APPENDIX D

WORKSHEETS USED IN PLANNING PROCESS

GEMA Worksheet #1 Identify the Hazard Step 1

Date: What kinds of natural hazards can affect you?

Task A. List the hazards that may occur.

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

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

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

Use this space to record information you find for each of the hazards you will be **researching**. *Attach additional pages as necessary. Note:* ***Bolded*** *hazards are addressed in this How-to Guide.*

	Task A	Task B
Avalanche		
Coastal Erosion		
Coastal Storm	X	
Dam Failure	X	X
Drought	X	X
Earthquake	X	
Expansive Soils		
Extreme Heat	X	
Flood	X	X
Hailstorm	X	
Hurricane	X	
Land Subsidence		
Landslide		
Severe Winter Storm	X	X
Tornado	X	X
Tsunami		
Volcano		
Wildfire	X	X
Windstorm		
Lightning	X	X
Tropical Storms	X	X
Thunderstorm Winds	X	X

Hazard or Event Description *(Type of hazard, date of event, number of injuries, cost and types of damage, etc.)*	**Source of Information**	**Map Available for this Hazard?**	**Scale of Map**
Dam Failure See Appendix A for this complete information	USGS, The Sparta Ishmaelite, NCDC	Only map of dams is available See Appendix A	
Drought See Appendix A for complete information	USDA, NCDC, SHELDUS, The Sparta Ishmaelite, Palmer Index	Maps area available for the state as a whole from the Palmer Index See Appendix A	
Flood See Appendix A for this complete information	USGS, NCDC, SHELDUS, The Sparta Ishmaelite,	Flood Plain Maps are available See Appendix A	
Severe Winter Weather See Appendix A for this complete information	SERRC, NCDC, SHELDUS, The Sparta Ishmaelite,	Maps are available in Appendix A	
Hail See Appendix A for this complete information	NCDC, SHELDUS,	No map is available	
Tornado See Appendix A for this complete information	Tornado History Project, NCDC, SHELDUS, The Sparta Ishmaelite,	Map is available See Chapter II. Section V.	
Lightning See Appendix A for this complete information	NCDC, SHELDUS,	No map is available	
Tropical Storms See Appendix A for this complete information	NCDC, SHELDUS,	No map is available	
Thunderstorm Winds See Appendix A for this complete information	NCDC, SHELDUS,	No map is available Map is available for wind zone	
Wildfire See Appendix A for this complete information	GFC	Map is available for fire danger zones	

LINCOLN COUNTY-WIDE INCLUDES LINCOLNTON
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	20 year 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						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	7	70	5	5	7	10.00	10.00	25.00	0.5	0.25	0.14
Wildfire	1,245	61	91	268	1,059	0.05	2040.98	1340.00	9.1	13.4	21.18
Earthquake	15	70	8	10	15	4.67	21.43	50.00	0.8	0.5	0.3
Tornado	10	70	1	5	10	7.00	14.29	25.00	0.1	0.25	0.2
Thunderstorm Wind	97	70	50	79	89	0.72	138.57	395.00	5	3.95	1.78
Hail	51	70	12	25	39	1.37	72.86	125.00	1.2	1.25	0.78
Drought	25	70	7	21	25	2.80	35.71	105.00	0.7	1.05	0.5
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	35	70	5	11	21	2.00	50.00	55.00	0.5	0.55	0.42
Lightning	51	70	7	18	40	1.37	72.86	90.00	0.7	0.9	0.8
Dam Failure	0	0	0	0	0	#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	15	70	2	13	14	4.67	21.43	65.00	0.2	0.65	0.28
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval.
For example: If there have been 20 HazMat Releases in the County in the past 5 years,
statistically you could expect that there will be 4 releases a year.
Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuarcy 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.

LINCOLN COUNTY UNICORPORATED AREAS
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	20 year 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						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	7	70	5	5	7	10.00	10.00	25.00	0.5	0.25	0.14
Wildfire	1,245	61	91	268	1,059	0.05	2040.98	1340.00	9.1	13.4	21.18
Earthquake	15	70	8	10	15	4.67	21.43	50.00	0.8	0.5	0.3
Tornado	10	70	1	5	10	7.00	14.29	25.00	0.1	0.25	0.2
Thunderstorm Wind	64	70	35	46	56	1.09	91.43	230.00	3.5	2.3	1.12
Hail	39	70	7	13	27	0.18	557.14	65.00	1.3	0.65	0.54
Drought	25	70	7	21	25	2.80	35.71	105.00	0.7	1.05	0.5
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	35	64	8	11	35	1.83	54.69	55.00	0.8	0.55	0.7
Lightning	50	70	6	17	39	1.40	71.43	85.00	0.6	0.85	0.78
Dam Failure	0	0	0	0	0	#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	15	70	2	13	14	4.67	21.43	65.00	0.2	0.65	0.28
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

NOTE: The historic frequency of a hazard event over a given period of time determines the historic recurrence interval.
For example: If there have been 20 HazMat Releases in the County in the past 5 years,
statistically you could expect that there will be 4 releases a year.
Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuarcy 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.

LINCOLNTON
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	20 year 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						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 2						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 3						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 4						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Surge - Cat 5						#DIV/0!	#DIV/0!	0.00	0	0	0
Hurricane Wind						#DIV/0!	#DIV/0!	0.00	0	0	0
Floods	0	70	0	0	0	#DIV/0!	0.00	0.00	0	0	0
Wildfire	0	0	0	0	0	#DIV/0!	#DIV/0!	0.00	0	0	0
Earthquake	15	70	8	10	15	4.67	21.43	50.00	0.8	0.5	0.3
Tornado	0	0	0	0	0	0.00	#DIV/0!	0.00	0	0	0
Thunderstorm Wind	60	70	19	42	52	1.17	85.71	210.00	1.9	2.1	1.04
Hail	39	70	6	13	27	0.15	650.00	65.00	1.3	0.65	0.54
Drought	25	70	7	21	25	2.80	35.71	105.00	0.7	1.05	0.5
Extreme Heat						#DIV/0!	#DIV/0!	0.00	0	0	0
Snow & Ice	35	70	8	11	35	2.00	50.00	55.00	0.8	0.55	0.7
Lightning	1	70	1	1	1	70.00	1.43	5.00	0.1	0.1	0.02
Dam Failure	0	0	0	0	0	#DIV/0!	#DIV/0!	0.00	0	0	0
Tropical Storm	15	70	2	13	14	4.67	21.43	65.00	0.2	0.65	0.28
HazMat Release (fixed)						#DIV/0!	#DIV/0!	0.00	0	0	0
HazMat Release (trans)						#DIV/0!	#DIV/0!	0.00	0	0	0
Radiological Release						#DIV/0!	#DIV/0!	0.00	0	0	0

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

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

Realize that from a statistical standpoint, there are several variables to consider. 1) Accurate hazard history data and collection are crucial to an accurate recurrence interval and frequency. 2) Data collection and accuarcy 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.

GEMHSA Worksheet #3a Inventory of Assets

Jurisdiction: Lincoln County All Jurisdictions
Hazard: Dam Failure, Drought, Wildfire, Severe Weather (Tornados, Tropical Storms, Thunderstorm Winds, Lightning, Hail), Winter Storm, Earthquake

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.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# 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	13,292	13,292	100.000%	$455,744,348	455,744,348	100.000%	7,799	7,799	100%
Commercial	901	901	100.000%	$44,326,740	44,326,740	100.000%	7,799	7,799	100%
Industrial	26	26	100.000%	$2,679,770	2,679,770	100.000%	0	0	0%
Agricultural	2,253	2,253	100.000%	$208,107,815	208,107,815	100.000%	0	0	0%
Religious/ Non-profit	84	84	100.000%	$16,491,573	16,491,573	100.000%	0	0	0%
Government	85	85	100.000%	$443,364,238	443,364,238	100.000%	0	0	0%
Education	3	3	100.000%	$6,700	6,700	100.000%	0	0	0%
Utilities	8	8	100.000%	$25,403,448	25,403,448	100.000%	0	0	0%
Total	16,652	16,652	100.000%	1,196,124,630	1,196,124,630	100.000%	7,799	7,799	100%

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

GEMHSA Worksheet #3a Inventory of Assets

Jurisdiction: Lincoln County All Jurisdictions
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.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# 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	13,292	292	2.197%	$455,744,348	10,011,838	2.197%	7,799	171	2.19%
Commercial	901	0	0.000%	$44,326,740	0	0.000%	7,799	0	0.00%
Industrial	26	0	0.000%	$2,679,770	0	0.000%	0	0	0.00%
Agricultural	2,253	0	0.000%	$208,107,815	0	0.000%	0	0	0.00%
Religious/ Non-profit	84	0	0.000%	$16,491,573	0	0.000%	0	0	0.00%
Government	85	0	0.000%	$443,364,238	0	0.000%	0	0	0.00%
Education	3	0	0.000%	$6,700	0	0.000%	0	0	0.00%
Utilities	8	0	0.000%	$25,403,448	0	0.000%	0	0	0.00%
Total	16,652	292	1.754%	1,196,124,630	10,011,838	0.837%	7,799	7,799	100%

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

GEMHSA Worksheet #3a Inventory of Assets

Jurisdiction: Lincoln County Unincorporated

Hazard: Dam Failure, Drought, Wildfire, Severe Weather (Tornados, Tropical Storms, Thunderstorm Winds, Lightning, Hail), Winter Storm, Earthquake

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.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# 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	11,925	11,925	100.000%	401,310,855	401,310,855	100.000%	5,976	5,976	100%
Commercial	391	391	100.000%	14,238,408	14,238,408	100.000%	5,976	5,976	100%
Industrial	17	17	100.000%	5,041,840	5,041,840	100.000%	1,017	1,017	100%
Agricultural	1,870	1,870	100.000%	203,661,735	203,661,735	100.000%	143	143	100%
Religious/ Non-profit	63	63	100.000%	11,553,985	11,553,985	100.000%	5,976	5,976	100%
Government	54	54	100.000%	412,652,920	412,652,920	100.000%	5,976	5,976	100%
Education	2	2	100.000%	5,200	5,200	100.000%	0	0	0%
Utilities	6	6	100.000%	25,940,203	25,940,203	100.000%	5,976	5,976	100%
Total	14,328	14,328	100.000%	1,074,405,146	1,074,405,146	100.000%	5,976	146	2%

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

GEMHSA Worksheet #3a Inventory of Assets

Jurisdiction: Lincoln 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.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# 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	11,925	290	2.432%	401,310,855	9,759,342	2.432%	5,976	171	2.86%
Commercial	391	0	0.000%	14,238,408	0	0.000%	5,976	0	0.00%
Industrial	17	0	0.000%	5,041,840	0	0.000%	1,017	0	0.00%
Agricultural	1,870	0	0.000%	203,661,735	0	0.000%	143	0	0.00%
Religious/ Non-profit	63	0	0.000%	11,553,985	0	0.000%	5,976	0	0.00%
Government	54	0	0.000%	412,652,920	0	0.000%	5,976	0	0.00%
Education	2	0	0.000%	5,200	0	0.000%	0	0	0.00%
Utilities	6	0	0.000%	25,940,203	0	0.000%	5,976	0	0.00%
Total	14,328	290	2.024%	1,074,405,146	9,759,342	0.908%	5,976	146	2%

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

GEMHSA Worksheet #3a Inventory of Assets

Jurisdiction: City of Lincolnton

Hazard: Dam Failure, Drought, Wildfire, Severe Weather (Tornados, Tropical Storms, Thunderstorm Winds, Lightning, Hail), Winter Storm, Earthquake

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.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# 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	1,281	1,281	100.000%	$55,736,150	55,736,150	100.000%	1,566	1,566	100%
Commercial	482	482	100.000%	$26,869,920	26,869,920	100.000%	1,566	1,566	100%
Industrial	2	2	100.000%	$209,630	209,630	100.000%	102	102	100%
Agricultural	36	36	100.000%	$3,217,825	3,217,825	100.000%	7	7	100%
Religious/ Non-profit	23	23	100.000%	$5,266,500	5,266,500	100.000%	1,566	1,566	100%
Government	44	44	100.000%	$34,158,497	34,158,497	100.000%	1,566	1,566	100%
Education	1	1	100.000%	$2,400	2,400	100.000%	0	0	0%
Utilities	2	2	100.000%	$2,980,830	2,980,830	100.000%	1,566	1,566	100%
Total	1,871	1,871	100.000%	128,441,752	128,441,752	100.000%	1,566	1,566	100%

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

GEMHSA Worksheet #3a Inventory of Assets

Jurisdiction: City of Lincolnton
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.

	Number of Structures			Value of Structures			Number of People		
Type of Structure (Occupancy Class)	# 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	1,281	2	0.156%	$55,736,150	87,020	0.156%	1,823	0	0%
Commercial	482	0	0.000%	$26,869,920	0	0.000%	1,823	0	0%
Industrial	2	0	0.000%	$209,630	0	0.000%	102	0	0%
Agricultural	36	0	0.000%	$3,217,825	0	0.000%	7	0	0%
Religious/ Non-profit	23	0	0.000%	$5,266,500	0	0.000%	1,823	0	0%
Government	44	0	0.000%	$34,158,497	0	0.000%	1,823	0	0%
Education	1	0	0.000%	$2,400	0	0.000%	0	0	0%
Utilities	2	0	0.000%	$2,980,830	0	0.000%	1,823	0	0%
Total	1,871	2	0.107%	128,441,752	87,020	0.068%	1,823	0	0%

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

STAPLEE Criteria	S		T			A			P			L			E				E							
	(Social)		(Technical)			(Administrat			(Political)			(Legal)			(Economic)				(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	Alternative Actions	Alternative Actions	Comments
Investigate greater participation Level in the NFIP and CRS																										
Continue to assess stormwater runoff.		P	P	N		P	P									P			P							
Construct as needed, more storm water retention facilities, storm drain improvements and channel improvements to protect existing and new developments	P	P	P	P		P	P	P	P						P				P			P				
Clear run-off and water retention ditches.	P	P	P	P		P	P	P	P						P	P			P							
Seek funding for communication towers and voter repeater systems.	P	P		P		P	P		P									N								
Adopt ordinances to limit and control building and development in known flood prone areas.		P	P	P		P	P	P							P	P			P			P				
Promote the preservation of areas in and around watercourses.		P	N	P		N	P								P	P		N				P				
Add greenspace to known flood prone areas.			P	P		P	N	P							P			N	P			P				
Evaluate existing water system upgrade as needed	P	P	P	P		P	N	P	P		P				P	N		N				P				
Investigate methods to reduce non-point source pollution.	P	P	N	N		N	N					P			P	N		N				P				
Promote increased surface water usage and surface artesian flow for irrigation.			P	P		P	N	P				P			P	N		N	P			P				
Enact a program to educate the residents about water conservation issues	P		P	P		N	N	P							P	P		N	P			P				
Increase public awareness of watering restrictions and bans.	P		P	P		N	P	P							P	P		P	P			P				
Develop a public awareness campaign to promote water-saving campaigns (i.e. low-flow water saving devices)	P	P	P	P		P	P	P	P		P	P			P	P			P			P				
Continue training of all firefighters to include wildland fire training.	P		P	P		P	P	P	P		P				P	P		N				P				
Seek funding for needed firefighting equipment			P	P		P	N	P	P		P				P	P		N				P				
Inventory and replace or install more fire hydrants as needed.	P		P	P		P	P	P	P		P				P	P		N				P				
Seek funding fire engines and tankers for local fire departments.	P		P	P		P	P	P	P		P				P	P		N				P				
Enforce defensible space (30-ft minimum setbacks) between buildings and flammable brush and forestland where possible.			P	P		P	N	P	P		P				P	P		N				P				
Continue following GFC service of construction and maintenance of firebreaks around forests and structures, along abandoned roadbeds.			P	P		P	N	P	P		P				P	P		N				P				
Strictly follow GFC's guidelines for control burns and permits.			P	P		P	N	P	P		P				P	P		N				P				
Implement the Firewise Community Initiative where appropriate			P	P		P	N	P	P		P				P	P		N				P				
Improve public awareness of wildfire techniques and awareness of wildfire dangers.			P	P		P	N	P	P		P				P	P		N				P				
Adopt Building Codes	P		P	P		N	P	P	P	P	N				P	P		N	P			P				
Adopt Zoning Regulations	P		P	P		N	P	P	P	P	N				P	P		N	P			P				

STAPLEE Criteria	S		T			A			P			L			E				E							
	(Social)		(Technical)			(Administrat			(Political)			(Legal)			(Economic)				(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	Alternative Actions	Alternative Actions	Comments
To the greatest extent possible, identify all owners of inadequately installed manufactured homes offer a financial incentive to retrofit them with an appropriate level of anchoring and support.	P	P	P	P		P	P	P	P						P	P		N	P			P				
Equip all county and city recreation parks with adequate early severe weather warning and lightning detection devices.	P		P	P		P	P	P	P						P	P		N				P				
Inspects public buildings and critical facilities and retrofi to reinforce windows, doors, and roofs as needed	P		P	P		P	P	P	P						P	P		N				P				
Enforce building codes for all new buildings and critica facilities.	P		P	P		P	P	P	P						P	P		N	P			P				
Inspect all county and municipal critical facilities fo proper grounding.	P		P	P		P	P	P	P						P	P		N				P				
Install lightning rods in high value critical facilities.	P		P	P		P	P	P	P						P	P		N				P				
Install surge protectors on critical facilities' electronic equipment in essential county and city facilities.	P		P	P		P	P	P	P						P	P						P				
Review current Emergency Response Plan and update when needed.	P		P	P		P	P	P	P						P	P						P				
Review current evacuation plans paying particular attention to vulnerable populations and update as needed.	P		P	P		P	P	P	P						P	P						P				
Provide boat owners with safety tie down procedures with boat registration.	P	P	P	P		P	P	P	P						P	P						P				
Develop a public awareness program about the installation of lightning grounding systems on critical infrastructure, residential and business properties.	P		P	P		N	P	P	P						P	P						P				
Inventory all critical facilities and assess generator needs Install generators where needed.	P		P	P		P	P	P	P						P	P		N				P				
Seek funding to ensure all current and future emergency shelters have back-up generators.	P		P	P		N	P	P	P						P	P						P				
Educate the public on shelter locations and evacuation routes	P		P	P		P	P	P	P						P	P						P				
Develop public education and awareness programs regarding severe weather events to include home safety measures, purchase of weather radio and personal safety measures before, during and after an event.	P		P	P		N	P	P	P						P	P						P				
Implement a winter storm education program to include winterization of home and/or business and what to do before, during and after.	P		P	P		P	P	P	P						P	P						P				
Review current codes to comply with and enforce the State building code with criteria for design snow load fo buildings and structures.	P		P	P		N	P	P	P						P	P						P				
Create a data base to record hazard event information.	P		P	P		P	P	P	P						P	P										
Conduct dam breach analysis to identify assets and population at risk in the event of a failure.	P		P	P		N	P	P	P						P	P		N								
Draft ordinance prohibiting development in dam breach zone.	P		P	P		N	P	P	P						P	P			P							

STAPLEE Criteria	S		T			A			P			L			E				E								
	(Social)		(Technical)			(Administrat			(Political)			(Legal)			(Economic)				(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	Alternative Actions	Alternative Actions	Comments
Install dam failure alert systems.	P		P	P		N	P	P	P						P	P		N	P							
Inventory existing road equipment and purchase needed equipment to maintain roads before, during and after a hazard event.	P		P	P		P	P	P	P						P	P		N								
Develop coordinated management strategies for deicing, snow plowing, and clearing roads of fallen trees and debris	P		P	P		P	P	P	P						P	P										
Promote the construction of safe rooms in shelter areas and in public buildings.	P		P	P		P	P	P	P						P	P		N								
Update 911 equipment as needed.	P		P	P		N	P	P	P						P	P										
Request that all new education facilities be designed to serve as public shelters for emergency purposes.	P		P	P		P	P	P	P						P	P										
Promote and participate in the following American Red Cross Programs	P		P	P		P	P	P	P						P	P										
• Disaster Resistant Neighborhoods Program																										
• Business and Industry Preparedness Seminar																										
• Community Disaster Education Preparedness presentations																										
Create an EMA website with information pertaining to Emergency Preparedness.	P		P	P		N	P	P	P						P	P										
Work with local cable and radio providers to enhance and broadcast public education on Emergency Preparedness.	P		P	P		P	P	P	P						P	P										
Implement GIS technology on fire and emergency management vehicles so data can be readily available in the field so more accurate, timely assessments for future mitigation planning activities.	P		P	P		N	P	P	P						P	P		N								
Purchase a portable sewer transfer pumping unit	P		P	P		P	P	P	P						P	P										
Herman Nelson Warming System AIR HEATER w/TRAILER	P		P	P			P	P	P						P	P		N				P				
Storm Drainage Improvements on Plum Street by the Community House.	P		P	P		P	P	P	P						P	P		N				P				
Pave Roads in county that are unpassable due to flooding	P		P	P		P	P	P	P						P	P		N				P				
Purchase generators for critical facilities:	P	P	P	P		P	P	P	P						P	P		N				P				
Provide NOAA weather radios to elderly and handicap populations (moved to all hazards).	P	P	P	P		P	P	P	P						P	P		N				P				
Preform procurement to contract with debris removal firm to have contract in place before hazards to ensure firm can move in immediately.	P	P	P	P		P	P	P	P						P	P		N								
Run HAZUS scenarios once the software is updated and compatible to RC ArcGIS 10.2 and updated estimated losses.			P	P		P	P	P	P						P	P		N								

Facility Name

Location

Longitude

Latitude

Location Method: [ ] Geocode [ ] GPS [ ] GPS-closed [ ] GPS - dnr [ ] Manual add

Address 1:

Address 2: (PO BOX)

City: Zip:

Jurisdiction:

Daytime Occupancy:

Night Occupancy:

Building Value

Number of Stories:

Functional Use Value:

Year Constructed:

Displacement Cost Per Day:

Area Sq Ft:

Contents Value:

Bldg Value:

Contents Value Year:

Valuation Year:

Contents Description:

Building Valuation Type: [ ] 0 = Unknown [ ] 1 = Market Value [ ] 2 = Assessed Value [ ] 3 = Replacement Value [ ] 99 = Other

*Mark any or all that apply. See back of page for details.

- [ ] Essential Facility
- [ ] Transportation Facility
- [ ] Lifeline System
- [ ] High Potential Loss
- [ ] HazMat Facility
- [ ] Important Facility
- [ ] Vulnerable Population
- [ ] Economic Asset
- [ ] Special Consideration
- [ ] Historical Consideration
- [ ] Other Facility

Other Details:

See back of page for codes.

Building Type Code:

Occupancy Code:

*Choose Only One Faciltiy Type

Facility Type:

- [ ] Pre-kindergarten
- [ ] Kindergarten
- [ ] Primary School
- [ ] Elementary School
- [ ] Middle School
- [ ] Middle/High School
- [ ] High School, Public
- [ ] Private School
- [ ] Other School
- [ ] Alternative Division
- [ ] Alternative School
- [ ] Private Two-Year College
- [ ] Public Two-Year College
- [ ] Private Four-Year College
- [ ] Public Four-Year College
- [ ] Private University
- [ ] Public University
- [ ] Public Vocational Technical School
- [ ] Psychoeducational
- [ ] Adult Edu. Center
- [ ] Airport
- [ ] City Hall
- [ ] City Jail
- [ ] County Correctional Institution
- [ ] County Jail
- [ ] Courthouse
- [ ] Federal Penitentiary
- [ ] Fire Station
- [ ] Wastewater Treatment Plant
- [ ] Water System
- [ ] C and D Construction and Demolition Landfill
- [ ] L (Dry Trash) Landfill
- [ ] MSWL (Municipal Solid Waste Landfill)
- [ ] SL (Sanitary Waste) Landfill
- [ ] Recycling Center
- [ ] Transfer Station
- [ ] Hospital, Admissions Entrance
- [ ] Hospital, Emergency Entrance
- [ ] Library
- [ ] Marshals Office
- [ ] Police Station
- [ ] Sheriffs Office
- [ ] Emergency Services
- [ ] State Prison
- [ ] Other

LINCOLN COUNTY
HAZARD MITIGATION PLAN UPDATE

Documentation of Labor Match

NAME (Please Print): _____

ORGANIZATION: _____

DATE(S): _____

EVENT: __Hazard Mitigation Plan Update_____

HOURLY SALARY: _____

BENEFITS PER HOUR: _____

HOURS CONTRIBUTED (Include travel time): _____

TOTAL LABOR MATCH:_____

(Hourly Salary + Benefits Per Hour) X Hours Contributed = Total Labor Match

SIGNATURE: _____
(FORM IS NOT VALID WITHOUT SIGNATURE)

"I authorize GEMA/HS to use the value identified for federal costs sharing matching purposes and do not otherwise believe that I am currently paid with federal funds or that my salary is being used to satisfy any other federal costs sharing obligation."

For use by Committee Members (e.g. EMA Director, County Engineer ...)

Building Type Code:

[ ] C1 = Concrete Moment Frame
[ ] C2 = Concrete Shear Walls
[ ] C3 = Concrete Frame with Unreinforced Masonry Infill Walls
[ ] MH = Manufactured Housings
[ ] O = Other Building Type
[ ] P1 = Precast Concrete Tilt-Up Walls
[ ] P2 = Precast Concrete Frames with Cast-in-Place Concrete Shear Walls
[ ] RM1 = Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms
[ ] RM2 = Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms
[ ] S1 = Steel Moment Frame
[ ] S2 = Steel Braced Frame
[ ] S3 = Steel Light Frame
[ ] S4 = Steel Frame with Cast-in-Place Concrete Shear Walls
[ ] S5 = Steel Frame with Unreinforced Masonry Infill Walls
[ ] URM = Unreinforced Masonry Bearing Walls
[ ] UNK = Unknown Building Type

Occupancy Code:

[ ] AGR1 = Agriculture Facilities and Offices
[ ] COM1 = Retail Trade
[ ] COM2 = Wholesale Trade
[ ] COM3 = Personal and Repair Services
[ ] COM4 = Professional/Technical Services
[ ] COM5 = Banks
[ ] COM6 = Hospital
[ ] COM7 = Medical Office and Clinic
[ ] COM8 = Entertainment _Recreation
[ ] COM9 = Theaters
[ ] COM10 = Parking Garages
[ ] EDU1 = Grade Schools and Admin. Offices
[ ] EDU2 = Colleges and Universities
[ ] GOV1 = Government - General Services
[ ] GOV2 = Government - Emergency Response
[ ] UNK = Unknown
[ ] IND1 = Heavy Industrial
[ ] IND2 = Light Industrial
[ ] IND3 = Food/Drugs/Chemicals
[ ] IND4 = Metals/Minerals Processing
[ ] IND5 = High Technology
[ ] IND6 = Construction Facilities and Offices
[ ] REL1 = Churches and Non-Profit Organizations
[ ] RES1 = Single Family Dwellings
[ ] RES2 = Manufactured Housing
[ ] RES3A = Duplex
[ ] RES3B = 3 to 4 Units
[ ] RES3C = 5 to 9 Units
[ ] RES3D = 10 to 19 Units
[ ] RES3E = 20 to 49 Units
[ ] RES3F = > 50 Units
[ ] RES4 = Temporary Lodging
[ ] RES5 = Institutional Dormitories
[ ] RES6 = Nursing Homes

Definitions:

Essential Facility
An essential facility is a critical facility that is essential to the health and welfare of the population. The potential consequences of losing functions or services from this type of facility are higher than any other type of structures. Interruption or loss of function from these types of facilities would jeopardize human life and public safety. Essential facilities include: hospitals and other medical facilities, police and fire stations, emergency operations centers, evacuation shelters and schools, and other structures that house first responder equipment or personnel.

Transportation Systems
Transportation infrastructure or facilities. Examples include:
Airways: airports, heliports,
Highways: bridges, tunnels, roadbeds, overpasses, transfer stations.
Railways: tracks, tunnels, bridges, rail yards, depots, switching stations.
Waterways: canals, locks, ports, ferries, dry-docks, piers.

Lifeline System
Corridors of flow for equipment, supplies and services. Transportation systems can also be Lifeline Systems. The best physical example of a lifeline would be a bridge and right-of-way that could include utilities and communication. Examples include: potable water, wastewater, oil, natural gas, electric power, and communication.

High Potential Loss Facility
Facilities that would have a high human loss associated with their damage or failure. Examples include: nuclear power plants, dams and military installations.

Hazardous Materials Facility
Facilities that produce or house industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins. Check to see if your county has a Local Emergency Planning Committee (LEPC) and an existing Hazardous Material listing.

Important Facility
These types of facilities are vital for overall day to day community functions, and ensure full recovery in the wake of a hazard or disaster event. Examples include: government buildings and functions, major employers in the area, bank and financial institutions, non-nuclear power generators, certain commercial establishments such as grocery stores, hardware stores and gas stations, technical schools, colleges, and universities.

Vulnerable Population
Is there a vulnerable human population that occupies the structure that would need special assistance, medical care or other actions before, during or after a hazard event or disaster? Examples include: elderly people, jail populations, people with mental, physical or mobility problems, and non-English speaking populations.

Economic Assets
Larger economic assets that are vital to the prosperity of the community. Examples include major employers and financial centers in your community or area that impact the local or regional economy if significantly disrupted.

Special Considerations
High-density areas (residential or commercial development), if damaged or impacted in a hazard event or disaster, could result in high death tolls or injury rates. Examples include: larger factories or industries, large vertical apartment or housing complexes.

Historic Considerations
Historic, cultural or natural resources, including structures and areas that are identified and protected under state or federal law. Examples include: state parks, federal parks, museums and historic districts.

Other Facilities
Any other significant locally identified facility that does not fit into another category of those listed above.

Comments:

EXHIBIT "H"

Date: _____

XYZ County PDM Progress Payment Request

Instructions: All requests for progress payments must be supported by documentation supporting actual expenditures. Itemize each expenditure below to the fullest detail possible, including a reference to specific sites or elements of work. Attach documentation that supports this progress payment request, such as copies of bills of sale, invoices, receipts, and canceled checks evidencing payment. Do not send originals. As project administrative costs are calculated on a sliding scale, do not include this in your request for payment. Attach a continuation sheet if necessary.

AGREEMENT NUMBER_____ FEMA Project Number_____

SUBGRANTEE NAME: XYZ County_____ (FIPs code) ID. Number:_____

Site Reference or Element of Work	Approved Amount	Previous Payment	Current Request	Description of Documentation Attached in Support of this Payment Request

(from continuation sheet attached) **SUBTOTAL**	
TOTAL	
Less Subgrantee Share (25%) or 15% if State match is applicable)	
Less State Share if applicable (10%)	
NET AMOUNT REQUESTED	

Under penalty of perjury, I certify that to the best of my knowledge and belief the data above are correct and that all outlays were made in accordance with the grant conditions or other agreement, comply with procurement regulations contained within the 44 CFR, Part 13, and that payment is due and has not been previously requested. I am familiar with Section 317 of Public Law 93-288, as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. I understand that any part of this payment request that is not supported by cost documents and/or expended within the scope of the approved project will be refunded to the State of Georgia within 30 days of receiving the deobligation notice.

_____

Signature of Subgrantee's Authorized Representative (and printed name)

Georgia Emergency Management Agency
Labor Expense Summary

1. APPLICANT	2. Disaster Number	3. Period Covering	Page Of
4. Purpose/Work Performed		5. Program	

STAFF		DATES AND HOURS WORKED								COSTS		
		DATE								TOTAL HOURS	HOURLY RATE	TOTAL COSTS
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0		$ -
NAME	TITLE	Hours								0		$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
NAME	TITLE	Hours								0	$ -	$ -
											Total Cost for Labor Time	$ -

I CERTIFY THAT THE ABOVE INFORMATION WAS OBTAINED FROM PAYROLL RECORDS, INVOICES OR OTHER DOCUMENTS THAT ARE AVAILABLE FOR AUDIT.

I CERTIFY THAT THE ABOVE COSTS ARE NOT BEING USED FOR LOCAL MATCH FOR ANOTHER FEDERAL GRANT.

Signature	TITLE	DATE