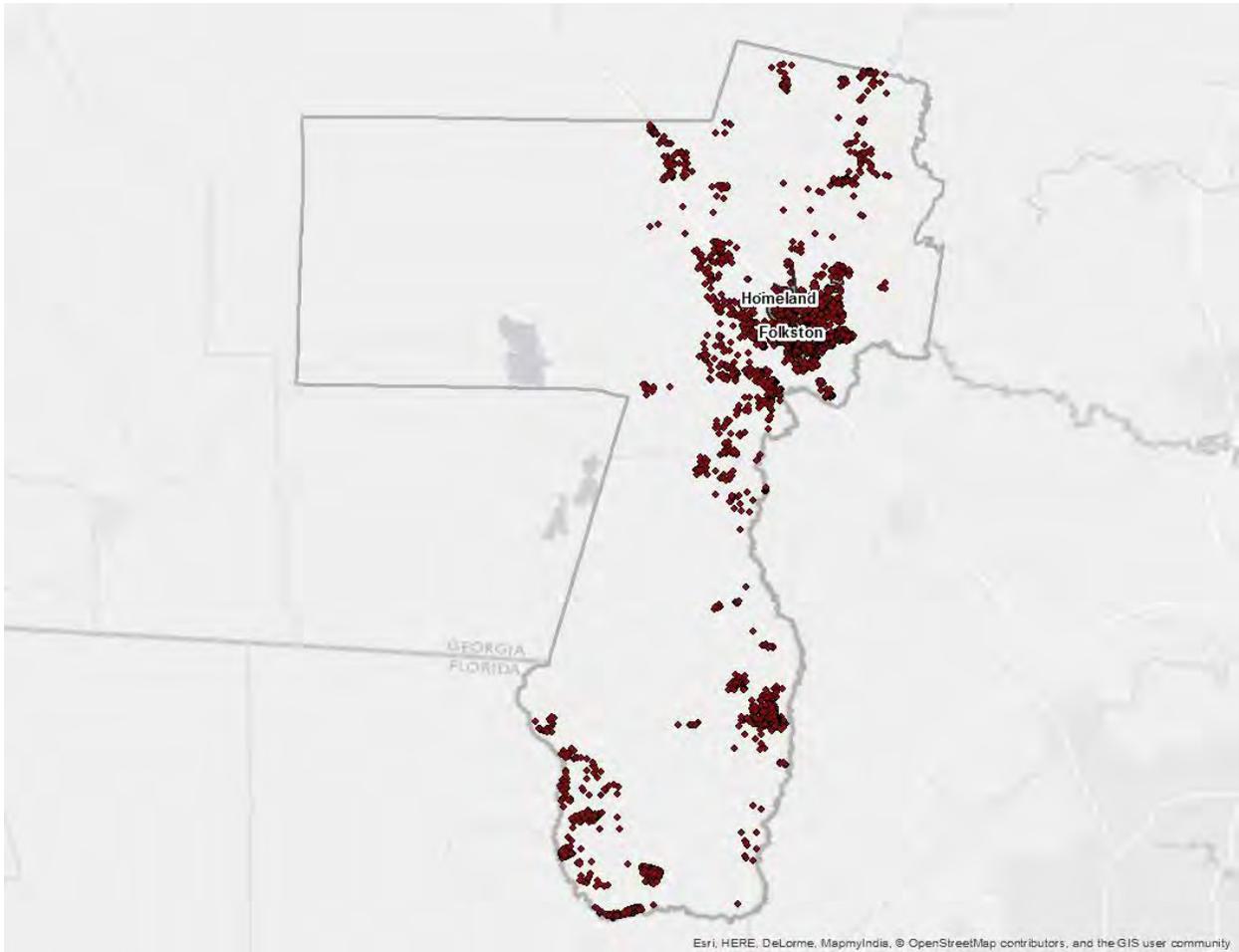


Figure 1: Charlton County Overview

---

<sup>1</sup> The UDF inventory category in Hazus-MH allows the user to enter site-specific data in place of GBS data.

## Essential Facility Updates

The default Hazus-MH essential facility data was updated to reflect improved information available in the Georgia Mitigation Information System (GMIS). For these risk analyses, only GMIS data for buildings that Hazus-MH classified as Essential Facilities was integrated into Hazus-MH because the application provides specialized reports for these five types of facilities. Essential Facility inventory was updated for the analysis conducted for this report. The following table summarizes the counts and exposures, where available, by Essential Facility classification of the updated data for the county.

### Essential facilities include:

- Care facilities
- EOCs
- Fire stations
- Police stations
- Schools

Table 2: Updated Essential Facilities

Classification	Updated Count	Updated Exposure
Charlton County		
EOC	1	\$ 880,000
Care	8	\$ 17,894,000
Fire	8	\$ 5,775,000
Police	6	\$ 11,542,000
School	11	\$ 121,130,000
<b>Total</b>	<b>34</b>	<b>\$ 157,221,000</b>

Classification	Updated Count	Updated Exposure
Folkston		
EOC	0	\$ -
Care	6	\$ 13,185,000
Fire	1	\$ 1,743,000
Police	4	\$ 9,387,000
School	7	\$ 111,563,000
<b>Total</b>	<b>18</b>	<b>\$ 135,878,000</b>

Classification	Updated Count	Updated Exposure
Homeland		
EOC	0	\$ -
Care	0	\$ -
Fire	0	\$ -
Police	1	\$ 153,000
School	0	\$ -
<b>Total</b>	<b>1</b>	<b>\$ 153,000</b>

# Assumptions and Exceptions

Hazus-MH loss estimates may be impacted by certain assumptions and process variances made in this risk assessment.

- The Charlton County analysis used Hazus-MH Version 2.2 SP1, which was released by FEMA in May 2015.
- County provided parcel and property assessment data may not fully reflect all buildings in the county. For example, some counties do not report not-for-profit buildings such as government buildings, schools and churches in their property assessment data. This data was used to update the General Building Stock as well as the User Defined Facilities applied in this risk assessment.
- GBS updates from assessor data will skew loss calculations. The following attributes were defaulted or calculated:
  - Foundation Type was set from Occupancy Class
  - First Floor Height was set from Foundation Type
  - Content Cost was calculated from Replacement Cost
- It is assumed that the buildings are located at the centroid of the parcel unless building footprints are used. For this analysis of Charlton County, parcel centroids were used.
- The essential facilities extracted from the GMIS were only used in the portion of the analysis designated as essential facility damage. They were not used in the update of the General Building Stock or the User Defined Facility inventory.

The hazard models included in this risk assessment included:

- Hurricane assessment which was comprised of a wind only damage assessment
- Flood assessment based on the 1% annual chance event that includes riverine assessments
- Tornado assessment based on GIS modeling

# Hurricane Risk Assessment

## Hazard Definition

The National Hurricane Center describes a hurricane as a tropical cyclone in which the maximum sustained wind is, at minimum, 74 miles per hour (mph)<sup>2</sup>. The term hurricane is used for Northern Hemisphere tropical cyclones east of the International Dateline to the Greenwich Meridian. The term typhoon is used for Pacific tropical cyclones north of the Equator west of the International Dateline. Hurricanes in the Atlantic Ocean, Gulf of Mexico, and Caribbean form between June and November with the peak of hurricane season occurring in the middle of September. Figure 2 shows that many hurricanes have impacted the Atlantic and Gulf coasts of the United States.



Figure 2: Continental United States Hurricane Strikes: 1950 to 2014<sup>3</sup>

Hurricane intensities are measured using the Saffir-Simpson Hurricane Wind Scale (Table 3). This scale is a 1 to 5 categorization based on the hurricane's intensity at the indicated time.

<sup>2</sup> National Hurricane Center (2011). "Glossary of NHC Terms." National Oceanic and Atmospheric Administration. <http://www.nhc.noaa.gov/aboutgloss.shtml#h>. Retrieved 2-23-2012.

<sup>3</sup> Source: NOAA National Climatic Data Center

Table 3: Saffir-Simpson Hurricane Wind Scale

Category	Wind Speed (mph)	Damage
1	74 – 95	Very dangerous winds will produce some damage
2	96 – 110	Extremely dangerous winds will cause extensive damage
3	111 - 130	Devastating damage will occur
4	131 -155	Catastrophic damage will occur
5	> 155	Catastrophic damage will occur

Hurricanes bring a complex set of impacts. The winds from a hurricane produce a rise in the water level at landfall called storm surge. Storm surges produce coastal flooding effects that can be as damaging as the hurricane’s winds. Hurricanes bring very intense inland riverine flooding. Hurricanes can also produce tornadoes that can add to the wind damages inland. In this risk assessment, only hurricane winds, and coastal storm surge are considered.

The National Oceanic and Atmospheric Administration’s National Hurricane Center created the HURDAT database, which contains all of the tracks of tropical systems since the mid-1800s. This database was used to document the number of tropical systems that have affected Charlton County by creating a 20-mile buffer around the county to include storms that didn’t make direct landfall in Charlton County but impacted the county. Since 1851, Charlton County has had 76 tropical systems within 20 miles of its county borders (Table 4).

Table 4: Tropical Systems affecting Charlton County

Year	Month	Day	Name	Wind (Knots)	Category	Year	Month	Day	Name	Wind (Knots)	Category
1868	October	4	NOTNAMED	50	TS	1926	July	28	NOTNAMED	60	TS
1868	October	5	NOTNAMED	40	TS	1928	September	18	NOTNAMED	80	H1
1871	August	18	NOTNAMED	60	TS	1932	September	15	NOTNAMED	45	TS
1871	August	18	NOTNAMED	60	TS	1938	October	24	NOTNAMED	40	TS
1871	August	18	NOTNAMED	50	TS	1946	October	8	NOTNAMED	40	TS
1871	August	23	NOTNAMED	60	TS	1946	October	8	NOTNAMED	35	TS
1871	August	23	NOTNAMED	50	TS	1946	November	2	NOTNAMED	25	TD
1871	September	6	NOTNAMED	50	TS	1946	November	2	NOTNAMED	25	TD
1873	June	2	NOTNAMED	40	TS	1947	September	24	NOTNAMED	50	TS
1873	June	2	NOTNAMED	40	TS	1947	September	24	NOTNAMED	45	TS
1873	September	19	NOTNAMED	60	TS	1947	October	7	NOTNAMED	40	TS
1874	September	28	NOTNAMED	60	TS	1947	October	7	NOTNAMED	35	TS
1877	September	20	NOTNAMED	40	TS	1950	September	7	EASY	40	TS
1877	September	20	NOTNAMED	40	TS	1953	September	20	NOTNAMED	40	TS
1878	October	11	NOTNAMED	40	TS	1960	July	29	BRENDA	30	TD
1880	September	8	NOTNAMED	40	TS	1964	June	6	NOTNAMED	30	TD
1882	October	11	NOTNAMED	50	TS	1964	October	5	HILDA	35	E
1885	August	31	NOTNAMED	40	TS	1968	June	7	ABBY	50	TS
1885	September	21	NOTNAMED	40	TS	1970	May	25	ALMA	25	TD
1885	September	30	NOTNAMED	30	TD	1970	May	25	ALMA	25	TD
1885	October	12	NOTNAMED	50	TS	1972	May	27	ALPHA	50	SS
1888	September	9	NOTNAMED	45	TS	1972	May	28	ALPHA	30	SD
1888	September	9	NOTNAMED	40	TS	1976	May	23	SUBTROP1	40	SS
1893	June	16	NOTNAMED	50	TS	1976	May	24	SUBTROP1	40	SS
1896	September	29	NOTNAMED	100	H3	1984	September	28	ISIDORE	45	TS
1898	October	2	NOTNAMED	115	H4	1985	October	10	ISABEL	35	TS
1898	October	2	NOTNAMED	90	H2	1985	October	11	ISABEL	30	TD
1900	October	12	NOTNAMED	35	TS	1985	October	11	ISABEL	30	TD
1907	June	29	NOTNAMED	45	TS	1994	November	21	GORDON	20	TD
1910	October	19	NOTNAMED	50	TS	1994	November	21	GORDON	20	TD
1912	July	15	NOTNAMED	45	TS	1996	October	8	JOSEPHINE	60	TS
1912	July	15	NOTNAMED	40	TS	1996	October	8	JOSEPHINE	45	E
1914	September	17	NOTNAMED	60	TS	1998	October	1	GEORGES	25	TD
1914	September	17	NOTNAMED	40	TS	2000	September	18	GORDON	40	TS
1915	August	2	NOTNAMED	40	TS	2000	September	18	GORDON	30	TD
1915	August	2	NOTNAMED	40	TS	2004	August	12	BONNIE	30	TD
1919	October	1	NOTNAMED	40	TS	2005	October	6	TAMMY	45	TS
1924	September	16	NOTNAMED	40	TS	2007	June	2	BARRY	30	TD

Category Definitions:

TS – Tropical storm

TD – Tropical depression

CAT\_1 – Category 1 (same format for 2, 3, 4 and 5)

E – Extra-tropical cyclone

# Probabilistic Hurricane Scenario

The following probabilistic wind damage risk assessment modeled a Category 1 storm with maximum winds of 90 mph.

## Wind Damage Assessment

Wind losses were determined from probabilistic models run for the Category 1 storm which equates to the 1% chance storm event. Figure 3 shows wind speeds for the modeled hurricane.

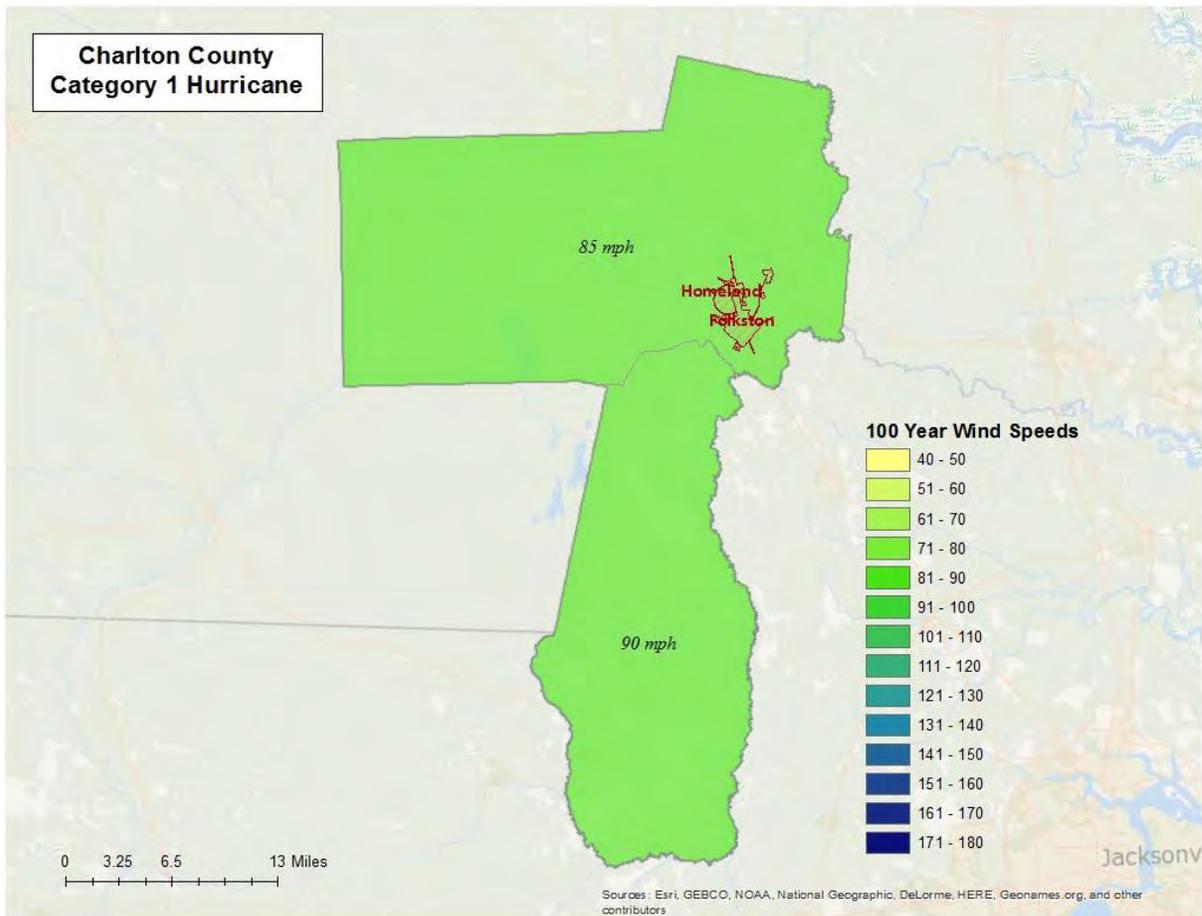


Figure 3: Wind Speeds by Storm Category

## Wind-Related Building Damages

Buildings in Charlton County are vulnerable to storm events, and the cost to rebuild may have significant consequences to the community. The following table shows a summary of the results of wind-related building damage in Charlton County for the Category 1 (100 Year Event) storm. The loss ratio expresses building losses as a percentage of total building replacement cost in the county. Figure 4 illustrates the building loss ratios of the modeled Category 1 storm.

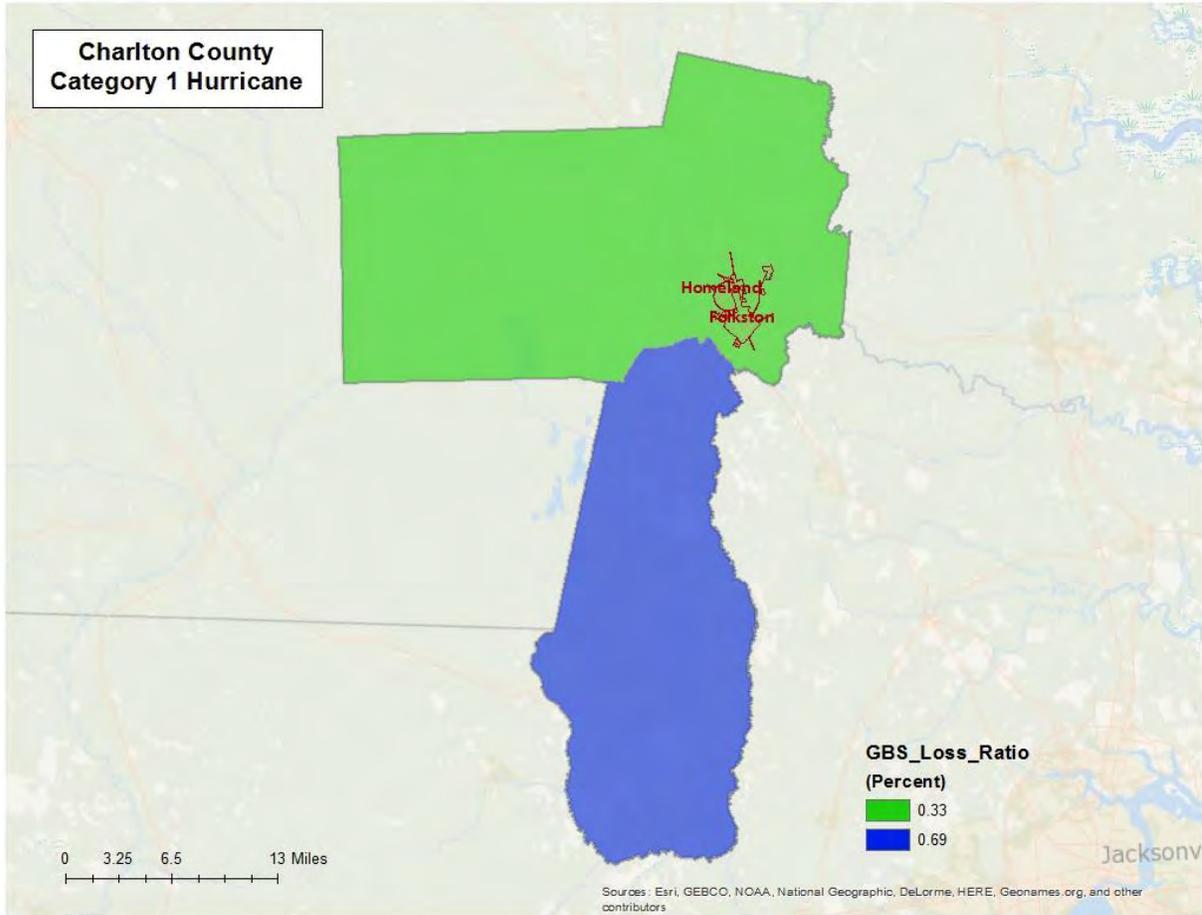


Figure 4: Hurricane Wind GBS Loss Ratios

Table 5 shows the Hurricane Wind Building Damage results including the number of buildings damaged, total building damage, and economic loss.

Table 5: Hurricane Wind Building Damage

Storm Classification	Number of Damaged Buildings	Building Damages	Total Economic Loss	Loss Ratio
Category 1	156	\$ 2,759,610	\$ 3,979,840	0.4

## Essential Facility Losses

Essential facilities are also vulnerable to storm events, and the potential loss of functionality may have significant consequences to the community. Hazus-MH identified the essential facilities that may be moderately or severely damaged by winds. The results are compiled in Table 6.

There are 34 essential facilities in Charlton County.

Classification	Number
EOC	1
Care	8
Fire	8
Police	6
School	11
<b>Total</b>	<b>34</b>

Table 6: Wind-Damaged Essential Facility Losses

Storm Classification	Facilities Moderately Damaged (>50%)	Facilities Completely Damaged (>50%)	Facilities with expected loss (<1day)
Category 1	0	0	34

## Shelter Requirements

Hazus-MH estimates the number of households evacuated from buildings with severe damage from high velocity winds as well as the number of people who will require short-term sheltering. The results are listed in Table 7 and mapped in Figure 5.

Table 7: Displaced Households and People

Storm Classification	# of Displaced Households	# of People Needing Short-Term Shelter
Category 1	1	0

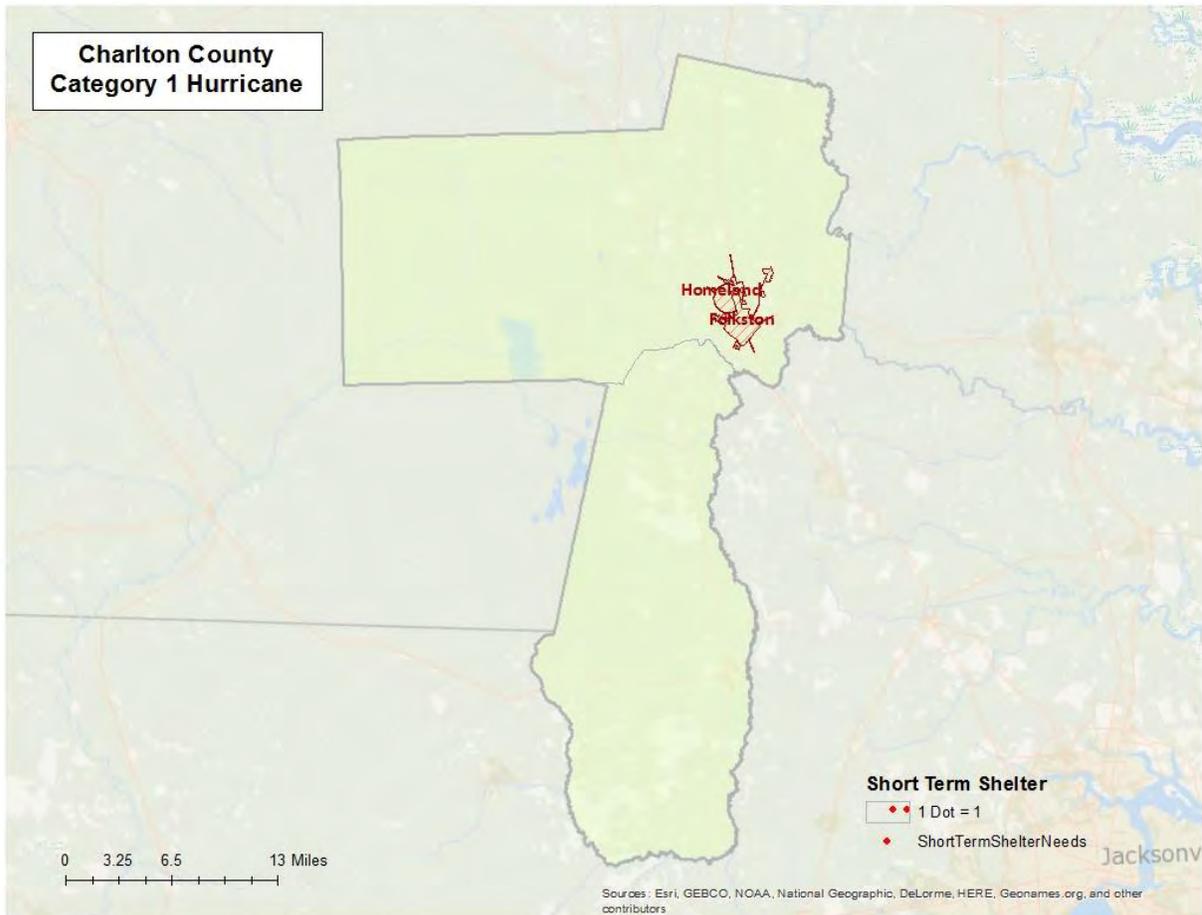


Figure 5: Hurricane Wind Shelter Requirements

## Debris Generated from Hurricane Wind

Hazus-MH estimates the amount of debris that will be generated by high velocity hurricane winds and quantifies it into three broad categories to determine the material handling equipment needed:

- Reinforced Concrete and Steel Debris
- Brick and Wood and Other Building Debris
- Tree Debris

Different material handling equipment is required for each category of debris. The estimates of debris for this scenario are listed in Table 8. The amount of hurricane wind related tree debris that is estimated to require pick up at the public's expense is listed in the eligible tree debris column.

Table 8: Wind-Related Debris Weight (Tons)

Storm Classification	Brick, Wood, and Other	Reinforced Concrete/Steel	Tree Debris	Other Tree Debris	Total
Category 1	291	-	7,915	246,435	254,641

Figure 6 shows the distribution of all wind related debris resulting from a Category 1 hurricane. Each dot represents 20 tons of debris within the census tract in which it is located. The dots are randomly distributed within each census tract and therefore do not represent the specific location of debris sites.

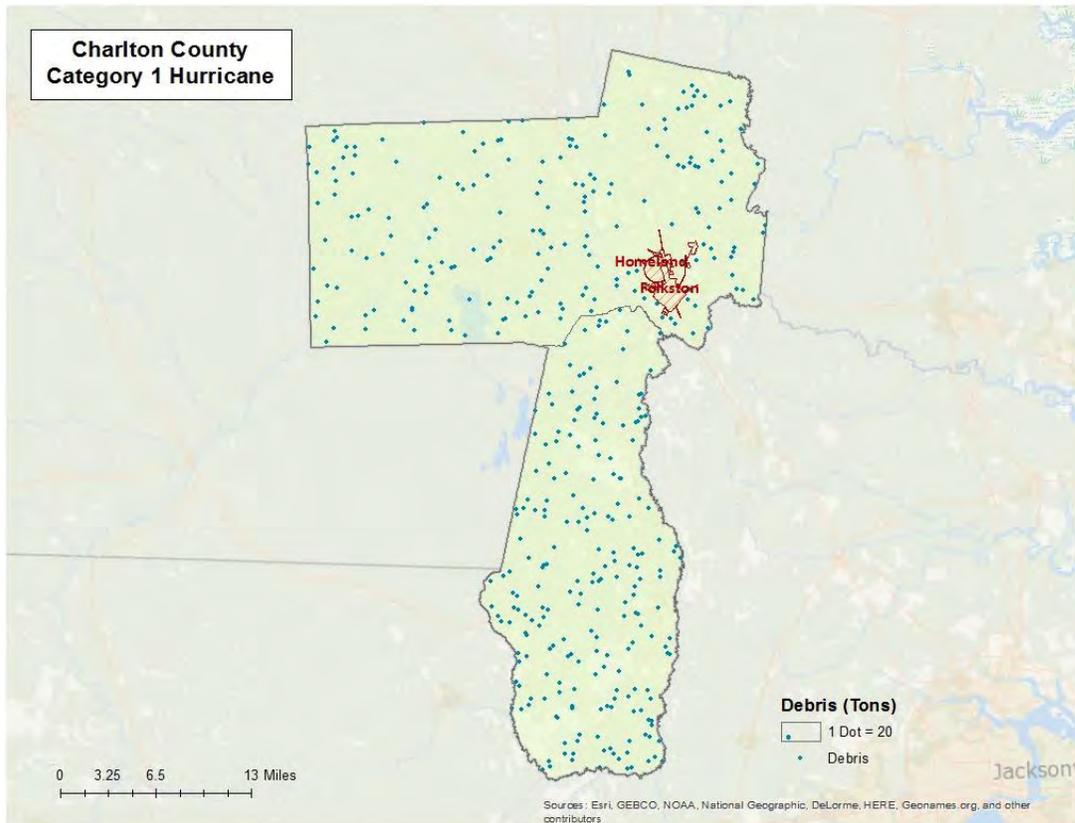


Figure 6: Wind-Related Debris Weight (Tons)

# Flood Risk Assessment

## Hazard Definition

Flooding is a significant natural hazard throughout the United States. The type, magnitude, and severity of flooding are functions of the amount and distribution of precipitation over a given area, the rate at which precipitation infiltrates the ground, the geometry and hydrology of the catchment, and flow dynamics and conditions in and along the river channel. Floods can be classified as one of three types: upstream floods, downstream floods, or coastal floods.

Upstream floods, also called flash floods, occur in the upper parts of drainage basins and are generally characterized by periods of intense rainfall over a short duration. These floods arise with very little warning and often result in locally intense damage, and sometimes loss of life, due to the high energy of the flowing water. Flood waters can snap trees, topple buildings, and easily move large boulders or other structures. Six inches of rushing water can upend a person; another 18 inches might carry off a car. Generally, upstream floods cause damage over relatively localized areas, but they can be quite severe in the local areas in which they occur. Urban flooding is a type of upstream flood. Urban flooding involves the overflow of storm drain systems and can be the result of inadequate drainage combined with heavy rainfall or rapid snowmelt. Upstream or flash floods can occur at any time of the year in Georgia, but they are most common in the spring and summer months.

Downstream floods, also called riverine floods, refer to floods on large rivers at locations with large upstream catchments. Downstream floods are typically associated with precipitation events that are of relatively long duration and occur over large areas. Flooding on small tributary streams may be limited, but the contribution of increased runoff may result in a large flood downstream. The lag time between precipitation and time of the flood peak is much longer for downstream floods than for upstream floods, generally providing ample warning for people to move to safe locations and, to some extent, secure some property against damage.

Coastal floods occurring on the Atlantic and Gulf coasts may be related to hurricanes or other combined offshore, nearshore, and shoreline processes. The effects of these complex interrelationships vary significantly across coastal settings, leading to challenges in the determination of the base (1-percent-annual-chance) flood for hazard mapping purposes. Land area covered by floodwaters of the base flood is identified as a Special Flood Hazard Area (SFHA). The Charlton County flood risk assessment analyzed at risk structures in the SFHA.

The SFHA is the area where the National Flood Insurance Program's (NFIP) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The owner of a structure in a high-risk area must carry flood insurance, if the owner carries a mortgage from a federally regulated or insured lender or servicer.

The following probabilistic risk assessment involves an analysis of a 1% annual chance riverine flood event.

## Riverine 1% Flood Scenario

Riverine losses were determined from the 1% flood boundaries downloaded from the FEMA Flood Map Service Center in October 2017. The flood boundaries were overlaid with the USGS 10 meter DEM using the Hazus-MH Enhanced Quick Look tool to generate riverine depth grids. The riverine flood depth grid was then imported into Hazus-MH to calculate the riverine flood loss estimates. Figure 7 illustrates the riverine inundation boundary associated with the 1% annual chance. Please note that the riverine flooding may not take into account elevated housing or raised Base Flood Elevation.

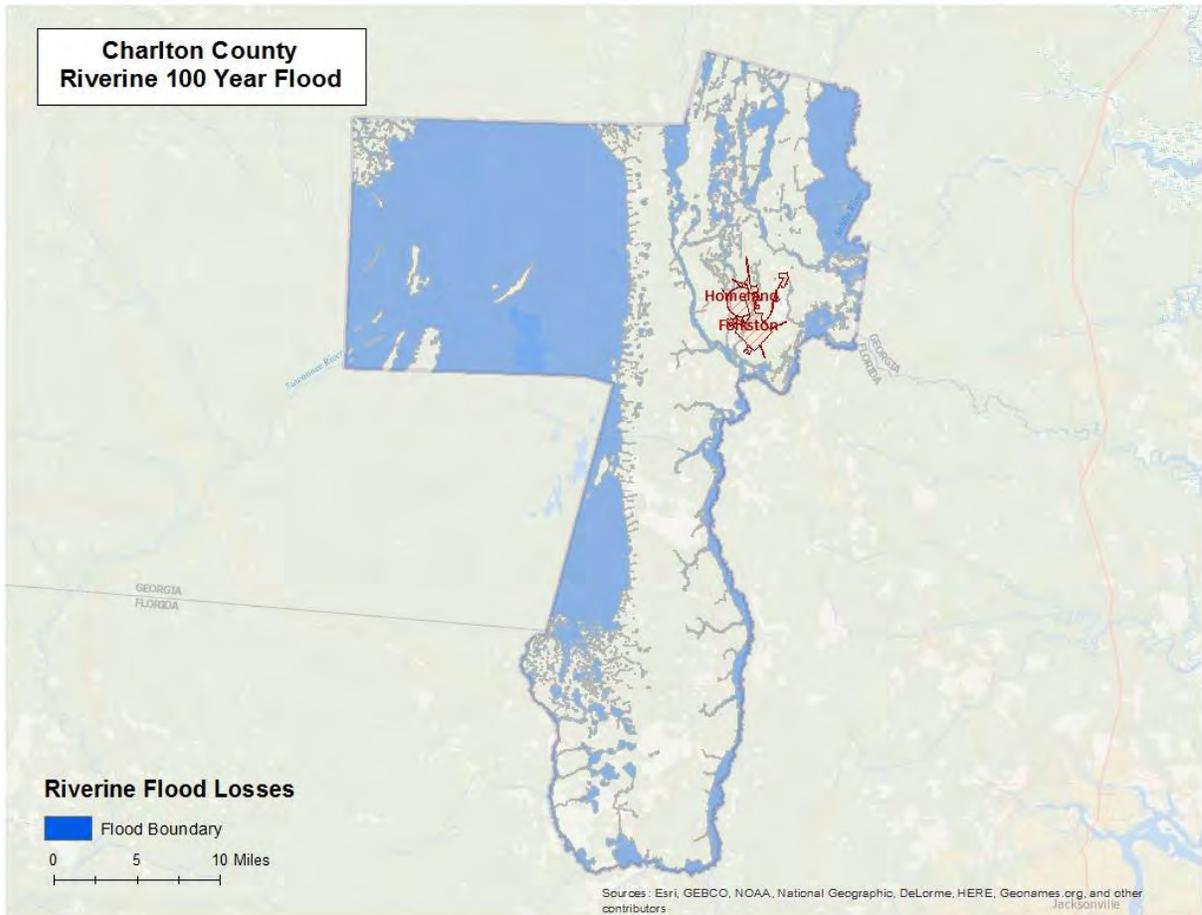


Figure 7: Riverine 1% Flood Inundation

## Riverine 1% Flood Building Damages

Buildings in Charlton County are vulnerable to flooding from events equivalent to the 1% riverine flood. The economic and social impacts from a flood of this magnitude can be significant. Table 9 provides a summary of the potential flood-related building damage in Charlton County by jurisdiction that might be experienced from the 1% flood. Figure 8 maps the potential loss ratios of total building exposure to losses sustained to buildings from the 1% flood by 2010 census block and Figure 9 illustrates the relationship of building locations to the 1% flood inundation boundary.

Table 9: Charlton County Riverine 1% Building Losses

Occupancy Classification	Total Buildings	Total Buildings Damaged	Total Building Exposure	Total Losses to Buildings	Loss Ratio of Exposed to Damaged
<b>Folkston</b>					
Residential	784	1	\$ 103,691,765	\$ 36,498	0.04%
Industrial	58	1	\$ 58,855,142	\$ 574	0.00%
Commercial	159	1	\$ 70,562,718	\$ 444	0.00%
<b>Homeland</b>					
Residential	339	2	\$ 25,418,442	\$ 16,390	0.06%
<b>Unincorporated</b>					
Residential	2,976	89	\$ 274,860,428	\$ 1,570,140	0.57%
<b>County Total</b>					
Total	4,316	94	533,388,495	1,624,046	

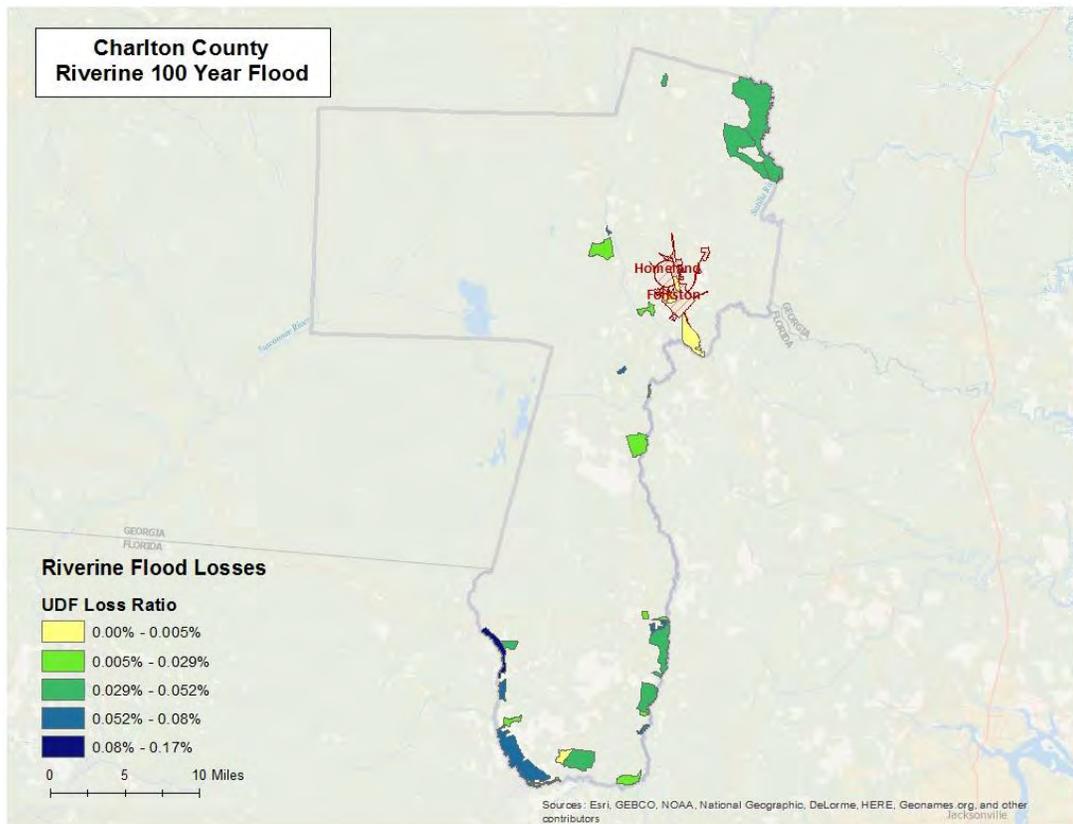


Figure 8: Potential UDF Loss Ratios from the 1% Riverine Flood

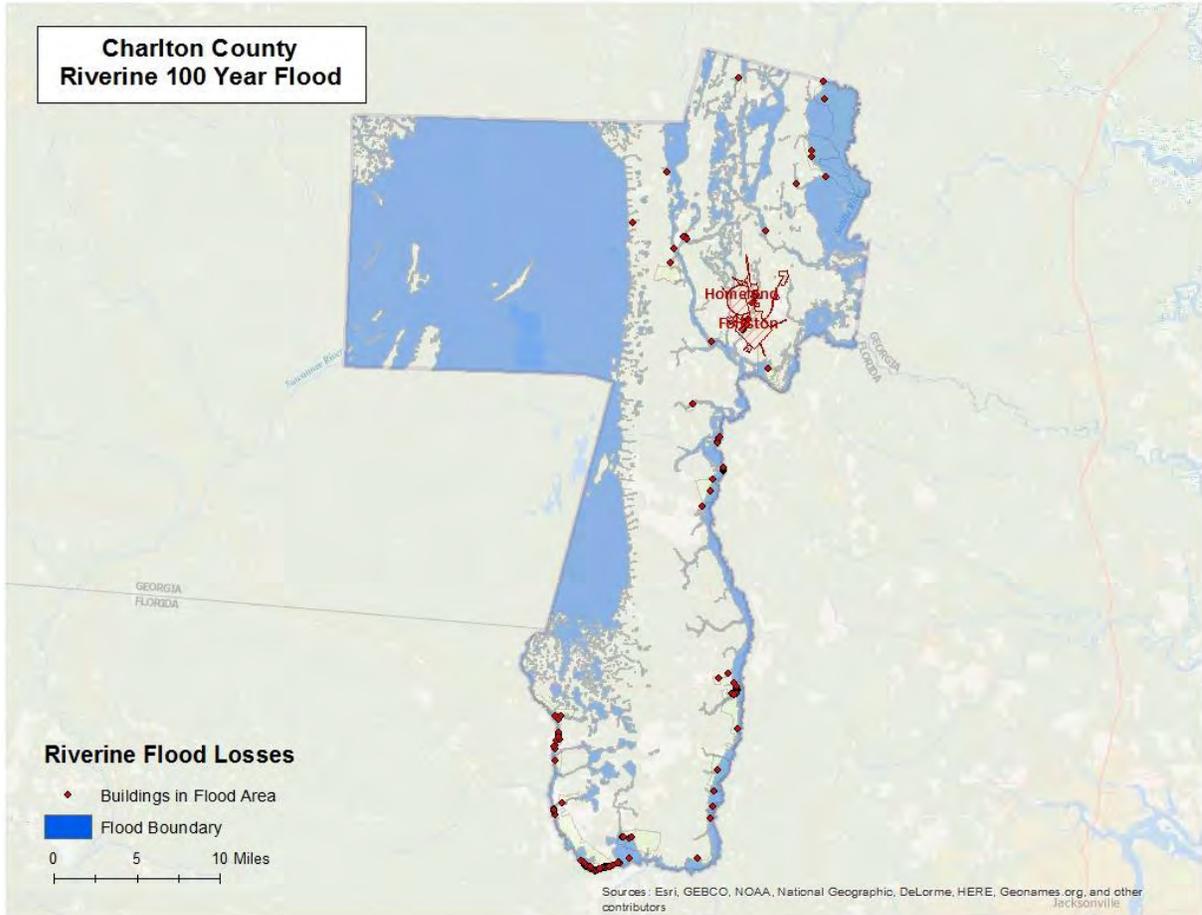


Figure 9: Damaged Buildings in 1% Riverine Flood

## Riverine 1% Flood Essential Facility Losses

An essential facility may encounter many of the same impacts as other buildings within the flood boundary. These impacts can include structural failure, extensive water damage to the facility and loss of facility functionality (e.g. a damaged police station will no longer be able to serve the community). The analysis has identified that there were 0 Essential Facilities subject to damage in the Charlton County riverine 1% probability floodplain.

Table 10: Expected Damage to Essential Facilities in 1% Riverine Flood

Classification	Total	Moderate	Substantial	Loss of Use
Fire Station	8	0	0	0
Hospitals	7	0	0	0
Police Stations	6	0	0	0
Schools	11	0	0	0
EOCs	0	0	0	0

## Riverine 1% Flood Shelter Requirements

Hazus-MH estimates that the number of households that are expected to be displaced from their homes due to riverine flooding and the associated potential evacuation. The model estimates 332 households might be displaced due to the flood. Displacement includes households evacuated within or very near to the inundated area. Displaced households represent 997 individuals, of which 473 may require short term publicly provided shelter. The results are mapped in Figure 10. These numbers may be overestimated for two reasons: elevated housing not taken into account and parcel centroids (not aligned exactly with actual structures).

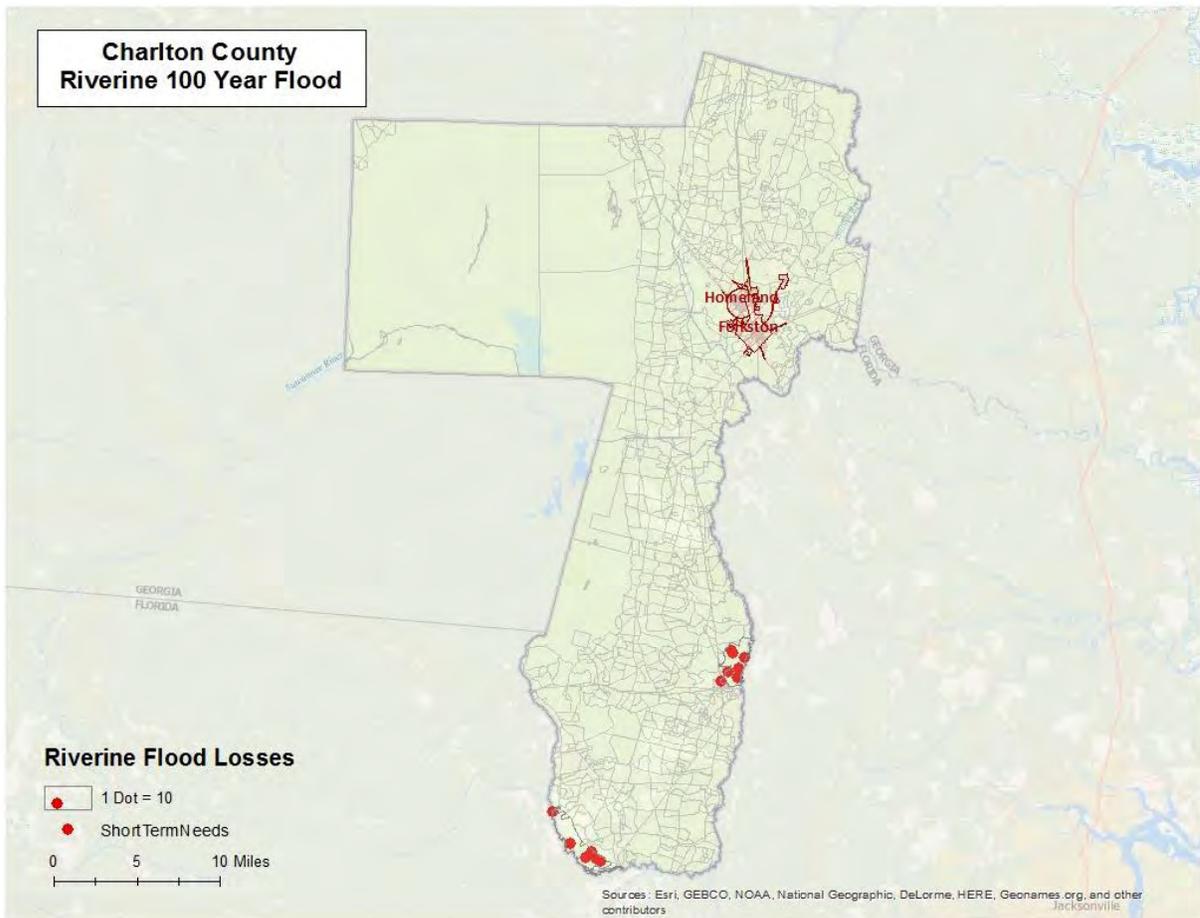


Figure 10: Estimated Flood Shelter Requirements in 1% Riverine Flood

## Riverine 1% Flood Debris

Hazus-MH estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories:

- Finishes (dry wall, insulation, etc.)
- Structural (wood, brick, etc.)
- Foundations (concrete slab, concrete block, rebar, etc.)

Different types of material handling equipment will be required for each category. Debris definitions applied in Hazus-MH are unique to the Hazus-MH model and so do not necessarily conform to other definitions that may be employed in other models or guidelines.

The analysis estimates that an approximate total of 3,437 tons of debris might be generated: 1) Finishes – 1,205 tons; 2) Structural - 790 tons; and 3) Foundations- 1,442 tons. The results are mapped in Figure 11.

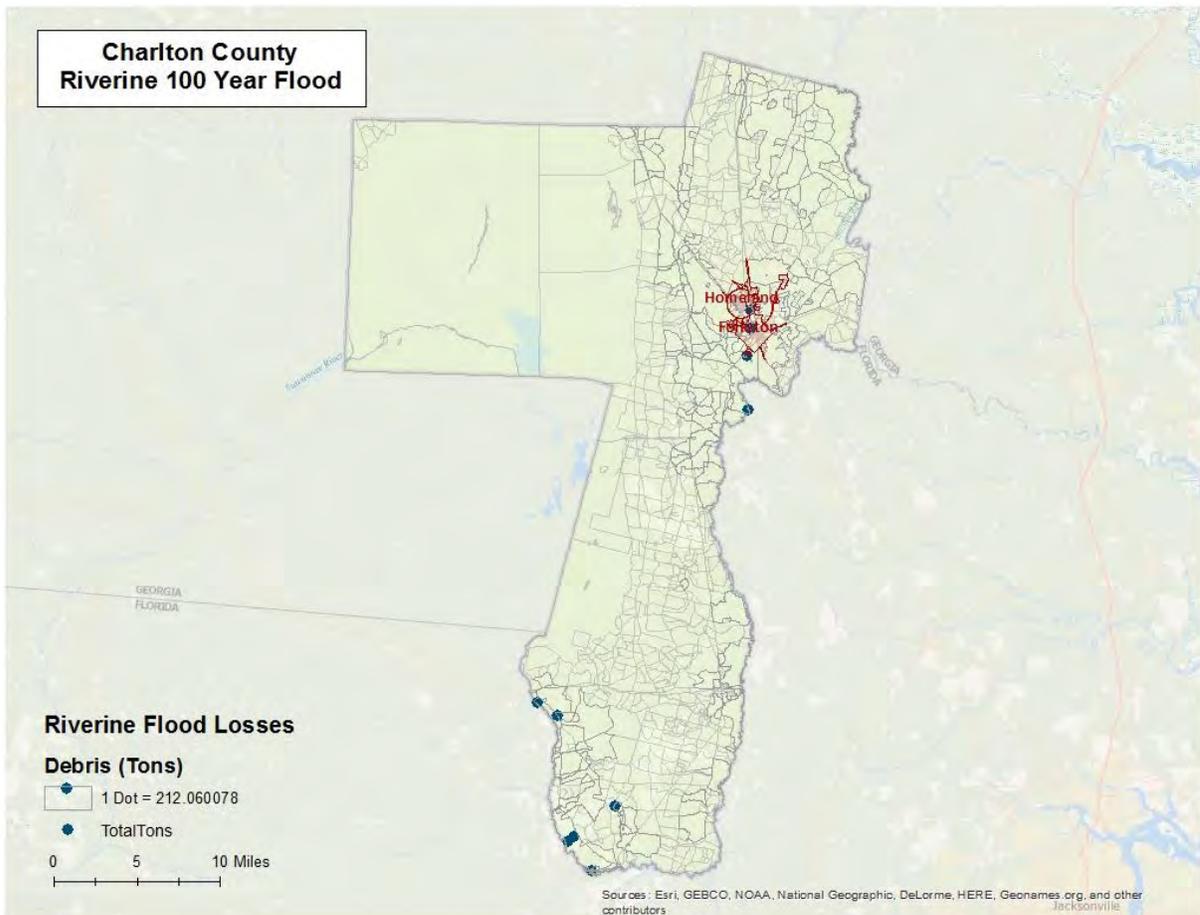


Figure 11: Flood Debris Weight (Tons) in 1% Riverine Flood

# Tornado Risk Assessment

## Hazard Definition

Tornadoes pose a great risk to the state of Georgia and its citizens. Tornadoes can occur at any time during the day or night. They can also happen during any month of the year. The unpredictability of tornadoes makes them one of Georgia’s most dangerous hazards. Their extreme winds are violently destructive when they touch down in the region’s developed and populated areas. Current estimates place the maximum velocity at about 300 miles per hour, but higher and lower values can occur. A wind velocity of 200 miles per hour will result in a wind pressure of 102.4 pounds per square foot of surface area—a load that exceeds the tolerance limits of most buildings. Considering these factors, it is easy to understand why tornadoes can be so devastating for the communities they hit.

Tornadoes are defined as violently-rotating columns of air extending from thunderstorms and cyclonic events. Funnel clouds are rotating columns of air not in contact with the ground; however, the violently-rotating column of air can reach the ground very quickly and become a tornado. If the funnel cloud picks up and blows debris, it has reached the ground and is a tornado.

Tornadoes are classified according to the Fujita tornado intensity scale. Originally introduced in 1971, the scale was modified in 2006 to better define the damage and estimated wind scale. The Enhanced Fujita Scale ranges from low intensity EF0 with effective wind speeds of 65 to 85 miles per hour, to EF5 tornadoes with effective wind speeds of over 200 miles per hour. The Enhanced Fujita intensity scale is included in Table 11.

Table 11: Enhanced Fujita Tornado Rating

Fujita Number	Estimated Wind Speed	Path Width	Path Length	Description of Destruction
EF0 <i>Gale</i>	65-85 mph	6-17 yards	0.3-0.9 miles	Light damage, some damage to chimneys, branches broken, sign boards damaged, shallow-rooted trees blown over.
EF1 <i>Moderate</i>	86-110 mph	18-55 yards	1.0-3.1 miles	Moderate damage, roof surfaces peeled off, mobile homes pushed off foundations, attached garages damaged.
EF2 <i>Significant</i>	111-135 mph	56-175 yards	3.2-9.9 miles	Considerable damage, entire roofs torn from frame houses, mobile homes demolished, boxcars pushed over, large trees snapped or uprooted.
EF3 <i>Severe</i>	136-165 mph	176-566 yards	10-31 miles	Severe damage, walls torn from well-constructed houses, trains overturned, most trees in forests uprooted, heavy cars thrown about.
EF4 <i>Devastating</i>	166-200 mph	0.3-0.9 miles	32-99 miles	Complete damage, well-constructed houses leveled, structures with weak foundations blown off for some distance, large missiles generated.
EF5 <i>Uncredible</i>	Over 200 mph	1.0-3.1 miles	100-315 miles	Foundations swept clean, automobiles become missiles and thrown for 100 yards or more, steel-reinforced concrete structures badly damaged.

Source: <http://www.srh.noaa.gov>

## Hypothetical Tornado Scenario

For this report, an EF3 tornado was modeled to illustrate the potential impacts of tornadoes of this magnitude in the county. The analysis used a hypothetical path based upon an EF3 tornado event running along the predominant direction of historical tornadoes (southeast to northwest). The tornado path was placed to travel through Folkston. The selected widths were modeled after a re-creation of the Fujita-Scale guidelines based on conceptual wind speeds, path widths, and path lengths. There is no guarantee that every tornado will fit exactly into one of these categories. Table 12 depicts tornado path widths and expected damage.

Table 12: Tornado Path Widths and Damage Curves

Enhanced Fujita Scale	Path Width (feet)	Maximum Expected Damage
EF5	2,400	100%
EF4	1,800	100%
EF3	1,200	80%
EF2	600	50%
EF1	300	10%

Within any given tornado path there are degrees of damage. The most intense damage occurs within the center of the damage path, with decreasing amounts of damage away from the center. After the hypothetical path is digitized on a map, the process is modeled in GIS by adding buffers (damage zones) around the tornado path. Figure 12 describes the zone analysis.

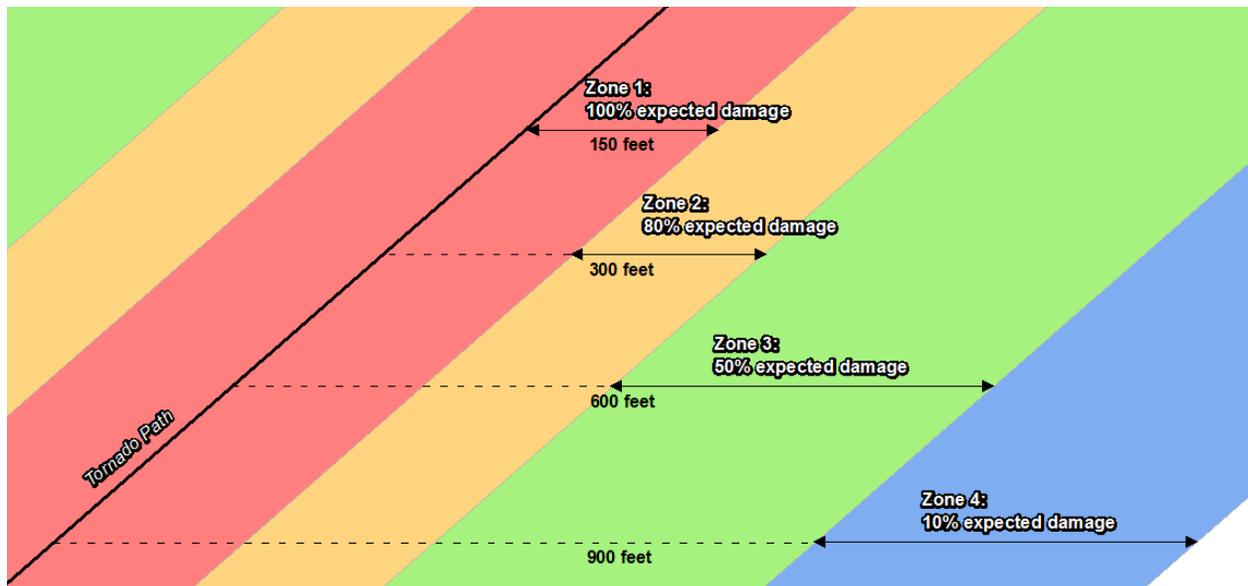


Figure 12: EF Scale Tornado Zones

An EF3 tornado has four damage zones, depicted in Table 13. Major damage is estimated within 150 feet of the tornado path. The outer buffer is 900 feet from the tornado path, within which buildings will not experience any damage. The selected hypothetical tornado path is depicted in Figure 13 and the damage curve buffer zones are shown in Figure 14.

Table 13: EF3 Tornado Zones and Damage Curves

Zone	Buffer (feet)	Damage Curve
1	0-150	80%
2	150-300	50%
3	300-600	10%
4	600-900	0%

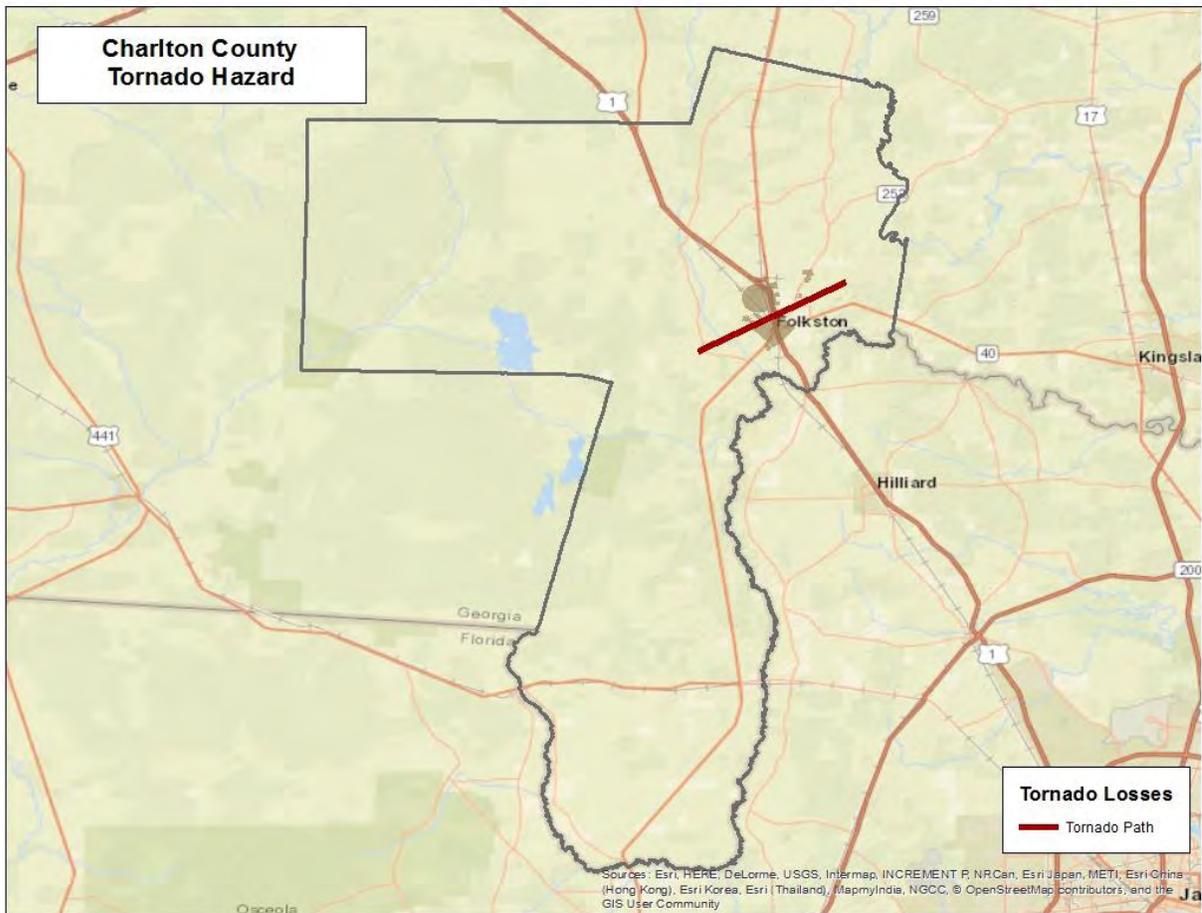


Figure 13: Hypothetical EF3 Tornado Path

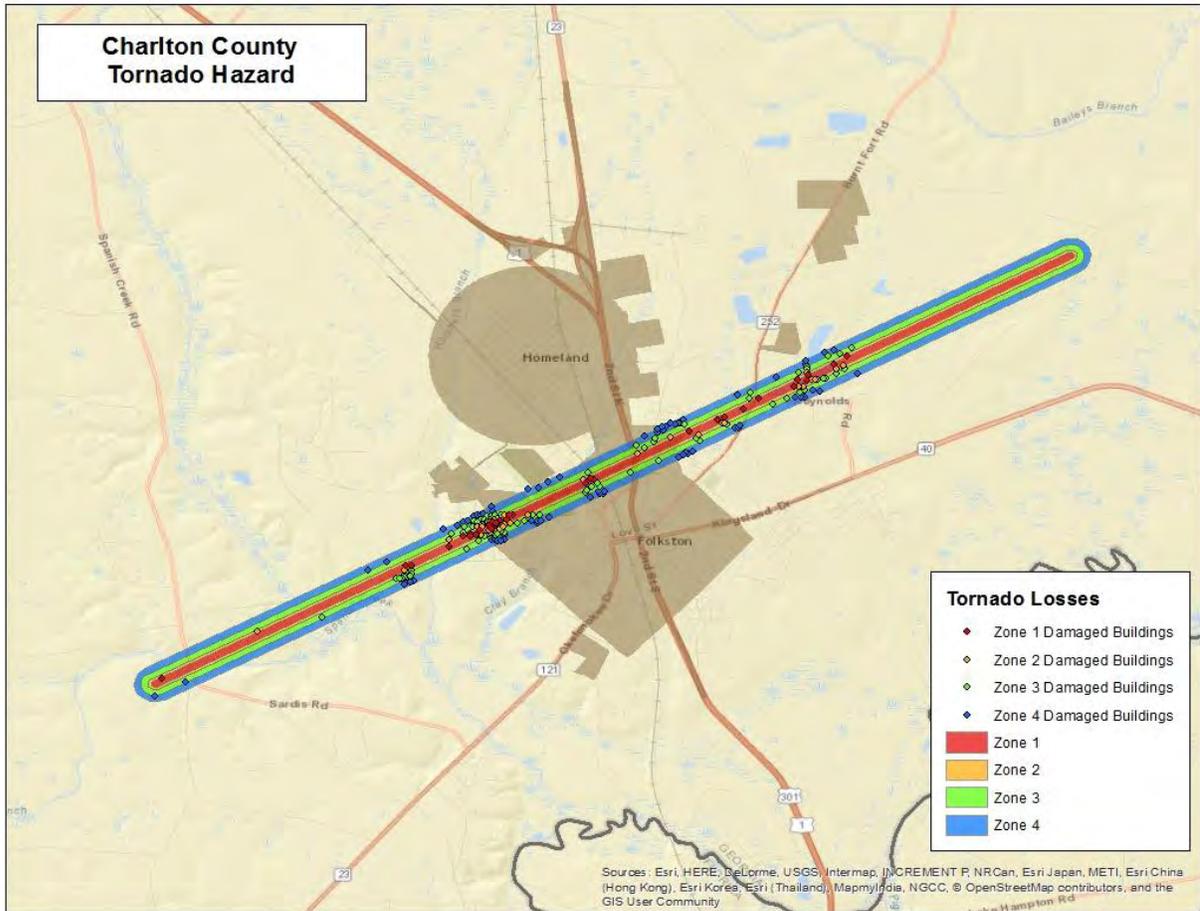


Figure 14: Modeled EF3 Tornado Damage Buffers

### EF3 Tornado Building Damages

The analysis estimated that approximately 260 buildings could be damaged, with estimated building losses of approximately \$7.1 million. The building losses are an estimate of building replacement costs multiplied by the percentages of damage. The overlay was performed against parcels provided by Charlton County that were joined with Assessor records showing estimated property replacement costs. The Assessor records often do not distinguish parcels by occupancy class if the parcels are not taxable and thus the number of buildings and replacement costs may be underestimated. The results of the analysis are depicted in Table 14.

Table 14: Estimated Building Losses by Occupancy Type

Occupancy Classification	Buildings Damaged	Building Losses
Commerical	5	\$ 207,447
Educational	3	\$ 1,228,751
Industrial	2	\$ 20,275
Religious	2	\$ 491,474
Residential	248	\$ 5,193,128
<b>Total</b>	<b>260</b>	<b>\$ 7,141,075</b>

### EF3 Tornado Essential Facility Damage

There were 5 essential facilities located in the tornado path according to the modeling, these 5 facilities would suffer moderate to major damage should such a tornado strike occur.

The location of the damaged Essential Facilities is mapped in Figure 15.

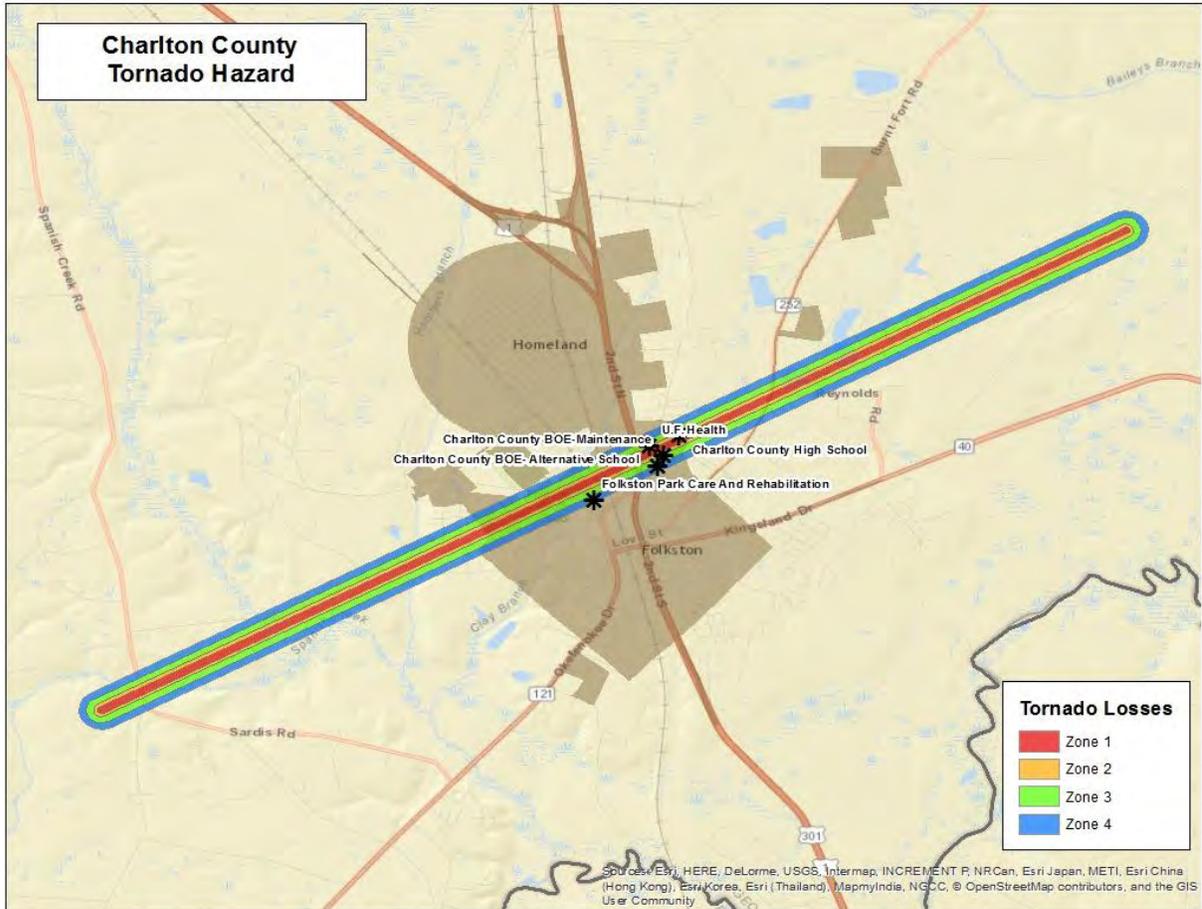


Figure 15: Modeled Essential Facility Damage in Charlton County

# Exceptions Report

Hazus Version 2.2 SP1 was used to perform the loss estimates for Charlton County, Georgia. Changes made to the default Hazus-MH inventory and the modeling parameters used to setup the hazard scenarios are described within this document.

Reported losses reflect the updated data sets. Steps, algorithms and assumptions used during the data update process are documented in the project workflow developed by the Polis Center.

## Statewide Inventory Changes

The default Hazus-MH Essential Facility inventory was updated for the entire state prior to running the hazard scenarios for Charlton County.

Statewide facility data were supplied by GEMA through the GMIS in June 2015. The Regional Commission updated the essential facilities in 2017. The updated data was used for this analysis. Table 15 summarizes the difference between the original Hazus-MH default data and the updated data for Charlton County.

Table 15: Essential Facility Updates

Occupancy Classification	Default		Updated	
	Replacement Cost	Default Count	Replacement Cost	Updated Count
Care	\$ 24,583,000	7	\$ 17,894,000	8
EOC	\$ 880,000	1	\$ 880,000	1
Fire	\$ 8,686,000	10	\$ 5,775,000	8
Police	\$ 15,150,000	9	\$ 11,542,000	6
School	\$ 61,761,000	9	\$ 121,130,000	11

## County Inventory Changes

The GBS records for Charlton County were replaced with data derived from parcel and property assessment data obtained from Charlton County. The county provided property assessment data was current as of August 2017 and the parcel data current as of August 2017.

## General Building Stock Updates

The parcel boundaries and assessor records were obtained from Charlton County. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary unless there were building footprints. Each parcel point was linked to an assessor record based upon matching parcel numbers. The generated Building Inventory represents the approximate locations (within a parcel) of building exposure. The Building Inventory was aggregated by Census Block and imported into Hazus-MH using the Hazus-MH Comprehensive Data Management System (CDMS). Both the 2010 Census Tract and Census Block tables were updated.

The match between parcel records and assessor records was based upon a common Parcel ID. For this type of project, unless the hit rate is better than 85%, the records are not used to update the default aggregate inventory in Hazus-MH. The Parcel-Assessor hit rate for Charlton County was 96.8%.

Adjustments were made to records when primary fields did not have a value. In these cases, default values were applied to the fields. Table 16 outlines the adjustments made to Charlton County records.

Table 16: Building Inventory Default Adjustment Rates

Type of Adjustment	Building Count	Percentage
Area Unknown	413	9%
Construction Unknown	430	10%
Condition Unknown	162	4%
Foundation Unknown	431	10%
Year Built Unknown	139	3%

Portions of the CAMA values were either missing (<Null> or '0'), did not match CAMA domains or were unusable ('Unknown', 'Other', 'Pending'). These were replaced with 'best available' values. Missing YearBuilt values were populated from average values per Census Block. Missing Condition, Construction and Foundation values were populated with the highest-frequency CAMA values per Occupancy Class. Missing Area values were populated with the average CAMA values per Occupancy Class.

The resulting Building Inventory was used to populate the Hazus-MH General Building Stock and User Defined Facility tables. The updated General Building Stock was used to calculate flood and tornado losses. Changes to the building counts and exposure that were modeled in Charlton County are sorted by General Occupancy in Table 1 at the beginning of this report. If replacements cost or building value were not present for a given record in the Assessor data, replacement costs were calculated from the Building Area (sqft) multiplied by the Hazus-MH RS Means (\$/sqft) values for each Occupancy Class.

Differences between the default and updated data are due to various factors. The Assessor records often do not distinguish parcels by occupancy class when the parcels are not taxable; therefore, the total number of buildings and the building replacement costs for government, religious/non-profit, and education may be underestimated.

## User Defined Facilities

---

Local parcel and CAMA data were used to develop points representing the locations of buildings in the county, referred to as User Defined Facilities (UDF) in the Hazus model. For the flood model, this includes only buildings located in the 1% Annual Chance Riverine Flood Area. Table 17 identifies the total building count & exposure for the county and the total building count & exposure for buildings located in the 1% Annual Chance Riverine Flood Area.

Table 17: Building Count and Exposure for County and Riverine Flood Area

Feature	Counts	Exposure
Total buildings in the County	4,473	\$682,901,401
Total buildings inside the 1% Annual Chance Riverine Flood Area	159	\$15,349,722

It should be noted that UDFs are only used in the flood modeling process, due to the fact that it is important to identify if individual buildings are located within the flood area to obtain the depth of flood.

### Assumptions

- Flood analysis was performed on UDF. The point locations are parcel centroid accuracy.
- The analysis is restricted to the county boundary within the flood area. Events that occur near the county boundary do not contain loss estimates from adjacent counties.
- The following attributes were defaulted or calculated:
  - First Floor Height was set from Foundation Type
  - Content Cost was calculated from Building Cost