

Appendix A

HAZUS RESULTS

Walker County Hazard Mitigation Plan Update, 2024



Hazus: Flood Global Risk Report

Region Name:

Walker County

Flood Scenario:

100-yr

Print Date:

Friday, May 12, 2023

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.







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General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Texas

Note:

Appendix A contains a complete listing of the counties contained in the region .

The geographical size of the region is approximately 23 square miles and contains 1,138 census blocks. The region contains over 25 thousand households and has a total population of 76,299 people. The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 23,512 buildings in the region with a total building replacement value (excluding contents) of 10,146 million dollars. Approximately 87.96% of the buildings (and 56.00% of the building value) are associated with residential housing.







Building Inventory

General Building Stock

Hazus estimates that there are 23,512 buildings in the region which have an aggregate total replacement value of 10,146 million dollars. Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

	- (24200)	
Occupancy	Exposure (\$1000)	Percent of Total
Residential	5,681,719	56.0%
Commercial	1,775,309	17.5%
Industrial	352,809	3.5%
Agricultural	306,109	3.0%
Religion	140,303	1.4%
Government	216,997	2.1%
Education	1,673,182	16.5%
Total	10,146,428	100%

Table 1 Building Exposure by Occupancy Type for the Study Region









 Table 2

 Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure (\$1000)	Percent of Total
Residential	5,681,374	56.0%
Commercial	1,775,309	17.5%
Industrial	352,809	3.5%
Agricultural	306,109	3.0%
Religion	140,303	1.4%
Government	216,997	2.1%
Education	1,673,182	16.5%
Total	10,146,083	100%



Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 123 beds. There are 22 schools, 11 fire stations, 5 police stations and 1 emergency operation center.







Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	Walker County
Scenario Name:	100-yr
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure









Building Damage

General Building Stock Damage

Hazus estimates that about 19,257 buildings will be at least moderately damaged. This is over 0% of the total number of buildings in the scenario. There are an estimated 18,564 buildings that will be completely destroyed. The definition of the 'damage states' is provided in the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = \$300K) Overview Map









	1-	10	11	-20	21	-30	31	-40	41	-50	>!	50
Occupancy	Count	(%)	Count	(%)								
Agriculture	0	0	0	0	0	0	0	0	0	0	428	100
Commercial	0	0	0	0	0	0	0	0	0	0	1,164	100
Education	0	0	0	0	0	0	0	0	0	0	19	100
Government	0	0	0	0	0	0	0	0	0	0	50	100
Industrial	0	0	0	0	0	0	0	0	12	10	114	90
Religion	0	0	0	0	0	0	0	0	0	0	33	100
Residential	0	0	0	0	0	0	0	0	681	4	16,756	96
Total	0		0		0		0		693		18,564	

Table 3: Expected Building Damage by Occupancy









Building	1-1	10	11-2	20	21-3	0	31-4	10	41-5	50	>5	0
Туре	Count	(%)	Count (%)	Count	(%)						
Concrete	0	0	0	0	0	0	0	0	2	1	252	99
ManufHousing	0	0	0	0	0	0	0	0	0	0	3,487	100
Masonry	0	0	0	0	0	0	0	0	42	2	2,155	98
Steel	0	0	0	0	0	0	0	0	7	1	492	99
Wood	0	0	0	0	0	0	0	0	640	5	12,046	95

Table 4: Expected Building Damage by Building Type







Essential Facility Damage

Before the flood analyzed in this scenario, the region had 123 hospital beds available for use. On the day of the scenario flood event, the model estimates that 123 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities					
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use			
Emergency Operation Centers	1	0	0	0			
Fire Stations	11	0	0	0			
Hospitals	1	0	0	0			
Police Stations	5	0	0	0			
Schools	22	0	0	0			

If this report displays all zeros or is blank, two possibilities can explain this.

- (1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.
- (2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message
- box asks you to replace the existing results.







Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.



The model estimates that a total of 323,000 tons of debris will be generated. Of the total amount, Finishes comprises 16% of the total, Structure comprises 38% of the total, and Foundation comprises 46%. If the debris tonnage is converted into an estimated number of truckloads, it will require 12920 truckloads (@25 tons/truck) to remove the debris generated by the flood.







Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 25,432 households (or 76,297 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 5,449 people (out of a total population of 76,299) will seek temporary shelter in public shelters.









Economic Loss

The total economic loss estimated for the flood is 17,988.47 million dollars, which represents 177.29 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 11,767.15 million dollars. 35% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 38.73% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.



RiskMAP



Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Los	<u>ss</u>					
	Building	3,892.94	1,352.36	224.21	870.91	6,340.43
	Content	1,919.78	1,548.27	393.60	924.81	4,786.45
	Inventory	0.00	286.94	61.87	291.46	640.27
	Subtotal	5,812.72	3,187.57	679.68	2,087.17	11,767.15
<u>Business In</u>	terruption					
	Income	43.05	1,085.63	6.13	279.60	1,414.41
	Relocation	649.69	333.70	7.96	173.24	1,164.58
	Rental Income	360.20	246.55	1.64	28.63	637.02
	Wage	101.21	905.40	9.58	1,989.12	3,005.31
	Subtotal	1,154.14	2,571.28	25.31	2,470.59	6,221.32
ALL	Total	6,966.86	5,758.85	704.99	4,557.76	17,988.47









Appendix A: County Listing for the Region

Texas

- Walker







Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)			
	Population	Residential	Non-Residential	Total	
Texas					
Walker	76,299	5,681,719	4,464,709	10,146,428	
Total	76,299	5,681,719	4,464,709	10,146,428	
Total Study Region	76,299	5,681,719	4,464,709	10,146,428	







Hazus: Flood Global Risk Report

Region Name:

Walker County

Flood Scenario:

500-yr

Print Date:

Monday, May 15, 2023

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

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Note:

Appendix A contains a complete listing of the counties contained in the region .

The geographical size of the region is approximately 23 square miles and contains 1,138 census blocks. The region contains over 25 thousand households and has a total population of 76,299 people. The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 23,512 buildings in the region with a total building replacement value (excluding contents) of 10,146 million dollars. Approximately 87.96% of the buildings (and 56.00% of the building value) are associated with residential housing.







Building Inventory

General Building Stock

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Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 123 beds. There are 22 schools, 11 fire stations, 5 police stations and 1 emergency operation center.







Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	Walker County
Scenario Name:	500-yr
Return Period Analyzed:	500
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure









Building Damage

General Building Stock Damage

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Economic Loss

The total economic loss estimated for the flood is 17,988.47 million dollars, which represents 177.29 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

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RiskMAP



Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

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	Subtotal	1,154.14	2,571.28	25.31	2,470.59	6,221.32
ALL	Total	6,966.86	5,758.85	704.99	4,557.76	17,988.47









Appendix A: County Listing for the Region

Texas

- Walker







Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)					
	Population	Residential	Non-Residential	Total			
Texas							
Walker	76,299	5,681,719	4,464,709	10,146,428			
Total	76,299	5,681,719	4,464,709	10,146,428			
Total Study Region	76,299	5,681,719	4,464,709	10,146,428			











Hazus: Hurricane Global Risk Report

Region Name:

Walker County

Hurricane Scenario:

Probabilistic 100-year Return Period

Print Date:

Friday, May 12, 2023

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Hurricane. These results can be improved by using enhanced inventory data.





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General Description of the Region

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The hurricane loss estimates provided in this report are based on a region that includes 1 county(ies) from the following state(s):

- Texas

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 802.99 square miles and contains 12 census tracts. There are over 24 thousand households in the region and a total population of 76,400 people. The distribution of population by State and County is provided in Appendix B.

There are an estimated 23 thousand buildings in the region with a total building replacement value (excluding contents) of 10,148 million dollars. Approximately 88% of the buildings (and 56% of the building value) are associated with residential housing.




Building Inventory

General Building Stock

Hazus estimates that there are 23,512 buildings in the region which have an aggregate total replacement value of Table 1 presents the relative distribution of the value with respect to the general occupancies. Appendix B provi distribution of the building value by State and County.



Building Exposure by Occupancy Type



Occupancy	Exposure (\$1000)	Percent of Tot
Residential	5,682,729	56.00%
Commercial	1,775,693	17.50%
Industrial	352,862	3.48%
Agricultural	306,190	3.02%
Religious	140,329	1.38%
Government	217,017	2.14%
Education	1,673,196	16.49%
Total	10,148,016	100.00%

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 123 beds. There are 22 schools, 11 fire stations, 5 police stations and 1 emergency operation facilities.





Hurricane Scenario

Hazus used the following set of information to define the hurricane parameters for the hurricane loss estimate provided in this report.

Scenario Name:

Probabilistic

Type:

Probabilistic





Building Damage

General Building Stock Damage

Hazus estimates that about 110 buildings will be at least moderately damaged. This is over 0% of the total number of buildings in the region. There are an estimated 1 buildings that will be completely destroyed. The definition of the 'damage states' is provided in the Hazus Hurricane technical manual. Table 2 below summarizes the expected damage by general occupancy for the buildings in the region. Table 3 summarizes the expected damage by general building type.



Expected Building Damage by Occupancy

 Table 2: Expected Building Damage by Occupancy : 100 - year Event

None		ie	Minor		Moder	Moderate		Severe		Destruction	
Occupancy	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	
Agriculture	535.77	93.67	27.13	4.74	6.45	1.13	2.52	0.44	0.13	0.02	
Commercial	1,692.72	94.62	79.70	4.45	16.23	0.91	0.35	0.02	0.00	0.00	
Education	42.47	96.52	1.45	3.29	0.09	0.19	0.00	0.00	0.00	0.00	
Government	90.86	96.65	2.97	3.16	0.17	0.18	0.00	0.00	0.00	0.00	
Industrial	234.73	95.81	9.51	3.88	0.71	0.29	0.04	0.02	0.00	0.00	
Religion	84.85	96.42	2.97	3.37	0.18	0.20	0.01	0.01	0.00	0.00	
Residential	19,561.36	94.59	1,035.51	5.01	81.25	0.39	0.54	0.00	1.35	0.01	
Total	22,242.76	5	1,159.22		105.07		3.47	,	1.48		





Table 3: Expected Building Damage by Building Type : 100 - year Event

Building	Nor	None		Minor		Moderate		Severe		Destruction	
Туре	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	
Concrete	467	94.69	24	4.80	3	0.51	0	0.00	0	0.00	
Masonry	2,975	94.20	150	4.75	30	0.94	3	0.10	0	0.00	
МН	3,821	99.33	19	0.50	5	0.12	0	0.00	2	0.05	
Steel	799	94.41	38	4.47	9	1.10	0	0.02	0	0.00	
Wood	14,298	94.35	818	5.39	37	0.24	1	0.01	0	0.00	





Essential Facility Damage

Before the hurricane, the region had 123 hospital beds available for use. On the day of the hurricane, the model estimates that 123 hospital beds (100%) are available for use by patients already in the hospital and those injured by the hurricane. After one week, 100% of the beds will be in service. By 30 days, 100% will be operational.





Thematic Map of Essential Facilities



Table 4: Expected Damage to Essential Facilities

		# Facilities						
Classification	Total	Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use < 1 day				
EOCs	1	0	0	1				
Fire Stations	11	0	0	11				
Hospitals	1	0	0	1				
Police Stations	5	0	0	5				
Schools	22	0	0	22				





Induced Hurricane Damage

Debris Generation



Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 326,174 tons of debris will be generated. Of the total amount, 299,879 tons (92%) is Other Tree Debris. Of the remaining 26,295 tons, Brick/Wood comprises 18% of the total, Reinforced Concrete/Steel comprises of 0% of the total, with the remainder being Eligible Tree Debris. If the building debris tonnage is converted to an estimated number of truckloads, it will require 184 truckloads (@25 tons/truck) to remove the building debris generated by the hurricane. The number of Eligible Tree Debris truckloads will depend on how the 21,684 tons of Eligible Tree Debris are collected and processed. The volume of tree debris generally ranges from about 4 cubic yards per ton for chipped or compacted tree debris to about 10 cubic yards per ton for bulkier, uncompacted debris.





Social Impact

Shelter Requirement



Hazus estimates the number of households that are expected to be displaced from their homes due to the hurricane and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 10 households to be displaced due to the hurricane. Of these, 9 people (out of a total population of 76,400) will seek temporary shelter in public shelters.





Economic Loss

The total economic loss estimated for the hurricane is 57.9 million dollars, which represents 0.57 % of the total replacement value of the region's buildings.

Building-Related Losses

The building related losses are broken into two categories: direct property damage losses and business interruption losses. The direct property damage losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the hurricane. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the hurricane.

The total property damage losses were 58 million dollars. 6% of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 87% of the total loss. Table 5 below provides a summary of the losses associated with the building damage.













(Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Property Da	mage					
	Building	36,205.99	2,538.84	317.23	1,908.22	40,970.29
	Content	12,157.29	388.31	44.39	384.53	12,974.53
	Inventory	0.00	32.36	6.80	352.35	391.50
	Subtotal	48,363.29	2,959.51	368.41	2,645.11	54,336.32
Business Int	erruption Loss					
	Income	0.00	412.26	0.52	0.00	412.77
	Relocation	1,385.80	386.13	12.24	176.35	1,960.52
	Rental	798.86	204.26	0.35	5.70	1,009.16
	Wage	0.00	167.24	0.85	0.00	168.09
	Subtotal	2,184.66	1,169.88	13.96	182.05	3,550.54





<u>Total</u>						
	Total	50,547.95	4,129.39	382.37	2,827.16	57,886.86





Appendix A: County Listing for the Region

Texas - Walker





Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)					
	Population	Residential	Non-Residential	Total			
Texas							
Walker	76,400	5,682,729	4,465,287	10,148,016			
Total	76,400	5,682,729	4,465,287	10,148,016			
Study Region Total	76,400	5,682,729	4,465,287	10,148,016			







Hazus: Hurricane Global Risk Report

Region Name:

Walker County

Hurricane Scenario:

Probabilistic 500-year Return Period

Print Date:

Friday, May 12, 2023

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Hurricane. These results can be improved by using enhanced inventory data.





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General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The hurricane loss estimates provided in this report are based on a region that includes 1 county(ies) from the following state(s):

- Texas

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 802.99 square miles and contains 12 census tracts. There are over 24 thousand households in the region and a total population of 76,400 people. The distribution of population by State and County is provided in Appendix B.

There are an estimated 23 thousand buildings in the region with a total building replacement value (excluding contents) of 10,148 million dollars. Approximately 88% of the buildings (and 56% of the building value) are associated with residential housing.





Building Inventory

General Building Stock

Hazus estimates that there are 23,512 buildings in the region which have an aggregate total replacement value of Table 1 presents the relative distribution of the value with respect to the general occupancies. Appendix B provi distribution of the building value by State and County.



Building Exposure by Occupancy Type



Occupancy	Exposure (\$1000)	Percent of Tot
Residential	5,682,729	56.00%
Commercial	1,775,693	17.50%
Industrial	352,862	3.48%
Agricultural	306,190	3.02%
Religious	140,329	1.38%
Government	217,017	2.14%
Education	1,673,196	16.49%
Total	10,148,016	100.00%

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 123 beds. There are 22 schools, 11 fire stations, 5 police stations and 1 emergency operation facilities.





Hurricane Scenario

Hazus used the following set of information to define the hurricane parameters for the hurricane loss estimate provided in this report.

Scenario Name:

Probabilistic

Type:

Probabilistic





Building Damage

General Building Stock Damage

Hazus estimates that about 1,201 buildings will be at least moderately damaged. This is over 5% of the total number of buildings in the region. There are an estimated 59 buildings that will be completely destroyed. The definition of the 'damage states' is provided in the Hazus Hurricane technical manual. Table 2 below summarizes the expected damage by general occupancy for the buildings in the region. Table 3 summarizes the expected damage by general building type.



Expected Building Damage by Occupancy

 Table 2: Expected Building Damage by Occupancy : 500 - year Event

	None		Mino	Minor		Moderate		Severe		Destruction	
Occupancy	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	
Agriculture	410.23	71.72	84.96	14.85	47.26	8.26	26.28	4.59	3.27	0.57	
Commercial	1,382.36	77.27	278.94	15.59	119.41	6.67	8.20	0.46	0.09	0.01	
Education	36.58	83.14	5.73	13.02	1.56	3.54	0.13	0.30	0.00	0.00	
Government	77.91	82.88	12.48	13.28	3.32	3.53	0.29	0.31	0.00	0.00	
Industrial	195.49	79.79	36.36	14.84	11.70	4.78	1.41	0.57	0.04	0.01	
Religion	71.45	81.19	12.95	14.71	3.29	3.74	0.31	0.36	0.00	0.00	
Residential	15,467.01	74.79	4,238.36	20.49	883.01	4.27	35.73	0.17	55.89	0.27	
Total	17,641.03	5	4,669.78	•	1,069.55		72.35	5	59.29		





Table 3: Expected Building Damage by Building Type 2 500 - year Event

Building	Nor	None		or	Moderate		Seve	Severe		Destruction	
Туре	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	
Concrete	370	75.11	83	16.74	38	7.75	2	0.40	0	0.00	
Masonry	2,363	74.83	534	16.92	218	6.91	37	1.18	5	0.15	
МН	3,469	90.18	205	5.32	119	3.10	4	0.11	49	1.29	
Steel	651	76.96	119	14.12	69	8.17	6	0.74	0	0.01	
Wood	11,200	73.91	3,415	22.54	491	3.24	28	0.19	20	0.13	





Essential Facility Damage

Before the hurricane, the region had 123 hospital beds available for use. On the day of the hurricane, the model estimates that 123 hospital beds (100%) are available for use by patients already in the hospital and those injured by the hurricane. After one week, 100% of the beds will be in service. By 30 days, 100% will be operational.





Thematic Map of Essential Facilities



Table 4: Expected Damage to Essential Facilities

			# Facilities					
Classification	Total	Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use < 1 day				
EOCs	1	0	0	1				
Fire Stations	11	0	0	11				
Hospitals	1	0	0	1				
Police Stations	5	0	0	5				
Schools	22	0	0	5				





Induced Hurricane Damage

Debris Generation



Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 684,124 tons of debris will be generated. Of the total amount, 616,960 tons (90%) is Other Tree Debris. Of the remaining 67,164 tons, Brick/Wood comprises 31% of the total, Reinforced Concrete/Steel comprises of 0% of the total, with the remainder being Eligible Tree Debris. If the building debris tonnage is converted to an estimated number of truckloads, it will require 829 truckloads (@25 tons/truck) to remove the building debris generated by the hurricane. The number of Eligible Tree Debris truckloads will depend on how the 46,444 tons of Eligible Tree Debris are collected and processed. The volume of tree debris generally ranges from about 4 cubic yards per ton for chipped or compacted tree debris to about 10 cubic yards per ton for bulkier, uncompacted debris.





Social Impact

Shelter Requirement



Hazus estimates the number of households that are expected to be displaced from their homes due to the hurricane and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 131 households to be displaced due to the hurricane. Of these, 127 people (out of a total population of 76,400) will seek temporary shelter in public shelters.





Economic Loss

The total economic loss estimated for the hurricane is 250.5 million dollars, which represents 2.47 % of the total replacement value of the region's buildings.

Building-Related Losses

The building related losses are broken into two categories: direct property damage losses and business interruption losses. The direct property damage losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the hurricane. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the hurricane.

The total property damage losses were 250 million dollars. 15% of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 71% of the total loss. Table 5 below provides a summary of the losses associated with the building damage.











⁽Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Property Da	mage					
	Building	123,481.24	13,715.30	2,408.09	15,764.50	155,369.14
	Content	40,388.03	3,939.46	1,262.13	7,127.94	52,717.56
	Inventory	0.00	639.14	196.30	4,137.21	4,972.64
	Subtotal	163,869.26	18,293.91	3,866.52	27,029.65	213,059.34
Business Int	erruption Loss					
	Income	2.66	2,176.50	36.88	2,266.36	4,482.41
	Relocation	9,824.14	2,996.15	270.75	3,727.48	16,818.51
	Rental	5,098.40	1,586.14	32.07	300.45	7,017.06
	Wage	6.27	1,536.08	60.98	7,505.28	9,108.62
	Subtotal	14,931.48	8,294.87	400.68	13,799.58	37,426.60





<u>Total</u>							
	Total	178,800.74	26,588.77	4,267.19	40,829.22	250,485.93	





Appendix A: County Listing for the Region

Texas - Walker





Appendix B: Regional Population and Building Value Data

		Building)	
	Population	Residential	Non-Residential	Total
Texas				
Walker	76,400	5,682,729	4,465,287	10,148,016
Total	76,400	5,682,729	4,465,287	10,148,016
Study Region Total	76,400	5,682,729	4,465,287	10,148,016



Appendix B

H-GAC MAPS

Walker County Hazard Mitigation Plan Update, 2024






















































2024

Appendix C

CRITICAL FACILITIES

Walker County Hazard Mitigation Plan Update, 2024

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Airport	Huntsville Municipal Airport	1000 Airport Dr, Huntsville, TX 77320	Huntsville	77320	30.74624	-95.587
1	1 1	1 7 7				
AM Tower	КНСН		HUNTSVILLE		30.715	-95.5283
AM Tower	KHVI		HUNTSVILLE		30 6967	-95 5522
AM Tower			IUNTSVILLE		20.7196	05 5279
			HUNISVILLE		30.7180	-93.3278
		L 75 NUM OF INTERSECTION OF I		77220		
Cell Tower	#17 I IMITED PARTNERSHIP	1-75 W OF INTERSECTION OF I-	HUNTSVILLE	//320	30 80361	05 6061
	GTE MOBIL NET OF TEXAS RSA	1 000 FT S OF INT OF WALKER ST	IIOI(ISVILLL	77320	50.00501	-)5.0701
Cell Tower	#17 LIMITED PARTNERSHIP	& ELMORE DRIVE	NEW WAVERLY	11520	30.53381	-95.4825
Cell Tower	VERIZON WIRELESS	204 GRAHAM RD	HUNTSVILLE	77320	30.69464	-95.5283
Cell Tower	AT&T Mobility Spectrum LLC	350 SLOTT LANE (56352)	NEW WAVERLY	77320	30.53808	-95.4717
	BRIGHT BEGINNINGS					
Childcare Facility	LEARNING ACADEMY	59 STATE HIGHWAY 75 N	HUNTSVILLE	77320	30.72546	-95.562
	DENIM AND DIAMONDS PRE -					
Childcare Facility	SCHOOL KIDS KLUB 2	1700 7TH ST	HUNTSVILLE	77320	30.7282	-95.5602
	DENIM AND DIAMONDS PRE -					
Childcare Facility	SCHOOL - KIDS KLUB	9309 HIGHWAY 75 S, STE 106	NEW WAVERLY	77358	30.54291	-95.482
Childcare Facility	DISCOVERY DAYS PRESCHOOL	2400 SYCAMORE AVE	HUNTSVILLE	77340	30.70739	-95.5389
Childcare Facility	FAITH KIDS PRESCHOOL	2407 SAM HOUSTON AVE	HUNTSVILLE	77340	30.70805	-95.5486
Childcare Facility	FAITH LUTHERAN SCHOOL	111 SUMAC RD	HUNTSVILLE	77340	30.7106	-95.597
	GIGGLES AND GRINS LITTLE					
Childcare Facility	SCHOLARS	306 HIGHWAY 190 E	HUNTSVILLE	77340	30.72225	-95.5371
	HUNTSVILLE FAMILY YMCA -					
Childcare Facility	GIBBS ELEM.	1800 191H ST	HUNTSVILLE	77340	30.71443	-95.5609
Childeore Facility	HUNISVILLE FAMILY YMCA -			77220	20 72406	05 5421
	HUNTSVILLE ELEM.	87 WILK DK	HUNISVILLE	11320	30.73490	-93.3421
Childcare Facility	INTERMEDIATE	431 HIGHWAY 190 E	HUNTSVILLE	77340	30.72169	-95.5345
	HUNTSVILLE FAMILY YMCA -					
Childcare Facility	SAM HOUSTON ELEM.	1641 7TH ST	HUNTSVILLE	77320	30.72699	-95.5593
	HUNTSVILLE FAMILY YMCA -					
Childcare Facility	STEWART ELEM.	3400 BOETTCHER DR	HUNTSVILLE	77340	30.69212	-95.5376
Childcare Facility	HUNTSVILLE HEAD START	125 FM 980 RD	HUNTSVILLE	77320	30.75588	-95.5496
Childcare Facility	LEGACY MARTIAL ARTS	1015 13TH ST	HUNTSVILLE	77340	30.72122	-95.5498

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Childcare Facility	SECOND BAPTIST PRESCHOOL	2517 SAM HOUSTON AVE	HUNTSVILLE	77340	30.7065	-95.5449
Childcare Facility	SUMMIT CHRISTIAN ACADEMY	3122 MONTGOMERY RD	HUNTSVILLE	77340	30.69675	-95.5523
Childcare Facility	TASY ACADEMY	291 STATE HIGHWAY 75 N	HUNTSVILLE	77320	30.7323	-95.5707
Children E: 1944	TCK - TAKING CARE OF KIDS	210 HICHWAY 100 F		77240	20 72202	05 529
Childcare Facility	TOMODROW'S PROMISE	219 HIGHWAY 190 E	HUNISVILLE	77240	20.72303	-95.558
Childcare Facility	YMCA AT HUNTSVILLE	2817 OLD HOUSTON RD	HUNISVILLE	//340	30.09977	-95.54
Childcare Facility	CLASSICAL ACADEMY	7174 STATE HIGHWAY 75 S	HUNTSVILLE	77340	30.68394	-95.5255
Childcare Facility	YMCA CHILDREN'S ACADEMY AT HUNTSVILLE	2906 OLD HOUSTON RD	HUNTSVILLE	77340	30.69875	-95.5404
Colleges and Universities	SAM HOUSTON STATE UNIVERSITY	1806 AVE J	Huntsville	77340	30.71355	-95.5486
Colleges and Universities	SEBRING CAREER SCHOOLS- HUNTSVILLE	2505 LAKE ROAD, SUITE 1	Huntsville	77340	30.70257	-95.5501
Courthouse	Walker County Courthouse	1100 University Ave	Huntsville	77340		
Correctional Facility	ELLIS PRISON	1697 FM 980	Huntsville	77320	30.88467	-95.4547
Correctional Facility	ESTELLE PRISON	264 FM 3478	Huntsville	77320	30.88943	-95.4857
Correctional Facility	WALKER COUNTY JAIL	751 FM 2821 W	Huntsville	77320	30.73893	-95.5685
Correctional Facility	WYNNE PRISON	810 FM 2821 W	Huntsville	77320	30.7414	-95.5771
Correctional Facility	BYRD DIAGNOSTIC INTAKE FACILITY	21 FM 247	Huntsville	77320	30.73731	-95.5555
Correctional Facility	HOLLIDAY TRANSFER FACILITY	295 INTERSTATE HWY 45 N	Huntsville	77320	30.72762	-95.5835
Correctional Facility	GOREE PRISON AND TRUSTY CAMP	7405 STATE HWY 75 S	Huntsville	77340	30.67403	-95.5156
Correctional Facility	HUNTSVILLE PRISON	815 12TH ST	Huntsville	77340	30.72166	-95.5466
Dam	Grace Lake Dam		Cleveland	77340	30.66322	
Dam	Griffin Lake Dam		Cleveland	77340	30.61661	-95.4064
Dam	Sunset Lake Dam		Conroe	77340	30.64636	-95.5798
Dam	Corlay Lake No 2 Dam		Huntsville	77320	30.77028	-95.4061
Dam	Corlay Lake No 1 Dam		Huntsville	77320	30.76604	-95.3968

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Dam	Mathews Lake Dam		Huntsville	77320	30.735	-95.5333
Dam	Mallery Lake Dam		Huntsville	77340	30.70479	-95.5237
Dam	Dawson Lake Dam		Huntsville	77340	30.68282	-95.5563
Dam	Huntsville State Park Dam		Huntsville	77340	30.60878	-95.5334
Dam	Azalea Lake Dam		Huntsville	77340	30.65217	-95.5394
Dam	Camellia Lake Dam		Huntsville	77340	30.64741	-95.5417
Dam	Baldwin Dam		Huntsville	77340	30.6786	-95.5375
Dam	Elkins Lake Dam		Huntsville	77340	30.65686	-95.532
Dam	Tillie Lake Lower Dam		Phelps	77340	30.6987	-95.4443
Dam	Heath Branch Fishing Club Lake Dam		Pleasant Grove	77340	30.66457	-95.563
Dam	Spring Lake Dam		Pleasant Grove	77340	30.67236	-95.5594
Dam	Armadillo Drive Lake Dam		Riverside	77320	30.7896	-95.5282
Dam	Hatchery Lake Dam			77320	30.74085	-95.4748
Dam	Tdcj Ellis Unit Dam			77320	30.89232	-95.4504
Dam	Lakeland Levee			77320	30.84522	-95.3714
Dam	Rose Lake Dam			77320	30.8029	-95.7193
Dam	Fails Lake Dam			77320	30.78309	-95.6921
Dam	Adams Lake Dam			77320	30.80142	-95.7497
Dam	Dogwood Lake Dam			77320	30.70577	-95.6139
Dam	Horseshoe Lake No 2 Dam			77320	30.80955	-95.4667
Dam	Easam Mill Seat Lake Dam			77320	30.8637	-95.5895
Dam	Cook Lake Dam			77320	30.78585	-95.6805
Dam	Muecke Lake Dam			77320	30.73457	-95.6719
Dam	Park Lake Dam			77320	30.86333	-95.7083
Dam	Eastham and Thomason Ranches Lake Dam			77320	30.87801	-95.4463
Dam	Gibbs Bros Lake Dam			77320	30.85203	-95.5667
Dam	Mcmillian Lake Dam			77320	30.73533	-95.4112
Dam	Haynes Lake Dam			77320	30.84716	-95.7572
Dam	Murff Lake Dam			77320	30.77136	-95.8439
Dam	Watson West Dam			77340	30.68998	-95.4384

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Dam	Watson South Dam			77340	30.68758	-95.4374
Dam	Watson East Dam			77340	30.6899	-95.4367
Dam	Campbell Lake Dam			77340	30.61974	-95.5619
Dam	Mitcham Lake Dam			77340	30.6508	-95.4904
Dam	Willey Lake Dam			77340	30.65344	-95.5793
Dam	Jameson Dam			77334	30.80335	-95.3652
Dam	Lake Palomas Dam			75852	30.88526	-95.6588
Dam	Indian Hill Lake Dam			75852	30.88335	-95.6106
Dam	Lost Indian Lake Dam			75852	30.88963	-95.6082
Dam	Moten Lake Dam			75852	30.90411	-95.6192
Dam	Lake Picidae Dam			75852	30.87933	-95.6579
Dam	Waller Lake Dam			75862	30.94849	-95.5527
Dam	Brod Lake Dam			77831	30.84971	-95.8463
Dam	Morgan South Lake Dam			77831	30.69202	-95.7653
Dam	Duke Lake Dam			77831	30.64977	-95.8021
Dam	Hardy Dam			77358	30.56408	-95.3997
Dam	Lake Forest Dam			77320	30.85685	-95.4225
Dam	Maria Lake Dam			77320	30.74099	-95.428
Dam	Gibbs Brothers Lake No 2 Dam			77320	30.747	-95.5379
Dam	Horseshoe Lake No 1 Dam			77320	30.80756	-95.4701
Dam	Hendricks Lake Dam			77340	30.68225	-95.7298
Dam	Romano Lake Dam			77831	30.76064	-95.8419
Dialysis Center	Davita Huntsville Dialysis	521 Ih 45 S				
Dialysis Center	Liberty Dialysis Huntsville	540 I-45 South				
Elder Care	CARRIAGE INN-HUNTSVILLE	2805 LAKE ROAD	HUNTSVILLE	77340	30.70054	-95.5503
Elder Care	SUNDALE SENIOR LIVING - THE LEXINGTON CENTER	679 I- 45 SOUTH	HUNTSVILLE	77340	30.68988	-95.5502
Elder Care	CREEKSIDE RETIREMENT COMMUNITY	1433 VETERANS MEMORIAL PARKWAY	HUNTSVILLE	77340	30.70258	-95.5747
Elder Care	PECAN GROVE	929 STATE HIGHWAY 150	NEW WAVERLY	77340	30.5265	-95.3787

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Elder Care	HUNTSVILLE HEALTHCARE CENTER	2628 MILAM	HUNTSVILLE	77340	30.70244	-95.5414
Elder Care	FOCUSED CARE AT			77340		
	HUNTSVILLE	1302 NOTTINGHAM ST	HUNTSVILLE		30.702	-95.5523
	T + D • T • C • C					
Electric Substation	TAP307069		Huntsville	77320	30.75759	
Electric Substation	UNKNOWN302227		Huntsville	77320	30.72156	-95.5795
Electric Substation	UNKNOWN306611		Huntsville	77320	30.74234	-95.5513
Electric Substation	HUNTSVILLE		Huntsville	77340	30.71871	-95.5469
Electric Substation	UNKNOWN301046		New waverly	77358	30.53222	-95.4624
Electric Substation	UNKNOWN302973		New waverly	77358	30.53221	-95.463
Electric Substation	UNKNOWN304584		Phelps	77340	30.68063	-95.5006
Electric Substation	TAP306854		Riverside	77320	30.83719	-95.4118
Electric Substation	UNKNOWN304944		Riverside	77320	30.84038	-95.4084
EMS	DODGE VOLUNTEER FIRE DEPARTMENT	28 DODGE-OAKHURST ROAD	Dodge	77334	30.74494	
EMS	THOMAS LAKE ROAD VOLUNTEER FIRE DEPARTMENT	THOMAS LAKE ROAD	Huntsville	77320	30.85671	-95.3459
EMS	CRABBS PRAIRIE VOLUNTEER FIRE DEPARTMENT	28 FARM TO MARKET 1696 WEST	Huntsville	77320	30.75289	-95.6521
EMS	PINE PRAIRIE VOLUNTEER FIRE DEPARTMENT	3 PHIL WOOD ROAD	Huntsville	77320	30.80326	-95.5667
EMS	MEDPRO EMERGENCY MEDICAL SERVICES	1425 STATE HIGHWAY 75 NORTH	Huntsville	77320	30.74856	-95.6309
EMS	HUNTSVILLE - WALKER COUNTY EMERGENCY MEDICAL SERVICES	1319 AVENUE M	Huntsville	77340	30.72138	-95.5525
EMS	NEW WAVERLY VOLUNTEER FIRE DEPARTMENT	411 FARM TO MARKET 1375	New Waverly	77358	30.53818	-95.4806
EMS	RIVERSIDE VOLUNTEER FIRE DEPARTMENT	6 WALKER STREET	Riverside	77320	30.85204	-95.4006
Fire Station	Dodge Volunteer Fire Department	28 Dodge - Oakhurst Road	Dodge	77334	30.74495	-95.3971
Fire Station	Pine Prairie Volunteer Fire Department	3 Phil Wood Road	Huntsville	77320	30.80327	-95.5667

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Fire Station	Thomas Lake Road Volunteer Fire Department	Thomas Lake Road	Huntsville	77320	30.85672	-95.3459
Fire Station	Crabbs Prairie Volunteer Fire Department	28 Farm to Market Road 1696 West	Huntsville	77320	30.7529	-95.6522
Fire Station	Huntsville Fire Department Station 3	448 State Highway 75 North	Huntsville	77320	30.73685	-95.5823
Fire Station	Texas Forest Service Huntsville Office	513 State Highway 75 North	Huntsville	77320	30.73717	-95.5875
Fire Station	Huntsville City Fire Department Headquarters	1319 Avenue M	Huntsville	77340	30.72128	-95.5527
Fire Station	Huntsville Fire Department Station 1	1987 Veterans Memorial Parkway	Huntsville	77340	30.68222	-95.5534
Fire Station	Huntsville Fire Department Station 2	2109 Sam Houston Avenue	Huntsville	77340	30.70945	-95.5503
Fire Station	New Waverly Volunteer Fire Department	411 Farm to Market Road 1375	New Waverly	77358	30.53816	-95.4806
Fire Station	Riverside Volunteer Fire Department	6 Walker Street	Riverside	77320	30.85204	-95.4006
FM Tower	K209FI				30.7189	-95.5111
FM Tower	K216FL				30.7036	-95.4756
FM Tower	K254BC				30.715	-95.5283
FM Tower	K283AW				30.715	-95.5283
FM Tower	KPIA-LP				30.7192	-95.5408
FM Tower	KSAM-FM				30.6967	-95.5522
FM Tower	KSHU				30.7139	-95.5494
Hospital	HUNTSVILLE MEMORIAL HOSPITAL	110 MEMORIAL HOSPITAL DRIVE	Huntsville	77341	30.69855	-95.559
Local Emergency Operation Center	WALKER COUNTY EMERGENCY OPERATIONS CENTER	717 FARM TO MARKET 2821 ROAD WEST	Huntsville	77320	30.738	-95.5709
Pharmacy	MCNEASE DRUGS HEALTH MART PHARMACY	103B MEDICAL PARK LANE	Huntsville	77340	30.69643	-95.5592
Pharmacy	TARGET	259 INTERSTATE HIGHWAY 45 SOUTH	Huntsville	77340	30.70644	-95.5665
Pharmacy	CVS - 6655	1569 11TH STREET	Huntsville	77340	30.72236	-95.5576
Pharmacy	WALGREENS - 4999	1570 11TH STREET	Huntsville	77340	30.72304	-95.5587

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Pharmacy		111 INTERSTATE HIGHWAY 45	Huntsville	77340		
	KROGER	SOUTH			30.71642	-95.5713
Pharmacy		141 INTERSTATE HIGHWAY 45	Huntsville	77340	20 712 60	0.5.5.0.5
DI	WAL-MART SUPERCENTER - 285		TT	77240	30.71369	-95.5707
Pharmacy	MEDICAL BRANCH PHARMACY	2400 AVENUE I	Huntsville	//340	30.70755	-95.5456
Pharmacy	BROOKSHIRE BROTHERS FRESH HARVEST - 33	2601 11TH STREET	Huntsville	77340	30.71814	-95.5652
Police Station	WALKER COUNTY SHERIFFS OFFICE	717 FARM TO MARKET 2821 ROAD WEST	Huntsville	77320	30.738	-95.5709
Police Station	WALKER COUNTY JAIL	751 FARM TO MARKET 2821 ROAD WEST	Huntsville	77320	30.73897	-95.5685
Police Station	TEXAS DEPARTMENT OF PUBLIC SAFETY - HIGHWAY PATROL REGION 2 DISTRICT C	523 STATE HIGHWAY 75 NORTH	Huntsville	77320		
	SERGEANT 0 AREA 3				30.73708	-95.5881
Police Station	HUNTSVILLE POLICE DEPARTMENT	1220 11TH STREET	Huntsville	77340	30.72406	-95.5522
Police Station	SAM HOUSTON STATE UNIVERSITY POLICE DEPARTMENT	2424 SAM HOUSTON AVENUE	Huntsville	77340	30.70606	-95.5473
Private School	ALPHA OMEGA ACADEMY	3891 HWY 30 W	Huntsville	77340	30.70035	-95.6129
Private School	TOMORROW'S PROMISE	2817 OLD HOUSTON RD	Huntsville	77340	30.69949	-95.5399
Private School	SUMMIT CHRISTIAN ACADEMY	3122 MONTGOMERY RD	Huntsville	77340	30.69679	-95.5522
Private School	FAITH LUTHERAN SCHOOL	111 SUMAC RD	Huntsville	77340	30.70473	-95.5973
Public School	SAMUEL HOUSTON EL		Huntsville	77320	30.72689	-95.5593
Public School	HUNTSVILLE EL		Huntsville	77320	30.7378	-95.5429
Public School	SCOTT JOHNSON EL		Huntsville	77320	30.72144	-95.5302
Public School	SCOTT JOHNSON EL		Huntsville	77320	30.72144	-95.5302
Public School	TEXAS ONLINE PREPARATORY MIDDLE		Huntsville	77320	30.74154	-95.5403
Public School	TEXAS ONLINE PREPARATORY MIDDLE		Huntsville	77320	30.74154	-95.5403
Public School	HUNTSVILLE H S		Huntsville	77320	30.74086	-95.5365

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Public School	TEXAS ONLINE PREPARATORY EL		Huntsville	77320	30.74161	-95.5402
Public School	TEXAS ONLINE PREPARATORY H S		Huntsville	77320	30.74158	-95.54
Public School	MANCE PARK MIDDLE		Huntsville	77320	30.7274	-95.5486
Public School	HUNTSVILLE INT		Huntsville	77320	30.72176	-95.5327
Public School	STEWART EL		Huntsville	77340	30.69165	-95.5368
Public School	PREMIER H S OF HUNTSVILLE		Huntsville	77340	30.70797	-95.5484
Public School	HUNTSVILLE CLASSICAL ACADEMY		Huntsville	77340	30.70799	-95.5486
Public School	GIBBS PRE-K CENTER		Huntsville	77340	30.71447	-95.5606
Public School	THOMAS BUZBEE VOCATIONAL SCHOOL		New Waverly	77358	30.54068	-95.5567
Public School	NEW WAVERLY H S		New Waverly	77358	30.52361	-95.4862
Public School	NEW WAVERLY EL		New Waverly	77358	30.53548	-95.4871
Public School	NEW WAVERLY INT		New Waverly	77358	30.54327	-95.4831
Public School	NEW WAVERLY J H		New Waverly	77358	30.54607	-95.4785
Solid Waste Landfill	CITY OF HUNTSVILLE TRANSFER STATION FACILITY	419 INTERSTATE 45 N	Huntsville	77320	30.74388	-95.5956
Toxic Release Inventory Facility	TXI-HUNTSVILLE READY MIX	51 CHAMPION WOODYARD RD	Huntsville	77340	30.70845	-95.511
Toxic Release Inventory Facility	GARDNER GLASS PRODUCTS	7553 STATE HIGHWAY 75 S	Huntsville	77340	30.66464	-95.5125
Toxic Release Inventory Facility	MATERIA	7629 STATE HIGHWAY 75 S	Huntsville	77340	30.66025	-95.5089
Toxic Release Inventory Facility	MASTER CHEMICAL CORP	2200 HWY 19	Huntsville	77340	30.70917	-95.5242
Toxic Release Inventory Facility	UFP-NEW WAVERLY	HWY. 75	New Waverly	77340	30.57492	-95.4738
Toxic Release Inventory Facility	UFP-NEW WAVERLY	HWY. 75	New Waverly	77340	30.57492	-95.4738
Toxic Release Inventory Facility	NEW WAVERLY PLANT	37 FM 2793	New Waverly	77358	30.56567	-95.459
Watewater Outfall	FOREST GLEN INC				30.6636	-95.347

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Watewater Outfall	GULF COAST TRADES CENTER				30.53822	-95.5593
Watewater Outfall	STEELY LUMBER CO INC				30.68117	-95.4953
Watewater Outfall	UNIVERSAL FOREST PRODUCTS TEXAS LLC				30.57067	-95.4753
Watewater Outfall	TEXAS DEPT OF CRIMINAL JUSTICE				30.89072	-95.4504
Watewater Outfall	TEXAS DEPARTMENT OF CRIMINAL JUSTICE				30.88835	-95.4813
Watewater Outfall	LONE STAR GROWERS LP				30.74507	-95.6389
Watewater Outfall	CAROLINA CREEK CHRISTIAN CAMP				30.84113	-95.3397
Watewater Outfall	CITY OF NEW WAVERLY				30.52892	-95.4727
Watewater Outfall	CITY OF NEW WAVERLY				30.53944	-95.494
Watewater Outfall	NERRO SUPPLY LLC				30.55139	-95.6144
Watewater Outfall	CITY OF HUNTSVILLE				30.64514	-95.5529
Watewater Outfall	CITY OF HUNTSVILLE				30.77301	-95.5132
Watewater Outfall	CITY OF HUNTSVILLE				30.64625	-95.595
Watewater Outfall	PEACH CREEK TX LLC				30.51395	-95.3623
Watewater Outfall	WILLOW BEND MHC LLC				30.71083	-95.4914
Watewater Outfall	ROCKPOINT 1375 LLC				30.53942	-95.5025
Wastewater Treatments Plant	TDCJ ELLIS UNIT WWTP	3.5MI NW ST HWY 19 AND APPROX 12 MI NE	Huntsville	77320	30.88492	-95.4551
Wastewater Treatments Plant	AJ BROWN PARKER CREEK WWTF	94 PARKER CREEK RD	Huntsville	77320	30.77243	-95.5127
Wastewater Treatments Plant	TDCJ ESTELLE UNIT	264 FM 3478	Huntsville	77320	30.88114	-95.5017
Wastewater Treatments Plant	ROBINSON CREEK WWTP	4420 FMR 1374	Huntsville	77340	30.64631	-95.5955
Wastewater Treatments Plant	NB DAVIDSON SOUTH WWTP	APPRX 1.4 M SW OF ELKINS LAKE DAM AND 3.5 MILES S	Huntsville	77340	30.64549	-95.5525
Wastewater Treatments Plant	NEW WAVERLY WWTP 1	550 CEDAR LANE	New Waverly	77358	30.52882	-95.4742
Wastewater Treatments Plant	WASTEWATER TREATMENT PLANT 2	200 HARRIS RD	New Waverly	77358	30.52882	-95.4742

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	PAPA KEITHS TRUCK STOP	3722 STATE HWY 19	RIVERSIDE	77367	-95.4059	30.84927
Petroleum Storage Tank	HARDYS DRIVE IN GROCERY	339 STATE HIGHWAY 75 N	HUNTSVILLE	77320	-95.5736	30.73408
Petroleum Storage Tank	PETRO C STORE - 80017596	3003 HIGHWAY 30 W	HUNTSVILLE	77340	-95.5714	30.71775
Petroleum Storage Tank	HWY 190 FOOD MART	1101 US HIGHWAY 190	HUNTSVILLE	77340	-95.5098	30.71107
Petroleum Storage Tank	E-Z GROCERY BEER FOOD	1890 HIGHWAY 30 E	HUNTSVILLE	77320	-95.5234	30.74205
Petroleum Storage Tank	HUNTSVILLE FOOD MART 2	201 RIVERSIDE DR	HUNTSVILLE	77320	-95.54	30.72396
Petroleum Storage Tank	BARNEYS COUNTRY STORE	1746 STATE HIGHWAY 75 N	HUNTSVILLE	77320	-95.6496	30.75451
Petroleum Storage Tank	HUNTSVILLE FOOD MART 1	2309 LAKE RD	HUNTSVILLE	77340	-95.5491	30.70651
Petroleum Storage Tank	EZ FOOD MART	7005 HIGHWAY 75 S	HUNTSVILLE	77340	-95.5291	30.69317
Petroleum Storage Tank	STOP N STOP	320 HIGHWAY 190 E	HUNTSVILLE	77340	-95.5355	30.72184
Petroleum Storage Tank	CIRCLE K STORE 2740348	605 INTERSTATE 45 S	HUNTSVILLE	77340	-95.5546	30.69461
Petroleum Storage Tank	SMILIYS EXPRESS 8	1090 INTERSTATE 45 S	HUNTSVILLE	77340	-95.5205	30.67768
Petroleum Storage Tank	FALCO C STORE	1901 SYCAMORE AVE	HUNTSVILLE	77340	-95.5383	30.71244
Petroleum Storage Tank	MELS MARKET	2828 STATE HIGHWAY 19	HUNTSVILLE	77320	-95.4679	30.78916
Petroleum Storage Tank	MURPHY USA 5628	169 IH 45 S	HUNTSVILLE	77340	-95.5683	30.71394
Petroleum Storage Tank	STAR EXPRESS 3	563 IH 45 S	HUNTSVILLE	77340	-95.5549	30.69521
Petroleum Storage Tank	STAR STOP 95	6505D FM 1374 RD	NEW WAVERLY	77358	-95.5	30.54965
Petroleum Storage Tank	PILOT TRAVEL CENTER 234	639 STATE HIGHWAY 75 N	HUNTSVILLE	77320	-95.5938	30.73878
Petroleum Storage Tank	BROOKSHIRE BROTHERS 33	2601 11TH ST	HUNTSVILLE	77340	-95.5646	30.7189
Petroleum Storage Tank	ZIPPS FOOD MART	1101 SYCAMORE AVE	HUNTSVILLE	77340	-95.5401	30.72353

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	SRIJI SHELL	3128 MONTGOMERY RD	HUNTSVILLE	77340	-95.553	30.69625
Petroleum Storage Tank	POOKIES EXXON	901 11TH ST	HUNTSVILLE	77340	-95.5477	30.72352
Petroleum Storage Tank	RAMS TEXACO	1702A US HIGHWAY 190	HUNTSVILLE	77340	-95.4489	30.70593
Petroleum Storage Tank	UDAY 8	9302 STATE HIGHWAY 75 S	NEW WAVERLY	77358	-95.4832	30.53991
Petroleum Storage Tank	TXDOT WALKER COUNTY MAINTENANCE	580 IH 45 N	HUNTSVILLE	77320	-95.5958	30.74232
Petroleum Storage Tank	VZB-DGFOTX				-95.3957	30.75994
Petroleum Storage Tank	HIGHWAY FOOD STORE	269 STATE HIGHWAY 75 N	HUNTSVILLE	77320	-95.5694	30.73162
Petroleum Storage Tank	FUEL MAXX 55	9309 STATE HIGHWAY 75 S	NEW WAVERLY	77358	-95.4829	30.53897
Petroleum Storage Tank	S&S EXPRESS	3003 SAM HOUSTON AVE	HUNTSVILLE	77340	-95.5392	30.7031
Petroleum Storage Tank	SMILEYS EXPRESS 9	104 IH 45 S	HUNTSVILLE	77340	-95.5684	30.71793
Petroleum Storage Tank	SMILEYS EXPRESS 4	2924 HIGHWAY 19	HUNTSVILLE	77320	-95.4607	30.79483
Petroleum Storage Tank	MS EXPRESS	2812 SAM HOUSTON AVE STE C	HUNTSVILLE	77340	-95.541	30.70367
Petroleum Storage Tank	NEW WAVERLY FOOD MART	9240 STATE HIGHWAY 75 S	NEW WAVERLY	77358	-95.4818	30.54468
Petroleum Storage Tank	CIRCLE K STORE 2740599	101 FM 980 RD	HUNTSVILLE	77320	-95.5495	30.7545
Petroleum Storage Tank	CIRCLE K STORE 2740595	3782A HIGHWAY 19	RIVERSIDE	77367	-95.4025	30.85357
Petroleum Storage Tank	BEARKAT JUNCTION	2020 SAM HOUSTON AVE	HUNTSVILLE	77340	-95.5515	30.71143
Petroleum Storage Tank	SMILEYS EXPRESS 10	101 FM 2821 RD E	HUNTSVILLE	77320	-95.548	30.74153
Petroleum Storage Tank	HARDY PETROLEUM BULK PLANT	630 AVENUE M	HUNTSVILLE	77320	-95.5533	30.72913
Petroleum Storage Tank	BAR T TRAVEL CENTER	601 STATE HIGHWAY 75 N	HUNTSVILLE	77320	-95.5913	30.73673
Petroleum Storage Tank	WAL-MART SUPERCENTER 285	141 INTERSTATE 45 S	HUNTSVILLE	77340	-95.5708	30.71303

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	CITY OF HUNTSVILLE SERVICE CENTER	448 STATE HIGHWAY 75 N	HUNTSVILLE	77320	-95.5817	30.73732
Petroleum Storage Tank	QUICK PIC	1020 MARTIN LUTHER KING DR	HUNTSVILLE	77320	-95.5435	30.72403
Petroleum Storage Tank	SAMCO FOOD & DELI				-95.4032	30.85272
Petroleum Storage Tank	HUNTSVILLE DIAL 295 CNTR OFFICE WL8350	1014 13TH ST	HUNTSVILLE	77340	-95.5496	30.72216
Petroleum Storage Tank	7-ELEVEN STORE 40944	2530 SAM HOUSTON AVE	HUNTSVILLE	77340	-95.5441	30.70532
Petroleum Storage Tank	CITY OF HUNTSVILLE MUNICIPAL AIRPORT	1000 AIRPORT DR	HUNTSVILLE	77320	-95.5861	30.74335
Petroleum Storage Tank	WESTRIDGE GROCERY	3595 HIGHWAY 30 W	HUNTSVILLE	77340	-95.5972	30.71135
Petroleum Storage Tank	HITCHIN POST TRUCK STOP	500 INTERSTATE 45 N	HUNTSVILLE	77320	-95.591	30.73887
Petroleum Storage Tank	SMILEYS EXPRESS	266 FM 247 RD STE A	HUNTSVILLE	77320	-95.5494	30.7534
Petroleum Storage Tank	CIRCLE K STORE 2742319	9317 STATE HIGHWAY 75 S	NEW WAVERLY	77358	-95.483	30.53819
Petroleum Storage Tank	BUBBAS	2211 US HIGHWAY 190	HUNTSVILLE	77340	-95.4047	30.72781
Petroleum Storage Tank	LUBE KING	208 STATE HIGHWAY 75 N	HUNTSVILLE	77320	-95.5651	30.7292
Petroleum Storage Tank	HISD TRANS FACILITY	96 MARTIN LUTHER KING DR	HUNTSVILLE	77320	-95.5411	30.73454
Petroleum Storage Tank	ZIPP ZAPP	525 11TH ST	HUNTSVILLE	77340	-95.543	30.72367
Petroleum Storage Tank	CORNER PANTRY	612 INTERSTATE 45 S	HUNTSVILLE	77340	-95.5525	30.69495
Petroleum Storage Tank	MCGOWN PETROLEUM 2	200 SAM HOUSTON AVE	HUNTSVILLE	77320	-95.5509	30.73442
Petroleum Storage Tank	HUNTSVILLE EXXON	558 INTERSTATE 45 S	HUNTSVILLE	77340	-95.5533	30.69632
Petroleum Storage Tank	STAR EXPRESS 2	115 INTERSTATE 45 N	HUNTSVILLE	77320	-95.5715	30.71855

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Place of Worship	FAITH LUTHERAN CHURCH	111 SUMAC RD	HUNTSVILLE	77340	30.71055	-95.5976
Place of	IGLESIA BAUTISTA HOREB MINISTRIES	20 LAKE FALLS RD	HUNTSVILLE	77320	30.82622	-95.5191
Place of	CROSSLIGHT MINISTRIES	188 STATE HIGHWAY 150	NEW WAVERLY	77358	30.53537	-95.4572
Worship						
Place of Worship	REDEEMED CHRISTIAN CHURCH OF GOD PAVILLION OF REDEMPTION HUNTSV	1717 11TH ST STE 102 # 106	HUNTSVILLE	77340	30.70792	-95.5493
Place of	THE REDEEMED CHRISTIAN CHURCH OF	316 16TH ST	HUNTSVILLE	77340	30 71834	-95 5382
Worship	GOD RHEMA INTERNATIONAL ASSEMBLY		INCIVISVILLE	77510	50.71051	75.5502
Place of	LIVING THE CHRISTLIFE	PO BOX 8043	HUNTSVILLE	77340	30,70792	-95.5493
Worship				11210	50.10172	2010120
Place of	FIRST CHRISTIAN CHURCH	1800 AVENUE R	HUNTSVILLE	77340	30.71514	-95.5599
Worship						
Place of	THE JOURNEY FELLOWSHIP ASSEMBLY OF	PO BOX 1484	NEW WAVERLY	77358	30.54037	-95.4781
Worship	GOD					
Place of	GATEWAY TO GLORY HOLINESS CHURCH	1352 OLD PHELPS RD	HUNTSVILLE	77340	30.70527	-95.4573
Worship						
Place of	MISION RESURRECCION	1311 AVENUE C	HUNTSVILLE	77340	30.72086	-95.5374
Worship						
Place of	EXALTED CHRIST CHURCH	1405 AVENUE M	HUNTSVILLE	77340	30.72025	-95.5528
Worship						
Place of	CONCORD BAPTIST CHURCH	PO BOX 112	NEW WAVERLY	77358	30.54037	-95.4781
Worship						
Place of	AGLOW INTERNATIONAL	1638 HWY 1696 W	HUNTSVILLE	77320	30.72713	-95.5671
Worship						
Place of	IGLESIA CRISTO REY INC	409 9TH ST	HUNTSVILLE	77320	30.72645	-95.5402
Worship						
Place of	RECOVERY LIFE COMMUNITY MINISTRIES	1213 AVENUE O	HUNTSVILLE	77340	30.72243	-95.5561
Worship		-				
Place of	WAVERLY STATION COWBOY FELLOWSHIP	PO BOX 1062	NEW WAVERLY	77358	30.54037	-95.4781
Worship						
Place of	HUNTSVILLE CHURCH OF THE NAZARENE	3707 STATE HIGHWAY 30 W	HUNTSVILLE	77340	30.71064	-95.5984
Worship						
Place of	REY DE REYES Y SENOR DE SENORES	91 HIDDEN CREEK DR	HUNTSVILLE	77320	30.76759	-95.6587
Worship						
Place of	NEW BEGINNINGS PRAISE & WORSHIP	794 FM 2296 RD	HUNTSVILLE	77340	30.6417	-95.4697
Worship	CHURCH					
Place of	GLOBAL EVANGELICAL TEAM INC	PO BOX 953	HUNTSVILLE	77342	30.72464	-95.5539
Worship						

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Place of	FIRST CHRISTIAN CHURCH	PO BOX 11189	HUNTSVILLE	77340	30.70792	-95.5493
Worship						
Place of	CALVARY BAPTIST CHURCH	1135 US HIGHWAY 190	HUNTSVILLE	77340	30.70946	-95.5014
Worship						
Place of	ST STEPHENS EPISCOPAL CHURCH	PO BOX 388	HUNTSVILLE	77342	30.72464	-95.5539
Worship						
Place of	CHURCH IN HUNTSVILLE	68 ELKINS LK	HUNTSVILLE	77340	30.63918	-95.3749
Worship						
Place of	HUNTSVILLE CHRISTIAN CENTER	PO BOX 968	HUNTSVILLE	77342	30.72464	-95.5539
Worship	INCORPORATED					
Place of	ST THOMAS EDUCATION ASSOCIATION	1624 AVENUE O	HUNTSVILLE	77340	30.71697	-95.5565
Worship						
Place of	CHILD EVANGELISM FELLOWSHIP INC	PO BOX 358	NEW WAVERLY	77358	30.54037	-95.4781
Worship						
Place of	RESTORATIVE JUSTICE MINISTRIES	1229 AVENUE J	HUNTSVILLE	77340	30.72258	-95.5488
Worship	NETWORK OF NORTH AMERICA INC					
Place of	WOOD HATH HOPE PRISON MINISTRY INC	2615 US HIGHWAY 190	HUNTSVILLE	77340	30.73396	-95.3641
Worship						
Place of	RESTORATIVE JUSTICE MINISTRIES	1229 AVENUE J	HUNTSVILLE	77340	30.72258	-95.5488
Worship	NETWORK OF TEXAS CHAPTER				20 52464	05.5500
Place of	LIFE TEMPLE FULL GOSPEL CHURCH	PO BOX 6204	HUNTSVILLE	77342	30.72464	-95.5539
Worship		DO DOM 0005		552.40	20 50502	0.5.5.400
Place of	HUNTSVILLE CHURCH OF CHRIST	PO BOX 8237	HUNTSVILLE	77340	30.70792	-95.5493
Worship					20 50512	05.5(51
Place of	COOK SPRING BAPTIST CHURCH	1936-A SH 75N	HUNTSVILLE	77320	30.72713	-95.5671
Worship	NORTHODE DARTICE CHUDCH	1207 EM 000 DD		77220	20.02027	05.5200
Place of	NORTHSIDE BAPTIST CHURCH	1207 FM 980 RD	HUNISVILLE	//320	30.82937	-95.5209
Worsnip		DO DOV 009		77240	20.72464	05 5520
Place of Warshin	FIKST ASSEMIBLY OF GOD	PO BOX 998	HUNISVILLE	//342	30.72404	-95.5559
Worship Diaga of	CDEATED ZION DADTIST CHUDCH			77240	20 70702	05 5402
Worshin	OREATER ZION BAFTIST CHURCH	FO BOA 8988	HUNISVILLE	//340	30.70792	-93.3493
Dlaga of	WESTEV CDOVE MISSIONA DV DADTIST	DO DOV 6256		77242	20 72464	05 5520
Worshin	CHIRCH	10 BOA 0230	TIONISVILLE	11342	50.72404	-95.5559
	THE CHRISTIAN COMMUNITY OF	PO BOX 1257	HUNTSVILLE	77242	30 72464	05 5520
Worshin	HINTSVILLE TEXAS			11342	50.72404	-75.5559
	FAMILY FAITH CHIRCH OF UINTSVILLE	2407 SAM HOUSTON AVE	HUNTSVILLE	77340	30 70719	95 5484
Worshin	TEXAS	2407 SAW HOUSTON AVE	TIUNISVILLE	//340	30.70718	-75.5484
Place of	FIRST MISSIONARY BAPTIST CHURCH OF	PO BOX 1906	HUNTSVILLE	77342	30 72464	-95 5530
Worship	HUNTSVILLE				50.72707	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
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Place of Worship	FISH HATCHERY ROAD CHURCH OF CHRIST	1380 FISH HATCHERY RD	HUNTSVILLE	77320	30.74587	-95.5091
Place of Worship	NEW BIRTH ASSEMBLY OF GOD	5097 FM 1374 RD	HUNTSVILLE	77340	30.5982	-95.6238
Place of Worship	HUNTSVILLE FIRST CHURCH OF GOD	PO BOX 158	HUNTSVILLE	77342	30.72464	-95.5539
Place of Worship	GOSPEL LAKES MINISTRIES INC	675 FM 2963E	NEW WAVERLY	77358	30.54037	-95.4781
Place of Worship	NEW WAVERLY CHURCH OF CHRIST	PO BOX 401	NEW WAVERLY	77358	30.54037	-95.4781
Place of Worship	MACEDONIA MISSIONARY BAPTIST CHURCH -NEW WAVERLY TX	PO BOX 560	NEW WAVERLY	77358	30.54037	-95.4781
Place of Worship	HARVESTFIELD CHURCH	506 NANWAY ST	HUNTSVILLE	77340	30.70423	-95.5354
Place of Worship	IGLESIA MONTE CALVARIO	45 LAWRENCE LN	HUNTSVILLE	77320	30.71447	-95.426
Place of Worship	CHI ALPHA CAMPUS MINISTRIES HUNTSVILLE	1010 15TH ST	HUNTSVILLE	77340	30.71908	-95.5497
Place of Worship	PARISH PRISON OUTREACH MINISTRY- BENEDICTINE ACADEMY	892 SCALES RANCH RD	HUNTSVILLE	77320	30.76296	-95.7995
Place of Worship	EAGLES OF CHRIST OUTREACH	1235 JOSEY ST APT 200	HUNTSVILLE	77340	30.70783	-95.552

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	3861704	State Forestry Service	Unused	31.02667	-95.465	Withdrawal of Water
Well	3861703			31.01139	-95.4975	Oil or Gas
Well	6011502	J.H. Rose est.	Domestic	30.79639	-95.6997	Withdrawal of Water
Well	6013202	Riverside Water Supply Corp.Well #2.	Public Supply	30.83972	-95.42	Withdrawal of Water
Well	6013204	Riverside Water Supply Corporation.Well #5.	Public Supply	30.84722	-95.4219	Withdrawal of Water
Well	6004701			30.89195	-95.6169	Oil or Gas
Well	6005804	TDCJ-Ellis Unit I Well #2	Institution	30.88028	-95.4583	Withdrawal of Water
Well	6005806	TDCJ-Ellis Unit I Well #3	Irrigation	30.88222	-95.4583	Withdrawal of Water
Well	6011701	J.H. Rose	Domestic	30.78695	-95.7214	Withdrawal of Water
Well	6021401			30.6725	-95.4836	Oil or Gas
Well	6013401	Lake Falls Estates Rose Davidson	Public Supply	30.82194	-95.4839	Withdrawal of Water
Well	6013403	Riverside W. S. C. Walnut Creek #2	Public Supply	30.80778	-95.4797	Withdrawal of Water
Well	6020101	W S Gibbs	Domestic	30.74472	-95.62	Withdrawal of Water
Well	6020103	Walker Saw Mill	Industrial	30.74556	-95.6089	Withdrawal of Water
Well	6020301		Unused	30.71028	-95.5103	Withdrawal of Water
Well	6020303	Huntsville School	Public Supply	30.74028	-95.5367	Withdrawal of Water
Well	6020606	Goree Prison Farm	Unused	30.67	-95.5092	Withdrawal of Water
Well	6020609	City of Huntsville Well #16.	Unused	30.70195	-95.5275	Withdrawal of Water
Well	6021403	Phelps Water Supply Corporation, Well #1	Public Supply	30.70556	-95.4672	Withdrawal of Water
Well	6018301	Gibbs Bros.	Domestic	30.73667	-95.7683	Withdrawal of Water
Well	6020902	J Elkins	Domestic	30.65945	-95.5294	Withdrawal of Water
Well	6013902	Cy Townley	Domestic	30.7575	-95.4114	Withdrawal of Water
Well	6013201	Pine Springs MUD	Public Supply	30.87056	-95.4417	Withdrawal of Water
Well	6019802	Gibbs Bros.	Stock	30.655	-95.6681	Withdrawal of Water
Well	6021501	M Pursley	Unused	30.70611	-95.4558	Withdrawal of Water
Well	6005703	TDCJ-Estelle Unit Well #2	Irrigation	30.89333	-95.4831	Withdrawal of Water
Well	6011401	P Donovan	Domestic	30.81111	-95.7425	Withdrawal of Water
Well	6012101			30.86139	-95.6169	Oil or Gas
Well	6005704	John Smither	Unused	30.89278	-95.4894	Withdrawal of Water
Well	6005802	TDC	Institution	30.90972	-95.435	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6011201			30.84472	-95.6697	Oil or Gas
Well	6011402			30.81139	-95.7475	Oil or Gas
Well	6020701	B Powells	Stock	30.6325	-95.6008	Withdrawal of Water
Well	6028301	Huntsville State Park	Plugged or Destroyed	30.62278	-95.5328	Withdrawal of Water
Well	6028904	U. S. Forestry Service New Waverly Station	Public Supply	30.53083	-95.5356	Withdrawal of Water
Well	6029402	Carver Elementary	Institution	30.54278	-95.4828	Withdrawal of Water
Well	6004501	Carl Morris	Stock	30.92944	-95.5569	Withdrawal of Water
Well	6021302	Jim Roberts	Domestic	30.73194	-95.3933	Withdrawal of Water
Well	6018201		Unused	30.715	-95.7933	Withdrawal of Water
Well	6021103	Unknown	Unused	30.70889	-95.4931	Withdrawal of Water
Well	6021301	Dickson	Domestic	30.74556	-95.3967	Withdrawal of Water
Well	6020903	Little Thicket Mobile Home Park, Well #1.	Public Supply	30.65667	-95.5069	Withdrawal of Water
Well	6027601	U S Forest Service	Recreation	30.56111	-95.6378	Withdrawal of Water
Well	6027602	U. S. Forestry Service Stubblefield Lake Well	Public Supply	30.56139	-95.6381	Withdrawal of Water
Well	6028802	Sam Houston National Forest	Unused	30.52806	-95.5639	Withdrawal of Water
Well	6029407	Louisiana Pacific Corp	Industrial	30.56611	-95.4706	Withdrawal of Water
Well	6029701	New Waverly Gin Co.	Industrial	30.53917	-95.4814	Withdrawal of Water
Well	6003802	J W Langley	Unused	30.87778	-95.6892	Withdrawal of Water
Well	6010901	G W Woods	Unused	30.75445	-95.7542	Withdrawal of Water
Well	6012301	Wayne Short	Unused	30.85306	-95.5056	Withdrawal of Water
Well	6012501	F Turner	Stock	30.82444	-95.5508	Withdrawal of Water
Well	6013306	W. Rainwater	De-watering	30.85278	-95.4044	Withdrawal of Water
Well	6013307	Riverside Water Supply Corporation. Well #3	Unused	30.85056	-95.4064	Withdrawal of Water
Well	6019303	Ralston Purina	Unused	30.74611	-95.6386	Withdrawal of Water
Well	6019403	Westway Baptist Church	Domestic	30.68361	-95.74	Withdrawal of Water
Well	6019501	W Gibbs	Stock	30.69167	-95.6744	Withdrawal of Water
Well	6020201	City of Huntsville Well #8.	Unused	30.72056	-95.5475	Withdrawal of Water
Well	6020202	City of Huntsville Well #10.	Plugged or Destroyed	30.71917	-95.5475	Withdrawal of Water
Well	6020503	City of Huntsville Well #19	Public Supply	30.67806	-95.55	Withdrawal of Water
Well	6020504	City of Huntsville Well #18	Public Supply	30.68639	-95.5497	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6022101	Dodge-Oakhurst Water Supply Corp. (#1)	Public Supply	30.74528	-95.3631	Withdrawal of Water
Well	6011902	C.L. Robinson	Domestic	30.76	-95.6572	Withdrawal of Water
Well	6011904	Walker Co. SUD Hwy. 75	Public Supply	30.76389	-95.6636	Withdrawal of Water
Well	6012801	Walker Co. S. U. D. Pierce Road Well	Public Supply	30.78694	-95.5528	Withdrawal of Water
Well	6004901	McMoRan Expl.	Unused	30.87861	-95.5086	Withdrawal of Water
Well	6005102	Carl Wilson	Domestic	30.96667	-95.4742	Withdrawal of Water
Well	6013206	Riverside Water Supply Corporation.Well #1	Public Supply	30.84139	-95.4194	Withdrawal of Water
Well	6013302	Riverside School	Public Supply	30.85389	-95.4017	Withdrawal of Water
Well	6013501	Sam Houston St. Teachers College	Public Supply	30.81917	-95.4283	Withdrawal of Water
Well	6013503	Sam Houston State Teachers College	Public Supply	30.81111	-95.4342	Withdrawal of Water
Well	6014103	Carolina Cove WSC	Public Supply	30.855	-95.345	Withdrawal of Water
Well	6014105	Waterco, Inc.	Public Supply	30.85639	-95.3464	Withdrawal of Water
Well	6018502	Heldenfels Const.	Unused	30.66972	-95.7956	Withdrawal of Water
Well	6018602	D. Burdeaux	Domestic	30.67028	-95.7831	Withdrawal of Water
Well	6020105	Walker Saw Mill	Industrial	30.745	-95.6064	Withdrawal of Water
Well	6020107	TDCJ-Administration Building. Well #2.		30.74945	-95.6125	Withdrawal of Water
Well	6020206	City of Huntsville Well #9.	Unused	30.72	-95.5492	Withdrawal of Water
Well	6020208	Texas Refrigerator & Ice Co.	Unused	30.72111	-95.5486	Withdrawal of Water
Well	6020611	City of Huntsville Well #15	Public Supply	30.69028	-95.5361	Withdrawal of Water
Well	6003803	Don Roberson	Domestic	30.87639	-95.6719	Withdrawal of Water
Well	6020604	R Katoaka	Irrigation	30.70417	-95.5139	Withdrawal of Water
Well	6021102	TPWD Fish Hatchery	Domestic	30.74611	-95.4767	Withdrawal of Water
Well	6028501	U S Forest Service Well #1	Public Supply	30.5425	-95.5589	Withdrawal of Water
Well	6029404	Louisiana Pacific Corp	Public Supply	30.57028	-95.4742	Withdrawal of Water
Well	6010202	R.B. Stutts	Stock	30.8475	-95.8175	Withdrawal of Water
Well	6004801			30.91139	-95.5822	Oil or Gas
Well	6005803	TWC Smithers Prison Farm	Institution	30.88306	-95.4475	Withdrawal of Water
Well	6005805	TDCJ-Ellis Unit I Well #1.	Irrigation	30.88445	-95.4544	Withdrawal of Water
Well	6011601	The Perrier Group	Bottling	30.80806	-95.6531	Spring
Well	6019101			30.71	-95.7239	Oil or Gas

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6003801			30.89889	-95.6947	Oil or Gas
Well	6005701	John Smither	De-watering	30.89278	-95.4894	Withdrawal of Water
Well	6005702	TDCJ-Estelle Unit Well #1	Irrigation	30.89195	-95.485	Withdrawal of Water
Well	6021101			30.74195	-95.4808	Oil or Gas
Well	6005401	Waterco, Inc. Deep River Plantation	Public Supply	30.93583	-95.4978	Withdrawal of Water
Well	6005501			30.92667	-95.4419	Oil or Gas
Well	6014101			30.85861	-95.3433	Oil or Gas
Well	6003901			30.89833	-95.6294	Oil or Gas
Well	6005807	TDCJ-Ellis Unit I Well #4	Irrigation	30.88695	-95.4572	Withdrawal of Water
Well	6029705	R D Hardy	Domestic	30.53695	-95.4847	Withdrawal of Water
Well	6028401	Gus Randall	Domestic	30.55695	-95.6208	Withdrawal of Water
Well	6012502	Pine Prairie Freewill Baptist Church	Unused	30.80778	-95.5767	Withdrawal of Water
Well	6012503	ANNS Water System	Public Supply	30.8225	-95.6081	Withdrawal of Water
Well	6013304	Robert Daffin	Unused	30.8421	-95.3916	Withdrawal of Water
Well	6013305	R. Vincent Shorewood Forest WSC	Public Supply	30.84833	-95.3842	Withdrawal of Water
Well	6014401	R.D. Jameson	Domestic	30.80333	-95.3625	Withdrawal of Water
Well	6018501	Myria Sims	Domestic	30.68972	-95.8119	Withdrawal of Water
Well	6019401	Damon Coburn? Trahan?	Domestic	30.68556	-95.7386	Withdrawal of Water
Well	6019402	Humble Oil	Industrial	30.69195	-95.7386	Withdrawal of Water
Well	6020203	City of Huntsville Well #11.	Public Supply	30.71417	-95.5481	Withdrawal of Water
Well	6020204	TDCJ-Wynne Unit	Unused	30.73861	-95.5733	Withdrawal of Water
Well	6020502	James Stewart Echo Villa Court	Public Supply	30.69306	-95.5536	Withdrawal of Water
Well	6020505	City of Huntsville Well #17	Public Supply	30.69111	-95.5447	Withdrawal of Water
Well	6029704	City of New Waverly Well #1	Public Supply	30.53778	-95.4808	Withdrawal of Water
Well	6005101	D.B. Dewalt	Domestic	30.9675	-95.4831	Withdrawal of Water
Well	6011901	M Krumnow	Domestic	30.75167	-95.6386	Withdrawal of Water
Well	6012802	Walker County Special Utility Dist. System A	Public Supply	30.78028	-95.5636	Withdrawal of Water
Well	6013301	The Millwhite Co. Riverside	De-watering	30.85611	-95.3992	Withdrawal of Water
Well	6013404	Riverside Water Corp. Walnut Creek #3	Public Supply	30.81056	-95.4786	Withdrawal of Water
Well	6013701	M.C. Industries of TX Houston, Texas	Public Supply	30.79111	-95.4825	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6014104	Waterco, Inc.	Public Supply	30.85583	-95.3461	Withdrawal of Water
Well	6014701	Tom Mann		30.76222	-95.3514	Spring
Well	6019301	W Robbins	Stock	30.74945	-95.6578	Withdrawal of Water
Well	6019601	Walker County SUD C	Public Supply	30.69306	-95.645	Withdrawal of Water
Well	6020108	J Oliphant	Domestic	30.71694	-95.5842	Withdrawal of Water
Well	6020207	W S Gibbs	Domestic	30.74306	-95.5458	Withdrawal of Water
Well	6020402	Walker County WSC System C-#2	Public Supply	30.69972	-95.6183	Withdrawal of Water
Well	6020612	City of Huntsville Well #20	Public Supply	30.67639	-95.5383	Withdrawal of Water
Well	6018901	W Pool	Domestic	30.63028	-95.7742	Withdrawal of Water
Well	6026201	Weldon Hope	Domestic	30.62194	-95.8111	Withdrawal of Water
Well	6013903	John Howell	De-watering	30.77639	-95.4164	Withdrawal of Water
Well	6029708	City of New Waverly	Public Supply	30.53925	-95.4798	Withdrawal of Water
Well	6011801	J.W. Aden	Domestic	30.79056	-95.6889	Withdrawal of Water
Well	6013203	Riverside Water Supply Corporation.Well #4.	Public Supply	30.83917	-95.4214	Withdrawal of Water
Well	6013205	Riverside Water Supply Corporation.Well #6.	Public Supply	30.84417	-95.4228	Withdrawal of Water
Well	6013329	The Texas Co.	Unused	30.84056	-95.4067	Withdrawal of Water
Well	6013402	Riverside WSC Well #7	Public Supply	30.80778	-95.4836	Withdrawal of Water
Well	6014106	Waterco, Inc.	Public Supply	30.86806	-95.3472	Withdrawal of Water
Well	6018801	P Parten	Domestic	30.65806	-95.8192	Withdrawal of Water
Well	6020102	Walker Saw Mill	Industrial	30.74611	-95.6089	Withdrawal of Water
Well	6020104	Walker Saw Mill	Industrial	30.74639	-95.6067	Withdrawal of Water
Well	6020302	Hopper	Unused	30.74083	-95.5206	Withdrawal of Water
Well	6020401	Walker County SUD F Fairgrounds Well	Plugged or Destroyed	30.69861	-95.6142	Withdrawal of Water
Well	6020605	TDCJ Goree	Public Supply	30.66944	-95.5097	Withdrawal of Water
Well	6020607	Tom Campbell	Domestic	30.69889	-95.5372	Withdrawal of Water
Well	6021402	Phelps Water Supply Corporation Well #2	Public Supply	30.70528	-95.4756	Withdrawal of Water
Well	6011501	Johnny Burns	Domestic	30.79333	-95.6908	Withdrawal of Water
Well	6011903	Ruby Stampley	Domestic	30.75278	-95.6492	Withdrawal of Water
Well	6012701	Huntsville Raceway	Unused	30.75056	-95.6117	Withdrawal of Water
Well	6013303	Riverside School	Stock	30.85445	-95.4006	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6019201	Walker Co. S. U. D. Hwy. 1696 Well	Plugged or Destroyed	30.74556	-95.6825	Withdrawal of Water
Well	6019302	Alvin L. Humphrey/Alred	Domestic	30.74893	-95.665	Withdrawal of Water
Well	6019602	Walker County WSC System C	Public Supply	30.6925	-95.6444	Withdrawal of Water
Well	6020403	City of Huntsville Timberwilde Addition	Public Supply	30.70528	-95.6203	Withdrawal of Water
Well	6020405	H Lindley	Domestic	30.68556	-95.6231	Withdrawal of Water
Well	6020601	City of Huntsville Well #14	Plugged or Destroyed	30.70083	-95.5339	Withdrawal of Water
Well	6020904	Little Thicket Mobile Home Park.Well #2.	Public Supply	30.65667	-95.5072	Withdrawal of Water
Well	6029703	Mobil Gas Station	Commercial	30.5375	-95.4842	Withdrawal of Water
Well	6029906	Harthorne Baptist Church	Domestic	30.53194	-95.3936	Withdrawal of Water
Well	6028702	N T Little	Domestic	30.52278	-95.605	Withdrawal of Water
Well	6028704	USDA Kay Gal Recreation Are	Recreation	30.52611	-95.5869	Withdrawal of Water
Well	6028701	U S Forest Service rig supply well	Unused	30.52472	-95.59	Withdrawal of Water
Well	6029904	Captain Perry	Domestic	30.53028	-95.3986	Withdrawal of Water
Well	6028202			30.60167	-95.5447	Oil or Gas
Well	6029401	New Waverly HS	Institution	30.54667	-95.4769	Withdrawal of Water
Well	6029803	Fred Nelson	Domestic	30.53028	-95.4328	Withdrawal of Water
Well	6010201	J.C. Walker	Irrigation	30.84667	-95.8253	Withdrawal of Water
Well	6028101	D Grissom	Domestic	30.58556	-95.6164	Withdrawal of Water
Well	6029405	Louisiana Pacific Corp	Industrial	30.57	-95.4736	Withdrawal of Water
Well	6029707	City of New Waverly Well #3	Public Supply	30.53695	-95.4867	Withdrawal of Water
Well	6021201	Lake Jackson Est. III	Public Supply	30.71361	-95.4231	Withdrawal of Water
Well	6028804	National Forest No. 3	Plugged or Destroyed	30.52889	-95.5636	Withdrawal of Water
Well	6028602	Emeraldwood	Public Supply	30.55361	-95.5108	Withdrawal of Water
Well	6021601	M Mathis	Unused	30.69556	-95.4122	Withdrawal of Water
Well	6013901	C.Y. Townley	Domestic	30.75695	-95.4117	Withdrawal of Water
Well	6021801	U S Forest Service	Domestic	30.64639	-95.4236	Withdrawal of Water
Well	6028302	Huntsville State Park	Plugged or Destroyed	30.62028	-95.525	Withdrawal of Water
Well	6028502	U S Forest Service Job Corps Camp	Public Supply	30.54222	-95.5606	Withdrawal of Water
Well	6029905	Jasper Mission Baptist Church	Domestic	30.53417	-95.3956	Withdrawal of Water
Well	6030401	E L Hardy	Domestic	30.55583	-95.3711	Withdrawal of Water

Facility	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Туре						
Well	6003902	Walker County SUD	Public Supply	30.87966	-95.6523	Withdrawal of Water
Well	6005801	TDC Smithers State Farm Well #1	Public Supply	30.88389	-95.4492	Withdrawal of Water
Well	6019102	N Hall	Unused	30.71583	-95.7208	Withdrawal of Water
Well	6020603	City of Huntsville Well #12	Plugged or Destroyed	30.70639	-95.5411	Withdrawal of Water
Well	6029403	Louis Strey	Unused	30.56167	-95.4742	Withdrawal of Water
Well	6013328	Lake Livingston Heights	Public Supply	30.85139	-95.3767	Withdrawal of Water
Well	6013502	Sam Houston State Teachers College	Public Supply	30.81139	-95.4336	Withdrawal of Water
Well	6014102	Carolina Cove WSC	Plugged or Destroyed	30.85444	-95.3453	Withdrawal of Water
Well	6018601	F Morgan	Domestic	30.68806	-95.7692	Withdrawal of Water
Well	6020106	TDCJ-Administration Building.Well #1.	Irrigation	30.74945	-95.6125	Withdrawal of Water
Well	6020205	City of Huntsville Well #7.	Plugged or Destroyed	30.71639	-95.5461	Withdrawal of Water
Well	6020209	Sam Houston State	Recreation	30.715	-95.5517	Withdrawal of Water
Well	6020404	ANNS Water System	Public Supply	30.69695	-95.6103	Withdrawal of Water
Well	6020602	City of Huntsville Well #13	Public Supply	30.69583	-95.5297	Withdrawal of Water
Well	6020610	TDCJ-Goree Unit Well #2	Irrigation	30.67306	-95.5144	Withdrawal of Water
Well	6020901	J Elkins	Domestic	30.66417	-95.5308	Withdrawal of Water
Well	6021502	Phelps Water Supply Corporation, Well #3	Public Supply	30.69472	-95.4283	Withdrawal of Water
Well	6019801	Gibbs Bros.	Stock	30.65556	-95.6692	Withdrawal of Water
Well	6028201			30.61694	-95.5669	Oil or Gas
Well	6029902	W G Ellisnor	Domestic	30.5325	-95.3919	Withdrawal of Water
Well	6028803	National Forest No. 2	Unused	30.52889	-95.5636	Withdrawal of Water
Well	6029406	Louisiana Pacific Corp	Industrial	30.56917	-95.4686	Withdrawal of Water
Well	6029706	Lige Buckner	Domestic	30.50917	-95.4847	Withdrawal of Water
Well	6028601	Old Folks Home	Domestic	30.55889	-95.5081	Withdrawal of Water
Well	6028805	Texas Youth Commission	Public Supply	30.54156	-95.5584	Withdrawal of Water
Well	6027401			30.57536	-95.7167	Withdrawal of Water
Well	6022401			30.67031	-95.3672	Oil or Gas



Appendix D

MEETING DOCUMENTATION

Walker County Hazard Mitigation Plan Update, 2024



Walker County Multi-Jurisdictional Hazard Mitigation Plan, Kickoff Meeting NOTES

March 23, 2023

AGENDA

9:30 AM	Registration & Sign-in
10:00 AM	Welcome & Introductions
10:10 AM	Overview of Hazard Mitigation Plans & Procedures
	H-GAC staff will provide an overview of hazard mitigation plans, benefits, meeting objectives, activities, H-GAC's planning process, roles & responsibilities, and project timelines.
	Hazard Mitigation Committee Management
10:30 AM	Next Steps
10:45 AM	Hazard Identification & Risk Assessment Exercise
12:00 PM	Adjourn



MEETING NOTES

Welcome and Introductions

Butch Davis welcomed participants and thanked them for attending the meeting for the Walker County Hazard Mitigation Plan Update.

Overview of Hazard Mitigation Plans & Procedures

Amanda Ashcroft reviewed the meeting agenda. Amanda went over meeting goals and objectives- to explain hazard mitigation, review the benefits of developing a hazard mitigation plan, provide an overview of the planning process, and to inform the committee about their role in the planning process. The plan is funded by a GLO grant through H-GAC. Amanda explained that despite there being no match requirement for this instance of funding, there will be various methods of documentation you see throughout the planning process that exist solely to calculate match for any future needs.

Amanda explained what hazard mitigation planning is, the benefits of mitigating for hazards, and the history behind the Stafford Act and Disaster Mitigation Act of 2000. This act requires communities to have a mitigation plan to be eligible for mitigation grants, plans must be updated every 5-years. FEMA has a plan review guide that outlines the requirements for what must be in the plan or addressed by the plan, these were updated in 2022 and take full effect for all plans approved after April 2023. Updated policies and any changes to the plan template were summarized to the committee.

Roles and responsibilities of the Hazard Mitigation Planning Committee were outlined. A commitment letter of jurisdictional participation was discussed as a committee to be signed and returned by a point of contact for each participating jurisdiction. Roles and responsibilities agreed to in the letter of commitment included items outlined in the presentation, as well as grounds for dismissal due to non-participation. These included:

- To attend meetings, including public hearings or meetings/workshops that occur during the plan update process
- To assist with coordination or participation in the public input process- this could mean collecting and relaying valuable local information, data, or soliciting input from citizens or professionals
- To make decisions on the planning process and content- this includes reviewing plan updates and providing timely feedback (this include submitting any worksheets or handouts we provide you)
- To review and adopt the plan for it to be approved by FEMA

Outreach methods were discussed for how the planning team and committee will get the word out to stakeholders for future meetings and public input.

Amanda reviewed the tentative project timeline and discussed HAZUS being run in-house, to be completed before the next meeting. The committee agreed keeping the same date/time and meeting in-person would allow for greater attendance from committee members and input.



Next Steps

Amanda outlined next steps for the local planning team and members of the hazard mitigation planning committee. Committee members should provide any additional stakeholder contacts to the local planning team- Walker County OEM Butch Davis, Sherri Pegoda, and H-GAC staff so they can be included in future updates regarding the plan. The next meeting was scheduled for Monday, April 17, 2023, from 10 AM-12 PM at the Walker County Storm Shelter. H-GAC staff will begin running the HAZUS model for outputs to help inform the continued discussion of the risk assessment activity, and participating jurisdictions will begin a capability assessment activity.

At the end of the presentation, the hazard mitigation planning committee members introduced their name, title, the organization they represented.

Hazard identification and Risk Assessment

A risk assessment handout was passed out and the committee reviewed hazards from the 2018 Walker County Multi-Jurisdictional Hazard Mitigation Plan, The Huntsville 2018 Hazard Mitigation Plan, and Texas State Hazard Mitigation Plan. She outlined updates the hazard mitigation planning committee may want to consider making to certain hazard titles, regroupings, new additions, and gave examples of what 2023 plans were doing similarly.

Listed Hazards for the 2018 plans included: Flooding, Hurricanes & Tropical Storms, Wildfire, Drought, Lightning, Heat, Hail, Winter Weather, Tornado, Dam/Levee Failure, Erosion, and Expansive Soils.

The hazard mitigation committee began working on the hazard identification and risk assessment handout for the remainder of the meeting. As a committee, they worked through the handout to determine probability and risk for hazards they identified that affect the County and participating jurisdictions. <u>Results of this activity can be found below.</u>

After the activity concluded, Amanda Ashcroft thanked everyone for their time and reiterated the time and date for the next scheduled meeting: Monday, April 17, 2023, from 10 AM-12 PM at the Walker County Storm Shelter

Meeting adjourned at 11:45 AM.

Walker County Multi-Jurisdictional Hazard Mitigation Plan, Kickoff Meeting NOTES Houston-Galveston Area Council

March 23, 2023

RISK ASSESSMENT: To rank hazard risk, probability and severity must be determined.

PROBABILITY: A measure of how likely an event will occur SEVERITY: How much a hazard affects the functionality of society and natural environment

Hazard risk is measured using this equation: **RISK = PROBABILITY x SEVERITY**

We will calculate risk by assigning a numerical value to both probability & severity (see below). Use these values to calculate risk for each hazard within your community.

Probability	Characteristics
4 Highly Likoly	Event is probable within the next calendar year
4 – Highly Likely	These events have occurred, on average, once every 1-2 years in the past
	Event is probable within the next 10 years
3 – Likely	Event has a 10-50% chance of occurring in any given year
	These events have occurred, on average, once every 3-10 years in the past
	Event is probable within the next 50 years
2 – Possible	Event has a 2-10% chance of occurring in any given year
	These events have occurred, on average, once every 10-50 years in the past
	Event is probable within the next 200 years
1 – Unlikely	Event has a 0.5-2% chance of occurring in any given year
	These events have occurred, on average, once every 50-200 years in the past

Severity	Characteristics
	Multiple deaths
8 – Catastrophic	Complete shutdown of facilities for 30 or more days
	More than 50% of property is severely damaged
	Injuries and/or illnesses result in permanent disability
4 – Critical	Complete shutdown of critical facilities for at least 14 days
	More than 25% of property is severely damaged
	Injuries and/or illnesses do not result in permanent disability
2 – Limited	Complete shutdown of critical facilities for more than seven days
	More than 10% of property is severely damaged.
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1 Nogligiblo	Minor quality of life lost
	Shutdown of critical facilities and services for 24 hours or less
	Less than 10% of property is severely damaged



Walker County Multi-Jurisdictional Hazard Mitigation Plan, Kickoff Meeting NOTES March 23, 2023

RISK ASSESSMENT: To rank hazard risk, probability and severity must be determined.

PROBABILITY: A measure of how likely an event will occur SEVERITY: How much a hazard affects the functionality of society and natural environment Use the tables above as a guide

Hazard	Probability (P) (1, 2, 3, 4)	Severity (S) (1, 2, 4, 8)	Risk (P x S)	Ranking	
Floods	4	4	16	1	
Wildfires	4	4	16	1	
Lightning	4	2	8	3	
Hailstorms	3	2	6	4	
Tornadoes	2	8	16	1	
Severe Thunderstorms	4	2	8	3	
Erosion	4	2	8	3	
Hurricanes & Tropical Storms & Depressions	4	4	16	1	
Drought & Expansive Soils	4	4	16	1	
Extreme Heat	4	4	16	1	
Severe Winter Weather	4	4	16	1	
Dam/Levee Failure	2	4	8	3	
Emerging Infectious Diseases	3	4	12	2	
Windstorms	3	4	12	2	
Invasive Species	2	2	4	4	
Water Quality and Quantity	4	2	8	3	
Cyber Threats	3	4	12	2	
Biological/Hazmat	2	4	8	3	

Commented [AA1]: The committee agree to add tropical depressions to this title

Commented [AA2]: Hazard mitigation committee agreed to combine these two hazards into one.

Commented [AA3]: Private dams and levees are rated poorly within Walker County

Commented [AA4]: New hazard, Title chosen in place of 'Pandemic'

Commented [AA5]: New hazard

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Commented [AA6]: New hazard
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Commented [AA7]: New hazard

Commented [AA8]: Amanda will look up man-made hazard inclusion benefits within the HMP.

Commented [AA9]: New hazard

NAME	AGENCY	TITLE	EMAIL ADDRESS	CELL #	WORK #	County or City Appointed	SIGNATURE
Ashcroft, Amanda	Houston-Galveston Area Council	Planner, Community & Environmental Planning	amanda.ashcroft@h-gac.com	713.993.4545		County	
Barnes, Jim	Huntsville Police Dept	Assistant Police Chief	jbarnes@huntsvilletx.gov		936.291.5496	City	
Barrett, Matt	San Jacinto River Authority					County	
Bartee, Gene	Walker County Constable Pct. 4	Constable	gbartee@co.walker.tx.us	936.718.2755		County	
Booker, Lonnie	Sam Houston State University	Associate Director of Emergency Management	ljb048@shsu.edu	936.294.2474		County	X
Brown, Larry	Huntsville ISD		<u>[brown@huntsville-isd.org</u>	936.661.7199		County	Lank.
Byal, Kevin	City of Huntsville	Building Offical	kbyal@huntsvilletx.gov		936.291.5772	City	L'Brat
Carper, Jennifer	Texas Department of Criminal Justice	Director of Emergency management	jennifer.carper@tdci.texas.gov	936.437.6038	936.730.5269	County	10
Christian, Colt	Walker County Judge	County Judge	<u>cchristian@co.walker.tx.us</u>	936.355.0987	936.436.4910	County	200
Cole, Stephen	Walker County JP4	Justice of the Peace	<u>scole@co.walker.tx.us</u>	936.577.2107		County	
Connell, Joe	Walker County OEM	CERT Coordinator	jconnell@co.walker.tx.us	936.581.5565	936.435.8035	County	present
Crocker, Ben	Riverside Volunteer Fire Department	Chief	bencrocker@riversidevfd.com	936.581.2452		County	(
Daniel, Dena	Huntsville Memorial Hospital	Executive Assistant / Emergency Management Coordinator	<u>dena.daniel@hmh.cc</u>	832.427.9416	936.291.4512	County	() Connot
Daugette, Bill	Walker County Commissioner Pct. 3	Commissioner	bdaugette@co.walker.tx.us	936.661.5176		County	Burb
Davila, John	Walker County Sheriff	Lt.	jdavila@co.walker.tx.us	936.661.9322	936.435.2400	County	2
Davis, Butch	Walker County OEM	EMC	walkercountyoem@co.walker.tx.us	936.577.2846	936.435.8035	County	th outin
Decker, Brandon	Walker County Commissioner Pct. 4	Commissioner	<u>bdecker@co.walker.tx.us</u>	936.788.4805		County	hutul
Doll, Kristy	Huntsville Administration	City Secretary	kdoll@huntsvilletx.gov		936.291.5413	City	
Drane, Kris	New Waverly ISD		kdrain@new-waverly.k12.tx.us	936.662.1785		County	
Durham, Will	Walker County District Attorney	District Attorney	wdurham@co.walker.tx.us	936.436.4602		County	

HAZARD MITIGATION PLAN PLANNING COMMITTEE 2023

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	jferguson@huntsvilletx.gov	<u>sfisher@co.walker.tx.us</u>	<u>kfrench@co.walker.tx.us</u>	<u>bgallagher@sjra.net</u>	tgann@huntsvilletx.gov	dhail@new-waverly.k12.tx.u	jherford@huntsvilletx.gov	<u>shill@co.walker.tx.us</u>	holtonc@trinityra.org	<u>ahooks@co.walker.tx.us</u>	jhooks@co.walker.tx.us	wlhumphrey@co.walker.tx.us	aisbell@co.walker.tx.us	<u>njames1179@icloud.com</u>	rjeffcoat@co.walker.tx.us	kjengbulloch@huntsvilletx.gov	pjoiner@huntsvilletx.gov	<u>kkembro@huntsvilletx.gov</u>	<u>aklawinsky@co.walker.tx.us</u>	akulhavy@huntsvilletx.gov
	Water Department	Justice of the Peace	County Clerk	Profect manage	Economic Development Director		Streets Department	Constable		Admin. Assist.	Constable	Planner	Director	Mayor	Justice of the Peace	City Engineer	Parks Director	Public Works Assistant Director	Treasurer	City Manager
	Huntsville Public Works - Water	Walker County JP1	Walker County Clerk	San Jacinto River Authority	Huntsville Economic Development	New Waverly ISD	Huntsville Public Works - Streets	Walker County Constable Pct. 3	Trinity River Authority	Walker County Road & Bridge Pct. 2	Walker County Constable Pct. 1	Walker County OEM	Walker County Planning & Development	City of New Waverly	Walker County JP3	Huntsville Engineer	Huntsville Parks Dept	Huntsville Public Works	Walker County Treasurer	Huntsville Administration
NAIVIE	Ferguson, James	Fisher, Steve	French, Kari	Gallagher, Briana	Gann, Tammy	Hail, Darol	Herford, John	Hill, Steve	Holton, Chad	Hooks, Ashlyn	Hooks, John	Humphrey, William	Isbell, Andrew	James, Nate	Jeffcoat, Randy	Jeng-Bulloch, Kathlie	Joiner, Penny	Kembro, Kim	Klawinsky, Amy	Kulhavy, Aron

AGENCY	PLANNING CO	OMMITTEE 2023 EMAIL ADDRESS	CELL #	WORK #	County or City Appointed	SIGNATURE
Pct. 1	Commissioner	dkuykendall@co.walker.tx.us	936.438.9097		County	
	Assistant Fire Chief	wlamb@huntsvilletx.gov		936.291.5943	City	
	Lieutenant Police Dept.	<u>clandrum@huntsvilletx.gov</u>		936.291.5466	City	
	Mayor	riversidetx@windstream.net	936.443.6035	936.594.2520	County	
	Constable	<u>sloosier@co.walker.tx.us</u>	936.438.0516		County	(, , ,
	Asst City Manager	<u>smasiel@huntsvilletx.gov</u>			City	1 w
	Fire Chief	gmathis@huntsvilletx.gov		936.291.5944	City	
	Sheriff	<u>cmcrae@co.walker.tx.us</u>	936.435.2400	936.577.2845	County	
	Tax Assessor	<u>dianamcrae@co.walker.tx.us</u>	936.661.1785		County	
	Senior Manager, Community & Environmental Planning	<u>cheryl.mergo@h-gac.com</u>	713.993.4520		County	Cherl Men-
	General Manager	james@walkersud.com	936.295.4452	936.581.2180	County	A N U
	General Manager	rnettles@riversidesud.com	936.594.5793		County	
	Director	<u>rparker@co.walker.tx.us</u>	832.921.7836	832.971.7836	County	Conclus Under
	Justice of the Peace	mpayne@co.walker.tx.us	936.355.8782		County	A Marin Age
	Deputy EMC	walkercountyoem@co.walker.tx.us	936.662.6109	936.435.8035	County	TOME
	City Secretary	riversidetx@windstream.net		936.594.2520	County	
	Finance Director	sritter@huntsvilletx.gov		936.291.5486	City	
	Assistant Superintendant	wcroberts@huntsville-isd.org	936.435.6300	281.684.8584	County	
	General Manager	phelpswater@hotmail.com	936.295.4051	936.661.2210	County	
	Risk Manager	jsanders@huntsvilletx.gov	120.185	936.291.5425	City	2

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	AGENCY	TITLE	EMAIL ADDRESS	CELL #	WORK #	County or City Appointed	SIGNATURE	
	Huntsville Public Works	Public Works Director	bsherrod@huntsvilletx.gov		936.291.5786	City	ad Sar	
	Huntsville Police Dept	Police Chief	dslaven@huntsvilletx.gov		936.291.5475	City		
	City of Huntsville	Mr R	<u>bslott@huntsvilletx.gov</u>	92.577.5M		City	Prof	
	New Waverly Fire Department	Chief	<u>slottconstruction@yahoo.com</u>	936.661.5964		County		
	Good Shepherd Mission	Reverand	Remission@suddenlink.com	936.661.5076	25/8/28	County	JeC.	
	Walker County Court at Law	Judge	-the asim hty acympile	936.661.1628		County		
	AgriLife Extension	County Extension Agent	jamie.sugg@ag.tamu.edu		936.435.2426	County	Sauge	
	Walker County OEM	EM Specialist	<u>stennant@co.walker.tx.us</u>	936.662.4234	936.435.8035	County	Do what	1
	Walker County ESD 2		kevin.traylor@wcesd2.com	936.581.2022	36.581.2022	County	Yan 2	
	Walker County Public Safety Comms	Assistant Director	<u>atryon@co.walker.tx.us</u>	936.391.7057		County		
	City of Huntsville	•	mwagner@huntsvilletx.gov	936.714.6013	936.291 Sapp	City	m	
	Texas Division of Emergency Management	County Liaison Officer	john.waldo@tdem.texas.gov	346.244.3152		County	A.	
	Texas Division of Emergency Management	District Coordinator	ronald.walker@tdem.texas.gov	936.662.3827		County		
	Huntsville IT Dept	IT Director	bwavra@huntsvilletx.gov		936.291.5454	City		
	Department of Public Safety	Sergeant	<u>clint.weekley@dps.texas.gov</u>	361.693.7099		County		
	Walker County Commissioner Pct. 2	Commissioner	<u>rwhite@co.walker.tx.us</u>	936.438.7852		County		
ε	Walker County Sheriff	Chief	<u>twhitecotton@co.walker.tx.us</u>	936.438.6580 9	36.435.2400	County		
	City of New Waverly	Director of Public Works	<u>cityofnewwaverly@yahoo.com</u>	936.577.2347 9	36.344.6621	County		
rah	Walker County Public Safety Comms	Director	<u>dsgilbert@co.walker.tx.us</u>	936.714.6698	H2S FUM	County	Dally Wh	
lam	Huntsville OEM	EMC	awinningham@huntsvilletx.gov	936.662.0564	936.291.5945	City	(Nola in N)	

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CELL #	936-664		436-581	92 - Kizla	254-495-2200			9.36 5813481	9365772518						
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TITLE	Vice President	District Clerk	Council Member	Mudside appearen	Denuty		EM Project Supr.	Admin Asistend	Cicutana +						
AGENCY	SHSU	Walker County District Clerk	City of Ruckside	E WAlker Down SUD	Walker Party 5.0		T0(3	WICTEMS	Huntmille PJ						
AME	Vithers, Amanda	Voollev Leslie	1	to the set of the contract	Rechar Long	Bo musi June	S. Murra	Phin Out	wheels Ward						

HAZARD MITIGATION PLAN PLANNING COMMITTEE 2023

Ems Director Walker County Ems

Name:

Houston-Galveston Area Council

Title and Employer:

Date:

Contact email:

Amount of time worked on this document:

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NOUV

Rachel Parker

Please return your filled worksheet to Amanda.Ashcroft@h-gac.com

713-993-4545

The purpose of this activity is to identify which hazards *could* affect <u>your</u> community. Each participating jurisdiction must come up with their own risk assessment.

The purpose of this activity is to identify which hazards *could* affect <u>your</u> community.

- 1. Thinking about the past is a good start. What happened previously is a pretty good guide to what may happen again. If your county was damaged by an earthquake, even 150 years ago, there exists at least the potential for damaging earthquakes in the future.
- 2. Think about any new information you learned through the risk assessment. Sometimes memories cover too short of a time span to experience potential risk and looking at scenarios and other models can provide an additional perspective.
- 3. Think about changing conditions in your community, and how the nature of some threats could change over time. This could include the increased frequency of extreme events due to climate change, to changes in vulnerable populations, or the anticipated construction of a new anhydrous ammonia facility that creates the possibility of chemical exposure.

The following is a list of natural and technological hazards that can affect the County. This is not necessarily a complete list of threats but is intended as a starting point when completing the local risk assessment activity.

24. SOD-

Floods	Hurricanes & Tropical Storms / depression
Wildfires	Drought
Lightning	Extreme Heat
Hailstorms	Severe Winter Storms
Tornadoes	Dam/Levee Failure
Severe Thunderstorms	Expansive Soils
Erosion	Windstorms
Cyber-scurvey Pandanics Emerging Info	ectous Diseases

2023 - New haraids / vemovals Pandunic, temp extremes

Houston-Galveston Area Council Walker County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

RISK ASSESSMENT: To rank hazard risk, probability and severity must be determined.

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SEVERITY: How much a hazard affects the functionality of society and natural environment **Use the tables above as a guide**

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lightening	9	2	8	
Haulstorms	3	2	4	
Tomadoss	2	\$	14	
Seven Thunderston	. ų	2	Ŝ	
Erosion	4	2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Hurnicane Tropical Stor	• 4	4	16	
Drought & Empansione	4	4	lie	
Extreme Iteat	4	4	14	
Severc Winter Weaths	4	4	16	
Dam Levce	2	4	R	
Windstorm Infection	\$ 5 4	84	[φ	
Cyber	3	[*] 4	12	
windstorm	3	4	R	
Invasive Species	2	2	4	
Water Quality Orain Biological/Hazma	uty Z H Z	4 4	14	

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1 – Nogligiblo	Minor quality of life lost
T – Megligipie	Shutdown of critical facilities and services for 24 hours or less
	Less than 10% of property is severely damaged

Name:	Shane Osteman
Title and Employer:	Deputy, Walker Canty Sheriff's Office
Date:	3-23-23
Contact email:	sosterman@co.walker.tx.us
Amount of time worked on this docu	ment: I NOUN

Please return your filled worksheet to Amanda.Ashcroft@h-gac.com

The purpose of this activity is to identify which hazards **could** affect <u>your</u> community. Each participating jurisdiction must come up with their own risk assessment.

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Drought
Extreme Heat
Severe Winter Storms
Dam/Levee Failure
Expansive Soils
Windstorms

Houston-Galveston Area Council

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	More than 25% of property is severely damaged		
	Injuries and/or illnesses do not result in permanent disability		
2 – Limited	Complete shutdown of critical facilities for more than seven days		
	More than 10% of property is severely damaged.		
1 – Negligible	Injuries and/or illnesses are treatable with first aid		
	Minor quality of life lost		
	Shutdown of critical facilities and services for 24 hours or less		
	Less than 10% of property is severely damaged		

Houston-Galveston Area Council Walker County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

RISK ASSESSMENT: To rank hazard risk, probability and severity must be determined.

PROBABILITY: A measure of how likely an event will occur

SEVERITY: How much a hazard affects the functionality of society and natural environment **Use the tables above as a guide**

Hazard	Probability (P) (1, 2, 3, 4)	Severity (S) (1, 2, 4, 8)	Risk (P x S)	Ranking
Floods	4	4	16	1
WildGires	4	4	16	/
Lightning	4	2	8	3
Hailstorms	3	2	6	4
Tonadoes	2	8	16	1
Severe Thurdorstorms	4	2	в	3
Grossion	×4	2	× 8	3
Hurricanes, Trupical storms + Depressions	4	4	16)
Drought + Expansive soils	4	4	16	I
Extreme Meat	4	24	8 16	1
Severe winter stoms	4	4	16	3
Dam/Leve failure	2	4	8	3
Emerging Infectious Diseases	3	8-1	2/ 12	2
Windstorms	X 3	4	12	2
Cyber Hreats	3	4	12	2
Invasive species	2	2	4	4

Name:	SHEREL PEGODA
Title and Employer:	Walker CO. DEM- DEMC
Date:	3/23/23
Contact email:	walkercountypem@ co.walker.tx.us
Amount of time worked on this docu	ment: (WOWV

Please return your filled worksheet to Amanda.Ashcroft@h-gac.com

The purpose of this activity is to identify which hazards **could** affect <u>your</u> community. Each participating jurisdiction must come up with their own risk assessment.

The purpose of this activity is to identify which hazards could affect your community.

- 1. Thinking about the past is a good start. What happened previously is a pretty good guide to what may happen again. If your county was damaged by an earthquake, even 150 years ago, there exists at least the potential for damaging earthquakes in the future.
- 2. Think about any new information you learned through the risk assessment. Sometimes memories cover too short of a time span to experience potential risk and looking at scenarios and other models can provide an additional perspective.
- 3. Think about changing conditions in your community, and how the nature of some threats could change over time. This could include the increased frequency of extreme events due to climate change, to changes in vulnerable populations, or the anticipated construction of a new anhydrous ammonia facility that creates the possibility of chemical exposure.

The following is a list of natural and technological hazards that can affect the County. This is not necessarily a complete list of threats but is intended as a starting point when completing the local risk assessment activity.

Floods	Hurricanes & Tropical Storms \$	pressions
Wildfires	- Drought ·	•
Lightning	Extreme Heat	
Hailstorms	Severe Winter Storms	
Tornadoes	Dam/Levee Failure	
Severe Thunderstorms	Drought Expansive Soils	
Erosion	Windstorms	
Cuber	Pandemics	
	Emerging Infectious Di	seases
	3 5	

HONG Houston-Galveston Area Council Walker County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

RISK ASSESSMENT: To rank hazard risk, <u>probability</u> and <u>severity</u> must be determined.

PROBABILITY: A measure of how likely an event will occur **SEVERITY:** How much a hazard affects the functionality of society and natural environment

Hazard risk is measured using this equation: **RISK = PROBABILITY x SEVERITY**

We will calculate risk by assigning a numerical value to both probability & severity (see below). Use these values to calculate risk for <u>each hazard</u> within your community.

Probability	Characteristics
4 – Highly Likely	Event is probable within the next calendar year
	These events have occurred, on average, once every 1-2 years in the past
	Event is probable within the next 10 years
3 – Likely	Event has a 10-50% chance of occurring in any given year
,	These events have occurred, on average, once every 3-10 years in the past
	Event is probable within the next 50 years
2 – Possible	Event has a 2-10% chance of occurring in any given year
	These events have occurred, on average, once every 10-50 years in the past
1 – Unlikely	Event is probable within the next 200 years
	Event has a 0.5-2% chance of occurring in any given year
	These events have occurred, on average, once every 50-200 years in the past

Severity	Characteristics		
	Multiple deaths		
8 – Catastrophic	Complete shutdown of facilities for 30 or more days		
	More than 50% of property is severely damaged		
	Injuries and/or illnesses result in permanent disability		
4 – Critical	Complete shutdown of critical facilities for at least 14 days		
	More than 25% of property is severely damaged		
<pre></pre>	Injuries and/or illnesses do not result in permanent disability		
2 – Limited	Complete shutdown of critical facilities for more than seven days		
	More than 10% of property is severely damaged.		
1 – Negligible	Injuries and/or illnesses are treatable with first aid		
	Minor quality of life lost		
	Shutdown of critical facilities and services for 24 hours or less		
	Less than 10% of property is severely damaged		

RISK ASSESSMENT: To rank hazard risk, probability and severity must be determined.

PROBABILITY: A measure of how likely an event will occur

SEVERITY: How much a hazard affects the functionality of society and natural environment **Use the tables above as a guide**

Hazard	Probability (P) (1, 2, 3, 4)	Severity (S) (1, 2, 4, 8)	Risk (P x S)	Ranking
Floods	4	4	14	(
Wildfires	4	4	14	1
Lightining	4	æ	8	3
Hailstorms	3	2	Ŷ	4
Tornadoes	2	8	14	1
Sev. Thurd.	4	9-	8	s)
Erosion	0-4	5	8	3
Hurr/Trop/Dep	p. 4	4	14	1
Drought Exp. S	pils 4	Ч	14	1
Ext. Heat	4	@4	14	· · · · ·
Sev. Weather	4	4	14	1
Dam/Levee Fail.	X	4	8	3
Emerg Inf Dis	G 3	\$4	到12	Ъ
Windstorms	\$3	4	12	2
Cyber Threat	- 83	@4	12	2
Biological/Haz	mat 20	4	В	3

Invasive species 2 2 4 water quality & quantity 2 4 8



Name:	Butch Davis / Sherri Pegoda
Title and Employer:	Walker County EMC & Deputy EMC
Jurisdiction represented:	Walker County Office of Emergency Management
Date:	04/27/2023
Amount of time worked on this document:	35 Hours (Elected Officials and County Employees)

Please return your filled worksheet to Amanda.Ashcroft@h-gac.com

Does the plan document each jurisdiction's existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))



Building Code, Permitting, and Inspections	Yes/ No	1. Are codes adequately enforced?
Building Code	No 🔽	Version/Year:
Building Code Effectiveness Grading Schedule (BCEGS)	No 🔽	Score:
Fire department ISO rating	Yes	Rating: New Waverly (New 3/3Y), Riverside, Dodge, Crabbs Prairie
Site plan review requirements	Yes	Subdivision Regulations, Flood Plain, On-Site SewerReview
Other (if any)	ESD 2 - Fire Marshall- Subdivision Plans New Waverly - Building Codes, Mobile Home Ordinances Riverside - Working on Building Codes & Mobile Ordinances	

Planning, Ordinances, & Regulatory Capability	Yes/ No	 Is the plan/ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Capital Improvements Plan (Regulates infrastructure in hazard areas)	Limit	No- County Riverside- No, Huntsville- Unknown, New Waverly- unknown
Comprehensive Plan		No
Continuity of Operations Plan		No- in process
Disaster Recovery Plan		Yes - reference the EOP
Economic Development Plan		Yes- Effective
Emergency Operations Plan		Yes- Effective
Floodplain Management Plan		Yes- Effective
Hazard Mitigation Plan		Yes- Reference Annex P EOP
Radiological Emergency Plan		Yes- Reference Annex D EOP
Regional Planning		Yes- Through HGAC
SARA Title III Emergency Response Plan		Yes- reference the EOP (LEPC)
Stormwater Management Plan		No
Transportation Plan		Yes- Reference EOP
Zoning Ordinance		No



Planning, Ordinances, & Regulatory Capability	Yes/ No	 Is the plan/ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Subdivision Regulation/Ordinance		Yes - effective
Flood Damage Prevention Ordinance		Yes- reference floodplain Regulation
Floodplain Ordinance		Yes-Effective (FIRM)
Natural hazard specific ordinance (Stormwater, wildfire, etc.)		Yes - Community Wildfire Protection Plan
National Flood Insurance Program		Yes - Members
Flood insurance rate maps		Yes (Firm Maps)
Community Rating System		No
Acquisition of land for open space and public recreation uses		NO
Other (if any)		
How can these capabilities be ex	kpanded ar	nd improved to reduce risk?



Administrative & Technical Capability

Identify whether your community has the following administrative and technical capabilities. These include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. For smaller jurisdictions without local staff resources, if there are public resources at the next higher-level government that can provide technical assistance, indicate so in your comments.

Administration	Yes/ No		 Describe capability. Is coordination effective?
Planning Commission	Yes [•	OEM, yes
Planning Committee	Yes	•	Hazard Mitigation Committee - Several entities, City, County, and Private Sectors
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes [•	County level and assist New Waverly and Riverside
Mutual aid agreement(s)	Yes [•	Local and Regionally

Staff	Yes/ No FT/ PT ¹	 Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	Yes No FT PT	
Civil Engineer	Yes No	County, Contract, Riverside- Contract, New Waverly Contract
Community Planner	Yes No	OEM Planner
Emergency Management	Yes No	Yes
Floodplain Administrator	Yes No	Planning and Development Department
GIS Coordinator	Yes No	Yes, Planning and Development Department

¹ Full-time (FT) or part-time (PT) position



Staff	Yes/ No FT/ PT ¹	 Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Grant Manager	Yes No • FT • PT	N/A
Local Staff who can assess community's vulnerability to hazards	Yes No O FT PT	OEM
Other (if any)		

Technical	Yes/ No		 Describe capability. Has capability been used to assess/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	Yes	•	Reverse 911, Code Red, Facebook
Hazard data and information			Amanda looking up
Grant writing	Yes	•	OEM, Yes
HAZUS Analysis	Yes	•	OEM, Yes H-GAC
Other (if any)			
How can these capabilities	be expand	ed an	d improved to reduce risk?

¹ Full-time (FT) or part-time (PT) position


Financial Capability

Identify whether your jurisdiction has access to or is eligible to use the below funding resources for hazard mitigation.

Financial	Access/ Eligibility (Yes/ No)		 Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Authority to levy Taxes for specific purposes (Such as mitigation projects)	Yes	•	Yes, Road and Bridge Operations -
Capital Improvement Plan/ 1- & 5-Year plan	No	•	
Capital improvements project funding	No	•	
Community Development Block Grant	Yes	•	Walker County SUD, Riverside SUD, Phelps SUD,
Applied for grants in the past	Yes	•	Water improvements, Additional fire hydrants, Road Mitigation
Awarded a grant in the past	Yes	-	Diaster Recovery, TFS, LEPC-TECQ, TDEM, CDBG , FEMA
Gas/Electric Service Fees	No	•	
Stormwater Service Fees	No	•	
Water/Sewer Service Fees	Yes	-	New Waverly, Riverside
Development Impact Fees	No	•	
Impact fees for new development	No	•	
Incur debt through General Obligation Revenue or Special Tax Bonds	Yes	•	Jail,
Incur debt through private activities	No	•	
Other federal funding programs	Yes	-	ARPA, FEMA, Federal Forest Service,
State funding programs	Yes	-	
Other (if any)			
How can these capabilities be	expanded and	impro	oved to reduce risk?



Education and Outreach Capability

Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

Education and Outreach	Yes/ I	No	 Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non- profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. CERT Teams, Red Cross)	Yes	•	CERT, Firewise, Ready Set Go, OEM,
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	•	Smoke Detectors- Get Alarmed Texas, Ready Set Go,
Natural Disaster or Safety related school programs	Yes	•	Student Tools for Emergency Planning (STEP), Fire Safety, Boy and Girl Scouts
Storm Ready Certification	Yes	•	Sky Warn



Education and Outreach	Yes/ No)	 Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Firewise Communities Certification	Yes	•	Texas Grand Ranch and Sam Camp
Tree City USA	No	•	
Public-private partnership initiatives addressing disaster-related issues	Yes	•	Long Term Recovery Committee, Food Banks, Churches, Private entities
Other (if any)			
How can those canabilities be	ovpando	da	nd improved to reduce risk?
	expanded	u a	

Overall Capability	Limited/Moderate/High				
Does the community have the financial resources needed to implement mitigation projects?	limited				
Does the community have the staff/expertise to implement projects?	moderate				
Is there community support to implement projects?	high				
Does the community staff have time to devote to hazard mitigation?	moderate				
How can these overall capabilities be expanded and improved to reduce risk?					



Political Capability

The local political climate must be considered in designing mitigation strategies, as it could be the most difficult hurdle to overcome in accomplishing their adoption and implementation. Hazard mitigation may not be a local priority or may conflict with or be seen as an impediment to other goals of the community.

Political Capability	1. List any examples of local political capability (Guiding development away from hazard areas, restricting development within hazard areas, or enforcing development standards that go beyond minimum state or federal requirements (e.g., building codes, floodplain management)		
Floodplain management - Above the state requirement Base level Elevation 142ft			

Capability Self-Assessment

Rate the following capability areas as "limited", "moderate", or "high" with what you perceive to be the jurisdiction's ability in implementing hazard mitigation activities.

Jurisdiction	Building Code, Permitting, and Inspections	Planning, Ordinances, & Regulatory Capability	Administrative & Technical Capability	Financial Capability	Education and Outreach Capability	Political Capability	Overall Capability
Walker County	Moder	Moder	Moder	Moder	Moder	_Moder ⊡ _	Moder
City of Huntsville							L _
City of New Waverly	Moder	Limite	Limite	Limite	Limite	Limite	Limite
City of Riverside	Limite	Limite	Limite	Limite	Limite	Limite	Limite
What are some barrie	rs to implen	nenting prop	osed mitigat	ion strategies	?		
What mechanisms co	uld enhance	or further in	nplementati	on of propose	d mitigatio	n strategies?	
There are interloc	al agreen	nents with	City of N	ew Waverl	y and Cit	y of Riversi	de



Name:	Adam Winningham	
Title and Employer:	EMC - City of Huntsville	
Jurisdiction represented:	City of Huntsville	
Date:	4/24/23	

Amount of time worked on this document: 30hrs (includes all City employees)

Please return your filled worksheet to Amanda.Ashcroft@h-gac.com

Does the plan document each jurisdiction's existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))



Building Code, Permitting, and Inspections	Yes/ No	1. Are codes adequately enforced?
Building Code	Yes	Version/Year: International codes 2021
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Score: 4 for one- and two-family dwellings and 3 for all other construction
Fire department ISO rating	Yes	Rating: 2
Site plan review requirements	Yes	Civil review and site improvements
Other (if any)		

Planning, Ordinances, & Regulatory Capability	Yes/ No	 Is the plan/ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Capital Improvements Plan (Regulates infrastructure in hazard areas)	20	 Yes, the plan is an effective measure for reducing risk. Yes, the ordinance is adequately administer and enforced.
Comprehensive Plan	Yes	Updated in 2021
Continuity of Operations Plan		No, in process
Disaster Recovery Plan	Yes	Basic Plan, ESF & annexes
Economic Development Plan	Yes	1. Yes, the plan is an effective measure for reducing risk. 2. Yes, the ordinance is adequately administer and enforced.
Emergency Operations Plan	Yes	TDEM Basic Plan, Numerous annexes and ESF
Floodplain Management Plan	No	Flood plan regulations in place, but no plan
Hazard Mitigation Plan	Yes	TDEM Annex P
Radiological Emergency Plan	Yes	TDEM Annex D
Regional Planning	Yes	1. Yes, the plan is an effective measure for reducing risk. 2. Yes, the ordinance is adequately administer and enforced.
SARA Title III Emergency Response Plan	Yes	TIER II, LEPC, Fire dept HazMat response plan
Stormwater Management Plan	No	Not required
Transportation Plan	Yes	2018 plan
Zoning Ordinance	Yes	In process of updating



Planning, Ordinances, & Regulatory Capability	Yes/ No	 Is the plan/ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Subdivision Regulation/Ordinance	Yes	Part of development code 1. Yes, the plan is an effective measure for reducing hazard impacts. 2. Yes, the ordinance is adequately administer and enforced.
Flood Damage Prevention Ordinance	Yes	 Yes, the plan is an effective measure for reducing hazard impacts. Yes, the ordinance is adequately administer and enforced.
Floodplain Ordinance	Yes	1. Yes, the plan is an effective measure for reducing hazard impacts. 2. Yes, the ordinance is adequately administer and enforced.
Natural hazard specific ordinance (Stormwater, wildfire, etc.)	No	
National Flood Insurance Program	Yes	 Yes, the plan is an effective measure for reducing hazard impacts. Yes, the ordinance is adequately administer and enforced.
Flood insurance rate maps	Yes	1. Yes, the plan is an effective measure for reducing hazard impacts. 2. Yes, the ordinance is adequately administer and enforced.
Community Rating System	No	
Acquisition of land for open space and public recreation uses	No	The Ordinance we have are Rule and Regulation for any land/development, no matter it is by the developer or by the city, we all follow the same Rules.
Other (if any)		

How can these capabilities be expanded and improved to reduce risk?



Administrative & Technical Capability

Identify whether your community has the following administrative and technical capabilities. These include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. For smaller jurisdictions without local staff resources, if there are public resources at the next higher-level government that can provide technical assistance, indicate so in your comments.

Administration	Yes/ No	 Describe capability. Is coordination effective?
Planning Commission	Yes	The planning commission manages the incoming growth through zoning and other measures.
Planning Committee	Yes	
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	Yes, the city streets and park departments manages vegetation and debris around the City.
Mutual aid agreement(s)	Yes	Numerous mutual aid agreements exits, between the surround volunteer fire departments, the school district, TDCJ and umbrella of the state mutual aid agreement.

Staff	Yes/ No FT/ PT ¹	 Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	Yes No	1. Yes 2. Yes 3. Yes
Civil Engineer	Yes No	1. Yes 2. Yes 3. Yes
Community Planner	Yes No	1. Yes 2. Yes 3. Yes
Emergency Management	Yes NoO	1. Yes 2. Yes 3. Yes
Floodplain Administrator	Yes No	1. Yes 2. Yes 3. Yes
GIS Coordinator	Yes No	1. Yes 2. Yes 3. Yes

¹ Full-time (FT) or part-time (PT) position



Staff	Yes/ No FT/ PT ¹	 Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Grant Manager	Yes No O FT PT O	1. Yes 2. Yes 3. Yes
Local Staff who can assess community's vulnerability to hazards	Yes No O FT PT O	1. Yes 2. Yes 3. Yes
Other (if any)	inch i	

Technical	Yes/ No	 Describe capability. Has capability been used to assess/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	Yes	 Code Red System The code red system has been used in numerous emergency to broadcast information and notifications.
Hazard data and information	Yes	
Grant writing	Yes	The City of Huntsville has a grant writing position, which specializes in locating and apply for grants.
HAZUS Analysis	Yes	Provided by H-GAC
Other (if any)		
How can these capabilities	be expanded	and improved to reduce risk?
Add outdoor notificati	ions syster	ns and lightening detection system.

¹ Full-time (FT) or part-time (PT) position



Financial Capability

Identify whether your jurisdiction has access to or is eligible to use the below funding resources for hazard mitigation.

Financial	Access/ Eligibility (Yes/ No)	 Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Authority to levy Taxes for specific purposes (Such as mitigation projects)	Yes	1. Yes 2. Yes
Capital Improvement Plan/ 1- & 5-Year plan	Yes	1. Yes 2. Yes
Capital improvements project funding	Yes	1. Yes 2. Yes
Community Development Block Grant	Yes	1. Yes 2. Yes
Applied for grants in the past	Yes	1. Yes 2. Yes
Awarded a grant in the past	Yes	1. Yes 2. Yes
Gas/Electric Service Fees	No	
Stormwater Service Fees	No	Study in process by outside firm
Water/Sewer Service Fees	Yes	1. Yes 2. Yes
Development Impact Fees	No	
Impact fees for new development	No	
Incur debt through General Obligation Revenue or Special Tax Bonds	Yes	
Incur debt through private activities	No	
Other federal funding programs	Yes	1. Yes 2. Yes
State funding programs	Yes	1. Yes 2. Yes
Other (if any)		
How can these capabilities be	expanded and impro	oved to reduce risk?



Education and Outreach Capability

Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

Education and Outreach	Yes/ No	 Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non- profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. CERT Teams, Red Cross)	Yes	The police dept supports community watch programs. The fire department has volunteer firefighter program. The City / county has an active LEPC.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	The fire department has joined forces with the Texas A&M Forest Service to create a firewise program.
Natural Disaster or Safety related school programs	Yes	The local schools participate in serve weather drills
Storm Ready Certification	No	Statistics of the second se

Houston-Galveston Area Council

Hazard Mitigation Plan Worksheet Capability Assessment

Education and Outreach	Yes/ No	 Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Firewise Communities Certification	Yes	Elkins Lake subdivision
Tree City USA	No	
Public-private partnership initiatives addressing disaster-related issues	Yes	Participate in the TXWARN program
Other (if any)		
How can these capabilities b	e expanded	and improved to reduce risk?

Overall Capability	Limited/Moderate/High
Does the community have the financial resources needed to implement mitigation projects?	Moderate
Does the community have the staff/expertise to implement projects?	High
Is there community support to implement projects?	Moderate
Does the community staff have time to devote to hazard mitigation?	Moderate
How can these overall capabilities be expanded and	improved to reduce risk?



Political Capability

The local political climate must be considered in designing mitigation strategies, as it could be the most difficult hurdle to overcome in accomplishing their adoption and implementation. Hazard mitigation may not be a local priority or may conflict with or be seen as an impediment to other goals of the community.

	management)
Adapted codes are a ove	er state standards.

Capability Self-Assessment

Rate the following capability areas as "limited", "moderate", or "high" with what you perceive to be the jurisdiction's ability in implementing hazard mitigation activities.

Jurisdiction	Building Code, Permitting, and Inspections	Planning, Ordinances, & Regulatory Capability	Administrative & Technical Capability	Financial Capability	Education and Outreach Capability	Political Capability	Overall Capability
Walker County			1.0.1				
City of Huntsville	High	High	High	High	High	High	High _
City of New Waverly			-				
City of Riverside				_			L _
What are some barrie	ers to implen	nenting pro	posed mitiga	tion strategi	es?		
Funding and buy-	-in						
What mechanisms co	uld enhance	or further i	mplementat	ion of propos	sed mitigatio	n strategies?	
Funding and buy-	-in						



Walker County Multi-Jurisdictional Hazard Mitigation Plan, Kickoff Meeting NOTES

April 17, 2023

AGENDA

9:30 AM	Sign-in
10:00 AM	Welcome
10:05 AM	March Meeting Recap H-GAC staff will provide an overview of meeting notes and hazards ranked by risk, as determined by the committee at the previous meeting.
	Risk Categories H-GAC staff and attendees will be given a brief overview of risk categories for 2023 compared to those from the 2018 plan.
	Questions from last meeting
	Where are we now? H-GAC staff will discuss project timeline and next steps
10:20 AM	Capability Assessment
10:45 AM	Capability Assessment Exercise
12:00 PM	Adjourn



Walker County Multi-Jurisdictional Hazard Mitigation Plan, Kickoff Meeting NOTES

April 17, 2023

ATTENDANCE

Name	Title	Organization
Ashcroft, Amanda	H-GAC	Planner, Community & Environmental
Booker, Lonnie	Sam Houston State University	Associate Director of Emergency Mgmt
Bumpus, Dione	Walker County EMS	Administrative Assistant
Byal, Kevin	Huntsville Building Official	Building Official
Christian, Colt	Walker County Judge	County Judge
Connell, Joe	Walker County OEM	CERT Coordinator
Daniel, Dena	Huntsville Memorial Hospital	Emergency Management Coordinator
Daugette, Bill	Walker County Commissioner Pct. 3	Commissioner
Davis, Butch	Walker County OEM	Emergency Management Coordinator
Decker, Brandon	Walker County Commissioner Pct. 4	Commissioner
Fannin, Viviana	Chief Deputy	Tax Assessor/Collector Office
Hollingsworth, Lorne	Walker County SUD	Outside Operations
Humphrey, William	Walker County OEM	Planner
Jeng-Bulloch, Kathlie	Huntsville Engineer	City Engineer
Kembro, Kim	Huntsville Public Works	Public Works Assistant Director
Masiel, Sam	City of Huntsville	Deputy City Manager
Mathis, Greg	Huntsville Fire Dept	Fire Chief
McRae, Diana	Walker County Tax Assessor	Tax Assessor
Morrison, James	Walker County SUD	General Manager
Pegoda, Sherri	Walker County OEM	Deputy EMC
Plummer, Virginia	City of Riverside	Council Member
Roberts, Wade	City of Huntsville PD	Lieutenant Police Dept.
Sanders, Jason	Huntsville Risk Manager	Risk Manager
Slott, Joshua	New Waverly Fire Department	District Chief
Wilkinson, Deborah	Walker County Public Safety Comms	Director
Winningham, Adam	Huntsville OEM	Emergency Management Coordinator
Woolley, Leslie	Walker County District Clerk	District Clerk



MEETING NOTES

Welcome and Introductions

Butch Davis welcomed participants and thanked them for attending this second meeting of the Hazard Mitigation Committee for the Walker County Hazard Mitigation Plan Update. Amanda Ashcroft reviewed the meeting agenda

March Meeting Recap

Amanda went over meeting topics and discussion items from the kickoff and risk

identification/assessment meeting held in March. She reviewed results from the risk identification exercise and showed changes from the 2018 Walker County Hazard Mitigation Plan to how hazards were ranked for 2023. Overall, there were not many drastic changes. The Hazard Mitigation Committee identified 18 hazards of concern for the County. Amanda reviewed questions from last meeting and provided some clarity regarding including cyber security projects into the Hazard Mitigation Plan. Amanda presented a new project timeline. Since the risk assessment was completed at the kickoff meeting, and the capability assessment is being conducted today, we are ahead of schedule and the Hazard Mitigation Committee will not meet in May. This will allow for H-GAC staff to draft pieces of the plan and prepare materials for public outreach events occurring in June.

Capability Assessment

Amanda reviewed what a capability assessment is in relation to hazard mitigation planning, the categories of capabilities that fall within the capability assessment, and why this process is important to hazard mitigation planning. Categories discussed were:

- 1. Prevention- Administrative or regulatory actions that influence the way land is developed and buildings are built. Examples include planning & zoning, building codes, open space preservation, and floodplain regulations.
- 2. Property Protection- Modification or removal of existing buildings to protect them from a hazard. Examples include purchase, relocation, raised elevation, and structural retrofits.
- 3. Natural Resource Protection- Preservation or restoration of the functions of natural systems while minimizing hazard losses. Examples include floodplain protection, forest management, and slope stabilization.
- 4. Structural Projects- Modification of the natural conditions for or progression of a hazard. Examples include dams, levees, seawalls, detention/retention basins, channel modification, retaining walls, and storm sewers.
- 5. Emergency Services- Protection of people and property during and immediately after a hazard event. Examples include warning systems, evacuation planning, emergency response training, and protection of emergency facilities.
- 6. Public Education and Awareness- Informing of citizens about hazards and the techniques they can use to protect themselves and their property. Examples include outreach, school education, library materials, and demonstration events.

Public & Stakeholder Online Survey

Amanda discussed the development of an online survey component for the plan update. H-GAC staff are working on building and making the survey live for public input soon. When the survey is live a link will be sent out to the Hazard Mitigation Committee to share.



Next Steps

Amanda outlined next steps for the local planning team and members of the hazard mitigation planning committee. Committee members should provide their completed capability assessment forms to the local planning team- Walker County OEM Butch Davis, Sherri Pegoda, and H-GAC staff.

There will be no meeting in May 2023. There will be a public outreach event in June to garner public input on the plan and its components.

After the presentation, the Hazard Mitigation Planning Committee formed breakout groups for completing the Capability Assessment.

Meeting adjourned at 11:42 AM.

NAME	AGENCY	TITLE	EMAIL ADDRESS	CELL #	WORK #	County or Appointe	City ed	SIGNATURE
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Kembro, Kim	Huntsville Public Works	Public Works Assistant Director	kkembro@huntsvilletx.gov		936.291.5735	City	- #K	Benbu
Klawinsky, Amy	Walker County Treasurer	Treasurer	aklawinsky@co.walker.tx.us	936.662.7868		Count	ty	
(ulhavy, Aron	Huntsville Administration	City Manager	akulhavy@huntsvilletx.gov		936.291.5401	City	<u>v</u>	
(uykendall, Danny	Walker County Commissioner Pct. 1	Commissioner	dkuykendall@co.walker.tx.us	936.438.9097		Cour	nty	
amb. Trev	Huntsville Fire Dept	Assistant Fire Chief	wlamb@huntsvilletx.gov		936.291.594	3 Cir	ty	
andrum Curt	Huntsville Police Dept	Lieutenant Police Dept.	clandrum@huntsvilletx.gov		936.291.546	6 C	ity	
Addies John	City of Riverside	Mayor	riversidetx@windstream.net	936.443.603	5 936.594.2520	Co	unty	
eMaire, John	Walker County Constable Pct. 2	Constable	sloosier@co.walker.tx.us	936.438.051	6	Co	ounty	no
oosier, Shane	City of Hustmille	Deputy City Manager	smasiel@huntsvilletx.gov	.*	936-291	5469	City	1
lasiel, Sam	City of Hullisville	Fire Chief	gmathis@huntsvilletx.gov		936.291.5	944	City	-Jug That
athis, Greg	Huntsville Fire Dept	Shariff	cmcrae@co.walker.tx.us	936.435.24	00 936.577.28	45 C	County	Call
cRae, Clint	Walker County Sheriff	Siletin	dianamcrae@co.walker.tx.us	936.661.1	785		County	DAFLE
cRae, Diana	Walker County Tax Assessor	Tax Assessor	chood merco@b-pac.com	713.993.4	520		County	10
ergo, Cheryl	Houston-Galveston Area Council	Senior Manager, Community & Environmental Planning	CheryLineskole on Reserved com	936.295.4	452 936.581.2	180	County	Am
orrison. James	WalkerCounty SUD	General Manager	james@waikersud.com				County	\bigcirc
urra Sam	TDCJ	EM Project Supervisor	smurra@tdcj.texas.gov	000 504	5703		County	
irra, sam	Riverside SUD	General Manager	rnettles@riversidesud.com	936.594	5/55		County	
ttles, Robert	Construction Chariff's Department	Deputy	sosterman@co.walker.tx.us	254.495	.2202		Courty	
erman, Shane	Walker County Sherin's Department	Director	rparker@co.walker.tx.us	832.92	.7836 832.97	1.7836	County	
ker, Rachel	Walker County EMS	The second						

NAME	AGENCY	TITLE	EMAIL ADDRESS	CELL #	WORK #	County or City Appointed	SIGNATURE
Payne, Marcus	Walker County JP2	Justice of the Peace	mpayne@co.walker.tx.us	936.355.8782		County	0
Pegoda, Sherri	Walker County OEM	Deputy EMC	walkercountyoem@co.walker.tx.us	936.662.6109	936.435.8035	County	52excla
Perez, Stormy	City of Riverside	City Secretary	riversidetx@windstream.net		936.594.2520	County	\sim
Plummer, Virginia	City of Riverside	Council Member	golummer43@yahoo.com	936.581.0829		County	Juicinic Human
Ritter, Steve	Huntsville Finance	Finance Director	sritter@huntsvilletx.gov		936.291.5486	City	- 0 - 0 - 1
Roberts, Bill	Huntsville ISD	Assistant Superintendant	wcroberts@huntsville-isd.org	936.435.6300	281.684.8584	County	1
Roberts, Wade	City of Huntsville PD	Lieutenant Police Dept.	wroberts@huntsvilletx.gov	936.577.2518		City	NOS.
Rohe, Scott	Phelps SUD	General Manager	phelpswater@hotmail.com	936.295.4051	936.661.2210	County	
Sanders, Jason	Huntsville Risk Manager	Risk Manager	jsanders@huntsvilletx.gov	936.581.0841	936.291.5425	City	32
Sherrod, Brent	Huntsville Public Works	Public Works Director	bsherrod@huntsvilletx.gov		936.291.5786	City	
ilaven, Darryle	Huntsville Police Dept	Police Chief	dslaven@huntsvilletx.gov		936.291.5475	City	
ilott, Brent	City of Huntsville		bslott@huntsvilletx.gov	936.577.5643		City	
lott, Jacob	New Waverly Fire Department	Chief	slottconstruction@yahoo.com	936.661.5964		County	
mith, Dave	Good Shepherd Mission	Reverand	thegsmhtx@gmail.com	936.661.5076		County	
orensen, Tracy	Walker County Court at Law	Judge	tsorensen@co.walker.tx.us	936.661.1628		County	
ugg, Jamie	AgriLife Extension	County Extension Agent	jamle.sugg@ag.tamu.edu		936.435.2426	County	
ennant, Sonja	Walker County OEM	EM Specialist	stennant@co.walker.tx.us	936.662.4234	936.435.8035	County	
raylor, Kevin	Walker County ESD 2		kevin.traylor@wcesd2.com	936.581.2022	936.581.2022	County	
ryon, Anthony	Walker County Public Safety Comms	Assistant Director	atryon@co.walker.tx.us	936.391.7057		County	

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Walker, Ron	Texas Division of Emergency Management	District Coordinator	ronald.walker@tdem.texas.gov	936.662.3827	
Wavra, Bill	Huntsville IT Dept	IT Director	bwavra@huntsvilletx.gov		936.291.545
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White, Ronnie	Walker County Commissioner Pct. 2	Commissioner	rwhite@co.walker.tx.us	936.438.7852	
Whitecotton, Tim	Walker County Sheriff	Chief	twhitecotton@co.walker.tx.us	936.438.6580	936.435.2400
Widner, Steve	City of New Waverly	Director of Public Works	cityofnewwaverly@yahoo.com	936.577.2347	936.344.6621
Wilkinson, Deborah	Walker County Public Safety Comms	Director	dsgilbert@co.walker.tx.us	936.714.6698	936.435.8014
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Woolley, Leslie	Walker County District Clerk	District Clerk	lwoolley@co.walker.tx.us	936 661-4	420 4973
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NAME	AGENCY	TITLE	EMAIL ADDRESS	CELL #	WORK #
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Davis, Butch	Walker County OEM	EMC	walkercountyoem@co.walker.tx.us	936.577.2846	936.435.803
Decker, Brandon	Walker County Commissioner Pct. 4	Commissioner	bdecker@co.walker.tx.us	936.788.4805	
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Forsuson James	Huntsville Public Works - Water	Water Department	jferguson@huntsvilletx.gov		936.291.5762	
Figures Store	Walker County IP1	Justice of the Peace	sfisher@co.walker.tx.us	936.661.8070	_	(
Franch Kari	Walker County Clerk	County Clerk	kfrench@co.walker.tx.us	936.577.2320		
Gallagher Briana	San Jacinto River Authority	Project Manager	bgallagher@sira.net			-
Gasa Tammy	Huntsville Economic Development	Economic Development Director	tgann@huntsvilletx.gov		936.291.579	3
Hell Decel	New Waverly ISD	Superintendent	dhail@new-waverly.k12.tx.u	936.661.5260		
Hall, Darol	Hustsville Public Works - Streets	Streets Department	jherford@huntsvilletx.gov		936.291.572	22
Herford, John	Walker County Constable Brt. 3	Constable	shill@co.walker.tx.us	936.661.9256		
Hill, Steve	Walker County Constance - County	Outside Operations	lorne@walkersud.com	936.581.2182		
Hollingsworth, Lorne	Triste River Authority	COLUMN S POLY	holtonc@trinityra.org	936.661.0673		
Holton, Chad	Trinity River Authority	Admin Assist.	ahooks@co.walker.tx.us			
Hooks, Ashiyn	Walker County Road & Bridge PCL 2	Constable	ihooks@co.walker.tx.us	936.661.2259	9	
looks, John	Walker County Constable Pct. 1	Planner	wihumphrey@co.walker.tx.us	936.438.764	4 936.435.8	3035
umphrey, William	Walker County DEM	Director	aishell@co.walker.tv.us	936 994 445	6 936,436,4	704
bell, Andrew	Walker County Planning & Development	Director	alsoene convenier (A.O.)	026 202 254		C21
nes, Nate	City of New Waverly	Mayor	njames1179@icloud.com	936.203.251	16 936.344.6	621
coat, Randy	Walker County JP3	Justice of the Peace	rjeffcoat@co.walker.tx.us			
g-Bulloch Kathlie	Huntsville Engineer	City Engineer	kjengbulloch@huntsvilletx.gov		936.291	.5760

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Ma 2018	rch <i>N</i> Hazar	leeti ds Ra	ng Recap: nked by Risk	
	Risk Rating	Ranking	Hazard Name	
		1	Flooding	
	High	2	Hurricanes and Tropical Storms	
Hign	3	Wildfire		
		4	Severe Thunderstorms	
		5	Drought	
	Modorato	6	Lightning	
	Moderate	7	Excessive Heat	
		8	Hail	
		9	Winter Weather	
	Low	10	Tornado	
	LOW	11	Dam and Levee Failure	
		12	Expansive Soils	4610
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Risk	der	ntifi	cal	ion	Categorie
Hazard	Probability (P) (1, 2, 3, 4)	Severity (S) (1, 2, 4, 8)	Risk (P x S)	Ranking	
Floods	4	4	16	1	
Wildfires	4	4	16	1	
Lightning	4	2	8	3	
Hailstorms	3	2	6	4	
Tornadoes	2	8	16	1	
Severe Thunderstorms	4	2	8	3	
Erosion	4	2	8	3	
Hurricanes & Tropical Storms & Depressions	4	4	16	1	Commented [AA1]: The committee agree to add
Drought & Expansive Soils	4	4	16	1	tropical depressions to this title
Extreme Heat	4	4	16	1	Commented [AA2]: Hazard mitigation committee agreed to combine these two hazards into one.
Severe Winter Weather	4	4	16	1	1
Dam/Levee Failure	2	4	8	3	Commented [AA3]: Private dams and levees are rated
Emerging Infectious Diseases	3	4	12	2	Commented [AA4]: New hazard, Title chosen in place
Windstorms	3	4	12	2	of 'Pandemic'
Invasive Species	2	2	4	4	Commented [AA5]: New hazard
Water Quality and Quantity	4	2	8	3	Commented [AA6]: New hazard
Cyber Threats	3	4	12	2	Commented [AA7]: New hazard
Biological/Hazmat	2	4	8	3	Commented [AA8]: Amanda will look up man-made hazard inclusion benefits within the HMP.
					Commented IAAD's New Second

202	23 Ha	zarc	ls Ranked by	Risk
	Risk Rating	Ranking	Hazard Name	
		1	Floods	
		2	Hurricanes, Tropical Storms & Depressions	
		3	Wildfires	
	High 4 Tornado	Tornado		
		5	Drought & Expansive Soils	
		6	Extreme Heat	
		7	Severe Winter Weather	
		8	Emerging Infectious Diseases	
	Moderate	9	Windstorms	
		10	Cyber Threats	
		11	Severe Thunderstorms	
		12	Lightning	
		13	Erosion	
	Low	14	Dam & Levee Failure	
	LOW	15	Water Quality and Quantity	
		16	Biological/Hazmat	
		17	Hailstorms	
		18	Invasive Species	4610
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Risk Rating	Ranking	Hazard Name			
	1	Floods			
	2	Hurricanes, Tropical Storms	& Depressions		
	3	Wildfires	<		
High	4	Tornado			
	5	Drought & Expansive Soils	Risk Rating	Ranking	Hazard Name
	6	Extreme Heat		1	Elooding
	7	Severe Winter Weather			FIOUUIIIg
	8	Emerging Infectious Disease	High	2	Hurricanes and Tropical Sto
Moderate	9	Windstorms	b	3	Wildfire
	10	Cyber Threats		4	Severe Thunderstorms
	11	Severe Thunderstorms		5	Drought
	12	Lightning <		6	Lightning
	13	Erosion	Moderate	-	
Low	14	Dam & Levee Failure		7	Excessive Heat
LOW	15	Water Quality and Quantity		8	Hail
	16	Biological/Hazmat		9	Winter Weather
	17	Hailstorms		10	Tornado
	18	Invasive Species	Low	11	Dam and Laura Failura
				11	Dam and Levee Failure
				12	Expansive Soils
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	March	April	May	June	July	August	Sept.	Oct.	Nov.
Kickoff Meeting									
Risk Assessment		HAZUS							
Capability Assessment									
Public Input Workshop/ Events				#1 WE ARE HERE			#2		#3
Mitigation Action Plan Workshop									
Plan Drafting									
Review Final Draft									
Plan Adoption									
Submit Plan to									









			Added of the state
HOC HO	aza	rd	Mitigation Plan Worksheet
Houston-Galveston Area Council		C	apability Assessment
Building Code, Permitting, and Inspections	Yes/	No	1. Are codes adequately enforced?
Building Code		•	Version/Year:
Building Code Effectiveness	No	+	Score:
Grading Schedule (BCEGS) Fire department ISO rating	No		Rating:
Site plan review requirements	NU		
Other (if any)	NO	`	
other (ir any)			
	Ĩ		1. Is the plan/ordinance an effective measure for reducing
Planning, Ordinances, & Regulatory Capability	Yes/	No	hazard impacts?
Capital Improvements Plan			a to one or entitle enclosery summative and emolecut
(Regulates intrastructure in hazard areas)			
Comprehensive Plan			
Continuity of Operations Plan			

























Walker County Multi-Jurisdictional Hazard Mitigation Plan, Meeting Notes

6/20/2023

AGENDA

2:00 PM	Welcome
	Online Survey Results Recap
	Timeline H-GAC staff will discuss project timeline and next steps
	Public Engagement Event Planning
	H-GAC Website Updates
3:00 PM	Adjourn

ATTENDANCE

Name	Title	Organization
Ashcroft, Amanda	H-GAC	Planner, Community & Environmental
Davis, Butch	Walker County OEM	Emergency Management Coordinator
Mergo, Cheryl	H-GAC	Senior Manager, Community & Environmental
Pegoda, Sherri	Walker County OEM	Deputy EMC



MEETING NOTES

Online Survey Results Recap

H-GAC staff summarized and presented survey responses from the public hazard mitigation survey available online. There were over 100 responses from Walker County residents. A copy of the survey results will be included with the meeting follow-up email.

Timeline

H-GAC staff overviewed the project timeline, still currently on track.

Public Engagement Event Planning

Walker County OEM staff and H-GAC staff picked a date, time, and location for an Emergency Preparedness Fair to be hosted for stakeholders of Walker County. At the fair, participants will be able to obtain information about resources available during an emergency, participate in emergency preparedness item raffles, and provide input on hazard mitigation planning efforts.

H-GAC Website Updates

H-GAC Staff highlighted and share website updates with the local planning team.

Next Steps

Next steps were assigned to members of the local planning team. H-GAC staff will create emergency preparedness fair flyers to be sent out to the committee and shared with stakeholders on different platforms. Walker County OEM will solicit participants to host exhibitor booths at the fair and confirm the location and space are available.

Meeting adjourned at 3:00 PM.
Walker County in partnership with the City of Huntsville, City of New Waverly, City of Riverside, and H-GAC are hosting the

Walker County Emergency Preparedness Fair













Saturday, August 19, 2023 10 AM - 2 PM

EXHIBITOR BOOTHS:



Walker County Emergency Management Walker County Sheriff's Office H-GAC

Texas Animal Health Commission

Huntsville Emergency Management Huntsville Fire Department



<u>()</u>

New Waverly Fire Department

Walker County EMS

Department of State Health Services

Community Emergency Response Team Emergency Service District #2

Texas Division of Emergency Management

Animal Issues Committee and more...

Indoors, at the Walker County Storm Shelter 445 TX-75 Huntsville, TX 77320

ACTIVITIES:

Free admission & parking

Raffles for emergency preparedness items

Free hot dogs, chips and drinks^{*} ^{*While supplies last}

Hazard mitigation input

Expert knowledge in many emergency fields

Learn life saving tips and information about resources during and after an emergency.



Questions? Contact Walker County Office of Emergency Management (936) 435-8035



Walker County Emergency Preparedness Fair, Event Photos 8/19/2023

HAZARD MITIGATION 2023 WE NEED YOUR INPUT

e City of Angleton, as well as Austin. Liberty, and Walker Counties Offices of Energency Management. The goal of the azard Mitigation Plan is to reduce or eliminate long-term risk to life and property from natural hazard events. The an will analyze and identify natural and human-caused hazards the county and participating jurisdictors within them re susceptible to, and identify actions that can be implemented to reduce vulnerability and damage from these hazards. instructions: We need your input to help identify hazards you think we should prepare for and how.	The
Hace a sticker next to the TOP THREE (3) hazards you are MOST CONCERNED about below.	
CYBER THREATS	h Minis
DAM/LEVEE FAILURE	
DROUGHT & EXPANSIVE SOILS	
EARTHQUAKE	
EROSION	
EXTREME HEAT	1
FLOODS/FLOODING	
CEOLOGIC (LANDSLIDE, SINKHOLES, SUBSIDENCE)	-
HAZMAT/BIOLOGICAL SPILL	
TROPICAL STORM, OR TROPICAL DEPRESSION	
INVASIVE SPECIES	-
PANDEMIC (EMERCING INFECTIOUS DISEASES)	-
SEVERE WEATHER THUNDERSTORM, HAILSTORM, LICHTNING)	-
SEVERE WINTER WEATHER (BLIZZARD, HEAVY SNOW, ICE)	-
SEA LEVEL RISE	
TORNADO	
WATER QUALITY AND QUANITY	_
WILDFIRE	
WINDSTORM	20
OTHER (PLEASE SPECIFY)	T







WALKER COUNTY- HAZARD MITIGATION PLAN UPDATE EMAIL SIGN UP SHEET



JOIN OUR MAILING LIST

Sign up to receive future updates and information~

regarding the plan update, feedback, future meetings, and more!

First Name	Last Name	Email Address
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Christine	Repler	C. Kepler C. yahoo 20 m
Gwendolen	Roberts	quendolenstanley@yahos.com
LISA	PLACE	LPLACKE@ YAttob. Com
Umje	Hurst	amic beadles 9622 a gmail com
Ada	Rodriguez	3ada9a@gmai).com
Michalls	Escobedo	jescobedo 1229 (3 hotmail . com
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harty	Woods	harly ewoods a patro. com
Madilehe	Loosier	mloosier@hotmail.com
B. British British		
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2023 Multijurisdictional Hazard Mitigation Plan Update

Meeting #3: Public Engagement Planning



Houston-Galveston Area Council

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Housekeeping notes for today

If you wish to comment or ask a question there are 2 ways to do this:

1. For everyone (whether or not you have a microphone) you can use the chat box at the right hand side of your screen if you're on desktop. Please use this to comment or pose questions while the speaker is talking.



2. If you want to ask a question or make a comment using your microphone, please use the "Raise Hand" function. This is the button on the toolbar that looks like a hand icon. Once you have raised your hand please wait for the chair to ask you to unmute your microphone. Once you have spoken, please click the hand icon again to lower your hand.

Avoid these things:

1. Please ensure your microphone is muted through the meeting unless you are talking.

2. Please avoid hitting the icon that looks like a box with an arrow pointing into it (next to the microphone icon) – this will share your screen with everyone and remove the presenter's slides from view.





Houston-Galveston Area Council

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Meeting Agenda

Welcome

- Recap Online Survey Results
- Timeline
- Public Engagement Planning
- H-GAC Website Updates



Houston-Galveston Area Council

Online Survey Results

125 responses

- Lots of good feedback
- Survey is still open
 - When do we want to close the survey to new responses?

-SURVEY RESPONSE REVIEW-



Houston-Galveston Area Council

Updated Project Timeline

	March	April	May	June	July	August	Sept.	Oct.	Nov.
Kickoff Meeting									
Risk Assessment		HAZUS							
Capability Assessment									
Public Input Workshop/ Events				#1 WE ARE HERE			#2		#3
Mitigation Action Plan Workshop									
Plan Drafting									
Review Final Draft									
Plan Adoption									
Submit Plan to State & FEMA									

Public Engagement Event

Location

- Walker County Storm Shelter
- Date
 - Dependent on availability of venue
- Time
 - ?
- Format
 - 2-hour Public Meeting?
 - ½ or all-day pop-in event?



Houston-Galveston Area Council



H-GAC Website Updates

Hazard Mitigation Planning

The H-GAC region is susceptible to a range of natural disasters like flooding, tornadoes, drought, and wildfires. Hazard mitigation is the use of long- and short-term strategies (such as planning, policy changes, programs, projects, and other activities) to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. While we cannot eliminate the threat of disasters, sound planning, collaboration, and preemptive action can help minimize their impacts.

FEMA requires every locality to maintain a hazard mitigation plan that examines the risk and impact of natural disasters and provides strategies for reducing impacts to people and property. A Hazard Mitigation Plan must be updated every 5 years to ensure relevancy and continued support from FEMA for its mitigation projects.

H-GAC has helped several counties develop or update their hazard mitigation plans, ensuring that participating communities are eligible for FEMA mitigation funding. H-GAC is committed to working with local governments to ensure that the region is as prepared as possible. Previous and current hazard mitigation work can be found below.

Hazard Mitigation Plans



Hazard Mitigation Planning

Contact Information

Would you like to contact us about this topic Please contact:

Amanda Ashcroft Amanda.Ashcroft@h-gac.com 713-993-4545

h-gac.com

Contact Information

Amanda Ashcroft, AICP Planner, Community & Environmental Houston-Galveston Area Council Amanda.Ashcroft@h-gac.com 713-993-4545



Houston-Galveston Area Council



Walker County Multi-Jurisdictional Hazard Mitigation Plan, Meeting Notes

11/15/2023

	AGENDA
11:00 AM	Welcome, Introductions, and Sign-in
11:10 AM	Survey, Data, and Mapping Updates
	Plan Goals Discussion
	Plan Maintenance Procedures
	Mitigation Action Plans
	H-GAC staff will discuss the components of the mitigation action plan, project categories, ideas, plan goals, and plan maintenance procedures.
	Next Steps
	H-GAC staff will discuss the project timeline and next steps.
	Q&A
12:00 PM	Adjourn

ATTENDANCE

Name	Organization	Title
Amanda Ashcroft	Planner, Community & Environmental	H-GAC
Bill Daugette	Walker County Commissioner Pct. 3	Commissioner
Butch Davis	Walker County OEM	Emergency Management Coordinator
Sherri Pegoda	Walker County OEM	Emergency Management Coordinator
Adam Winningham	Huntsville OEM	Emergency Management Coordinator



MEETING NOTES

Survey, Data, and Mapping Updates

H-GAC staff and hazard mitigation committee members discussed the online survey final results. The survey was open for responses beginning May 2023 and was heavily advertised at outreach events and through county and city websites. Walker County had a total of 125 responses. H-GAC staff presented 8 maps developed for the Hazard Mitigation Plan. These maps were reviewed extensively by those in attendance. Map changes requested by the committee were notated, corrected maps will be presented at the next meeting. A PDF of all maps and survey data will also be added to the Walker County external HMP SharePoint site.

Plan Goals Discussion & Plan Maintenance Procedures

The hazard mitigation committee discussed plan maintenance procedure from the 2017 plan. The hazard mitigation committee and H-GAC staff then discussed updated plan maintenance procedures. The plan goals were provided as a PDF with meeting notes as the committee forgot to review them at the meeting.

Mitigation Action Plans

H-GAC staff discussed the components of the mitigation action plan, mitigation action project categories, ideas (including resources and where to find them). H-GAC staff also gave information regarding the mitigation strategy. These are the projects or actions to reduce the impacts of the hazards of concern on the community. There are 4 main categories for these actions. Plans and Regulations, Structure and Infrastructure Studies and Projects, Natural Systems Protection Studies and Projects, and Education and Awareness. Staff emphasized how the risk assessment, capability assessment, and feedback from stakeholders all work together to help inform the mitigation strategy.

Next Steps

H-GAC staff highlighted resources and discussed the benefit cost analysis tool through FEMA, including when it would be required for use. H-GAC staff and the hazard mitigation committee then discussed next steps which included the online form for action item submittal, including or updating projects from 2017, individual meetings if jurisdictions need assistance with the online form or action items, etc.

Meeting adjourned at 11:35 AM.

2023 Multijurisdictional Hazard Mitigation Plan Update

Meeting #4: Our Mitigation Strategy (Goals, Actions and the Action Plan)



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Meeting Agenda

Welcome, Introductions, and Sign-in

Survey, Data, and Mapping Updates

Plan Goals Discussion

Plan Maintenance Procedures

Mitigation Action Plans

Next Steps

Q&A



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Visualizing Risk

Survey: Closed on 10/31/2023

- Open for 5 months
- 125 responses

Today: Reviewing maps

- \circ Floodplain
- Population Distribution
- Wildfire Risk
- Vulnerable Population (and Social Vulnerability Index)
- What changes do you want to see?

Are there any corrections that need to be made?



Mitigation Strategy

- What is it?
 - Often referred to in many forms, such as: Mitigation Action Plan, Action Plan, Mitigation Projects, Mitigation Initiatives, Mitigation Actions
 - The mitigation strategy include goals, actions, and the action plan (including plan maintenance).



Plan Goals

- C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards?
 - (Requirement 44 CFR § 201.6(c)(3)(i))

C3-a. Does the plan include goals to reduce the risk from the hazards identified in the plan?



Our Plan Goals (2017)

Mission Statement

The HMAP aims to implement new policies, programs, and projects to reduce the risks and impacts associated with natural hazards, including public education and partnerships between local officials and residents.

Mitigation Goals

Based on the planning process and the vulnerability assessment, the planning team developed the following goals and objectives. The goals and objectives explain what is to be achieved through implementing the HMAP. These goals and objectives work with the mitigation actions to outline what the county aims to accomplish in the next five years.

- Goal- Reduce the loss of life and personal and public property due to natural hazards
 - **Objective:** Develop and implement educational programs for residents and government officials addressing the importance of county mitigation projects and the need to incorporate new and improve existing local ordinances
 - **Objective:** Collaborate with public and private partners throughout the county to create and implement local ordinances and county level programs that act to minimize effects of hazards
- Goal- Improve drainage throughout the county to reduce the impact of flooding and erosion on residents and structures
 - Objective: Acquire property within the 100 and 500-year floodplain throughout the county to reduce the impact of flooding
 - Objective: Widen existing culverts and create additional ditches and drainage ponds throughout the coupty



Plan Goals Update (ideas)

- Educate citizens regarding emergency situations related to hazards.
- Develop publications and educational information on all hazards that is easily accessible to all within Walker County.
- Promote the use of emergency notification systems and weather alerts for all hazards.
- Decrease the risk to life and property from hazards through planning, preparation, and mitigation.
- Develop policies and strategies to effectively manage and reduce risk.
- Increase the resiliency of Walker County through projects and strategies that reduce the impacts of hazards.
- Enhance coordination between local jurisdictions, county, state, and federal agencies.
- Support the continuity of operations before, during, and after hazard events.
- Incorporate hazard mitigation into community planning such as codes/ordinances, day-to-day operations, and projects.
- Identify, protect, and assist socially vulnerable populations recovery from hazard impacts.



Plan Goals- Discussion



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Plan Maintenance

- D1. Is there discussion of how each community will continue public participation in the plan maintenance process?
 - (Requirement 44 CFR § 201.6(c)(4)(iii))
- D1-a. The plan must describe how the participant(s) will continue to seek public participation after the plan has been approved and during the plan's implementation, monitoring, and evaluation.

 D2-a. The plan must identify how, when and by whom the plan will be tracked for implementation over its five-year cycle (monitoring).



Plan Maintenance- Discussion



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Mitigation Actions

4 Main categories

- Local Planning and Regulations
- Structure and Infrastructure (Studies and Projects)
- Natural Systems Protection (Studies and Projects)
- Education and Awareness Programs



How Do I Draft Actions?

Start with reviewing actions from the last plan

Include actins that will be carried over

Identify problems

- Review stakeholder input from surveys and events
- Review risk and capability assessments
- Review vulnerable areas
 - **RL/SRL properties**
 - Stormwater/urban flooding areas
 - Critical facilities and lifelines located in hazard areas

Ask for help

• We are here as a resource!



Mitigation Actions Cont.

- Show a clear connection between vulnerability and proposed mitigation actions.
- The capability assessment provides insight into challenges and opportunities for the mitigation strategy.



Area Council

Updates

Projects from the last plan update

- If a project from the 2017/2018 Walker County HMP is not finished and is still a priority, You SHOULD include it in the 2023 HMP Update!
- Each Hazard of Concern requires a minimum of 2 mitigation actions
 - Don't forget: 1 mitigation action can cover multiple hazards and multiple jurisdictions
 - Example: Educational Programs



How Do I Draft Actions?

Start with reviewing actions from the last plan

Include actins that will be carried over

Identify problems

- Review stakeholder input from surveys and events
- Review risk and capability assessments
- Review vulnerable areas
 - **RL/SRL properties**
 - Stormwater/urban flooding areas
 - Critical facilities and lifelines located in hazard areas

Ask for help

• We are here as a resource!



Action Item Submittal

https://form.jotform.com/233177216771963

- Similar to 2017 form
- Resources as hyperlinks within the form
- Questions? Reach out to Amanda!



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- <u>Disaster Resilient Design Concepts</u> (Feb 2023)
 <u>More resources from EPA & FEMA here.</u>
- <u>AARP Disaster Resilience Tool Kit</u> (English),
 <u>Descargar: Guía para el desarrollo de resiliencia ante desastres, de AARP</u> (Spanish)
- FEMA Mitigation Ideas (Jan 2013)



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Benefit Cost Analysis

RESOURCES:

- FEMA Benefit-Cost Analysis
- FEMA Streamlined Benefit-Cost Analysis



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- Online form for action item submission
- Plan Drafting (cont.)
- Individual meetings with jurisdictions to review actions



Houston-Galveston Area Council

Contact Information

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Appendix E

SURVEY RESULTS

Walker County Hazard Mitigation Plan Update, 2024

Hazard Mitigation Plan Public Survey

Walker County Results

Are you responding on behalf of a residential or commercial property?

124 Responses

Residential 92% 114 10 Commercial 8%

🔵 Residential 🛑 Commercial

In which county or city is the residential or commercial property located?



In what city is the property located?

Data	Responses
Huntsville	99
Walker County	8
Riverside	9
New Waverly	7
Bedias	1
Trinity	1
Phelps	1

What is the zip code for the property?

Data	Responses
77320	60
77340	52
77358	7
77367	4
77831	2
75862	1

Do you own or rent your place of residence/business?

122 Responses Own 93% 113 9 Rent 7%



Which of the following best defines your role in the community?

Data	Response	%
Resident	86	68%
Government Employee	17	13%
Landowner	15	12%
Business Owner	4	3%
Elected Official	3	2%
Neighboring EMC	1	1%

Hazard Mitigation Plan Survey

In the past 5 years, have you been affected by the hazards listed below? (Responses shown for those who selected YES & Highly Concerned)



In the past 5 years, have you been affected by the hazards listed below? (Responses shown for those who selected YES & Concerned)



In the past 5 years, have you been affected by the hazards listed below? (Responses shown for those who selected YES & NOT Concerned)



126 Responses

Climate Change (other than sea level rise) Pandemic (Emerging Infectious Diseases) **Drought & Expansive Soils** Severe Winter Weather (blizzard, heavy snow, ice) Hurricane, Tropical Storm, or Tropical Depression Water Quality and Quantity Severe Weather (thunderstorm, hailstorm, lightning)



*Please specify the "other" hazard for which you have a concern if indicated above.

Data	Responses
School Safety	1
Power outages	1
Hazardous burn pit operating next to my property.	1
Tornado with very high winds	1
Crime	1
I love our country but I fear our government!	1
Sandy loam running out of Sandy Creek into Lake Conroe	1
Power/electric grid failure.	1
environmental	1
Wild hog population	1
Uneducated general public	1
Hazard spill from trave accident on IH 45 in Huntsville	1
Democrats and their agendas	1
Feral hogs rooting up our property and the increase in litters	1

In the past 5 years, has your home or business been damaged by a hazard event? (Ex: pipes freezing during periods of cold temperatures, flooding of your home/business, tornado damage to your property, etc.)



Please describe any relevant details such as the date of occurrence, duration, area affected (e.g., yard, building, roof), etc.

Pipe damage, foundation problems from erosion, roof damage from high winds	1	•
Feb 2021 3 days without power frozen pipes one which burst and have to take shelter in our cars for warmth	1	
Flood damage, wind damage, freeze damage, hail damage,	1	
Neighborhood rat infestation in buildings and yards 5/20-7/21 Pipes burst 3/21 Low water pressure due to water main crack 3/21-7/22 Hail damage to house and yard- 1/23	1	
Yard, fence high winds/ tornado	1	
4roofs hail 3 houses frozen pipes	1	
Quick moving high wind event in 2018 and 2023. Falling trees damaged residence and vehicle.	1	
One of two slight leaks from frozen pipes due to low temps and power failure	1	
2018 Hail Replaced 3300 sq ft mueller metal roof \$10k damage to vehicle 2020 Freeze burst pipes and dead wildlife	1	
Frozen pipes from sever cold weather and hail damage to auto and roof I don't recall the dates somewhere around 2020	1	
Hail damage requiring a new roof - 4/2020 Frozen pipes during winter weather event - 2/2021	1	
Pipes frozen during freeze and broke, high winds and storms broke and uprooted trees, driveway erosion from heavy rains	1	
Home floods during heavy thunderstorms. Surging storm drain floods the street and because of poor street drainage, the water pours over the curb into my yard and house. Additionally, water from other areas of the subdivision pour down the streets and overflow curbs creating a flash flood situation. Flooding submerges a high voltage Entergy box causing a possible electrical hazard. This situation has been occurring for 20+ years but has become progressively worse due to development which has altered the natural topography and natural drainage.	1	

Please describe any relevant details such as the date of occurrence, duration, area affected (e.g., yard, building, roof), etc.

Some water pipes cracked in the hard February freeze in 2022. A tree fell on our gate in a wind storm and damaged the opener and solar panel. We've sustained damage from feral hogs	1	-
Pipes burst when our heat light burnt out in the middle of the night during the freeze. We had to catch water & snow from the roof.	1	
Broken, frozen pipes in 2021	1	
Winter long freeze broken pipes; in home, outbuilding with water softener, no power for several days.	1	
Severe freeze 4 degrees froze water pipes	1	
During the Ice storm in 2021, we were without electricity for a week and without water for 3 days. We eventually had to leave our home.	1	
Frozen pipes	1	
Roof 2018 tornado, tree through roof. Misc. damage to other fixtures on property. (barn, work shop, patio, roof, and home)	1	
February 2021 Freeze - pipes	1	
2/21 busted pipes again in 2023 bites pipes , large dead oak trees	1	
2021 URI freeze-damage to multiple buildings and water system. 2022 cyber attack. 2023 hail storm- vehicles and roof	1	
Bad flooding!!! and erosion every time we have heavy rain, have had severe repairs from wind damage, and hard freeze on winter left without electricity or water.	1	
A few days without power, roof damage	1	
Frozen pipes after loss of power. Resulted in water damage in house.	1	

Please describe any relevant details such as the date of occurrence, duration, area affected (e.g., yard, building, roof), etc.		
76 Responses		
January 2022, Frozen pipes for 5 days	1	
Frozen pipe stopped services to community for one day. Water seepage concerning mold, mildew and rot to structure.	1	
Hail, wind damage	1	
Water well.	1	
Frozen Pipes	1	
Tornado in March 2018. All roofs, some garage doors and significant structural damage to house. Also loss of electrical service for an extended time from loss of wiring, transformers, etc. Major loss to yard trees and pine plantations.	1	
Pipes burst during freeze early 2021.	1	
Feb 2021 (not sure of the date) big winter storm, had no electricity for days, pipes burst, had to pay over \$1,000 in plumbing costs, and had to pay to get water well fixed, still have Sheetrock damage as a result	1	
2021, 2022; tree and landscape damage from winter weather events.	1	
Pipe in ceiling burst	1	
Hail damage	1	
Lightning strike (loss of electrical system and tv) Hurricane (extended flooding due to Harvey) Tornado (some tree damage and one house)	1	
2018 Hail damage to roof, windows, gutters, vehicles 2/2021 freeze, loss of power for days 2020-2022- global pandemic, isolation Summer 2022- extreme heat & drought caused loss of several trees	1	
Siding, awning, trees	1	

Please describe any relevant details such as the date of occurrence, duration, area affected (e.g., yard, building, roof), etc.		
76 Responses		
broken water line during freeze (02/21) and tree fell on vehicle during high winds (04/20)	1	•
Hail damage to home. Not sure of the date but was approximately 4 years	1	
Tree branch damaged the roof due to tornado caused us to get a new roof. High water onto the front porch but was speared from it entering the house caused us to install a french drain to reroute water around the property.	1	
Frozen pipes in Winter of 2021. I have replaced a couple of residential roofs due to hail storms	1	
Busted pipes due to freezing weather. Lost trees due to drought to flood conditions.	1	
The moisture level around my house is high. This is due to runoff from drainage issues from the Cities infrastructure and the lay of the land. This on top of high level of rain events and droughts where there is no rain has led to issues with my home that I am always combating.	1	
Freeing Pipes (Texas Winter Storm 2021)	1	
winter storm uri, wind damage and flood damage to county buildings	1	
Burst water pipes 2022, frozen landscaping plants and grass 2022, hail damaged roof	1	
Roof damage by hail.	1	_
Heavy freezing last year and 4 years ago. Flooding during hurricane Harvie.	1	
During the snowstorm in February of 2018 we were without power, in below freezing temperatures for 5 full days. No meaningful communication from the county or Entergy.	1	
Frozen pipes 2 years, Harvey flood in the house.	1	
February 2021. Frozen pipes and flooding of home when thawed.	1	

Hazard Mitigation Plan Survey

Please describe any relevant details such as the date of occurrence, duration, area affected (e.g., yard, building, roof), etc.

winter storm un, wind damage and nood damage to county buildings	1	
Burst water pipes 2022, frozen landscaping plants and grass 2022, hail damaged roof	1	
Roof damage by hail.	1	
Heavy freezing last year and 4 years ago. Flooding during hurricane Harvie.	1	
During the snowstorm in February of 2018 we were without power, in below freezing temperatures for 5 full days. No meaningful communication from the county or Entergy.	1	
Frozen pipes 2 years, Harvey flood in the house.	1	
February 2021. Frozen pipes and flooding of home when thawed.	1	
Freeze pipes, downed trees	1	
frozen pipes and lose of electricity in 2021 and 2023. Hail damage in 2023.	1	
February 2021, frozen pipes, no elericity, no uncontaminated water	1	
02/2021 pipes froze and 1 burst. 12/24/2022 pipe froze and burst. 01/2023 hail damage to roof.	1	
Wind and Hail damage 2018 \$70,000 in damage between roof windows doors gutters	1	
Winter storm, February 2021. All pipes froze under the house froze (even with dripping faucets) and had to be replaced. We were without water for 5 days.	1	- 1
Pipes burst after Winter Storm Uri, flooding my apartment. Was without reliable water pressure for 5 months after apartment was below freezing and without power for days	1	
the snow storm a couple years ago without water and power for days	1	

Did you report the damages to your local police or fire departments or to an emergency management agency?



Is your property about the same, less, or more prone to flooding now than it was 5 years ago?

125 Responses

About the same 76% 95 11 Less 9% 19 More 15%

About the same More Less

To the best of your knowledge, is your property located in a designated floodplain or special flood hazard area?

125 Responses



🔵 No 🛑 Yes 🛑 I don't know

Do you have flood insurance through the National Flood Insurance Program?

124 Responses

No 85% 105 19 Yes 15%

🔵 No 🛑 Yes



If you do not have flood insurance, please select the reasons that may apply.

Property is not in a floodplain or special flood hazard area 🛑 I feel my property is "High and Dry" 🛑 Have never considered carrying flood insurance 🕚 Other entries

Have you taken any actions to make your home or community more resilient to hazards?



Please specify what actions you have taken to make your home or community more resilient to hazards?

Data	Responses
Home: detailed emergency preparedness. Community: member of Community Emergency Response Team (CERT).	1
We purchased a small generator, have an emergency supply of food that doesn't need fuel to cook. We keep a supply of water on hand with blankets and emergency supplies in case of outage. We put a new roof on our home and added more insulation. We made some changes in our landscaping to help drain our yard when we experience heavy rains.	1
we have a generator to support critical home needs	1
When we bought our land we did a lot of grade work, and continue to maintain our land so that water flows to the lake without causing flooding.	1
Removed large trees.	1
We have retention walls	1
Home generator due to repeat loss of power	1
Dug a French drain, use water absorbing barriers,	1
Created areas for water to run off. Reported when trees were a danger to power lines. Maintained landscaping. Invested in better windows. Sealed home.	1
Generator	1
Removing trees that are within the fall zone of my house.	1
Keep pasture edges clear of brush and debris for defensive space	1

Please specify what actions you have taken to make your home or community more resilient to hazards?

Replaced pipes with pex and insulation	1	-
Built cinder block wall around storm drain that surges, but it has collapsed several times due to the volume and force of the water. Boards and cinder blocks line the front of my property, but they too have washed away due to the force of the flash flood.	1	
Fire: the house is made of metal, put screen around perimeter of porch and cut down trees in a wider ring around the compound. Freeze: insulated the exterior pipes for the first flush on the water tanks, added additional insulation to the exterior wall of the guest house where a freeze burst had occurred, insulated the pump house. Lightening: the metal garage took a strike and popped all the circuit breakers, so we installed a lightening rod Power: we are off grid but added more panels and additional battery storage due to the unusually high number of cloudy days and the Saharan Dust. Water issues: we installed two 5000 gallon tanks for household use and a 1000 gallon tank for the garden. No problems.	1	
French drains installed	1	
Trees removed, property cleaned up all thing wind and waterproofed.	1	
Defensible space.	1	
trees cut down close to house	1	
Replacing copper pipes when they burst with pex pipe	1	
Cut the fire line back away from the structure	1	
Maintain foundations.	1	
The City is constantly doing projects to reduce chances of hazards from a variety of sources. We spend millions of dollars a year doing so.	1	
New fencing Insulation Tree clearing Some gravel Relocating farm animals	1	-

Hazard Mitigation Plan Survey

Please specify what actions you have taken to make your home or community more resilient to hazards?	
56 Responses	
Insulation in attic, Insulation around pipes, maintenance on equipment	1
Remove debris blocking run off. Remove fallen trees to repair fencing.(this is major challenge currently) Improve rain drainage away from building.	1
Posting warning and watches on social media and preparedness information	1
Home. Pipes. Landscaping.	1
Use best management practices in forest and pastures. We have irrigation around house. Siding is cement board. Roofs are metal.	1
Drainage improvement to property	1
Whole home generator	1
Steel roof	1
I voted for the Democratic candidate in every election- local, state, national. GOP leaders are demonstrably unable to respond to, prepare for, or even be concerned with the hazards in our community. That is, unless the answer could be construed as "more guns".	1
Had heavy duty metal roof installed on my house.	1
Metal roof to protect against wind and hail	1
Lanscaping	1
storm windows, french drain, cut tops of trees out, a generator	1
Solar panels will be installed soon	1

Please specify what actions you have taken to make your home or community more resilient to hazards?

I have installed a French drain system to move the water out and down, away from the house towards the culvert area and the cities drainage area. I have also tried to fill in all low areas that were damaged by runoff from the city's streets and build up the natural drainage area back to what it was originally like before the runoff issues. The restoration helped a little but did not fix the problem, the runoff is so much that we have to fix the problems after every hard rain cycle.	1
Clean gutters, clean ditches, inspect roof,	1
glycol added to chill water systems for freeze protection, soil removal/moving to allay flooding	1
Back up generator	1
Fire Wise Community	1
Had the house re-plumbed. Replaced all the copper pipes with plex pipe.	1
Upgraded insulation to piping, purchased a generator.	1
Adding gutters, downspouts. Serious monitoring of these as well as our French drain for blockages which might cause flooding. Addition of a fence to "corral" runoff.	1
Trenches, anchor walls and roof	1
Keep brush away from home	1
Purchased and installed NOAA All Hazards Radios in the first and second story.	1
Cleared 20' around house	1
Cleared underbrush	1

Please specify what actions you have taken to make your home or community more resilient to hazards?		
56 Responses		
Fire Wise Community	1	
Had the house re-plumbed. Replaced all the copper pipes with plex pipe.	1	
Upgraded insulation to piping, purchased a generator.	1	
Adding gutters, downspouts. Serious monitoring of these as well as our French drain for blockages which might cause flooding. Addition of a fence to "corral" runoff.	1	
Trenches, anchor walls and roof	1	
Keep brush away from home	1	
Purchased and installed NOAA All Hazards Radios in the first and second story.	1	
Cleared 20' around house	1	
Cleared underbrush	1	
Drains, swales and retaining walls	1	
insulated water pipes. would purchase natural gas generator but can't afford it - elderly retired.	1	
Bought a generater and portable heaters, bottled water on hand, purchased tent, sleeping bag, pellet camp stove, started storing food that doesnt need cooking.	1	
PVC pipe was removed. Galvanized pipe was replaced with pex. About to replace shingles with "architectural" shingles.	1	
Have aided residents in following the building plans for building in flood plains. Have worked to aid residents in drainage issues.	1	

Please identify any specific vulnerabilities that you are aware of in your community/city/county (e.g., flood-prone areas or properties, critical facilities that lack a backup power source, etc.) List street names and other specific location identifiers if possible.

Data	Responses
flood-prone area near the Trinity River and Bedias Creek.	1
Power outages are too numerous in Elkins Lake, Huntsville.	1
Power lines are an issue	1
New single-home development at end of y street (Wellington Drive) has caused major erosion, silt overruns in sewers, flood damage, etc. State Environmental office has investigated. Development is called The Woods at Elkins Lake.	1
Wesley Grove W - ditches not proposed dredged Hwy 30 W- flooding due to ditches and drains not cleaned	1
Power loss of my home. I can't afford a generator.	1
No facilities were available while my power was down. I live on Royal Oaks Street in Huntsville.	1
Lack of drainage, over flow of pond drains between Sleepy Hollow Cir and Holly Springs. This causes lots of erosion in my backyard that has led to foundation problems	1
Elkins Lake area. Street flooding, power loss, homes being built in areas subject to potential flooding or blocking lanes of water run off	1
I live at the bottom of the small avenues hill between the duck pond and 45. All the water runs down hill and into my house.	1
Poor maintenance of power lines throughout town. Allows overgrowth and invasive species to take over- George Russel's properties and Smither park Lacks a TNR program to keep cat populations in control. This invasive species destroys the natural ecosystem and spreads ticks and fleas into yards. Sam Houston State University floods every time it rains. Drainage does not get cleared to allow rain to go down. University does not have water run off for sidewalks.	1

Please identify any specific vulnerabilities that you are aware of in your community/city/county (e.g., flood-prone areas or properties, critical facilities that lack a backup power source, etc.) List street names and other specific location identifiers if possible.

Need tornado sirens	1	-
More businesses need backup power	1	
Wild fire risk through out the rural areas of the county.	1	
Water and electricity loss due to severe weather, cold, storms	1	
Flooding occurs at 2156 and 2157 Greentree Dr., Huntsville, TX. Street drainage from Wheatstone Dr., Bershire Dr., and possibly Groveshire Dr. flows downhill, to Wheatstone cul-du-sac, jumps the curb through the property at or near 2132 Wheatstone through the lot at 2157 Greentree Dr., floods Greentree which then overflows into the property at 2157 Greentree Dr. It also submerges both an Entergy high voltage electrical box and a Sudden Link box. Heavy debris flows with the water and is dumped at 2157 Greentree along with snakes and roaches, etc.	1	
All of Riverside, Trinity, Onalaska, Livingston, and other communities surrounding Lake Livingston are under boil water notices more and more often for longer durations. Also, wells are going brackish. We chose to rely 100% on purified rain water and it has been the right choice. We have 11,000 gallons of storage capacity for home and gardens and we've never come close to running out, even in the drought. City and county buildings should look into this option. After the initial capital outlay there is very little operating cost.	1	
We live on 75 & our house is dry but our land is saturated when it rains. The country is currently working to help the flow, but I've seen zero improvement. The water has gone over 75 just north of 2798, causing the road to be closed (twice) since we've lived here. I feel bad for my neighbors. Their property at 75 & 2798 flash floods too	1	
Beginning of main street floods significantly	1	
Vulnerable to loss of power, and extreme cold. Lake Kingston Heights subdivision in Riverside.	1	
Hospital lacks sufficient emergency backup power source.	1	,

Hazard Mitigation Plan Survey

Please identify any specific vulnerabilities that you are aware of in your community/city/county (e.g., flood-prone areas or properties, critical facilities that lack a backup power source, etc.) List street names and other specific location identifiers if possible.

Woodland Drive due to county placing large culvert under roadway this area tends to not drain properly and few times has come over the roadway.	1	•
Rising creek water flooding my property Ranch acres dr Huntsville 77340	1	
The area close floods fairly frequently.	1	
Too many to list. All are included in the current hazard mitigation plan.	1	
Fm1791 constantly flooding Walker Loop	1	
Bowden Road in Walker Co. was mostly paved in Precinct 2 15 years ago. It has not been maintained and is now a dirt road. It floods over the bridge at Robinson Creek and is extremely narrow for schoolbus travel. Many years ago the school bus went off the road when the creek flooded and the kids had to be rescued. It is a very hazardous road.	1	
Town creek is silting filled. Community of Riverside is very vulnerable. Good Shepherd Mission needs natural gas generator due to 61 beds and feeding site and food bank.	1	
Lack of notification at the county level, no sirens for storms	1	
New neighborhoods cause running water flow through our creek. 1375 west from Waverly place over 1375 to Dana and Hostetter Rd. Thanks	1	
Elkins Lake area floods often when it rains but it usually will go down fairly quick.	1	
I live on acreage outside of the Huntsville city limits but within 2 miles, surrounded by national forest which has never been burned in the 65 years my family has lived here. If it should catch on fire not only my home but the homes of people who live in the city will possibly catch on fire.	1	
Sole local radio station has no backup power source	1	

Please identify any specific vulnerabilities that you are aware of in your community/city/county (e.g., flood-prone areas or properties, critical facilities that lack a backup power source, etc.) List street names and other specific location identifiers if possible.

Another generator needed to guarantee water during extended storm damage (Phelps Water Supply)	1	*
The Texas power grid is fragile & unreliable. The Houston/Galveston area is not hardened for severe weather/hurricanes/chemical industry infrastructure terrorism. The overflow/ migration of people/hazards from that area to Walker county will be significant in the event of disaster/terrorism.	1	
None that I know of.	1	
Elkins lake area-specifically river oaks Dr by Azaella park, as well as Greenbriar dr. By the Olympic pool.	1	
Down electrical lines	1	
I am not sure of a plan for backup power sources in my city and I am sure there are too many areas to name that have the same issues I am having with city drainage.	1	
Deep River Plantation (Walker County Precinct 3), Obannon Rd (Walker County Precinct 3), Thomas Lake Rd (Walker County Precinct 3) All flooding.	1	
102 tam road	1	
Hey 30 and 75N	1	
Sandy Creek carries sediment into our subdivision and Lake Conroe from development up steam.	1	
I live in Texas Grand Ranch which is heavily forested and surrounded by Huntsville State Park and Sam Houston National Forest making us vulnerable to wildfires.	1	
Lack of reliable power because of the Texas grid in general. Lack of reliable, safe, clean drinking water from Riverside Superior Water.	1	
Aging infrastructure in general: storm drains/sewers. Electricity poles that are right on the edge of streets are vulnerable to being hit by cars.	1	

Hazard Mitigation Plan Survey

Please identify any specific vulnerabilities that you are aware of in your community/city/county (e.g., flood-prone areas or properties, critical facilities that lack a backup power source, etc.) List street names and other specific location identifiers if possible.

Deep River Plantation (Walker County Precinct 3), Obannon Rd (Walker County Precinct 3), Thomas Lake Rd (Walker County Precinct 3) All flooding.	1	•
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Lack of reliable power because of the Texas grid in general. Lack of reliable, safe, clean drinking water from Riverside Superior Water.	1	
Aging infrastructure in general: storm drains/sewers. Electricity poles that are right on the edge of streets are vulnerable to being hit by cars.	1	
Several low areas flood some roads flood	1	
Wildwood Shores on Lake Conroe. When we lose power, we have no phone service. Our phones only work at home when connected to WiFi. We don't have a landline.	1	
Sandy Creek is a water source for Lake Conroe and which feeds into the Lake. It is pushing lots of sand into the lake and is creating islands. We believe this is partly do to the development of Texas Grand Ranch as well as the creek has lots of brush and fallen trees from drought in the National Forest.	1	
Frequent power outages. 1506 Greenbriar Dr. Huntsville, TX 77340	1	
Power grid collapsed immediately in Huntsville during winter storm and took many days to restore.	1	
Our county has flood prone areas, since there are subdivisions on the Trinity River.	1	
Which of the following categories of community assets do you believe are most susceptible to the impacts caused by hazards? Please rank the below in order of vulnerability with 1 being most vulnerable and 6 being least vulnerable. Drag and drop each category to change your order preference.

592 Responses



92 16% 17 3% 45 8% 38 6% 17 3% **50** 8% **37** 6% 42 7% 31 5% 18 3% 51 9% 25 4% 23 4% 55 9% 51 9% 00% 1: Cultural/Historic - Damage or loss of libraries, museums, fair... 0 20 40 60 80 100

Several community-wide activities can reduce our risk from hazards. In general, these activities fall into one of six broad categories. Please tell us how important you think each category below is for your community.



Very Important Somewhat Important Not Important

Natural hazards can have a significant impact on a community but planning for these events before they can occur can help lessen the impacts. The following questions will help us determine priorities of our residents regarding planning for natural hazards. Please tell us how important each of the following strategies is to you.



123 Responses

Regulatory approaches to reducing risk (policy, ordinances, etc.) Non-regulatory approaches to reducing risk A combination of both regulatory and non-regulatory approaches to reduci... Protecting private property Protecting critical facilities and community lifelines Preventing development in hazard areas (e.g., restrict building or developm... Enhance the functions of natural features (e.g., streams, wetlands) Protecting historical and cultural landmarks Protecting and reducing damages to utilities Strengthening emergency services (e.g., police, fire, EMS) Disclosing natural hazard risks during real estate transactions Improving the disaster preparedness of local schools Developing an inventory of at-risk building and infrastructure Promoting cooperation among public agencies, residents, non-profit organi... Do you have project ideas for how to protect the community from the impacts of hazards?

No 88% 107 15 Yes 12%

Please provide additional details about your project ideas for how to protect the community from the impacts of hazards.

Data	Responses
Underground power lines, flood preventions for developments	1
Community clean up projects where city and volunteers clean up overgrowth and litter in neighborhoods.	1
Utilize significant events in the area to provide scholarly output. Such as football games, and fairs on the square to reach a great audience.	1
Increase/initiate training on Ready, Set, Go program and/or similar programs with HOAs, schools, and organizations. Can partner with FDs, T&M FS to do so.	1
yes. All are included in the current hazard mitigation plan.	1
Declare Community Holidays with family activities to inform and facilitate better relationships.	1
More preparedness information, weather/emergency sirens	1
Admit climate change is real, and an imminent threat. Harden the Texas power grid. Build the IKE dike. No more housing developments/ concrete in flood plains. Spend more time developing relationships between political ideologies (compromise, perhaps) and less time demonizing trans kids & immigrants.	1
Development guidelines	1
I would take a research-based approach to any project ideas to protect the community from impacts of hazards and base all my ideas off strategies that work. With the local college being in such close vicinity there is no reason we cannot partner with scientist and scholars to come up with plans based on best available data found in research.	1
Improve roads for emergency vehicles, clean dead trees before a storm arrives, and clean ditches to provide proper drainage. Provide alternate routes for one-way entrance/exit neighborhoods. Establish a EMS facility in Walker County ESD1. Inform citizens of available reporting for damages when they occur and the importance	1

How prepared do you feel your household is to endure the impacts of natural hazard events likely to occur within your community?



In your household, have you or another member done any of the following:



Do you feel emergency services (fire, ambulance, police, hospital, etc.) are adequately prepared to deal with a disaster in your community/city/county?



🔵 Not Sure 🛑 Yes 🛑 No

Briefly explain why you feel emergency services (fire, ambulance, police, hospital, etc.) are not adequately prepared to deal with a natural disaster in your community/city/county.

Data	Responses	-
They just play, "tit for tat" as quoted by the Police Chief.	1	
Huntsville TX is not part of the modern world. I think it's trapped in the early 2000s	1	
I have not seen the city ever hold itself accountable for it's actions. I do not think if there were a true natural disaster they would be able to effectively work with emergency services for the benefit and safety of the residents.	1	
The volunteers are more ready to be seen in newspaper Their body fat composition makes themselves vulnerable to become a victim when under duress	1	
We need more police and EMS services. The rise in illegal immigration puts a strain on law enforcement and takes them away from areas where they are needed.	1	
Rural areas and not enough emergency personnel	1	
There is no access to ambulance service in Riverside. EMS has to come from Trinity or Huntsville.	1	
Mostly volunteer and rarely available.	1	
Walker County is a small, rural county with a relatively small tax base. Our emergency services are well trained; however, any major incident taxes the resources/equipment relatively quickly. The number of hazardous materials transported through the county via pipelines, IH-45, and railway is significant. Wildland fires are another area that tax resources rather quickly as well.	1	
I do not feel like the emergency services work together in this community.	1	
Do to very rapid growth and I-45 & a major east/west intersection, we need more emergency crews State Sponsored. Why not have State of Texas house and train them for this region?	1	
Services like these are not up to par with other communities like Harris county.	1	

Briefly explain why you feel emergency services (fire, ambulance, police, hospital, etc.) are not adequately prepared to deal with a natural disaster in your community/city/county.

trained; however, any major incident taxes the resources/equipment relatively quickly. The number of hazardous materials transported through the county via pipelines, IH-45, and railway is significant. Wildland fires are another area that tax resources rather quickly as well.	1
I do not feel like the emergency services work together in this community.	1
Do to very rapid growth and I-45 & a major east/west intersection, we need more emergency crews State Sponsored. Why not have State of Texas house and train them for this region?	1
Services like these are not up to par with other communities like Harris county.	1
They need more and better supplies	1
County judge not qualified to manage disaster (no experience in Anything like it, no training). Small, historically underfunded hospital system. Much of county relies on volunteer fire departments. Electric grid fragile, unreliable. Water managed by small sud. City, county, state led by people who show no interest in climate change/ disaster preparedness.	1
Fire department is under staffed and some equipment needs updating	1
We would give it our best shot with what we have. We have limited employees/volunteers and resources.	1
I don't trust the city, county, and definitely not the state to help or protect any of us because they did nothing last time	1
Our fire department is still a partially volunteer based department. The city has grown in size and population, which would impact the ability to respond adequately. A fully paid department is needed.	1
To few responders to many people	1
Volunteer Fire Department and no access to subdivision in the event of flooding. No fire hydrants.	1
we dont have enough first responders to deal with daily events much less disasters	1

How can the county or city help you become better prepared for a disaster? Check all that apply.



Provide effective emergency notifications and communication Provide community outreach regarding emergency preparedness



Provide ... Provide t... Provide c... Create a... Sell basic... Your tea... Ambulan... Store eq... Warning ... Upgrade,... Store em... Regulate... Have em... Hire mor... Purchase...

OTHER RESPONSES:

Sell basic preparedness items at wholesale cost a few times a year.

Your team needs to be better educated about science and engineering. You need to know better the areas that are prone to flooding. You need an emergency alarm (like a tornado siren.)

Ambulance service in Riverside

Store equipment for trained volunteers in key locations.

Warning system

Upgrade, prepare, and protect critical services.

Store emergency supplies in different areas of county that can be purchased in limited quantities in a disaster, or have a plan in place to limit purchases and allow each household an opportunity to buy when needed.

Regulate development, combat climate change with concrete action rather than trusting the market to regulate itself

How do you receive your information concerning a disaster? (Check all that apply)

TV News 14% Mass Notification System (ex: CodeRed) 11% 77 Social Media 18% 64 102 **Radio News** 11% 60 63 Other entries 59 11% County Website 24 10% 50 29 37 Newspaper 4% Fire, EMS, Police, 9-1-1 E-Mail/ Municipal (Ĉity) Websites 9% 7%

Of the communication methods listed, identify the top 3 methods that would be most effective for you to receive information and help to make your household, home, or business safer from disasters. (You may ONLY select 3)



Do you have any other comments, questions, or concerns regarding hazard mitigation in Walker County?

Data	Responses
Concerns regarding vulnerability of power grid	1
When people think of natural disasters they focus on weather or fire. The feral hogs are growing exponentially into a natural, or an environmental disaster. Issues of water are of growing concern to residents around the lake.	1
The storm shelter was never mentioned in the survedefinitely necessary for people in my community. Several people either live in an RV or trailer.	1
Those who are serving now do love their work and position. We need to support them and add shifts for 24-7 staffing.	1
I hope my information helps you design a plan that will benefit our residences.	1
No additionall comments. Walker County does an exceptional job of keeping its community up to date on any and all potential or actual threats.	1
The office of emergency management needs to update its social media pages for Walker County. Maybe have a person whose job it is to keep the social media and website updated.	1
I cannot stress the importance of properly educating your employees in modern science.	1
Walker county is 7th poorest county in state Walker county is also the farthest reach for HGAC and we never get our fair share like the counties surrounding Houston which are mostly direct entitlement	1
Offer grant funds to residents who flood because City will not maintain infrastructure pertaining to surgin storm drain and street flooding. I'd like to build a wall across the front of my house to block the street flooding but cost is prohibitive.	1
Most means of notification require electricity. Many people do not use social media	1
Already have a thorough hazard mitigation plan in place. Just needs a little updating. Most critical need is funding to pay for the recommended mitigation activities. Many have been on such lists for years and are just moved from one plan to the next and not addressed.	1

Hazard Mitigation Plan Survey

Do you have any other comments, questions, or concerns regarding hazard mitigation in Walker County?

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Most means of notification require electricity. Many people do not use social media	1
Already have a thorough hazard mitigation plan in place. Just needs a little updating. Most critical need is funding to pay for the recommended mitigation activities. Many have been on such lists for years and are just moved from one plan to the next and not addressed.	1
Walker county oem is slow to respond or past information. They also only post sparaticly on Facebook	1
We seem to do a good job with the resources we have.	1
Butch Davis and his team have done an outstanding job in Walker County ranging from the wildfires we had here in 2011 to the flooding of the river bottoms. As a Highway Patrol Sergeant stationed here in Walker County for 20 + years, there is no better person to run the Walker County OEM then Butch Davis and his team.	1
Concerned about the National Forest and fires. Controlled burning is done but need to clear out dead debris closer to homes where they dont burn.	1

Walker County Hazard Mitigation Plan Update 2024 Draft, Public Comment Survey

Opened: April 9, 2024 Closed: July 19, 2024



H-GAC, in partnership with Walker County, the City of Huntsville, the City of New Waverly, and the City of Riverside are pleased to post the draft 2024 Hazard Mitigation Plan update for public review and comment.

Please use this form to submit your plan review comments to the Planning Team. Providing your name and other contact information is optional, and does not obligate the Planning Team to directly reply to your comments.

Download and review the draft plan here.

Your interest and input to this planning process is appreciated. Thank you.

Full Name	Ralph Kelly
My Organization is:	General public
E-mail	ralkat2008@gmail.com
I wish to comment on	SECTION 6.1 Flooding

Please enter comment and specify page numbers (if applicable).

Flooding in Riverside harbour ground runoff no proper ditches and collapsed culverts under road

I wish to comment on

SECTION 6.11 Erosion

Please enter comment and specify page numbers (if applicable).

No proper ditches cause rain runoff to erode property of homeowners and ruin homes



H-GAC, in partnership with Walker County, the City of Huntsville, the City of New Waverly, and the City of Riverside are pleased to post the draft 2024 Hazard Mitigation Plan update for public review and comment.

Please use this form to submit your plan review comments to the Planning Team. Providing your name and other contact information is optional, and does not obligate the Planning Team to directly reply to your comments.

Download and review the draft plan here.

Your interest and input to this planning process is appreciated. Thank you.

Full Name	Tonya Charlot
My Organization is:	General Public
E-mail	tonyacharlot@icloud.com
I wish to comment on	SECTION 6: HAZARD IDENTIFICATION & RISK ANALYSIS

Please enter comment and specify page numbers (if applicable).

Does this include the county area's outside the city limits, Phelps area .

I wish to comment on

SECTION 6: HAZARD IDENTIFICATION & RISK ANALYSIS



Appendix F

PLAN ADOPTION

Walker County Hazard Mitigation Plan Update, 2024



RESOLUTION 2025-31

"Hazard Mitigation Plan for Walker County and the City of New Waverly and the City of Riverside"

- **WHEREAS,** Certain areas of Walker County are subject to periodic flooding and other natural hazards with the potential to cause damage to people's properties within the area; and
- WHEREAS, Walker County desires to prepare and mitigate for such circumstances; and
- WHEREAS, Under the Disaster Mitigation Act of 2000, the United States Federal Emergency Management Agency (FEMA) requires that local jurisdictions have in place a FEMAapproved Hazard Mitigation Action Plan as a condition of receipt of certain future Federal mitigation funding after November 1, 2004; and
- **WHEREAS,** Walker County and the City of New Waverly and the City of Riverside, in order to meet this requirement, have initiated development of a local Hazard Mitigation Plan;

NOW, THEREFORE, BE IT RESOLVED, that Walker County hereby:

Adopts the Walker County Hazard Mitigation Plan; and

Vests the Emergency Management Coordinator with the responsibility, authority, and the means to:

- (a) Inform all concerned parties of this action.
- (b) Develop an addendum to this Hazard Mitigation Plan if the county's unique situation warrants such an addendum.

Appoints the Emergency Management Coordinator to assure that the Hazard Mitigation Plan be reviewed at least annually and that any needed adjustment to Walker County's addendum to the Hazard Mitigation Plan be developed and presented to the Walker County Commissioners' Court for consideration.

Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

Adopted on February 10, 2025. Colt Christian County Judge IONF Danby Kuykendall Ronnie White Commissioner Precinct Commissioner Preci Bill Daugette Brandon Decker Commissioner Precinct 3 **Commissioner Precinct 4** COLINITY Attest: Kari A. French County Clerk

RESOLUTION 2025-04

"2025 Hazard Mitigation Plan Update for Walker County and The City of Riverside"

WHEREAS, certain areas of The City of Riverside are subject to periodic flooding and other natural hazards with the potential to cause damage to people and properties within the area; and

WHEREAS, The City of Riverside desires to prepare and mitigate for such circumstances; and

WHEREAS, under the Disaster Mitigation Act of 2000, the United States Federal Emergency Management Agency (FEMA) requires that local jurisdictions have in place a FEMA-approved Hazard Mitigation Plan as a condition of receipt of certain future federal mitigation funding after November 1, 2004; and

WHEREAS, the Houston-Galveston Area Council (H-GAC) in partnership with the Walker County Office of Emergency Management, in order to meet this requirement, have initiated development of a multijurisdictional Hazard Mitigation Plan for Walker County, which includes the The City of Riverside as a participating jurisdiction;

NOW, therefore, be it resolved, The City of Riverside City Council hereby;

Adopts the 2025 Walker County Hazard Mitigation Plan Update; and

Vests Heidi Tutor, Mayor of The City of Riverside with the responsibility, authority, and the means to:

- (a) Inform all concerned parties of this action
- (b) Develop an addendum to this Hazard Mitigation Plan if The City of Riverside's unique situation warrants such an addendum.

Appoints Heidi Tutor, Mayor of The City of Riverside to assure that the Hazard Mitigation Plan be reviewed at least annually and that any needed adjustment to the Hazard Mitigation Plan for The City of Riverside be developed and presented to The City of Riverside City Council for consideration.

Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

PASSED AND APPROVED on this the 10th day of February, 2025

Heidi Tutor, Mayor

ATTEST: lele

Lynn Castelloe, Secretary

RESOLUTION #2025-03

"2025 Hazard Mitigation Plan Update for Walker County, City of Huntsville, New Waverly, Riverside"

WHEREAS, certain areas of the City of New Waverly are subject to periodic flooding and other natural hazards with the potential to cause damage to people and properties within the area; and

WHEREAS, the City of New Waverly desires to prepare and mitigate for such circumstances; and

WHEREAS, under the Disaster Mitigation Act of 2000, the United States Federal Emergency Management Agency (FEMA) requires that local jurisdictions have in place a FEMA-approved Hazard Mitigation Plan as a condition of receipt of certain future federal mitigation funding after November 1, 2004; and

WHEREAS, the Houston-Galveston Area Council (H-GAC) in partnership with the Walker County Office of Emergency Management, in order to meet this requirement, have initiated development of a multijurisdictional Hazard Mitigation Plan for Walker County, which includes the City of New Waverly as a participating jurisdiction;

NOW, therefore, be it resolved, that the City of New Waverly, City Council hereby;

Adopts the 2025 Walker County Hazard Mitigation Plan Update; and

Vests the Mayor of the City of New Waverly, with the responsibility, authority, and the means to:

- (a) Inform all concerned parties of this action.
- (b) Develop an addendum to this Hazard Mitigation Plan if the City of New Waverly's unique situation warrants such an addendum.

Appoints the Mayor of the City of New Waverly to assure that the Hazard Mitigation Plan be reviewed at least annually and that any needed adjustments to the Hazard Mitigation Plan for the City of New Waverly be developed and presented to the City of New Waverly, City Council for consideration.

Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

PASSED AND APPROVED on this, the 11th day of March 2025.

V

Mayor, Nathaniel James

ATTEST:

Rosemary Bartee, City Secretary

RESOLUTION 2025-08

Adoption of 2025 Hazard Mitigation Plan Update for Walker County and the Cities of Huntsville, New Waverly, and Riverside

WHEREAS, certain areas of the City of Huntsville are subject to periodic flooding and other natural hazards with the potential to cause damage to people and properties within the area; and

WHEREAS, the City of Huntsville desires to prepare and mitigate for such circumstances; and

WHEREAS, under the Disaster Mitigation Act of 2000, the United States Federal Emergency Management Agency (FEMA) requires that local jurisdictions have in place a FEMA-approved Hazard Mitigation Plan as a condition of receipt of certain future federal mitigation funding after November 1, 2004; and

WHEREAS, the Houston-Galveston Area Council (H-GAC) in partnership with the Walker County Office of Emergency Management, in order to meet this requirement, have initiated development of a multijurisdictional Hazard Mitigation Plan for Walker County, which includes the City of Huntsville as a participating jurisdiction;

Now, therefore, be it resolved, that City of Huntsville City Council hereby;

Adopts the 2025 Walker County Hazard Mitigation Plan Update; and

Vests the Mayor of the City of Huntsville, with the responsibility, authority, and the means to:

- (a) Inform all concerned parties of this action
- (b) Develop an addendum to this Hazard Mitigation Plan if the City of Huntsville's unique situation warrants such an addendum.

Appoints the Mayor of the City of Huntsville to ensure that the Hazard Mitigation Plan be reviewed at least annually and that any needed adjustment to the Hazard Mitigation Plan for the City of Huntsville is developed and presented to the City of Huntsville, City Council for consideration.

Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

Passed, Approved, and Adopted on this the 4th day of March, 2025

THE CITY OF HUNTSVILLE Russell Humphrey, Mayor



APPROVED AS TO FORM:

Leonard Schneider, City Attorney

RESOLUTION 2025-08

Adoption of 2025 Hazard Mitigation Plan Update for Walker County and the Citics of Huntsville, New Waverly, and Riverside

WHEREAS, certain areas of the City of Huntsville are subject to periodic flooding and other natural hazards with the potential to cause damage to people and properties within the area; and

WHEREAS, the City of Huntsville desires to prepare and mitigate for such circumstances; and

WHEREAS, under the Disaster Mitigation Act of 2000, the United States Federal Emergency Management Agency (FEMA) requires that local jurisdictions have in place a FEMA-approved Hazard Mitigation Plan as a condition of receipt of certain future federal mitigation funding after November 1, 2004; and

WHEREAS, the Houston-Galveston Area Council (H-GAC) in partnership with the Walker County Office of Emergency Management, in order to meet this requirement, have initiated development of a multijurisdictional Hazard Mitigation Plan for Walker County, which includes the City of Huntsville as a participating jurisdiction;

Now, therefore, be it resolved, that City of Huntsville City Council hereby;

Adopts the 2025 Walker County Hazard Mitigation Plan Update; and

Vests the Mayor of the City of Huntsville, with the responsibility, authority, and the means to?

- (a) Inform all concerned parties of this action
- (b) Develop an addendum to this Hazard Mitigation Plan if the City of Huntsville's unique situation warrants such an addendum.

Appoints the Mayor of the City of Huntsville to ensure that the Hazard Mitigation Plan be reviewed at least annually and that any needed adjustment to the Hazard Mitigation Plan for the City of Huntsville is developed and presented to the City of Huntsville, City Council for consideration.

Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

Passed, Approved, and Adopted on this the 4th day of March, 2025

CITY OF HUNTSVILLE Russel Humphrey, Flayor

ATTEST:

Doll, City Secretary

APPROVED AS TO FORM:

Legnerd Schneider, City Attorney