

Appendix D

Worksheets used in Planning Process

- Mitigation Action Items Report 2006
- Mitigation Action Items 2012-2012
- GEMA Worksheet #1
- GEMA Worksheet #1-Addendum Hazard Events
- GEMA Worksheet #1- Addendum Hazard Frequency
- GEMA Worksheet #2
- GEMA Worksheet #4-STAPLEE Worksheets
- GEMA Worksheet #4-Alternative Mitigation Actions

2006 MITIGATION ACTION ITEMS REPORT

Action Item	Original Time	Cost	Responsible Party	Status	Explanation
Severe Thunderstorms					
Acquire and install additional tornado warning sirens to provide countywide coverage	2006-2010	Approximately \$10,000 per siren.	Elbert County EMA	2010-2011	Four warning sirens were purchased and installed. Seven warning sirens still needed.
Develop a cooperative relationship with local media outlets to generate public information on pre-disaster mitigation strategies for households.	2006	No cost	EMA	Ongoing	Notices are occasionally sent with utility bills.
Assess the vulnerability of the population and utilize local information and census data to identify vulnerable populations.	Ongoing	Unknown	EMA; County; Elberton; Bowman	Ongoing	
Assess emergency shelter's ability to meet the demands of the population and the shelter's locations in relation to vulnerable populations.	Ongoing	\$15,000	EMA; American Red Cross	Ongoing	Every three to five years, the County conducts a pre-disaster evaluation of all Red Cross shelters. In 2011, the County evaluated five additional sites for shelters.
Assess the vulnerability of key critical facilities to lightning strikes and develop a lightning rod replacement/installation priority program.	2006-2010	Unknown	EMA; County; Elberton; Bowman	Not completed	
Assess the vulnerability of manufactured homes countywide addressing the number of homes placed on permanent foundations.	2006	Staff time	County; Elberton; Bowman		
Flooding					
Construct culverts under the identified roadways in Chapter 2 to reduce the damages resulting from flooding, and monitor all roadway conditions within the flood hazard boundary.	2006-2010	Approximately \$50,000 per culvert.	EMA; County	2009-2010	All identified culverts have been repaired or replaced.

2006 MITIGATION ACTION ITEMS REPORT

Action Item	Original Time	Cost	Responsible Party	Status	Explanation
Monitor flood control conditions in areas within the flood hazard boundary, specifically along Teasley Mill Road near its intersections with both Herndon Circle and Broad Street near the Bowman city limits.	Ongoing	Unknown, dependent on replacement needs.	Bowman	Ongoing	2006-2007 flooding occurrence required the evacuation of one residence along Beaverdam Creek at Herndon Circle and Teasley Mill Road
Monitor flood control conditions in areas within the flood hazard boundary, specifically along Heard Drive and Sherwood Drive (which have recently been upgraded) and near the southeastern Elberton city limit line between Old Golf Course Road and Pine Knoll Drive.	Ongoing	Unknown, dependent on replacement needs.	Elberton	Ongoing	
Maintain and enforce flood prevention ordinance.	Ongoing	Staff time	County; Elberton; Bowman	Ongoing	
Adopt the flood hazard boundary map as part of the county Future Land Use map illustrating areas unsuitable for development.	Ongoing	Staff time	County; Elberton; Bowman	Not completed	Future Development Map will be updated as part of the 2012 Elbert County Comprehensive Plan Update
Winter Storms					
Develop a cooperative relationship with local media outlets to generate public information on pre-disaster mitigation strategies for households.	2006	No cost	EMA	Ongoing	
Inventory power generators for critical facilities and assess their adequacy to perform during hazard events and develop a replacement priority plan.	Ongoing	Unknown	EMA; County; Elberton; Bowman	Ongoing	Inventory has not occurred. Some power generators have been replaced as needed.
Drought					
Develop a cooperative relationship with local media outlets to generate public information on water conservation strategies for households.	2006	No cost	EMA; County; Bowman; Elberton	Ongoing	Cooperative Extension focuses on raising public awareness for water conservation

2006 MITIGATION ACTION ITEMS REPORT

Action Item	Original Time	Cost	Responsible Party	Status	Explanation
Explore the possibility of creating agreements with contiguous counties to develop a cooperative relationship for sharing feed surplus during prolonged drought events.	Ongoing as dictated by conditions	Unknown	County Extension Services	Ongoing	
Wild Fires					
Continue to participate in cross-training exercises among fire departments.	Ongoing	Unknown	EMA; County Fire Department; Elberton Fire Department; GA Forestry Commission	Ongoing	
Develop a cooperative relationship with local media outlets to generate public information on fire prevention strategies.	2006	No cost	EMA; County; Bowman; Elberton	Ongoing	Annual fire prevention week advertising campaign also provides information related to wild-fire prevention
Hazardous Material Spills					
Utilize tornado-warning sirens to inform the public of a hazardous material spill event.	2010	EMA Budget	EMA	Not completed	Warning sirens are currently capable of using different tone for different events; however this has not been undertaken due to lack of public education on different tones. Education campaign is needed prior to instituting multiple tone warning sirens
Develop a cooperative relationship with local media outlets to generate public information on pre-disaster mitigation strategies for households.	2006	No cost	EMA; County; Bowman; Elberton	Ongoing	

2006 MITIGATION ACTION ITEMS REPORT

Action Item	Original Time	Cost	Responsible Party	Status	Explanation
Inventory key road and rail crossing points potentially impacting water resources and delineate areas of vulnerability adjacent to transportation corridors.	Ongoing	Staff and volunteer time.	EMA; County; Bowman; Elberton	Ongoing	Some analysis has occurred utilizing GIS and aerial imagery; however no inventory has been completed
Assess the vulnerabilities of private wells to hazardous material spills within proximity to transportation corridors.	Ongoing	Unknown	EMA; County Health Department	Ongoing	Assessment occurs on a case-by-case basis. Health Department make site visits upon request to private wells and along with water sampling assesses well contamination potential due to hazardous material storage and makes recommendations to property owner
Explore opportunities for co-operative inter-jurisdictional training exercises to increase regional education levels regarding hazardous material spills.	Ongoing	Unknown	EMA	Ongoing	Only awareness level training is currently part of annual training for public safety personnel

MITIGATION ACTION ITEMS: 2012 - 2016

Project No.	Action Item Description	Priority	Timeframe	Estimated Cost	Funding Source(s)	Responsible Party
Severe Thunderstorms						
ST1	Acquire and install additional tornado warning sirens to provide countywide coverage (at minimum, one at each fire station)	1	2012-2016	\$14,000 per siren	Grants, SPLOST	EMA
ST2	Maintain emergency shelters' abilities to meet the needs of Elbert County residents following a hazard event with regard to locations and amenities	1	2014	Staff time	N/A	EMA, American Red Cross, DFCS, Health Department
ST3	Develop priority list for lightning protection (e.g. lightning rods and surge protectors) installation and/or replacement on critical facilities and electronic equipment	2	2014	Staff time	N/A	EMA, Elbert County, Cities
ST4	Develop draft ordinance for consideration by the BOC and City Councils to improve the safety of manufactured and mobile home residents with specific focus on rental properties and mobile home parks	3	2013	Staff time	N/A	Elbert County & City Code Enforcement officers
ST5	Assess need to design and construct public and community safe rooms	3	2012-2016	\$60,000 per safe room	Grants	EMA
Flooding						
FL1	Construct stormwater improvements at particular roadways that are prone to flooding to reduce the damages resulting from flooding. Monitor all roadway conditions within the flood hazard boundary	2	2012-2016	\$50,000 per location	Grants, SPLOST	EMA, Elbert County, Cities
FL2	Monitor flood control conditions and investigate funding sources to buy-out, move, or raise structures located in areas prone to flooding at: 1. Teasley Mill Road at Herndon Circle and Broad Street 2. Pine Knoll Drive 3. Old Golf Course Road 4. Oglesby Blvd and Porter Drive	1	Ongoing	Unknown, dependant on needs	Grants	EMA, Elbert County, Cities
FL3	Maintain and enforce flood prevention ordinance and any relevant set-back ordinance	1	Ongoing	Staff time	N/A	Elbert County & City Code Enforcement officers
FL4	Continue compliance with criteria of the National Flood Insurance Program	1	Ongoing	Staff time	N/A	EMA, Elbert County, Cities
Winter Storms						
WS1	Inventory power generators for critical facilities and assess their adequacy to perform during hazard events and develop a priority plan for installation and/or replacement.	1	2014	Staff time	N/A	EMA, Elbert County, Cities
WS2	Identify funding sources for solar or other alternative-energy sources for critical facilities	2	2012-2013	Staff time	N/A	EMA

Project No.	Action Item Description	Priority	Timeframe	Estimated Cost	Funding Source(s)	Responsible Party
Drought						
DR1	Develop draft water use conservation ordinance for consideration by the City of Bowman and Elbert County	2	2013	Staff time	N/A	Elbert County & City Code Enforcement officers
DR2	Seek funding to connect City of Bowman and City of Elberton water systems to enable water sharing during prolonged drought events	1	Ongoing	Staff time	N/A	Cities
DR3	Develop and share sources for out-of-county feed surplus during prolonged drought events.	2	Ongoing	Staff time	N/A	Elbert County Extension Services
DR4	Promote federal, state, and local incentive and grant programs, such as the Environmental Quality Incentive Program (EQIP), to offset the effects of drought on the agricultural community and economy.	1	Ongoing	Staff time	N/A	Elbert County Extension Services
Wildfires						
WF1	Coordinate a Community Clean-Up Day, encouraging individual land owners to create a firesafe environment through vegetation maintenance and removal	2	Every Fall	Staff time	N/A	Georgia Forestry Commission (GFC), Elbert County & City Code Enforcement officers, volunteers
WF2	Continue enforcement of burn permit regulations	1	Ongoing	Staff time	N/A	GFC
WF3	Promote prescribed burning, where applicable, to create at least 30 feet of "defensible space" surrounding structures and property	3	Ongoing	Staff time	N/A	GFC, local fire departments
WF4	Provide wildland fire suppression training for new fire personnel	1	Ongoing	Staff time	N/A	GFC, local fire departments
Earthquake						
EQ	Develop a survey procedure and guidance document to inventory structural and non-structural hazards in and near critical facilities	1	2013	Staff time	N/A	EMA, Elbert County, and Cities
All Hazards						
AH1	Coordinate with Elbert County and its municipalities to ensure that neighborhoods are identified and delineated during comprehensive plan update process	1	2012-2013	Staff time	Elbert County, Cities	Elbert County, Cities
AH2	Develop strategy for targeted outreach prior to or during a hazard occurrence to neighborhoods with high percentages of residents in need of additional assistance	3	2014	Staff time	N/A	EMA
AH3	Conduct regular outreach and education activities (in English and Spanish) on hazard mitigation strategies through PSAs, school and hospital newsletters, Facebook, local television channels, and utility companies	2	Ongoing	Staff time	N/A, grants if available	EMA, Elbert County, Cities
AH4	Identify strategy for instant notification to residents prior to and/or during a hazard occurrence (e.g. text messaging, email, etc.)	2	2013	Cost TBD	Grants	EMA
AH5	Develop Capital Improvements Element (CIE) to include hazard mitigation projects	2	2014-2015	Staff time or consultant	Elbert County, Cities	Elbert County, Cities
AH6	Continue implementing power line ROW cutting/clearing strategy for the City of Elberton at approximately 35 line miles per year	1	Ongoing	\$200,000 annually	Local	City of Elberton

GEMA Worksheet #1 Addendum

Hazard Events: All Types

Elbert County, GA

Date:

Date	Event Type	Location	Magnitude	Deaths	Injuries	Property Damage	Crop Damage	Other Damage	Total Damages	Source	Mappable	
4/1/1997	Cold	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
7/15/1999	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
8/1/1999	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
9/1/1999	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
10/1/1999	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
8/1/2000	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
9/1/2000	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
10/1/2000	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
11/1/2000	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
2/1/2001	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
3/1/2001	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
4/1/2001	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
5/1/2001	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
8/1/2001	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
11/1/2001	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/1/2001	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
8/1/2002	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
5/1/2004	Drought	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
7/1/1998	Dry weather	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
8/1/1999	Excessive heat	Elbert	n/a	1	3	-	-	-	-	NCDC	no	
12/1/2000	Extreme cold	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
10/4/1995	Flash flood	Elbert	n/a	0	0	-	-	-	-	NCDC	yes	
2/28/1997	Flash flood	Elbert	n/a	0	0	-	-	-	-	NCDC	yes	
4/21/2003	Flash flood	Elberton	n/a	0	0	-	-	-	-	NCDC	yes	
10/8/2003	Flash flood	Elberton	n/a	0	0	5,000	-	-	5,000	NCDC	yes	
9/27/2004	Flash flood	Elberton	n/a	0	0	25,000	-	-	25,000	NCDC	yes	
8/8/2005	Flash flood	Elbert	n/a	0	0	-	-	-	-	NCDC	yes	Fortsonia
12/2/2009	Flash flood	Elbert	n/a	0	0	50,000	-	-	50,000	NCDC	no	Montevideo
1/24/2010	Flash flood	Elbert	n/a	0	0	-	-	-	-	NCDC	no	Cauthen
1/24/2010	Flash flood	Elbert	n/a	0	0	-	-	-	-	NCDC	no	Nickville
2/2/1996	Flood	Elbert	n/a	0	0	-	-	-	-	NCDC	yes	
1/7/1998	Flood	Elbert	n/a	0	0	-	-	-	-	NCDC	yes	
2/3/1998	Flood	Elbert	n/a	0	0	-	-	-	-	NCDC	yes	
9/7/2004	Flood	Elbert	n/a	0	0	-	20,000	-	20,000	NCDC	yes	
9/16/2004	Flood	Elbert	n/a	0	0	5,400,000	-	-	5,400,000	NCDC	yes	
10/12/2009	Flood	Bowman	n/a	0	0	5,000	-	-	5,000	NCDC	no	
12/13/1999	Fog	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/16/2005	Freezing fog	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/13/2000	Freezing rain	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
3/7/2004	Frost/freeze	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
11/9/2000	Gusty winds	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
4/23/1968	Hail	Elbert	1.00 in	0	0	-	-	-	-	NCDC	no	
4/13/1970	Hail	Elbert	0.75 in	0	0	-	-	-	-	NCDC	no	
4/26/1982	Hail	Elbert	1.75 in	0	0	-	-	-	-	NCDC	no	
4/26/1982	Hail	Elbert	1.75 in	0	0	-	-	-	-	NCDC	no	
3/28/1984	Hail	Elbert	1.75 in	0	0	-	-	-	-	NCDC	no	

7/11/1985	Hail	Elbert	0.75 in	0	0	-	-	-	-	NCDC	no	
1/19/1995	Hail	Elberton	0.9 in	0	0	-	-	-	-	NCDC	no	
5/6/1996	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
5/7/1996	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
5/7/1996	Hail	Elberton	0.88 in	0	0	-	-	-	-	NCDC	no	
5/7/1996	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
4/22/1997	Hail	Elberton	1.00 in	0	0	-	-	-	-	NCDC	no	
4/22/1997	Hail	Elberton	1.00 in	0	0	-	-	-	-	NCDC	no	
4/22/1997	Hail	Bowman	2.00 in	0	0	-	-	-	-	NCDC	no	
4/22/1997	Hail	Elberton	2.00 in	0	0	-	-	-	-	NCDC	no	
8/15/1997	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
11/30/1997	Hail	Elbert	0.75 in	0	0	-	-	-	-	NCDC	no	Dewey Rose
4/8/1998	Hail	Bowman	0.88 in	0	0	-	-	-	-	NCDC	no	
5/3/1998	Hail	Bowman	1.50 in	0	0	-	-	-	-	NCDC	no	
5/7/1998	Hail	Elberton	2.75 in	0	0	-	-	-	-	NCDC	no	
6/4/1998	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
6/4/1998	Hail	Elbert	1.75 in	0	0	-	-	-	-	NCDC	no	Fortsonia
6/9/1998	Hail	Elbert	1.75 in	0	0	-	-	-	-	NCDC	no	Ruckersville
6/16/1998	Hail	Elbert	1.25 in	0	0	-	-	-	-	NCDC	no	Fortsonia
6/19/1998	Hail	Bowman	1.00 in	0	0	-	-	-	-	NCDC	no	
5/13/1999	Hail	Elberton	1.00 in	0	0	-	-	-	-	NCDC	no	
8/20/1999	Hail	Elberton	1.00 in	0	0	-	-	-	-	NCDC	no	
5/25/2000	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
3/26/2002	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
3/19/2003	Hail	Elbert	0.88 in	0	0	-	-	-	-	NCDC	no	Dewey Rose
3/19/2003	Hail	Elberton	0.88 in	0	0	-	-	-	-	NCDC	no	
4/25/2003	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
4/29/2003	Hail	Elberton	1.00 in	0	0	-	-	-	-	NCDC	no	
8/7/2003	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
4/22/2005	Hail	Elberton	0.88 in	0	0	-	-	-	-	NCDC	no	
6/6/2005	Hail	Elberton	0.88 in	0	0	-	-	-	-	NCDC	no	
12/4/2005	Hail	Elbert	1.75 in	0	0	-	-	-	-	NCDC	no	Middleton
12/4/2005	Hail	Elbert	1.00 in	0	0	-	-	-	-	NCDC	no	Middleton
12/4/2005	Hail	Elbert	1.00 in	0	0	-	-	-	-	NCDC	no	Middleton
12/28/2005	Hail	Bowman	0.75 in	0	0	-	-	-	-	NCDC	no	
4/21/2006	Hail	Elberton	1.75 in	0	0	-	-	-	-	NCDC	no	
5/25/2006	Hail	Bowman	0.75 in	0	0	-	-	-	-	NCDC	no	
5/25/2006	Hail	Elbert	0.88 in	0	0	-	-	-	-	NCDC	no	Dewey Rose
7/22/2006	Hail	Elberton	0.88 in	0	0	-	-	-	-	NCDC	no	
5/12/2007	Hail	Elbert	1.75 in	0	0	-	-	-	-	NCDC	no	Fortsonia
6/5/2007	Hail	Elbert	1.00 in	0	0	-	-	-	-	NCDC	no	Fortsonia
3/15/2008	Hail	Elberton	1.75 in	0	0	-	-	-	-	NCDC	no	
3/15/2008	Hail	Elberton	1.00 in	0	0	-	-	-	-	NCDC	no	
7/27/2008	Hail	Elbert	0.75 in	0	0	-	-	-	-	NCDC	no	Montevideo
4/6/2009	Hail	Elberton	0.88 in	0	0	-	-	-	-	NCDC	no	
4/14/2009	Hail	Elberton	0.75 in	0	0	-	-	-	-	NCDC	no	
6/17/2009	Hail	Elbert	0.75 in	0	0	-	-	-	-	NCDC	no	Ruckersville
6/29/2010	Hail	Elbert	1.00 in	0	0	-	-	-	-	NCDC	no	Heardmont
8/12/2004	Heavy rain	Elberton	n/a	0	0	-	-	-	-	NCDC	no	
1/11/1996	Heavy snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
2/3/1996	Heavy snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	

12/18/1996	Heavy snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
1/2/2002	Heavy snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
3/1/2009	Heavy snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
1/9/2011	Heavy snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/11/1993	High winds	Elbert	0 knots	1	2	500,000	-	-	500,000	NCDC	no	
2/3/1998	High winds	Elbert	50 knots	0	0	20,000	-	-	20,000	NCDC	no	
3/28/2000	High winds	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	
3/20/2001	High winds	Elbert	55 knots	0	0	-	-	-	-	NCDC	no	
9/16/2004	High winds	Elbert	50 knots	0	0	95,000	-	-	95,000	NCDC	no	
1/23/2000	Ice storm	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
1/29/2000	Ice storm	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/4/2002	Ice storm	Elbert	n/a	0	0	3,000,000	-	-	3,000,000	NCDC	no	
1/25/2004	Ice storm	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
1/26/2004	Ice storm	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/15/2005	Ice storm	Elbert	n/a	0	0	25,000	-	-	25,000	NCDC	no	
12/6/1996	Icy roads	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
8/20/1999	Lightning	Elbert	n/a	0	0	-	-	-	-	NCDC	no	Ruckersville
2/24/1999	Snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
11/19/2000	Snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/3/2000	Snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
12/19/2000	Snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
1/2/2002	Snow	Elbert	n/a	0	0	-	-	-	-	NCDC	no	
6/23/1955	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
9/2/1970	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
3/2/1972	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
6/9/1972	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
3/21/1974	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
5/20/1980	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
8/31/1980	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
6/10/1982	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
12/28/1983	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
3/28/1984	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
5/2/1984	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
11/10/1984	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
4/5/1985	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
4/5/1985	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
7/11/1985	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
7/27/1986	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
4/4/1989	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
4/4/1989	Thunderstorm wind	Elbert	55 knots	0	0	-	-	-	-	NCDC	no	
5/5/1989	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
6/15/1989	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
11/15/1989	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
11/15/1989	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
2/10/1990	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
3/16/1990	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
3/1/1991	Thunderstorm wind	Elbert	0 knots	0	0	-	-	-	-	NCDC	no	
4/29/1991	Thunderstorm wind	Elbert	52 knots	0	0	-	-	-	-	NCDC	no	
7/24/1991	Thunderstorm wind	Elbert	60 knots	0	0	-	-	-	-	NCDC	no	
6/28/1994	Thunderstorm wind	Elberton	0 knots	0	0	1,000	-	-	1,000	NCDC	no	
10/5/1995	Thunderstorm wind	Elbert	0 knots	8	7	75,000,000	50,000,000	-	125,000,000	NCDC	no	*

2/21/1997	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
4/22/1997	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Goss
4/22/1997	Thunderstorm wind	Elberton	52 knots	0	0	-	-	-	-	NCDC	no	
7/15/1997	Thunderstorm wind	Elberton	50 knots	0	0	20,000	-	-	20,000	NCDC	no	
11/21/1997	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
1/7/1998	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	
6/9/1998	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Ruckersville
6/16/1998	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	
6/24/1998	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
5/13/1999	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
7/24/1999	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
7/24/1999	Thunderstorm wind	Elberton	65 knots	0	0	-	-	-	-	NCDC	no	
8/20/1999	Thunderstorm wind	Bowman	60 knots	0	0	20,000	-	-	20,000	NCDC	no	
8/20/1999	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Ruckersville
8/20/1999	Thunderstorm wind	Elberton	60 knots	0	0	25,000	-	-	25,000	NCDC	no	
8/20/1999	Thunderstorm wind	Elberton	55 knots	0	0	-	-	-	-	NCDC	no	
5/25/2000	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
7/23/2000	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
7/23/2000	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
6/3/2001	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Dewey Rose
6/13/2001	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
12/17/2001	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
3/26/2002	Thunderstorm wind	Elberton	50 knots	0	0	2,000	-	-	2,000	NCDC	no	
5/9/2002	Thunderstorm wind	Elberton	50 knots	0	0	1,000	-	-	1,000	NCDC	no	
6/4/2002	Thunderstorm wind	Elberton	50 knots	0	0	1,000	-	-	1,000	NCDC	no	
7/3/2002	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
9/14/2002	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
10/28/2002	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Fortsonia
11/11/2002	Thunderstorm wind	Elberton	55 knots	0	0	-	-	-	-	NCDC	no	
11/11/2002	Thunderstorm wind	Elberton	55 knots	0	0	-	-	-	-	NCDC	no	
4/21/2003	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Ruckersville
5/22/2004	Thunderstorm wind	Elberton	50 knots	0	0	1,000	-	-	1,000	NCDC	no	
6/23/2004	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
6/23/2004	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
7/18/2004	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
11/24/2004	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
6/20/2005	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
12/4/2005	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Middleton
7/20/2006	Thunderstorm wind	Elberton	55 knots	0	0	-	-	-	-	NCDC	no	
8/2/2006	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
9/28/2006	Thunderstorm wind	Elberton	60 knots	0	1	-	-	-	-	NCDC	no	
1/5/2007	Thunderstorm wind	Bowman	50 knots	0	0	-	-	-	-	NCDC	no	
6/11/2007	Thunderstorm wind	Elberton	55 knots	0	0	-	-	-	-	NCDC	no	
3/4/2008	Thunderstorm wind	Elberton	55 knots	0	0	-	-	-	-	NCDC	no	
3/15/2008	Thunderstorm wind	Elberton	50 knots	0	0	-	-	-	-	NCDC	no	
7/21/2008	Thunderstorm wind	Elberton	55 knots	0	0	-	-	-	-	NCDC	no	
7/23/2008	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Ruckersville
7/23/2008	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Fortsonia
7/27/2008	Thunderstorm wind	Elbert	55 knots	0	0	-	-	-	-	NCDC	no	Harper
7/27/2008	Thunderstorm wind	Elbert	50 knots	0	0	-	-	-	-	NCDC	no	Match
7/30/2008	Thunderstorm wind	Elbert	60 knots	0	0	-	-	-	-	NCDC	no	Dewey Rose

Date:

Hazard	Number of Events in Historic Record	Number of Years in Historic Record	Number of Events in Past 10 Years	Number of Events in Past 20 Years	Number of Events in Past 50 Years	Historic Recurrence Interval (years)	Historic Frequency % chance/year	Past 10 Year Record Frequency Per Year	Past 20 Year Record Frequency Per Year	Past 50 Year Record Frequency Per Year
Hurricane Surge - Cat 1	0	61	0	0	0	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2	0	61	0	0	0	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3	0	61	0	0	0	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4	0	61	0	0	0	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5	0	61	0	0	0	#DIV/0!	0.00	0	0	0
Hurricane Wind	0	61	0	0	0	#DIV/0!	0.00	0	0	0
Floods	15	61	10	15	15	4.07	24.59	1	0.75	0.3
Wildfire	483	10	483	0	0	0.02	4,830.00	48.3	0	0
Earthquake	1	61	0	0	1	61.00	1.64	0	0	0.02
Tornado	12	61	6	7	11	5.08	19.67	0.6	0.35	0.22
Thunderstorm Wind	87	61	39	63	86	0.70	142.62	3.9	3.15	1.72
Hail	53	61	25	47	53	1.15	86.89	2.5	2.35	1.06
Drought	17	61	9	17	17	3.59	27.87	0.9	0.85	0.34
Extreme Heat	1	61	1	1	1	61.00	1.64	0.1	0.05	0.02
Winter Storm	31	61	19	31	31	1.97	50.82	1.9	1.55	0.62
Landslide	0	61	0	0	0	#DIV/0!	0.00	0	0	0
Dam Failure	0	61	0	0	0	#DIV/0!	0.00	0	0	0
						#DIV/0!	#DIV/0!	0	0	0
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval.

For example: If there have been 20 HazMat Releases in the County in the past 5 years, statistically you could expect that there will be 4 releases a year.

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

By updating and reviewing this table over time, it may be possible to see if certain types of hazard events are increasing in the past 10-20 years.

Date:

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)
- maps from other agencies
- Aerial topographic and/or planimetric maps
- Field Surveys
- GIS software
- CADD software
- Digitized paper map

Date	Title of Map	Scale

Space intentionally left blank - see table below

Avalanche

Coastal Storm / Coastal Erosion

- | | |
|--|---|
| <ol style="list-style-type: none">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. | <ol style="list-style-type: none">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

Drought

Earthquake

- | | |
|---|---|
| <ol style="list-style-type: none">1. Go to the http://geohazards.cr.usgs.gov Website.2. Locate your planning area on the map.3. Determine your PGA. | <ol style="list-style-type: none">1. Record your PGA.2. If you have more than one PGA print, download or order your PGA map. |
|---|---|

Expansive Soils

Extreme Heat

Flood

- | | |
|--|---|
| <ol style="list-style-type: none">1. Get a copy of your FIRM.2. Verify the FIRM is up-to-date and complete. | <ol style="list-style-type: none">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

Hurricane

Land Subsidence

Landslide

- | | |
|--|---|
| <ol style="list-style-type: none">1. Map location of previous landslides.2. Map the topography.3. Map the geology.4. Identify thee high-hazard areas on your map. | <ol style="list-style-type: none">1. Mark the areas susceptible to landslides onto your base map. |
|--|---|

Severe Winter Storm

Tornado

- | | |
|---|---|
| <ol style="list-style-type: none">1. Find your design wind speed. | <ol style="list-style-type: none">1. Record your design wind speed.2. If you have more than one design wind speed, print, download or copy your design wind speed zones, copy theboundary of your design wind speed zones on your base map, then record the design wind speed zones. |
|---|---|

Tsunami

Wildfire

- | | |
|---|--|
| <ol style="list-style-type: none">1. Map the fuel models located within the urban-wildland interface areas.2. Map the topography.3. Determine your critical fire weather frequency.4. Determine your fire hazard severity. | <ol style="list-style-type: none">1. Draw the boundaries of your wildfire hazard areas onto your base map. |
|---|--|

Other

- | | |
|--|---|
| <ol style="list-style-type: none">1. Map the hazard. | <ol style="list-style-type: none">1. Record hazard event info on your base map. |
|--|---|

Date:

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 a

Goal: ALL

HAZARDS

Objective:

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	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
Coordinate with Elbert County and its municipalities to ensure that neighborhoods are identified and delineated during comprehensive plan update process	+	+	+	+	+	-	-	-	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+
Develop strategy for targeted outreach prior to or during a hazard occurrence to neighborhoods with high percentages of residents in need of additional assistance	+	+	+	+	+	-	-	-	+	+	+	+	+	+	-	+	+	n/a	n/a	n/a	n/a	n/a	n/a

STAPLEE Criteria	S (Social)		T (Technical)			A (Administrative)			P (Political)			L (Legal)			E (Economic)				E (Environmental)				
	Community Acceptance	Effect on Segment of	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
Conduct regular outreach and education activities (in English and Spanish) on hazard mitigation strategies through PSAs, school and hospital newsletters, Facebook, local television channels, and utility companies	+	+	+	+	+	+	-	+	+	+	-	+	+	+	-	+	+	n/a	n/a	n/a	n/a	n/a	
Identify strategy for instant notification to residents prior to and/or during a hazard occurrence (e.g. text messaging, email, etc.)	+	+	+	+	+	+	-	+	+	+	-	+	+	+	-	+	+	n/a	n/a	n/a	n/a	n/a	
Develop Capital Improvements Element (CIE) to include hazard mitigation projects	+	+	+	+	+	+	-	+	+	+	-	+	+	+	-	+	+	n/a	n/a	n/a	n/a	n/a	

