Appendix A

HAZUS RESULTS

Hazus: Flood Global Risk Report

Region Name: City of Angleton

Flood Scenario: 100yr

Print Date: Friday, March 17, 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.

Table of Contents

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 4 square miles and contains 345 census blocks. The region contains over 7 thousand households and has a total population of 19,429 people. The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 7,979 buildings in the region with a total building replacement value (excluding contents) of 2,862 million dollars. Approximately 86.64% of the buildings (and 52.30% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 7,979 buildings in the region which have an aggregate total replacement value of 2,862 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.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,496,724	52.3%
Commercial	901,761	31.5%
Industrial	55,502	1.9%
Agricultural	7,084	0.2%
Religion	42,490	1.5%
Government	51,278	1.8%
Education	307,167	10.7%
Total	**2,862,006**	**100%**

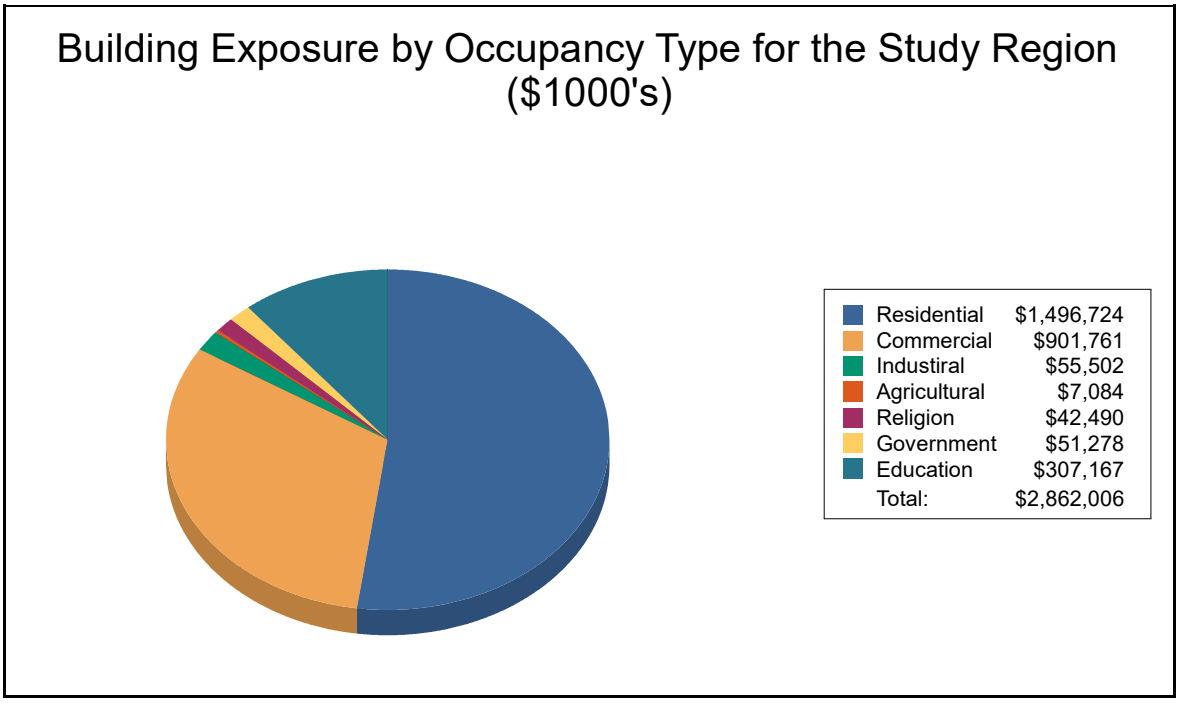
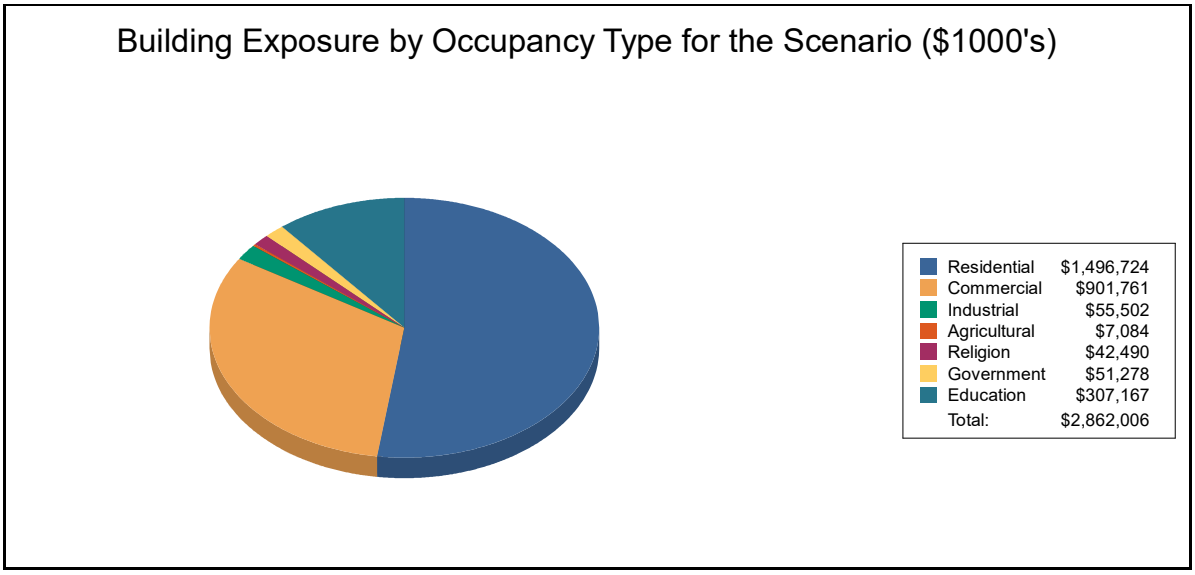


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,496,724	52.3%
Commercial	901,761	31.5%
Industrial	55,502	1.9%
Agricultural	7,084	0.2%
Religion	42,490	1.5%
Government	51,278	1.8%
Education	307,167	10.7%
Total	**2,862,006**	**100%**



Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 64 beds.
There are 17 schools, 7 fire stations, 6 police stations and 1 emergency operation center.

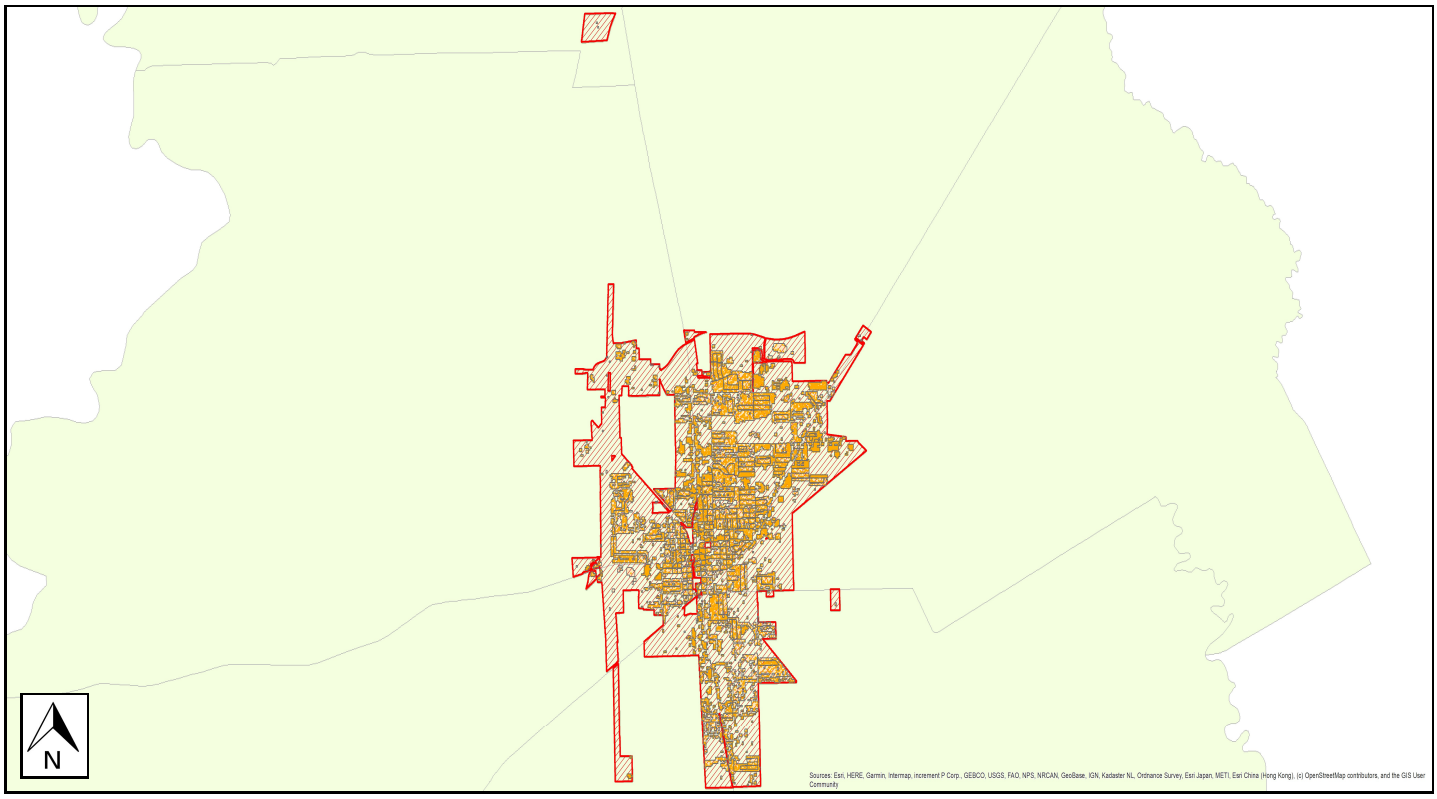
Flood Scenario Parameters

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

Study Region Name:	Angelton_flood
Scenario Name:	100yr
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 6,443 buildings will be at least moderately damaged. This is over 24% of the total number of buildings in the scenario. There are an estimated 3,212 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

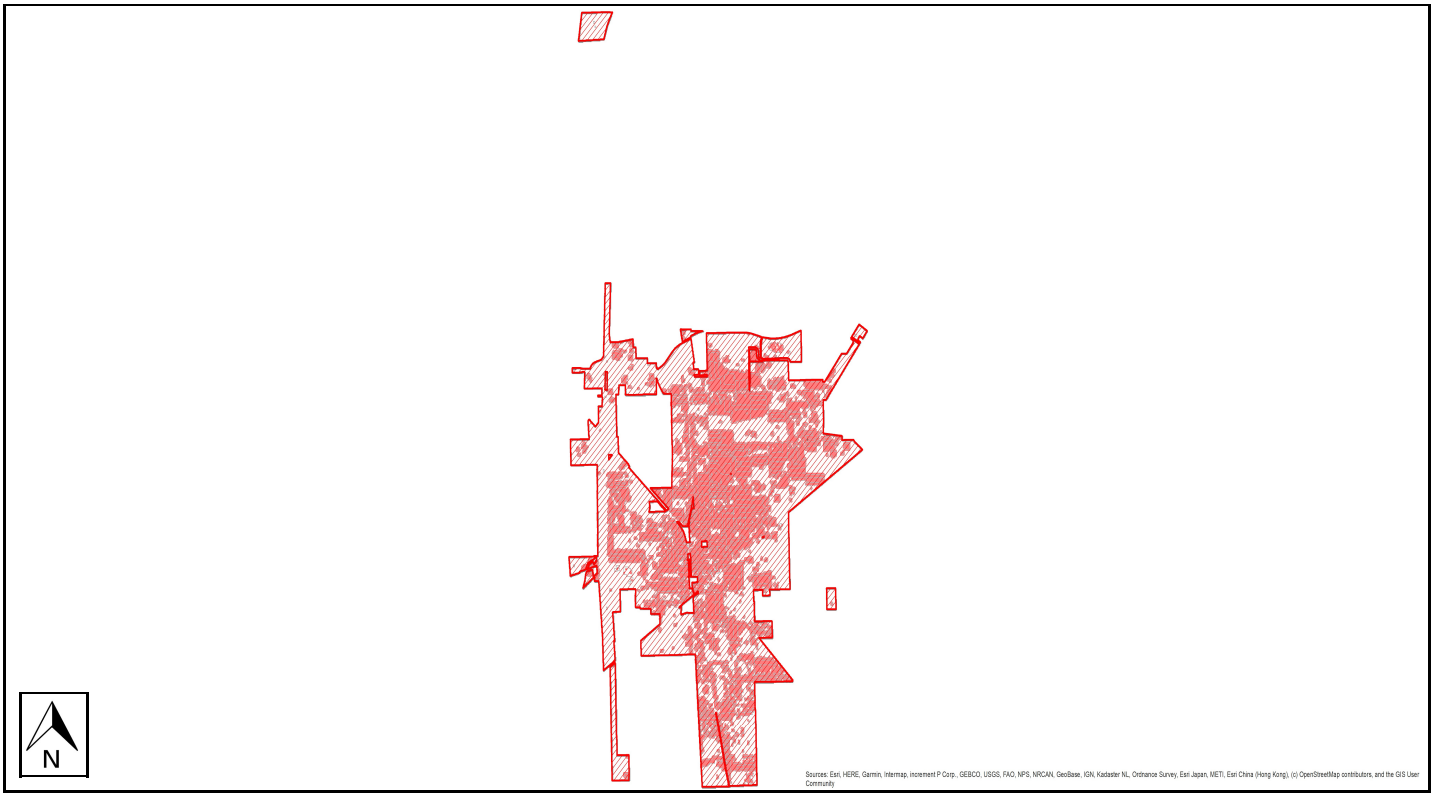


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		>50	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0	0	0	4	80	1	20	0	0	0	0
Commercial	0	0	62	10	119	18	223	34	244	38	0	0
Education	1	13	7	88	0	0	0	0	0	0	0	0
Government	0	0	21	100	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	1	5	3	14	9	41	9	41
Religion	0	0	16	100	0	0	0	0	0	0	0	0
Residential	1	0	230	4	1,070	19	343	6	878	15	3,203	56
Total	**2**		**336**		**1,194**		**570**		**1,131**		**3,212**	

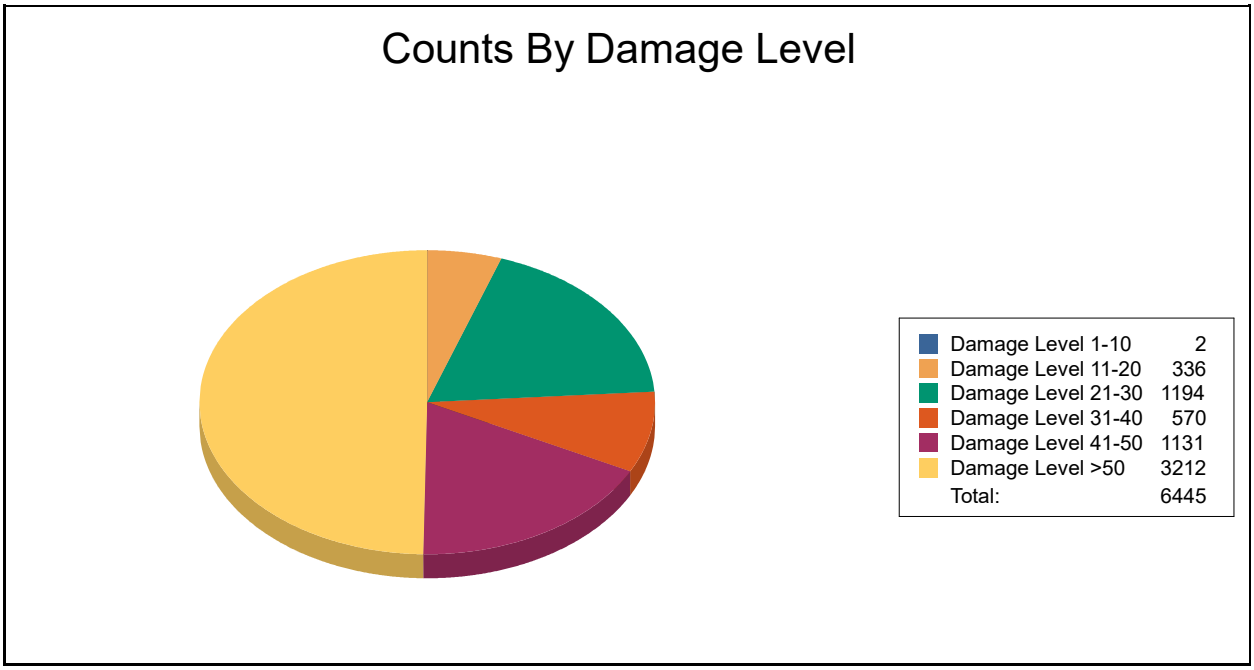


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		>50	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	4	8	10	20	20	40	16	32	0	0
ManufHousing	0	0	0	0	11	1	0	0	46	5	865	94
Masonry	2	0	47	7	133	20	111	17	162	24	209	31
Steel	0	0	21	11	32	16	65	34	76	39	0	0
Wood	1	0	234	5	986	22	371	8	827	18	2,129	47

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 64 hospital beds available for use. On the day of the scenario flood event, the model estimates that 64 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	7	0	0	0
Hospitals	1	0	0	0
Police Stations	6	0	0	0
Schools	17	0	0	0

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

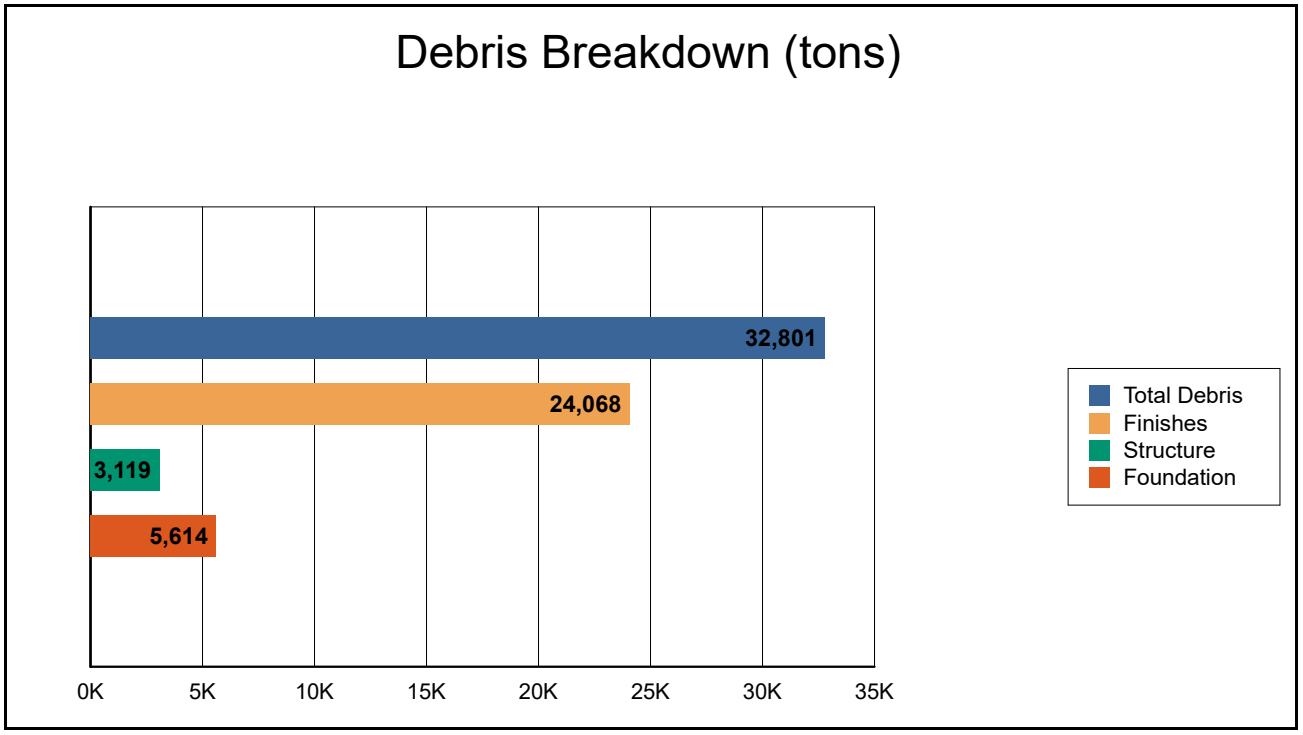
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(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.

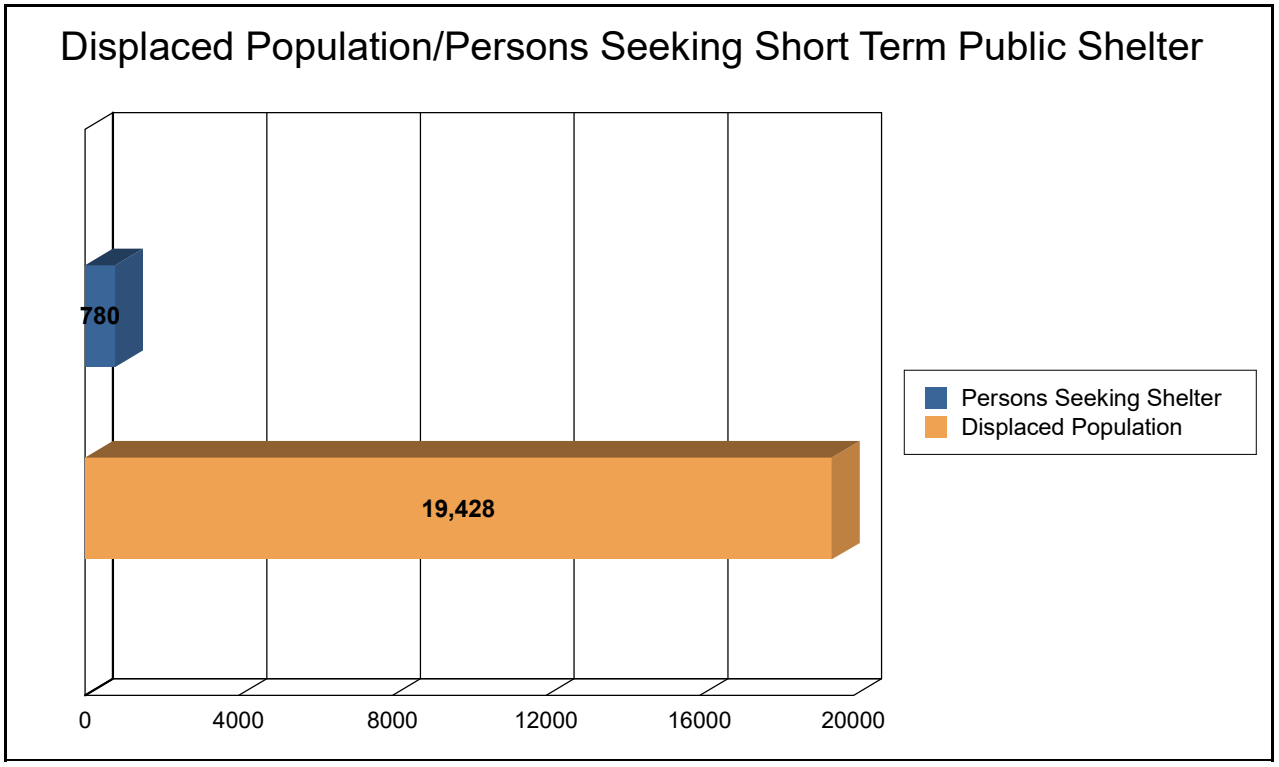


The model estimates that a total of 32,801 tons of debris will be generated. Of the total amount, Finishes comprises 73% of the total, Structure comprises 10% of the total, and Foundation comprises 17%. If the debris tonnage is converted into an estimated number of truckloads, it will require 1313 truckloads (@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 6,476 households (or 19,428 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 780 people (out of a total population of 19,429) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 4,708.47 million dollars, which represents 164.52 % of the total replacement value of the scenario buildings.

Building-Related Losses

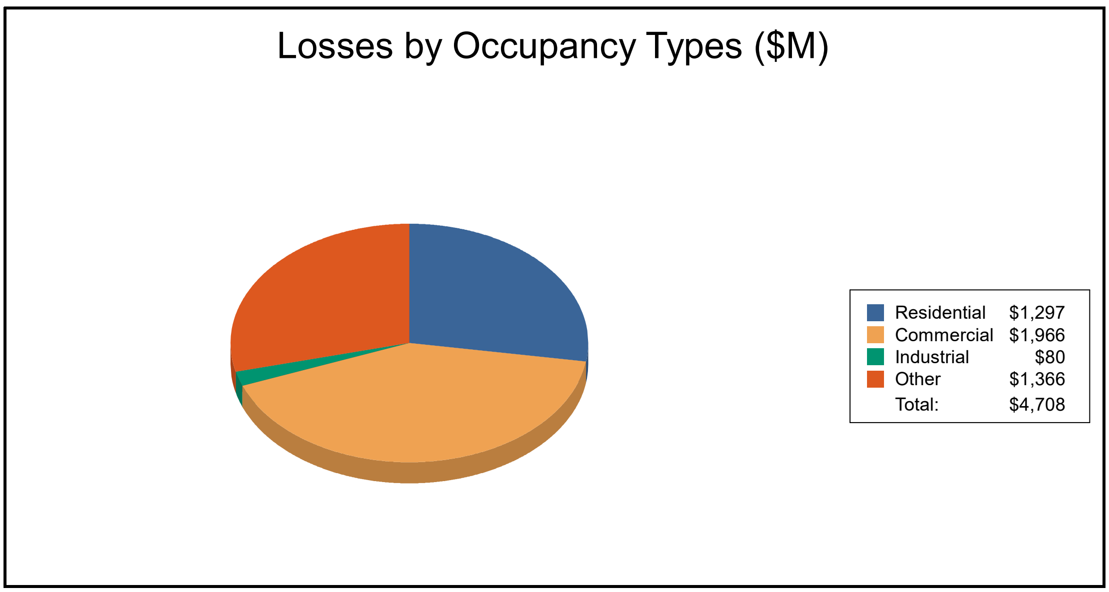
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability 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 2,498.14 million dollars. 47% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 27.55% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	674.94	297.00	19.79	54.40	1,046.13
	Content	384.52	591.65	45.36	351.09	1,372.62
	Inventory	0.00	63.33	9.39	6.68	79.40
	Subtotal	**1,059.47**	**951.97**	**74.53**	**412.17**	**2,498.14**
Business Interruption						
	Income	6.18	452.44	1.33	147.86	607.80
	Relocation	152.78	129.12	1.26	72.98	356.15
	Rental Income	64.17	89.97	0.38	8.07	162.59
	Wage	14.55	342.12	2.31	724.82	1,083.79
	Subtotal	**237.68**	**1,013.64**	**5.27**	**953.73**	**2,210.33**
ALL	**Total**	**1,297.15**	**1,965.61**	**79.81**	**1,365.90**	**4,708.47**



Appendix A: County Listing for the Region

Texas

- Brazoria

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Texas				
Brazoria	19,429	1,496,724	1,365,282	2,862,006
Total	**19,429**	**1,496,724**	**1,365,282**	**2,862,006**
Total Study Region	**19,429**	**1,496,724**	**1,365,282**	**2,862,006**

Hazus: Flood Global Risk Report

Region Name: City of Angleton

Flood Scenario: 500yr

Print Date: Sunday, March 19, 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.

FEMA

RiskMAP
Increasing Resilience Together

Table of Contents

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 4 square miles and contains 345 census blocks. The region contains over 7 thousand households and has a total population of 19,429 people. The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 7,979 buildings in the region with a total building replacement value (excluding contents) of 2,862 million dollars. Approximately 86.64% of the buildings (and 52.30% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 7,979 buildings in the region which have an aggregate total replacement value of 2,862 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.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,496,724	52.3%
Commercial	901,761	31.5%
Industrial	55,502	1.9%
Agricultural	7,084	0.2%
Religion	42,490	1.5%
Government	51,278	1.8%
Education	307,167	10.7%
Total	**2,862,006**	**100%**

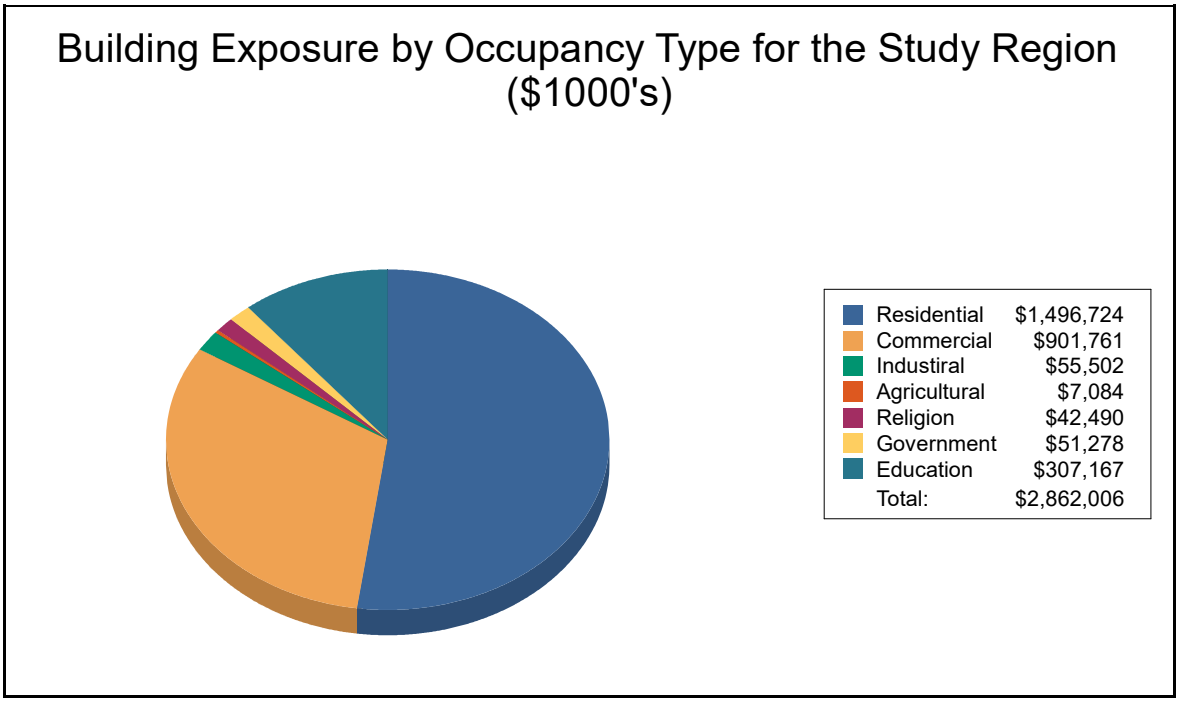
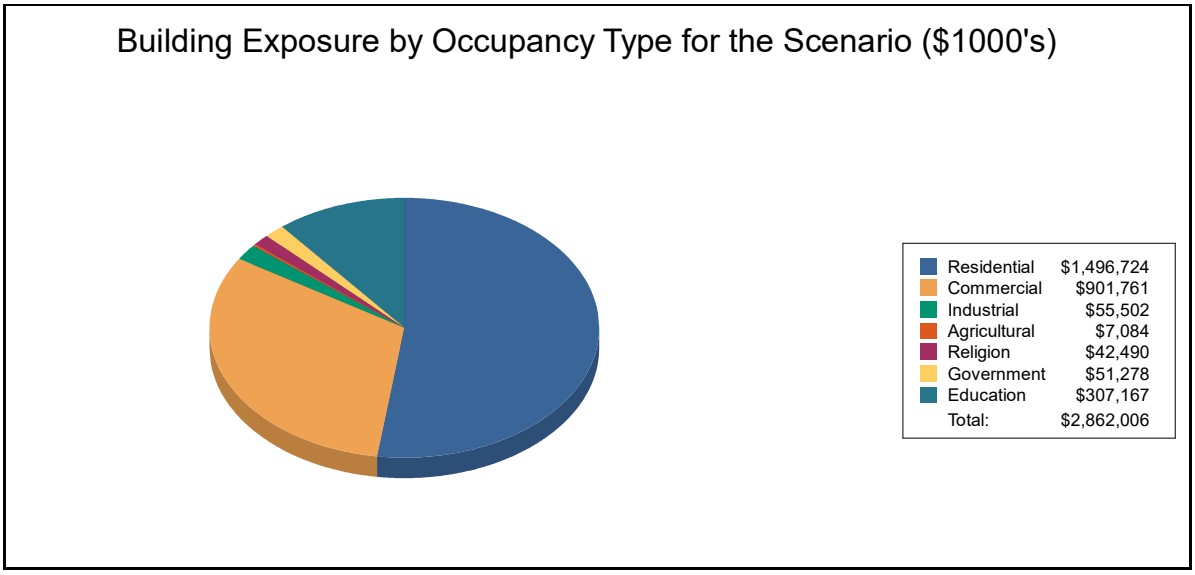


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,496,724	52.3%
Commercial	901,761	31.5%
Industrial	55,502	1.9%
Agricultural	7,084	0.2%
Religion	42,490	1.5%
Government	51,278	1.8%
Education	307,167	10.7%
Total	**2,862,006**	**100%**



Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 64 beds.
There are 17 schools, 7 fire stations, 6 police stations and 1 emergency operation center.

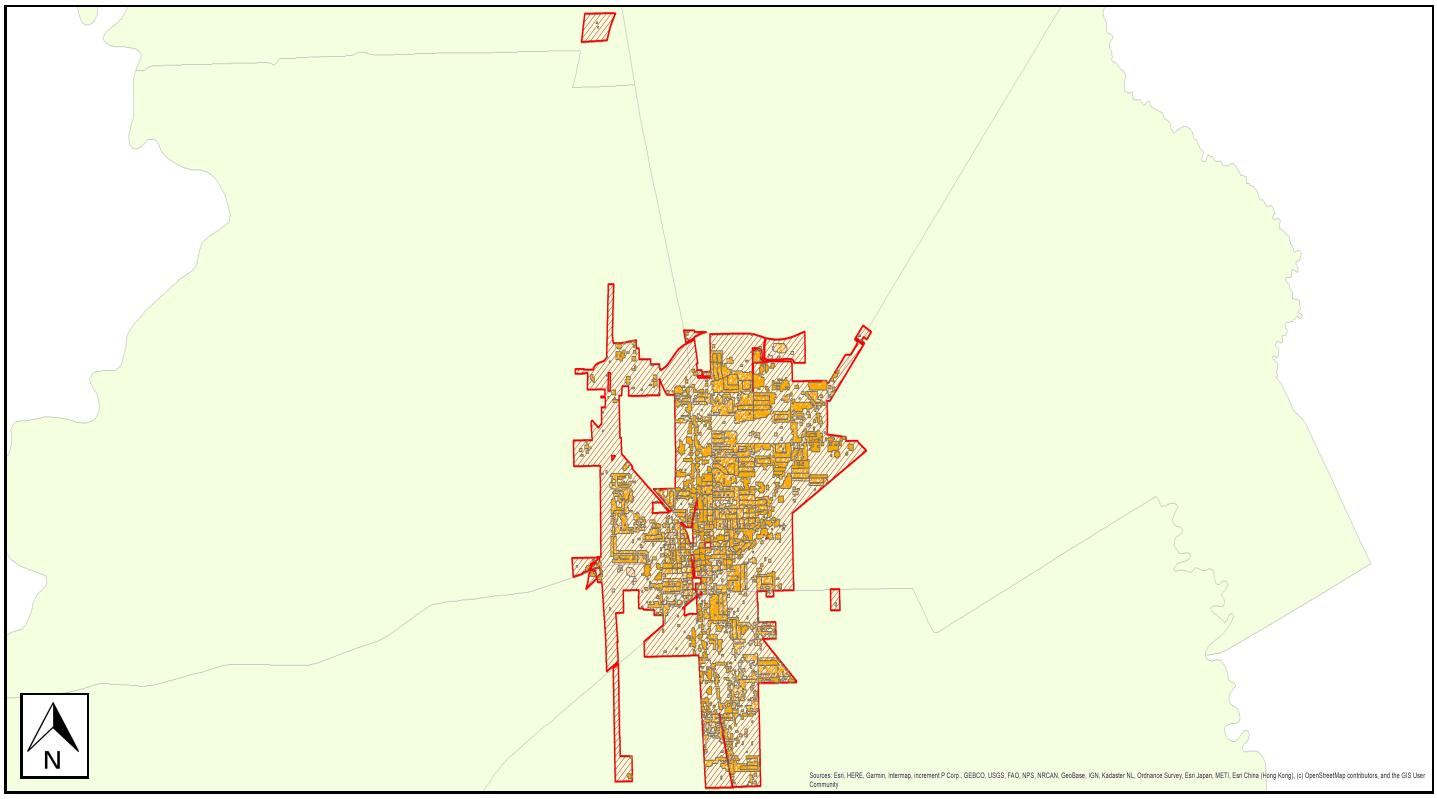
Flood Scenario Parameters

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

Study Region Name:	Angleton_500yr
Scenario Name:	500yr
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

Hazus estimates that about 6,439 buildings will be at least moderately damaged. This is over 24% of the total number of buildings in the scenario. There are an estimated 3,263 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

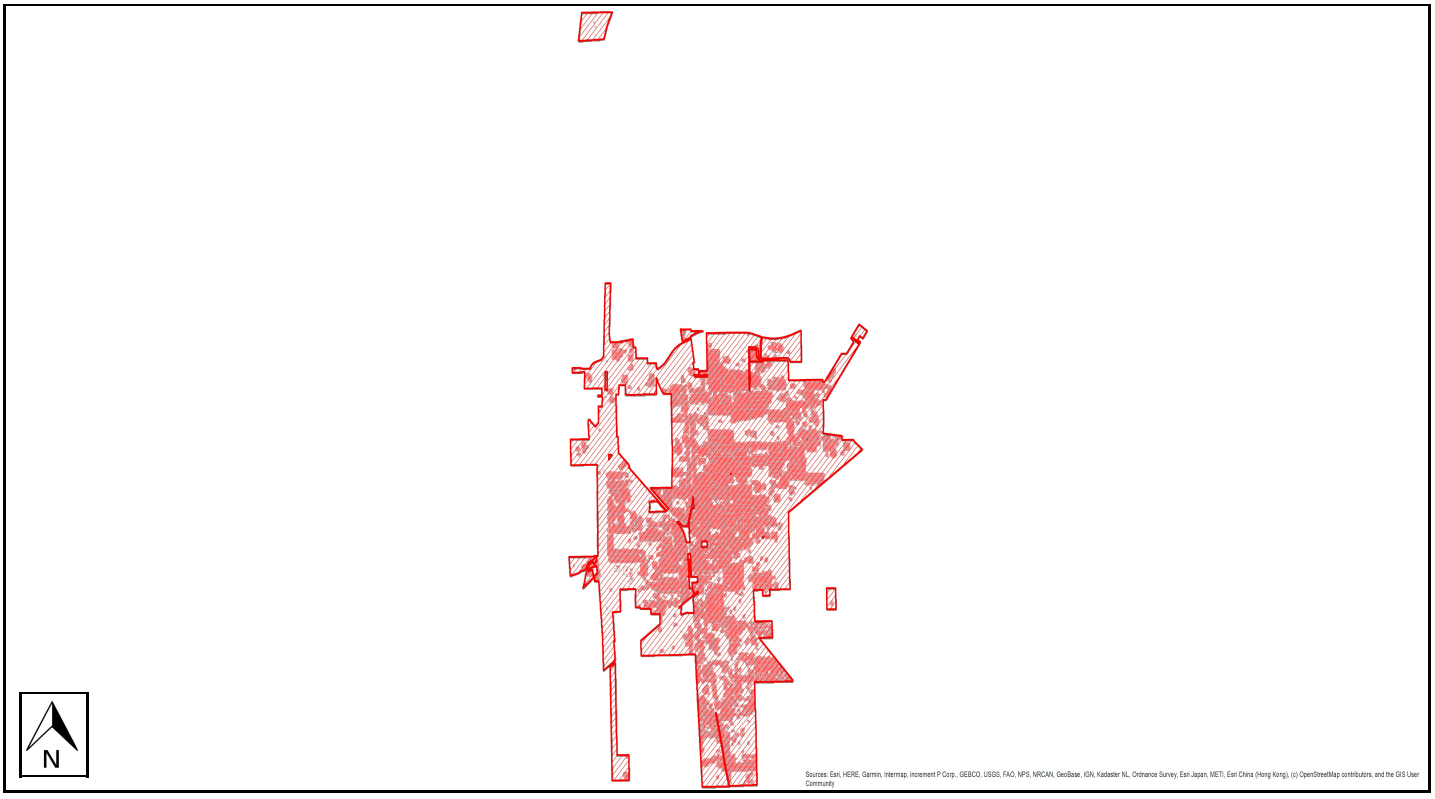


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		>50	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0	0	0	4	80	1	20	0	0	0	0
Commercial	0	0	54	8	122	19	213	33	249	39	0	0
Education	1	10	9	90	0	0	0	0	0	0	0	0
Government	0	0	22	100	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	1	5	4	18	9	41	8	36
Religion	0	0	12	100	0	0	0	0	0	0	0	0
Residential	1	0	212	4	1,080	19	305	5	879	15	3,255	57
Total	**2**		**309**		**1,207**		**523**		**1,137**		**3,263**	

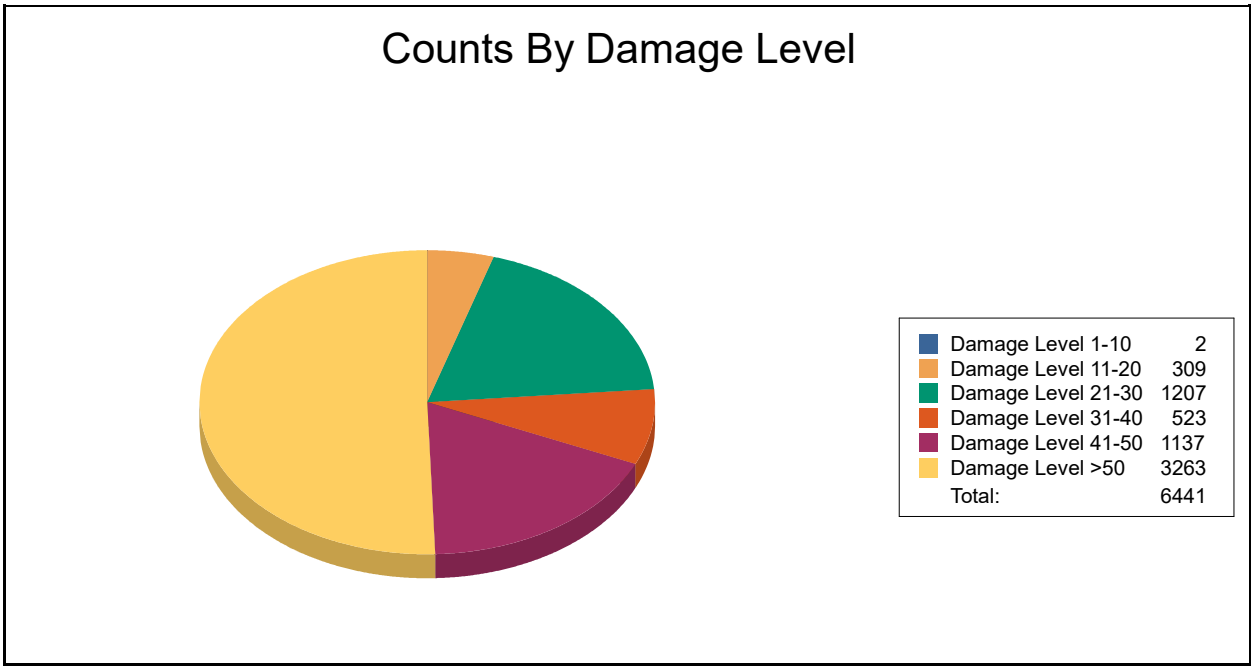


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		>50	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	4	8	10	21	18	38	16	33	0	0
ManufHousing	0	0	0	0	10	1	0	0	41	4	871	94
Masonry	2	0	45	7	136	21	102	16	167	25	206	31
Steel	0	0	20	10	34	18	62	32	78	40	0	0
Wood	1	0	215	5	996	22	333	7	831	18	2,179	48

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 64 hospital beds available for use. On the day of the scenario flood event, the model estimates that 64 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	7	0	0	0
Hospitals	1	0	0	0
Police Stations	6	0	0	0
Schools	17	0	0	0

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

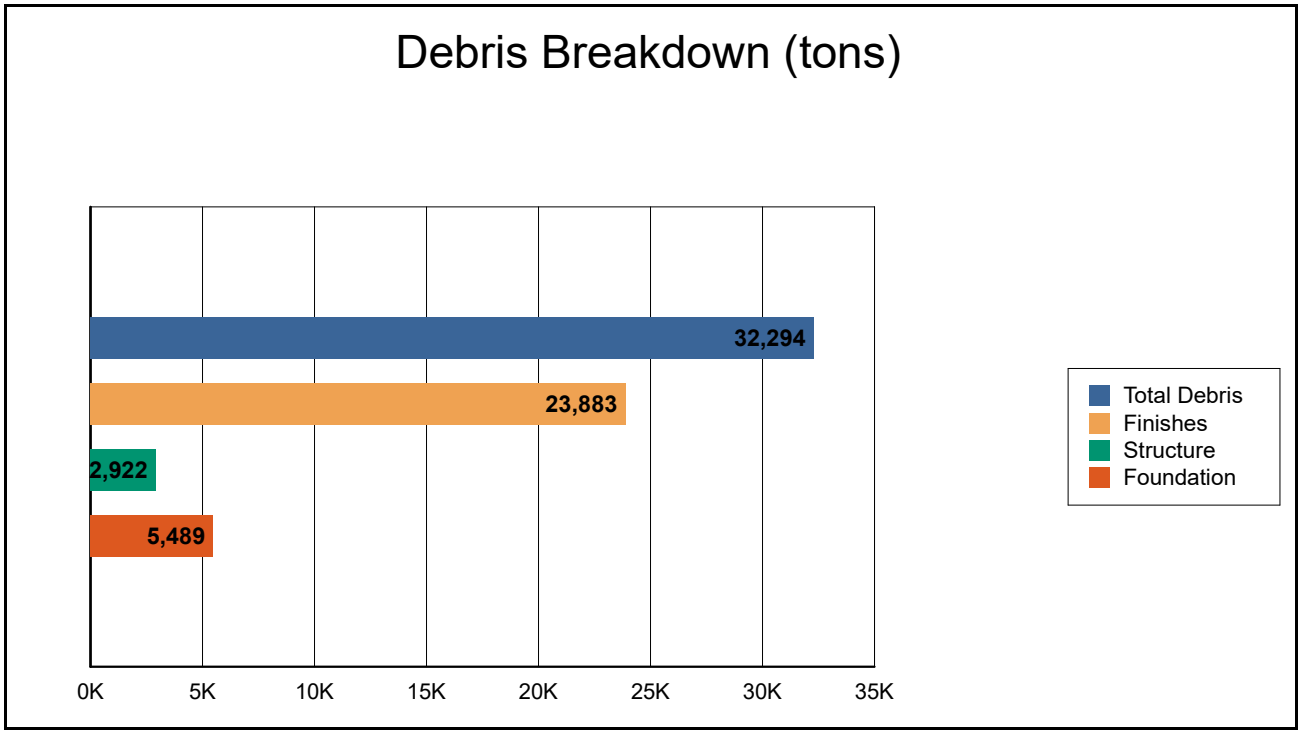
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(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.

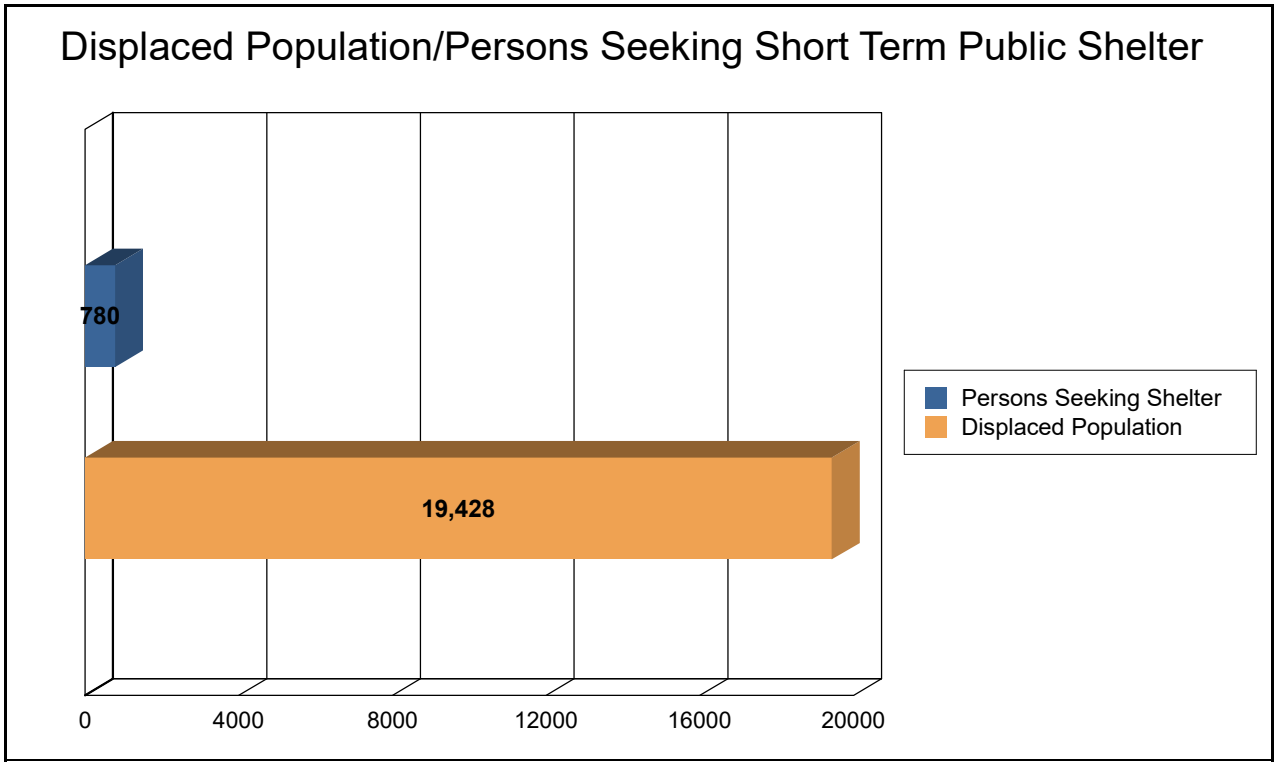


The model estimates that a total of 32,294 tons of debris will be generated. Of the total amount, Finishes comprises 74% of the total, Structure comprises 9% of the total, and Foundation comprises 17%. If the debris tonnage is converted into an estimated number of truckloads, it will require 1292 truckloads (@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 6,476 households (or 19,428 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 780 people (out of a total population of 19,429) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 4,733.58 million dollars, which represents 165.39 % of the total replacement value of the scenario buildings.

Building-Related Losses

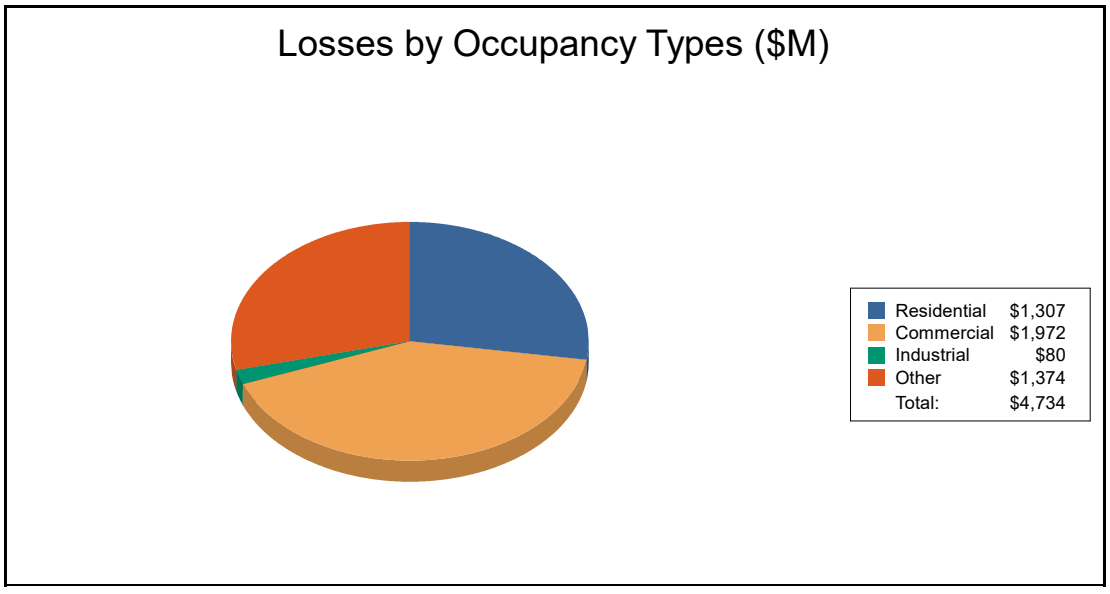
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability 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 2,511.20 million dollars. 47% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 27.61% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	679.09	297.88	20.00	55.39	1,052.36
	Content	386.94	594.04	45.74	352.66	1,379.37
	Inventory	0.00	63.34	9.44	6.68	79.47
	Subtotal	**1,066.03**	**955.27**	**75.18**	**414.73**	**2,511.20**
Business Interruption						
	Income	6.18	453.74	1.33	149.27	610.52
	Relocation	154.93	129.46	1.26	73.70	359.35
	Rental Income	65.09	90.23	0.38	8.11	163.81
	Wage	14.55	343.68	2.31	728.17	1,088.70
	Subtotal	**240.74**	**1,017.11**	**5.27**	**959.25**	**2,222.38**
ALL	**Total**	**1,306.77**	**1,972.38**	**80.45**	**1,373.98**	**4,733.58**



Appendix A: County Listing for the Region

Texas

- Brazoria

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Texas				
Brazoria	19,429	1,496,724	1,365,282	2,862,006
Total	**19,429**	**1,496,724**	**1,365,282**	**2,862,006**
Total Study Region	**19,429**	**1,496,724**	**1,365,282**	**2,862,006**

Hazus: Hurricane Global Risk Report

Region Name: City of Angleton

Hurricane Scenario: Probabilistic 100-year Return Period

Print Date: Thursday, March 23, 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.

Table of Contents

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 287.02 square miles and contains 7 census tracts. There are over 14 thousand households in the region and a total population of 40,172 people. The distribution of population by State and County is provided in Appendix B.

There are an estimated 16 thousand buildings in the region with a total building replacement value (excluding contents) of 6,238 million dollars. Approximately 87% of the buildings (and 60% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 16,538 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 prov distribution of the building value by State and County.

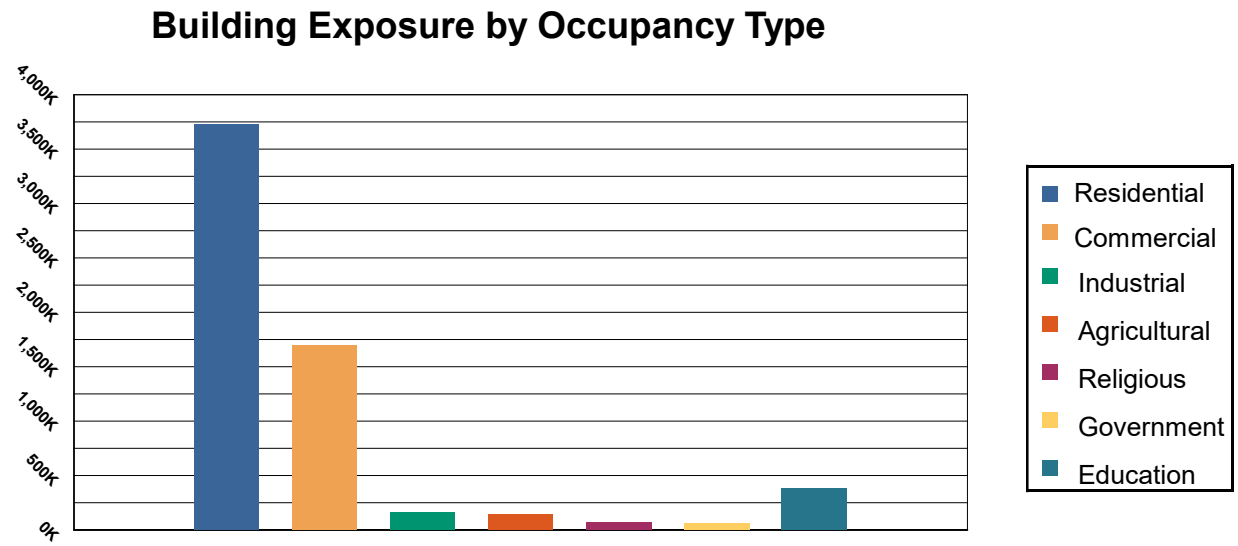


Table 1: Building Exposure by Occupancy Type

Occupancy	Exposure ($1000)	Percent of Tot
Residential	3,726,718	59.74 %
Commercial	1,696,797	27.20%
Industrial	164,816	2.64%
Agricultural	140,638	2.25%
Religious	70,163	1.12%
Government	57,090	0.92%
Education	381,940	6.12%
Total	**6,238,162**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 64 beds. There are 17 schools, 6 fire stations, 6 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 6,080 buildings will be at least moderately damaged. This is over 37% of the total number of buildings in the region. There are an estimated 712 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.

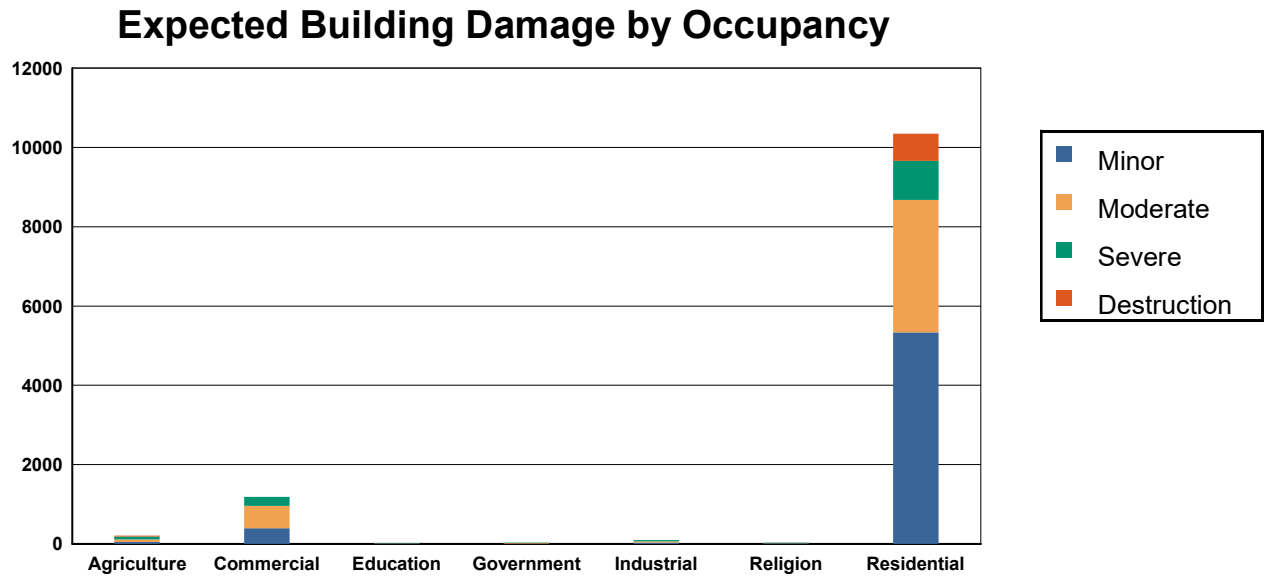


Table 2: Expected Building Damage by Occupancy : 100 - year Event

	None		Minor		Moderate		Severe		Destruction	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	57.89	21.76	47.93	18.02	64.81	24.37	72.85	27.39	22.52	8.46
Commercial	377.42	24.10	398.30	25.43	558.92	35.69	228.95	14.62	2.42	0.15
Education	6.40	24.61	5.61	21.58	7.51	28.90	6.47	24.88	0.01	0.03
Government	12.37	28.11	10.59	24.07	12.21	27.75	8.82	20.05	0.01	0.02
Industrial	37.02	28.26	31.02	23.68	35.54	27.13	26.90	20.53	0.53	0.40
Religion	12.97	28.82	12.80	28.45	11.97	26.61	7.24	16.09	0.01	0.03
Residential	4,113.81	28.45	5,334.02	36.89	3,342.27	23.11	983.39	6.80	686.51	4.75
Total	**4,617.88**		**5,840.27**		**4,033.23**		**1,334.62**		**712.01**	

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

Building Type	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	66	22.41	54	18.44	113	38.60	60	20.54	0	0.01
Masonry	555	26.30	542	25.69	628	29.73	343	16.23	43	2.05
MH	1,010	51.19	287	14.55	357	18.11	58	2.93	261	13.23
Steel	138	22.23	100	16.03	253	40.70	129	20.82	1	0.21
Wood	2,994	25.96	4,702	40.77	2,649	22.97	789	6.84	401	3.47

Essential Facility Damage

Before the hurricane, the region had 64 hospital beds available for use. On the day of the hurricane, the model estimates that 0 hospital beds (0%) are available for use by patients already in the hospital and those injured by the hurricane. After one week, 0% of the beds will be in service. By 30 days, 100% will be operational.

Thematic Map of Essential Facilities

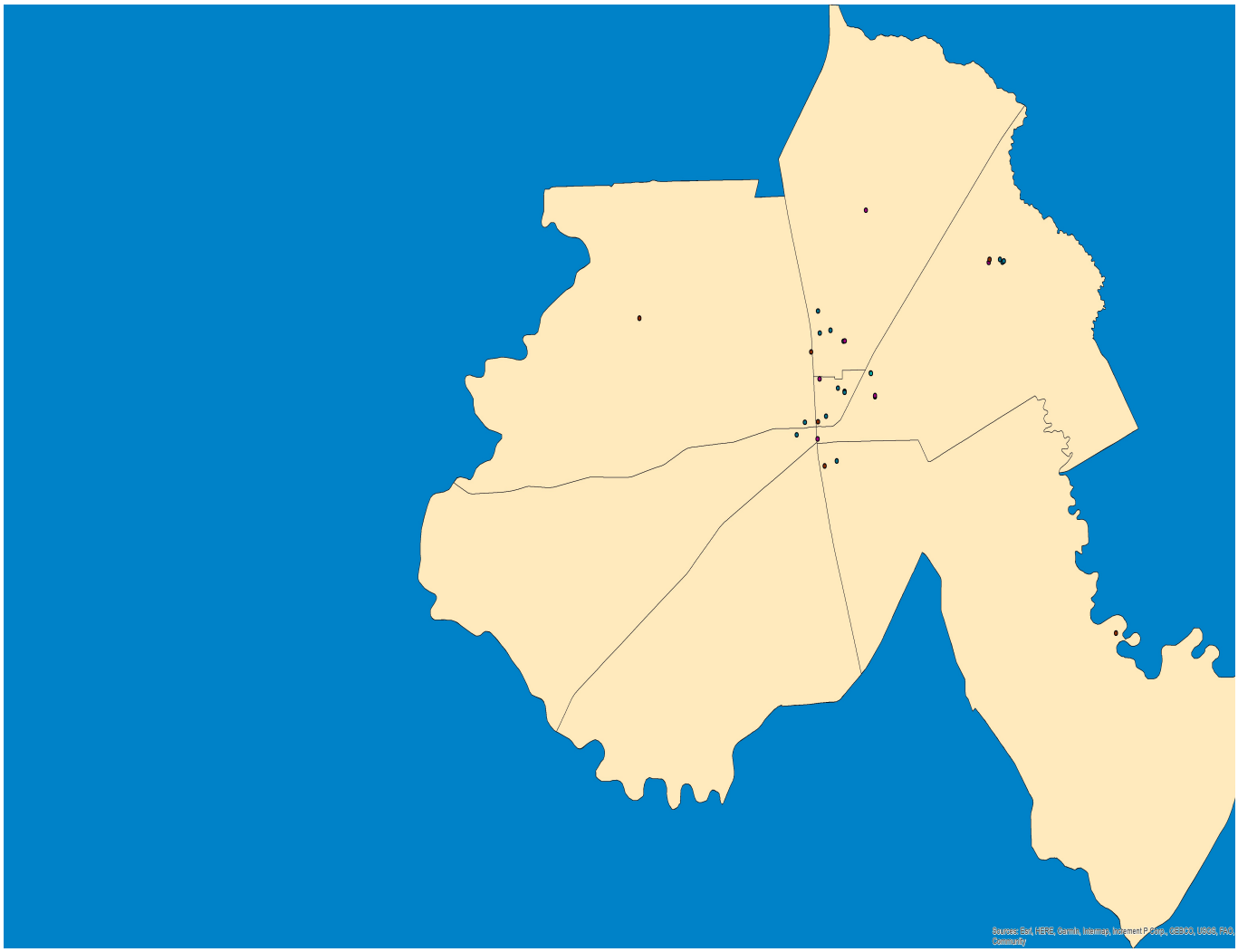
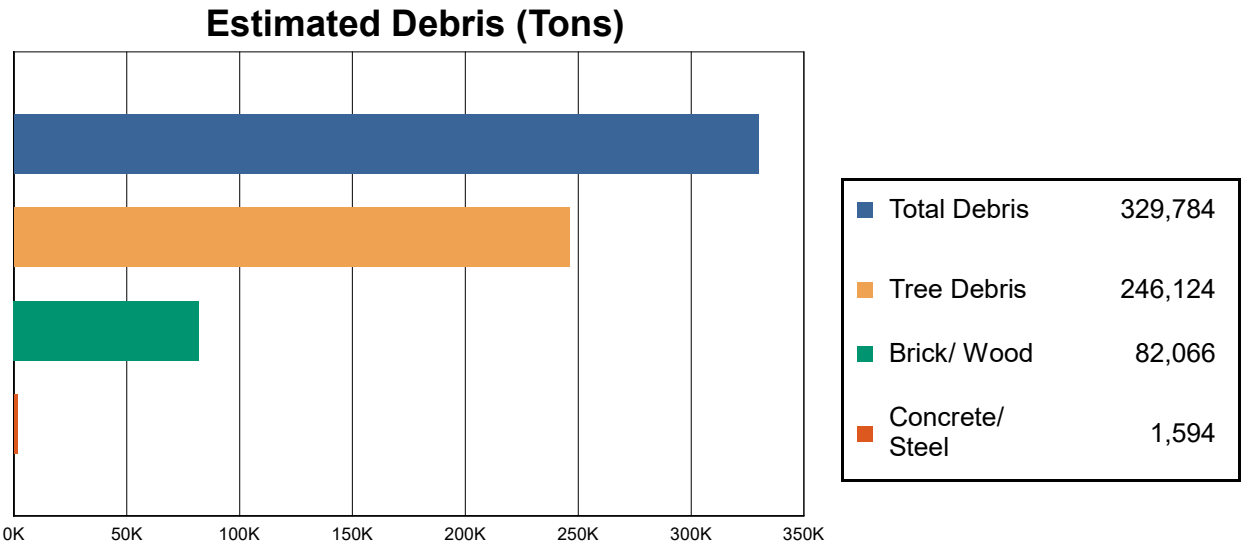


Table 4: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		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	6	1	0	6
Hospitals	1	1	0	0
Police Stations	6	5	0	6
Schools	17	17	0	0

Induced Hurricane Damage

Debris Generation

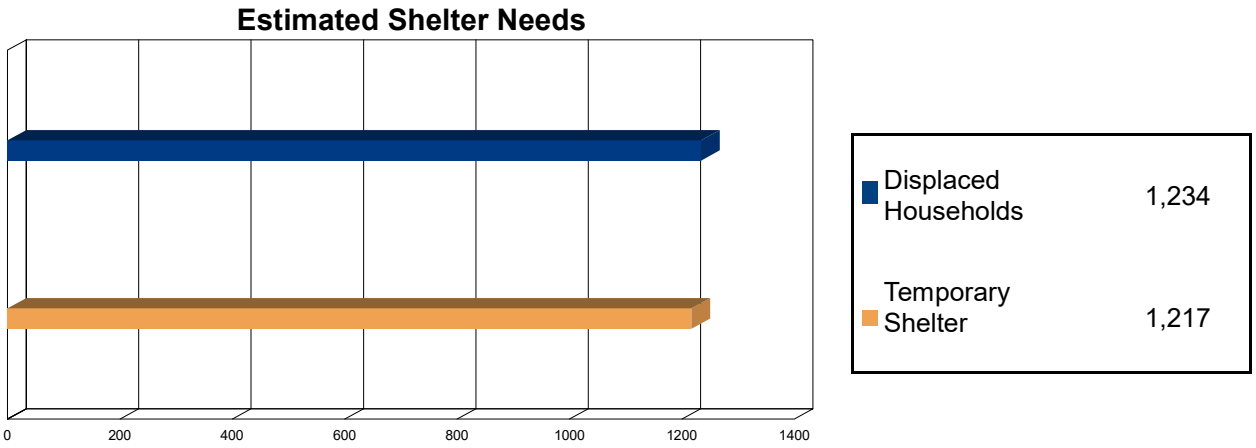


Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling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

The model estimates that a total of 329,784 tons of debris will be generated. Of the total amount, 217,568 tons (66%) is Other Tree Debris. Of the remaining 112,216 tons, Brick/Wood comprises 73% of the total, Reinforced Concrete/Steel comprises of 1% 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 3346 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 28,556 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 1,234 households to be displaced due to the hurricane. Of these, 1,217 people (out of a total population of 40,172) will seek temporary shelter in public shelters.

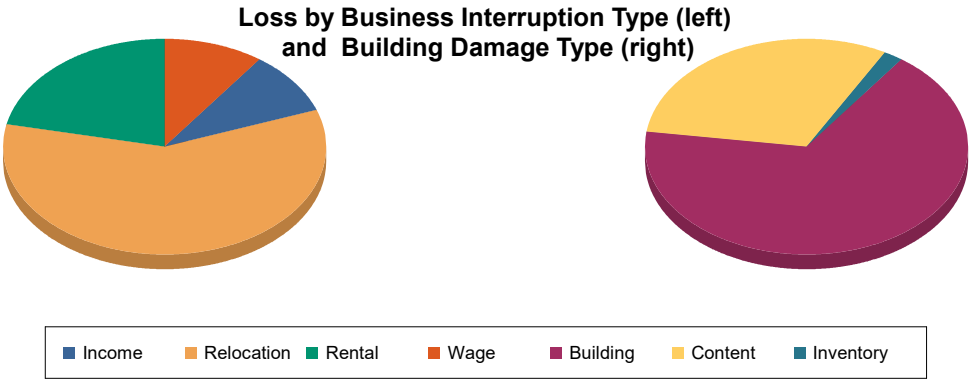
Economic Loss

The total economic loss estimated for the hurricane is 1327.9 million dollars, which represents 21.29 % 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 1,328 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 60% of the total loss. Table 5 below provides a summary of the losses associated with the building damage.



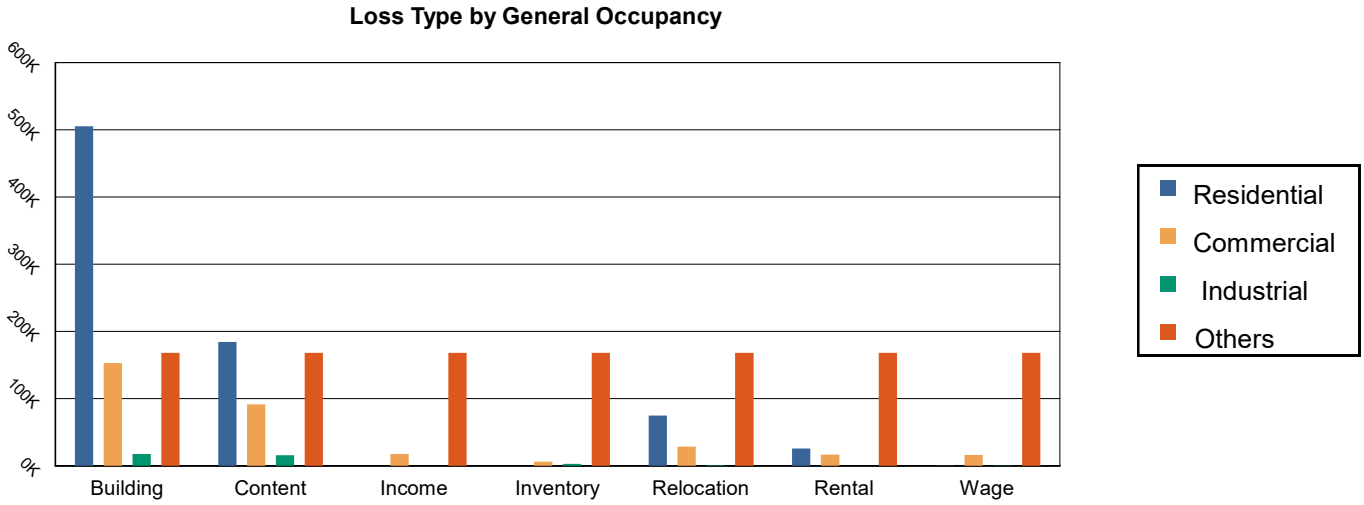


Table 5: Building-Related Economic Loss Estimates

(Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Property Damage						
	Building	505,018.32	152,706.46	17,865.72	78,859.40	754,449.89
	Content	184,315.66	91,339.33	15,714.59	54,161.98	345,531.56
	Inventory	0.00	6,321.30	2,793.32	13,493.86	22,608.47
	Subtotal	**689,333.98**	**250,367.09**	**36,373.63**	**146,515.24**	**1,122,589.93**
Business Interruption Loss						
	Income	298.44	17,808.34	278.32	1,180.61	19,565.71
	Relocation	74,789.14	28,803.23	1,117.49	16,162.78	120,872.64
	Rental	25,738.15	16,850.62	268.18	1,271.01	44,127.96
	Wage	702.45	16,338.51	457.51	3,246.90	20,745.37
	Subtotal	**101,528.18**	**79,800.70**	**2,121.49**	**21,861.30**	**205,311.68**

Total

Total	**790,862.16**	**330,167.79**	**38,495.12**	**168,376.54**	**1,327,901.61**

Appendix A: County Listing for the Region

Texas
- Brazoria

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
Texas				
Brazoria	40,172	3,726,718	2,511,444	6,238,162
Total	**40,172**	**3,726,718**	**2,511,444**	**6,238,162**
Study Region Total	**40,172**	**3,726,718**	**2,511,444**	**6,238,162**

Hazus: Hurricane Global Risk Report

Region Name: City of Angleton

Hurricane Scenario: Probabilistic 500-year Return Period

Print Date: Thursday, March 23, 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.

Table of Contents

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 287.02 square miles and contains 7 census tracts. There are over 14 thousand households in the region and a total population of 40,172 people. The distribution of population by State and County is provided in Appendix B.

There are an estimated 16 thousand buildings in the region with a total building replacement value (excluding contents) of 6,238 million dollars. Approximately 87% of the buildings (and 60% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 16,538 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 prov distribution of the building value by State and County.

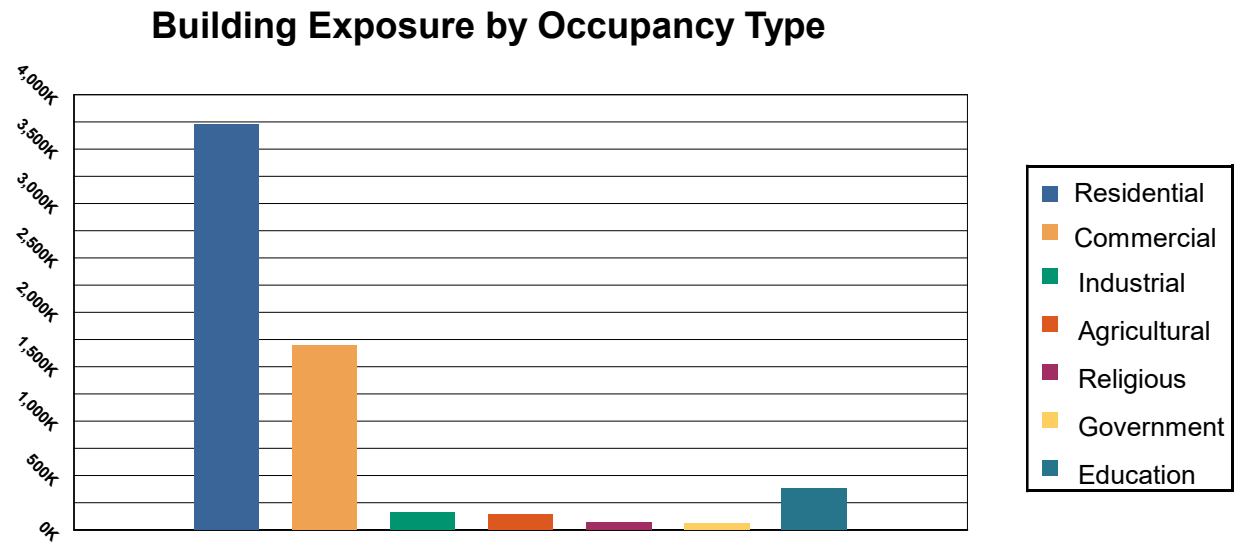


Table 1: Building Exposure by Occupancy Type

Occupancy	Exposure ($1000)	Percent of Tot
Residential	3,726,718	59.74 %
Commercial	1,696,797	27.20%
Industrial	164,816	2.64%
Agricultural	140,638	2.25%
Religious	70,163	1.12%
Government	57,090	0.92%
Education	381,940	6.12%
Total	**6,238,162**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 64 beds. There are 17 schools, 6 fire stations, 6 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 11,931 buildings will be at least moderately damaged. This is over 72% of the total number of buildings in the region. There are an estimated 2,697 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.

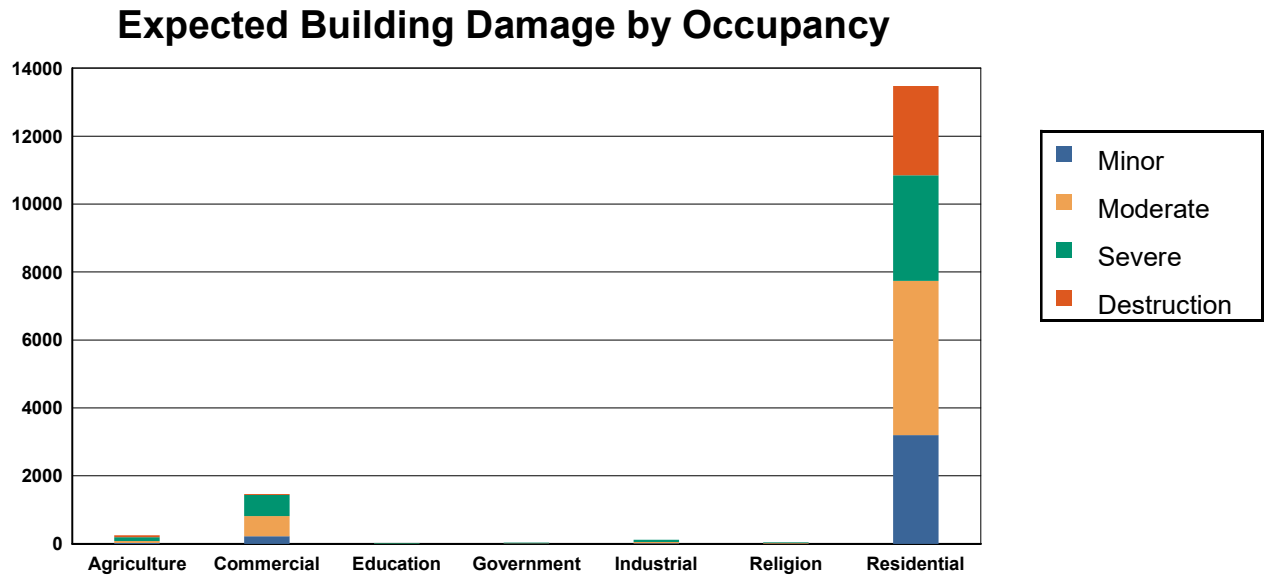


Table 2: Expected Building Damage by Occupancy : 500 - year Event

	None		Minor		Moderate		Severe		Destruction	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	16.14	6.07	23.29	8.76	56.61	21.28	117.48	44.16	52.48	19.73
Commercial	100.81	6.44	222.75	14.22	590.96	37.74	630.06	40.23	21.42	1.37
Education	2.03	7.81	2.80	10.77	7.04	27.09	14.02	53.93	0.10	0.39
Government	3.72	8.46	5.69	12.93	12.81	29.12	21.61	49.11	0.17	0.38
Industrial	11.27	8.61	17.05	13.02	37.46	28.60	63.51	48.48	1.70	1.30
Religion	3.61	8.01	7.48	16.62	14.38	31.97	19.24	42.75	0.30	0.66
Residential	986.64	6.82	3,203.84	22.16	4,540.93	31.40	3,107.33	21.49	2,621.26	18.13
Total	**1,124.23**		**3,482.90**		**5,260.20**		**3,973.25**		**2,697.42**	

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

Building Type	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	20	6.79	22	7.66	101	34.34	150	51.08	0	0.13
Masonry	157	7.41	312	14.77	670	31.75	825	39.08	147	6.98
MH	361	18.29	234	11.84	478	24.24	182	9.23	718	36.41
Steel	42	6.83	42	6.73	214	34.43	314	50.62	9	1.39
Wood	620	5.38	2,812	24.38	3,805	32.99	2,574	22.32	1,723	14.94

Essential Facility Damage

Before the hurricane, the region had 64 hospital beds available for use. On the day of the hurricane, the model estimates that 0 hospital beds (0%) are available for use by patients already in the hospital and those injured by the hurricane. After one week, 0% of the beds will be in service. By 30 days, 100% will be operational.

Thematic Map of Essential Facilities

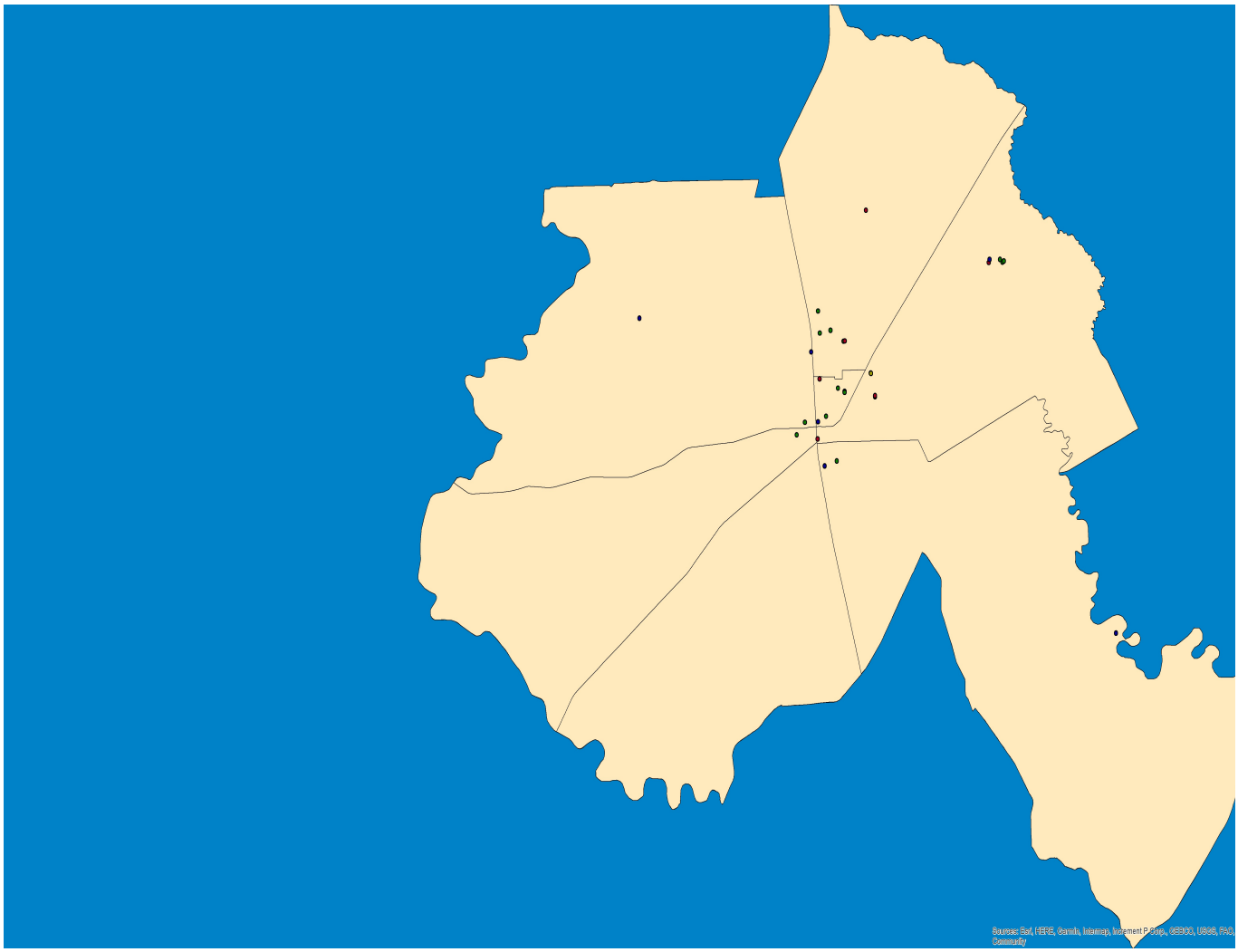
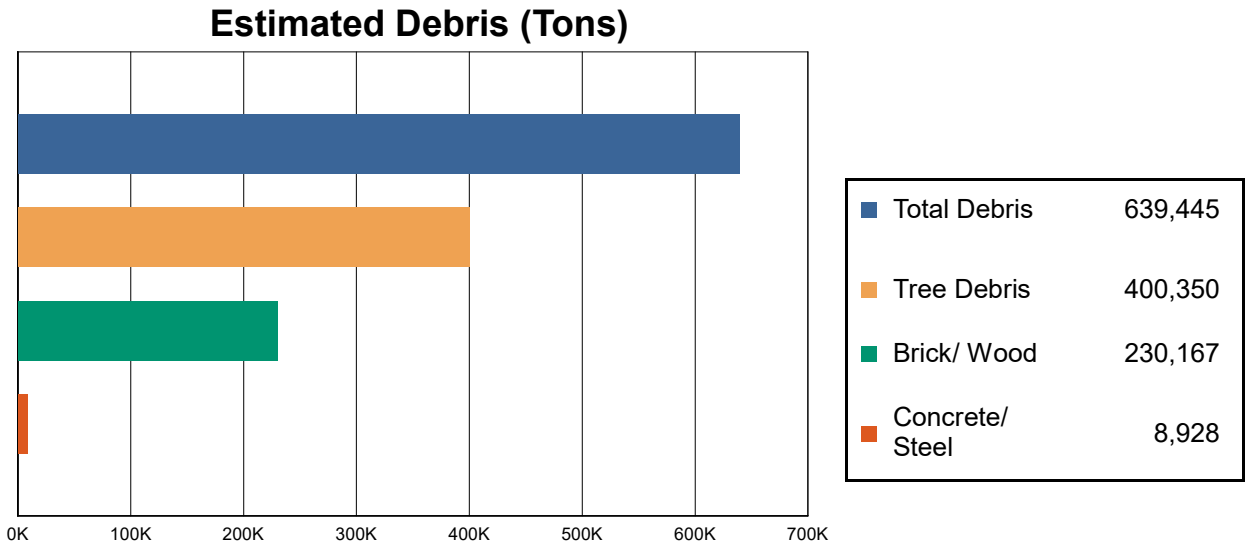


Table 4: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use < 1 day
EOCs	1	1	0	0
Fire Stations	6	6	0	6
Hospitals	1	1	0	0
Police Stations	6	6	0	0
Schools	17	17	0	0

Induced Hurricane Damage

Debris Generation

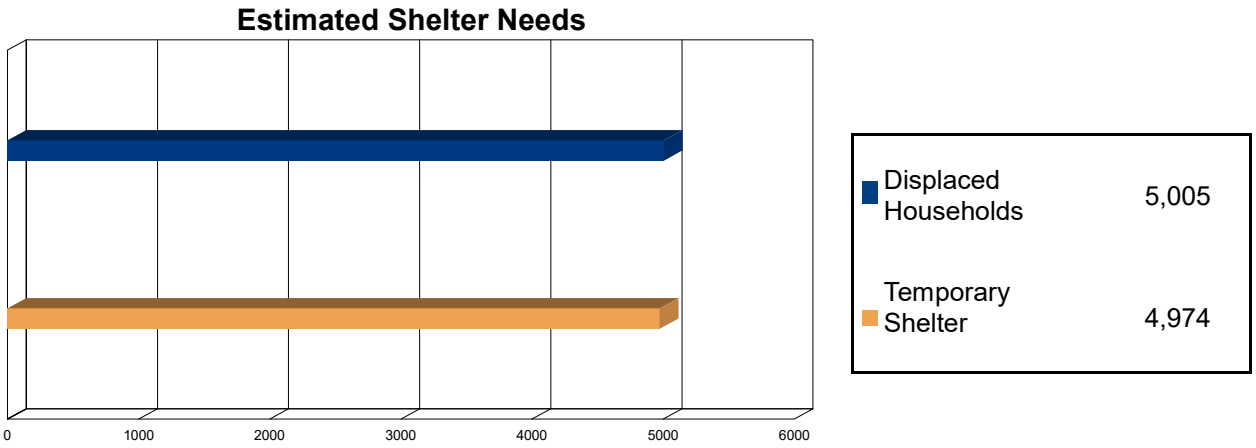


Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling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

The model estimates that a total of 639,445 tons of debris will be generated. Of the total amount, 353,322 tons (55%) is Other Tree Debris. Of the remaining 286,123 tons, Brick/Wood comprises 80% of the total, Reinforced Concrete/Steel comprises of 3% 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 9564 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 47,028 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 5,005 households to be displaced due to the hurricane. Of these, 4,974 people (out of a total population of 40,172) will seek temporary shelter in public shelters.

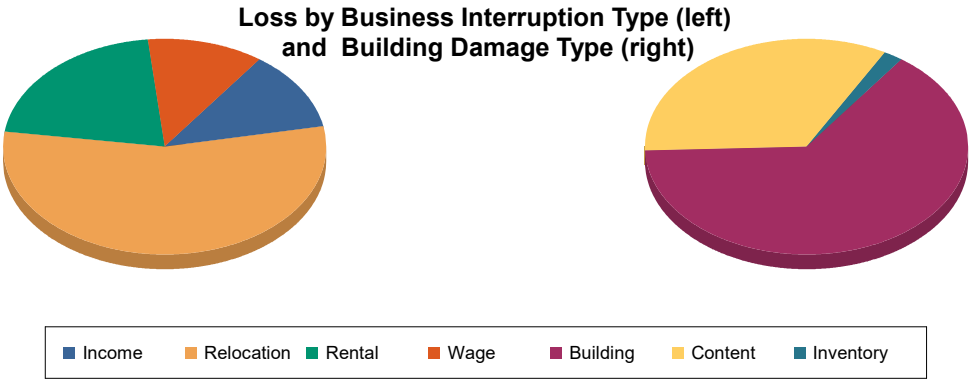
Economic Loss

The total economic loss estimated for the hurricane is 3642.0 million dollars, which represents 58.38 % 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 3,642 million dollars. 14% 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 61% of the total loss. Table 5 below provides a summary of the losses associated with the building damage.



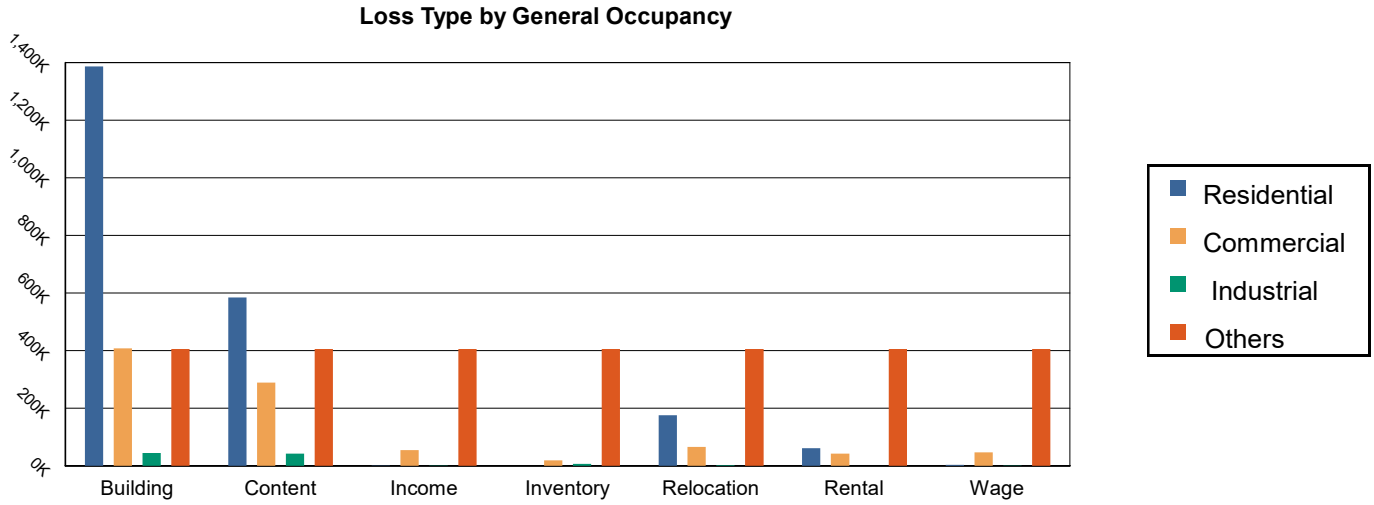


Table 5: Building-Related Economic Loss Estimates

(Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Property Damage						
	Building	1,386,829.77	407,630.97	44,423.46	186,757.08	2,025,641.27
	Content	584,925.75	288,492.65	42,135.82	138,696.30	1,054,250.52
	Inventory	0.00	18,710.15	7,376.13	33,873.63	59,959.91
	Subtotal	**1,971,755.52**	**714,833.77**	**93,935.41**	**359,327.01**	**3,139,851.71**
Business Interruption Loss						
	Income	1,301.19	54,622.67	735.19	3,048.01	59,707.06
	Relocation	176,056.35	65,376.62	2,224.48	33,811.93	277,469.38
	Rental	61,185.80	42,396.08	597.09	2,858.49	107,037.45
	Wage	3,060.62	47,278.85	1,200.08	6,426.35	57,965.90
	Subtotal	**241,603.96**	**209,674.21**	**4,756.84**	**46,144.77**	**502,179.78**

Total

Total	**2,213,359.48**	**924,507.98**	**98,692.25**	**405,471.78**	**3,642,031.48**

Appendix A: County Listing for the Region

Texas
- Brazoria

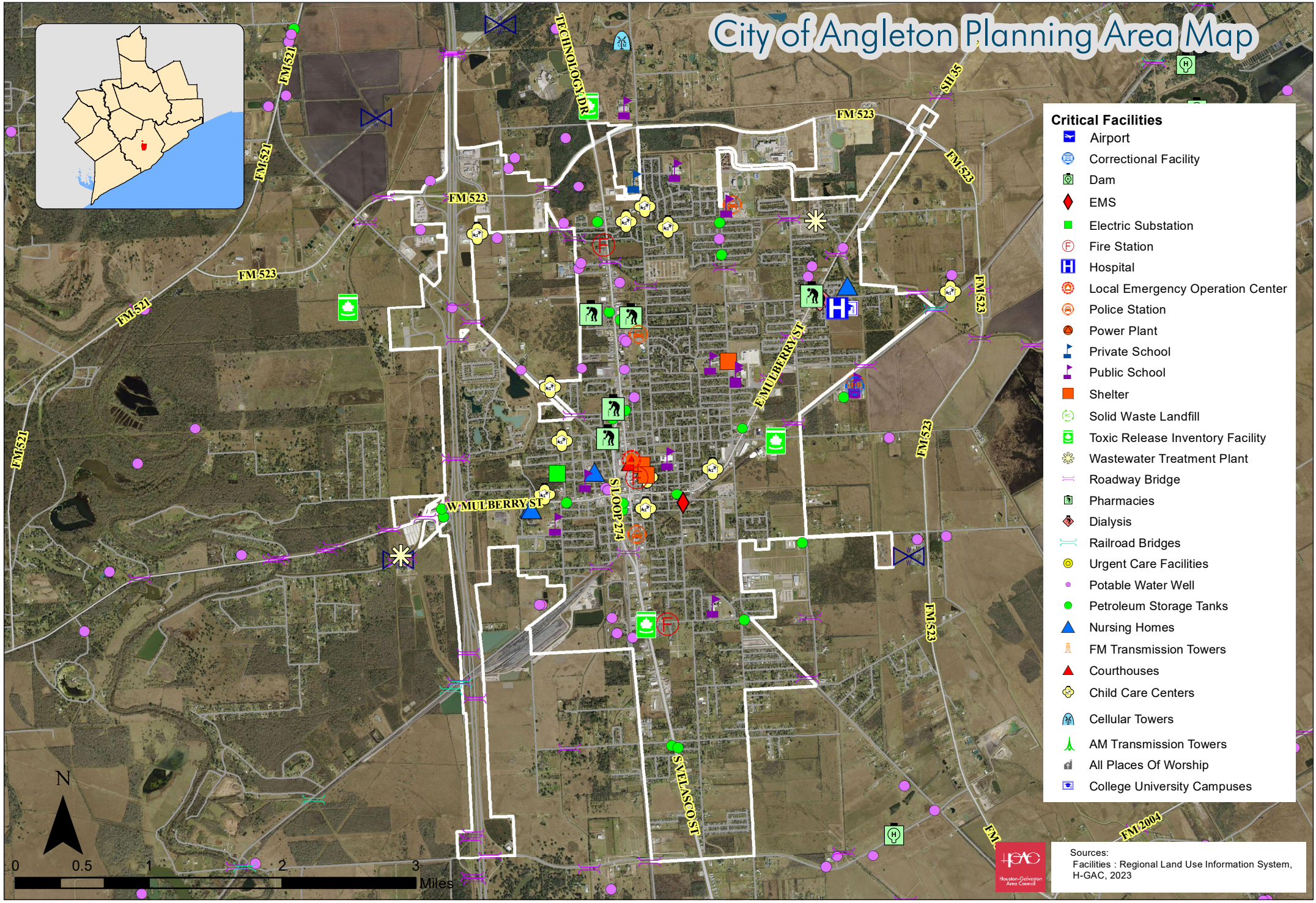
Appendix B: Regional Population and Building Value Data

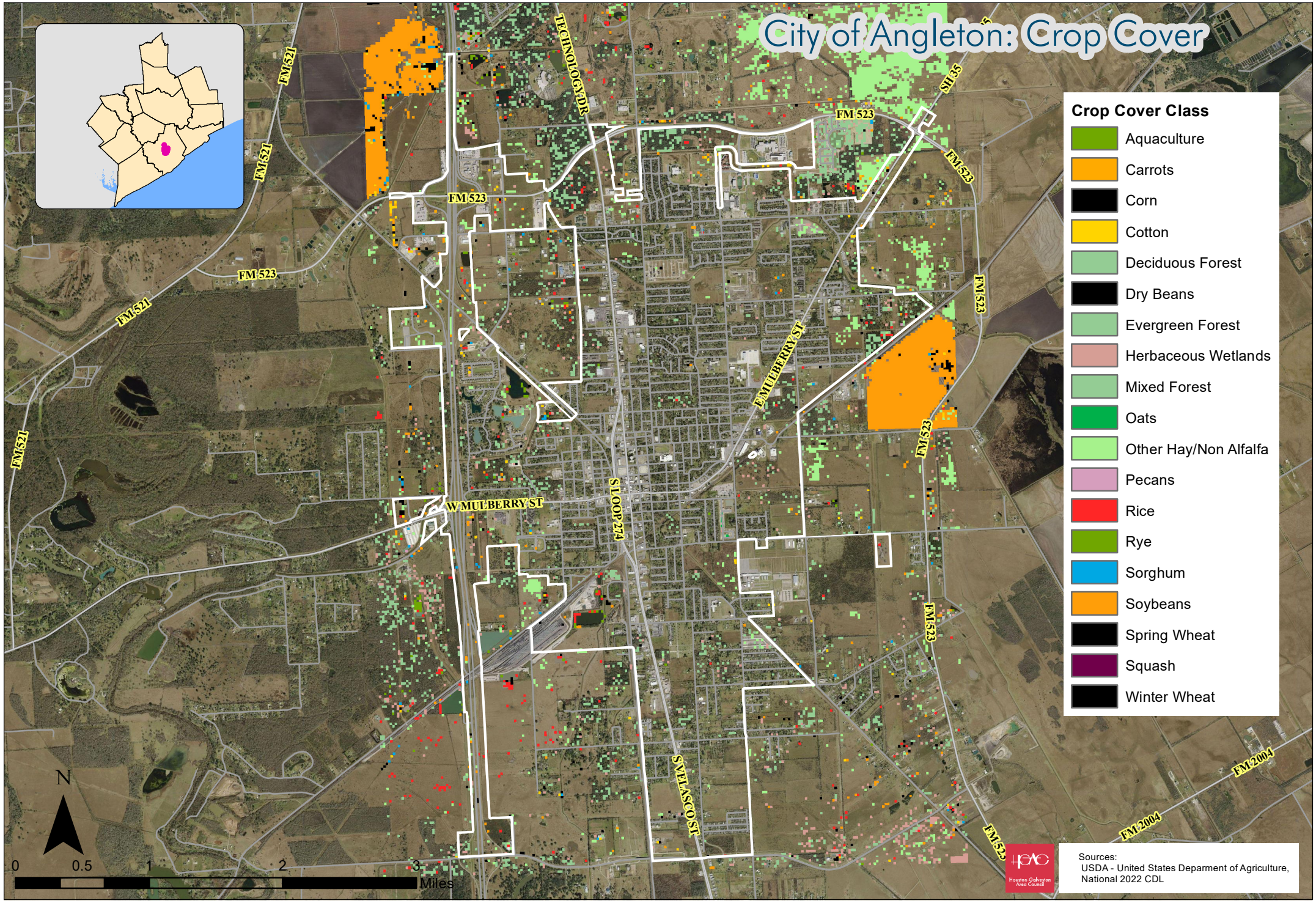
		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
Texas				
Brazoria	40,172	3,726,718	2,511,444	6,238,162
Total	**40,172**	**3,726,718**	**2,511,444**	**6,238,162**
Study Region Total	**40,172**	**3,726,718**	**2,511,444**	**6,238,162**

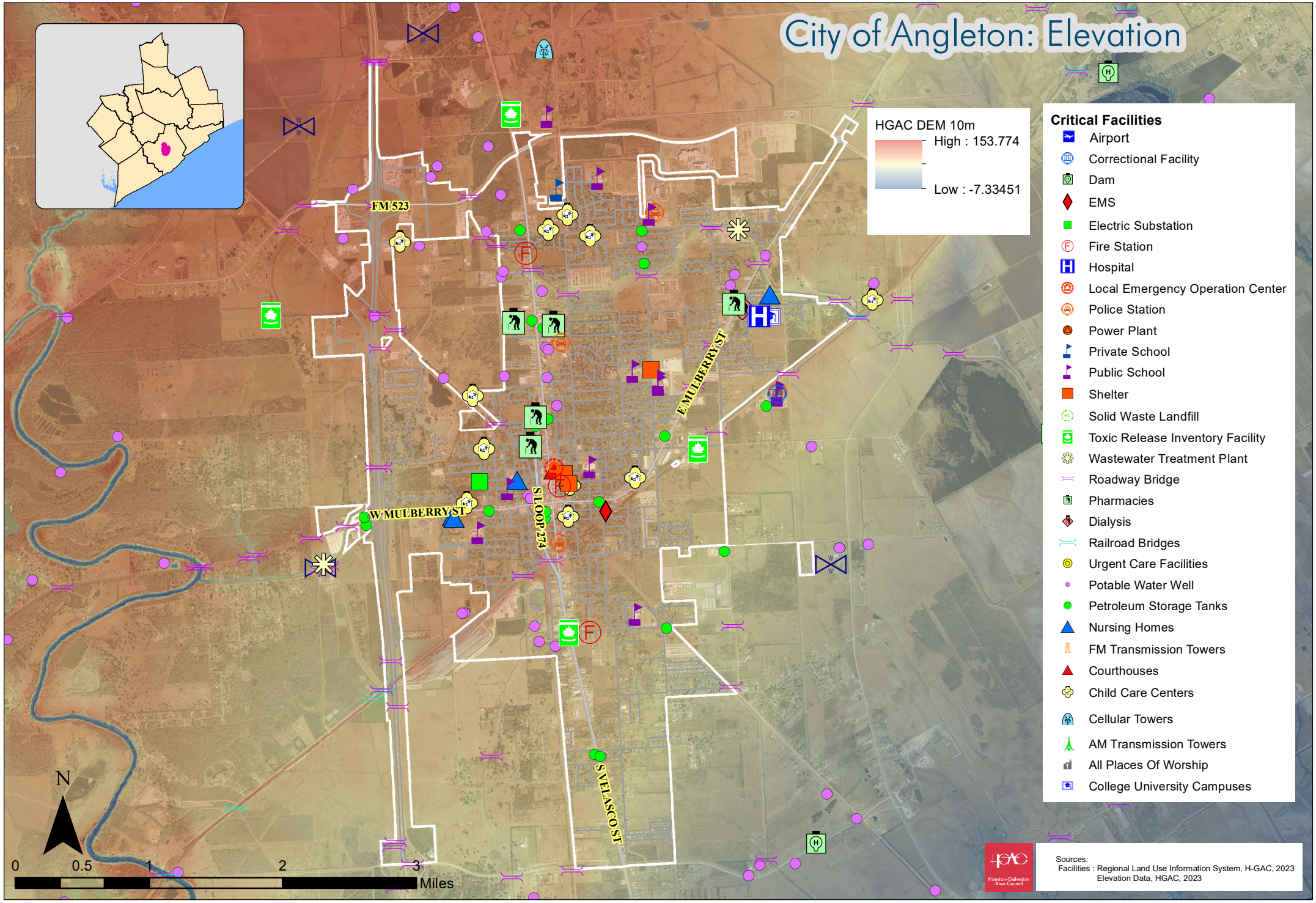
2024

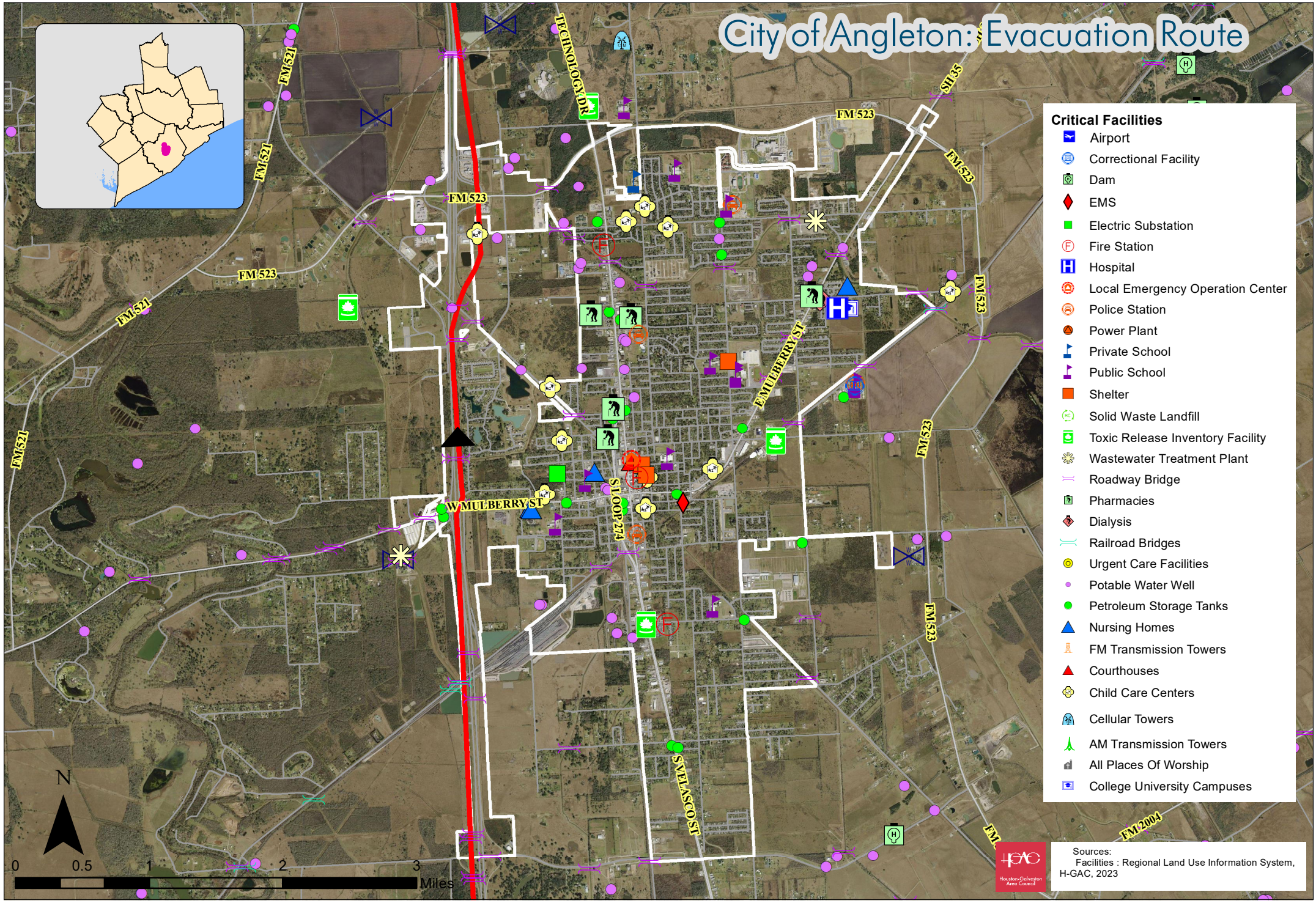
Appendix B

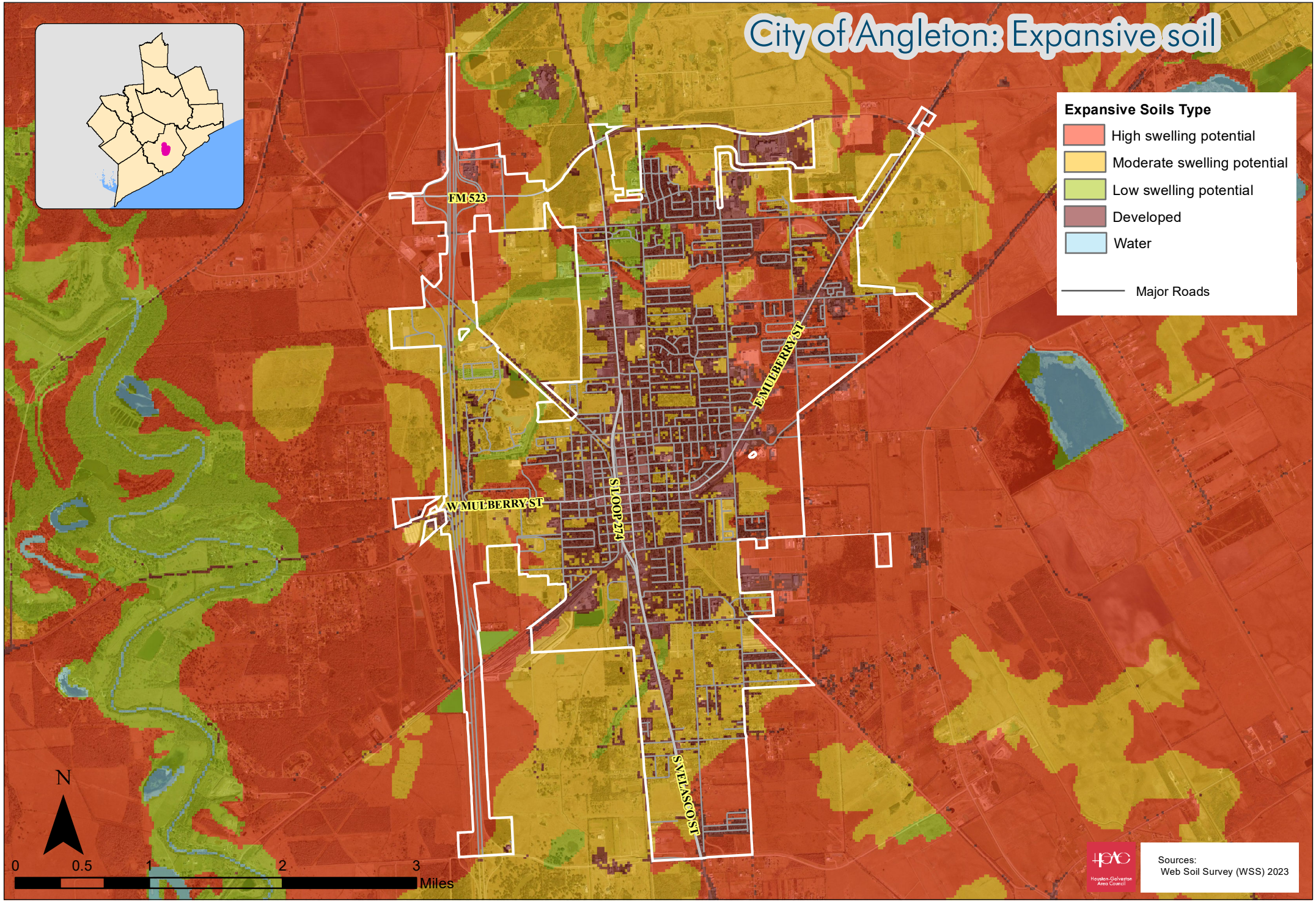
H-GAC MAPS

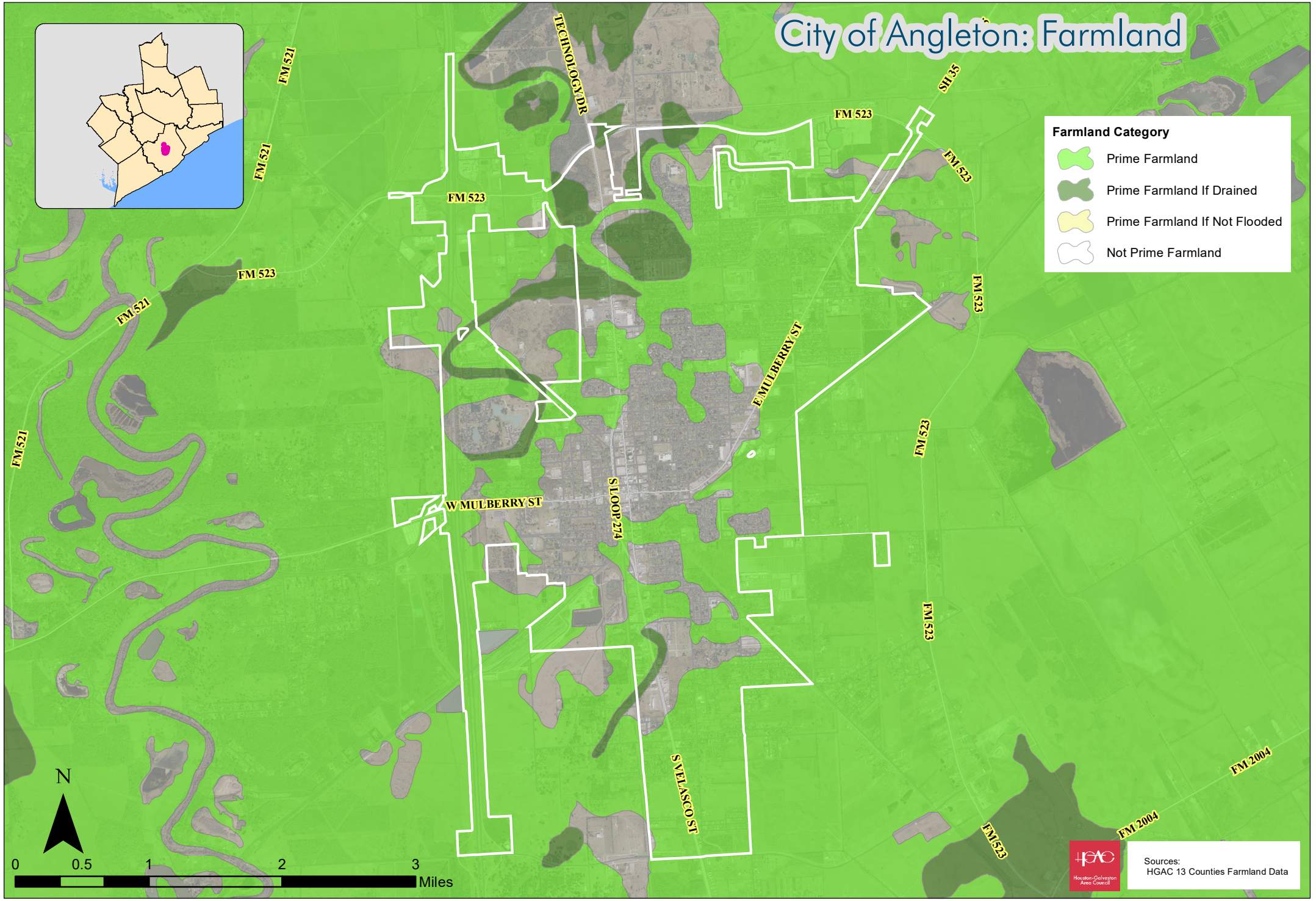

City of Angleton Planning Area Map
Critical Facilities
Airport
Correctional Facility
Dam
EMS
Electric Substation
Fire Station
Hospital
Local Emergency Operation Center
Police Station
Power Plant
Private School
Public School
Shelter
Solid Waste Landfill
Toxic Release Inventory Facility
Wastewater Treatment Plant
Roadway Bridge
Pharmacies
Dialysis
Railroad Bridges
Urgent Care Facilities
Potable Water Well
Petroleum Storage Tanks
Nursing Homes
FM Transmission Towers
Courthouses
Child Care Centers
Cellular Towers
AM Transmission Towers
All Places Of Worship
College University Campuses
FM 521
FM 523
TECHNOLOGY DR
SH 35
E MULBERRY ST
W MULBERRY ST
SLOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Houston-Galveston Area Council
Sources:
Facilities : Regional Land Use Information System, H-GAC, 2023

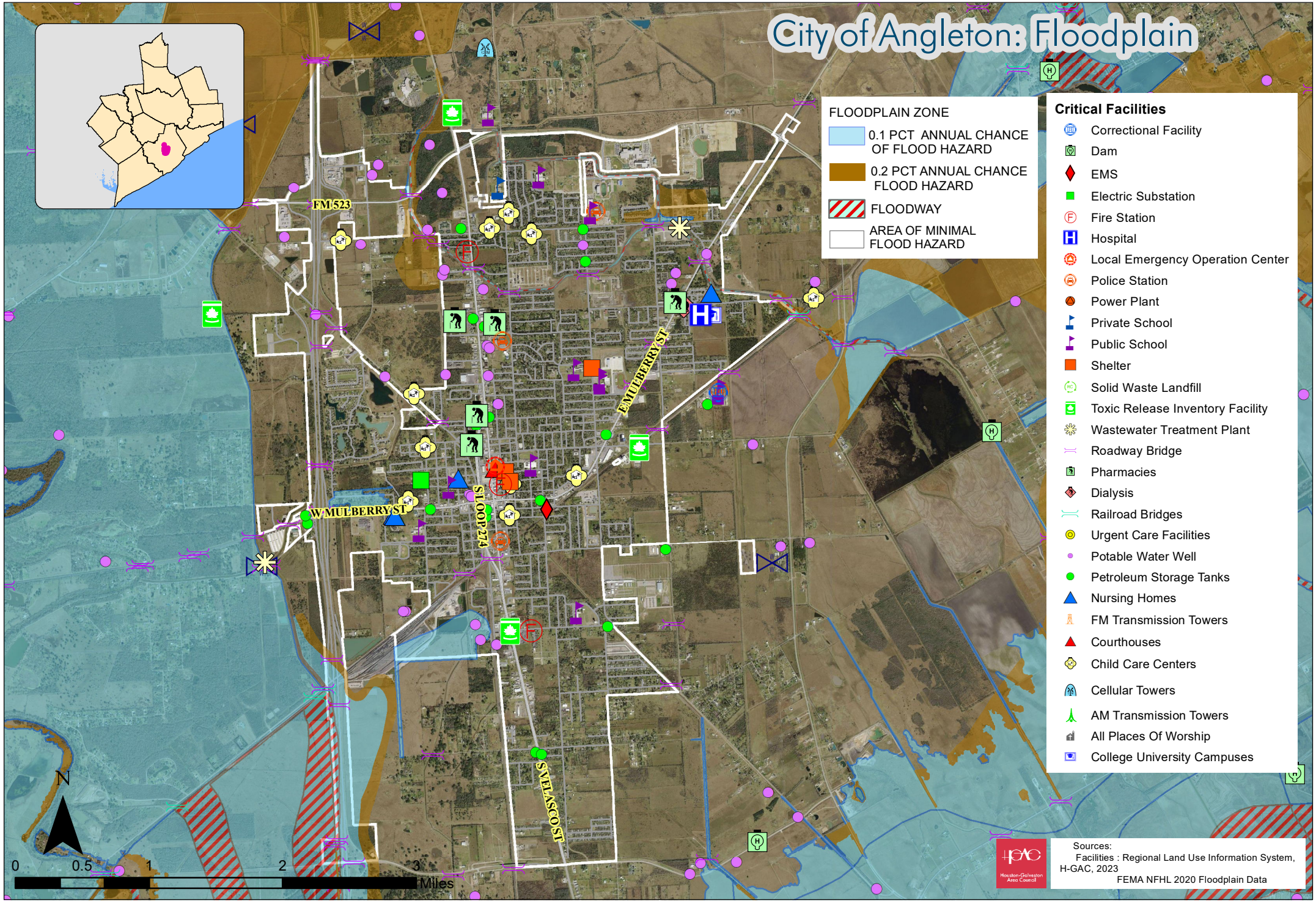

City of Angleton: Crop Cover
Crop Cover Class
Aquaculture
Carrots
Corn
Cotton
Deciduous Forest
Dry Beans
Evergreen Forest
Herbaceous Wetlands
Mixed Forest
Oats
Other Hay/Non Alfalfa
Pecans
Rice
Rye
Sorghum
Soybeans
Spring Wheat
Squash
Winter Wheat
TECHNOLOGY DR
FM 521
FM 523
SH 35
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Sources:
USDA - United States Deparment of Agriculture, National 2022 CDL
Houston-Galveston Area Council

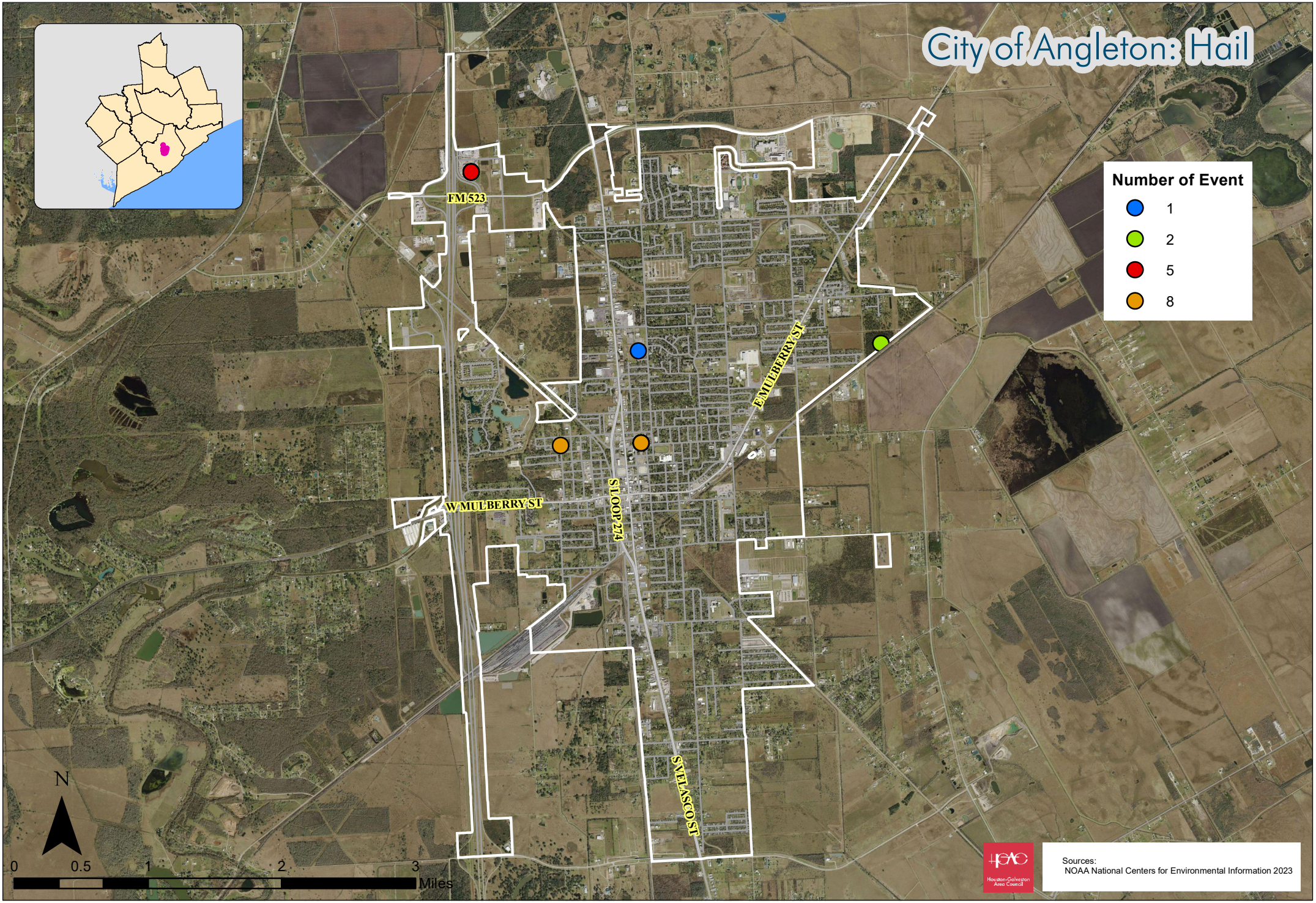

City of Angleton: Elevation
HGAC DEM 10m
High : 153.774
Low : -7.33451
Critical Facilities
Airport
Correctional Facility
Dam
EMS
Electric Substation
Fire Station
Hospital
Local Emergency Operation Center
Police Station
Power Plant
Private School
Public School
Shelter
Solid Waste Landfill
Toxic Release Inventory Facility
Wastewater Treatment Plant
Roadway Bridge
Pharmacies
Dialysis
Railroad Bridges
Urgent Care Facilities
Potable Water Well
Petroleum Storage Tanks
Nursing Homes
FM Transmission Towers
Courthouses
Child Care Centers
Cellular Towers
AM Transmission Towers
All Places Of Worship
College University Campuses
FM 523
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
N
0
0.5
1
2
3
Miles
Sources:
Facilities : Regional Land Use Information System, H-GAC, 2023
Elevation Data, HGAC, 2023


City of Angleton: Evacuation Route
Critical Facilities
Airport
Correctional Facility
Dam
EMS
Electric Substation
Fire Station
Hospital
Local Emergency Operation Center
Police Station
Power Plant
Private School
Public School
Shelter
Solid Waste Landfill
Toxic Release Inventory Facility
Wastewater Treatment Plant
Roadway Bridge
Pharmacies
Dialysis
Railroad Bridges
Urgent Care Facilities
Potable Water Well
Petroleum Storage Tanks
Nursing Homes
FM Transmission Towers
Courthouses
Child Care Centers
Cellular Towers
AM Transmission Towers
All Places Of Worship
College University Campuses
FM 521
FM 523
TECHNOLOGY DR
SH 35
E MULBERRY ST
W MULBERRY ST
SLOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Houston-Galveston Area Council
Sources:
Facilities : Regional Land Use Information System, H-GAC, 2023

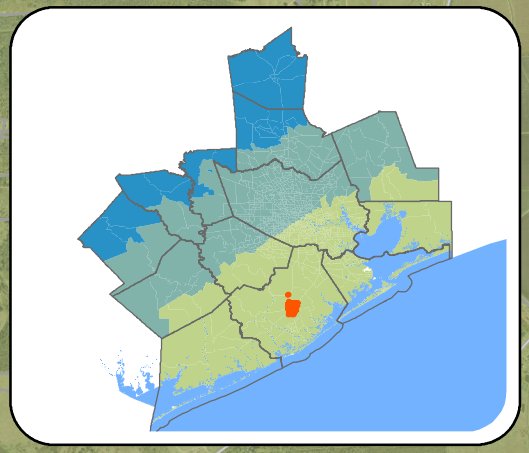

City of Angleton: Expansive soil
Expansive Soils Type
High swelling potential
Moderate swelling potential
Low swelling potential
Developed
Water
Major Roads
FM 523
W MULBERRY ST
E MULBERRY ST
SLOOP 274
SVELASCOST
N
0
0.5
1
2
3
Miles
Sources:
Web Soil Survey (WSS) 2023


City of Angleton: Farmland
Farmland Category
Prime Farmland
Prime Farmland If Drained
Prime Farmland If Not Flooded
Not Prime Farmland
TECHNOLOGY DR
FM 521
FM 523
SH 35
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Sources:
HGAC 13 Counties Farmland Data


City of Angleton: Floodplain
FLOODPLAIN ZONE
0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
0.2 PCT ANNUAL CHANCE FLOOD HAZARD
FLOODWAY
AREA OF MINIMAL FLOOD HAZARD
Critical Facilities
Correctional Facility
Dam
EMS
Electric Substation
Fire Station
Hospital
Local Emergency Operation Center
Police Station
Power Plant
Private School
Public School
Shelter
Solid Waste Landfill
Toxic Release Inventory Facility
Wastewater Treatment Plant
Roadway Bridge
Pharmacies
Dialysis
Railroad Bridges
Urgent Care Facilities
Potable Water Well
Petroleum Storage Tanks
Nursing Homes
FM Transmission Towers
Courthouses
Child Care Centers
Cellular Towers
AM Transmission Towers
All Places Of Worship
College University Campuses
FM 523
E MULBERRY ST
W MULBERRY ST
S LOOP 274
SYLVASCO ST
N
0 0.5 1 2 3 Miles
Sources:
Facilities : Regional Land Use Information System, H-GAC, 2023
FEMA NFHL 2020 Floodplain Data


City of Angleton: Hail
Number of Event
1
2
5
8
FM 523
W MULBERRY ST
E MULBERRY ST
S LOOP 274
S VELASCO ST
N
0
0.5
1
2
3
Miles
Sources:
NOAA National Centers for Environmental Information 2023

City of Angleton: Potential Hurricane Wind Speed
100-year Wind Event



Wind Speeds

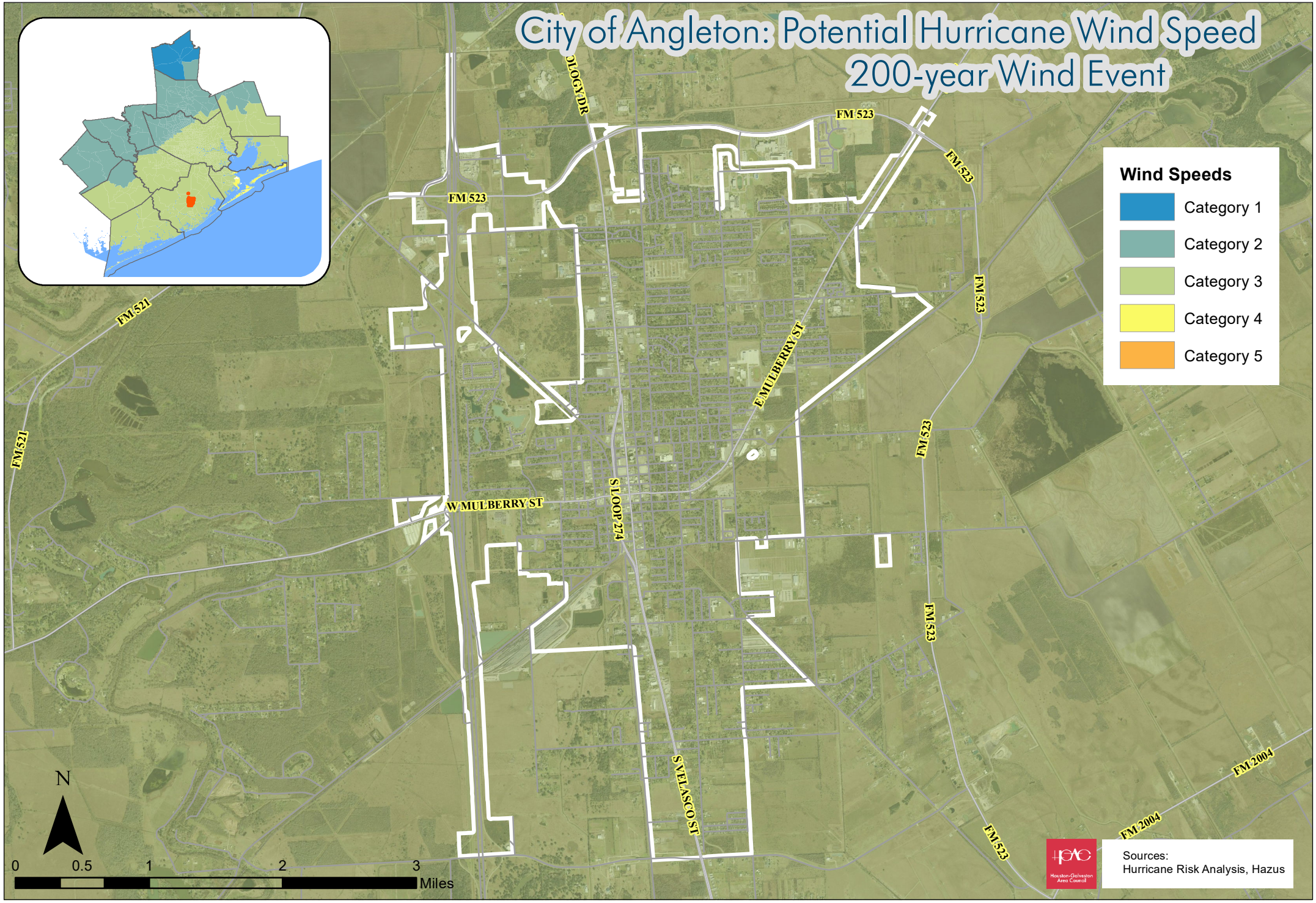
- Category 1
- Category 2
- Category 3
- Category 4
- Category 5

FM 523
FM 523
FM 523
FM 523
FM 523
FM 523
FM 521
FM 521
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
FM 2004

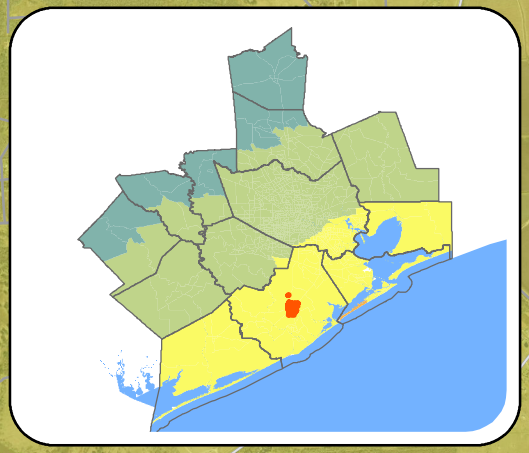
N

0 0.5 1 2 3 Miles

Sources:
Hurricane Risk Analysis, Hazus


City of Angleton: Potential Hurricane Wind Speed
200-year Wind Event
Wind Speeds
Category 1
Category 2
Category 3
Category 4
Category 5
FM 523
FM 521
W MULBERRY ST
E MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Sources:
Hurricane Risk Analysis, Hazus

City of Angleton: Potential Hurricane Wind Speed
500-year Wind Event



Wind Speeds

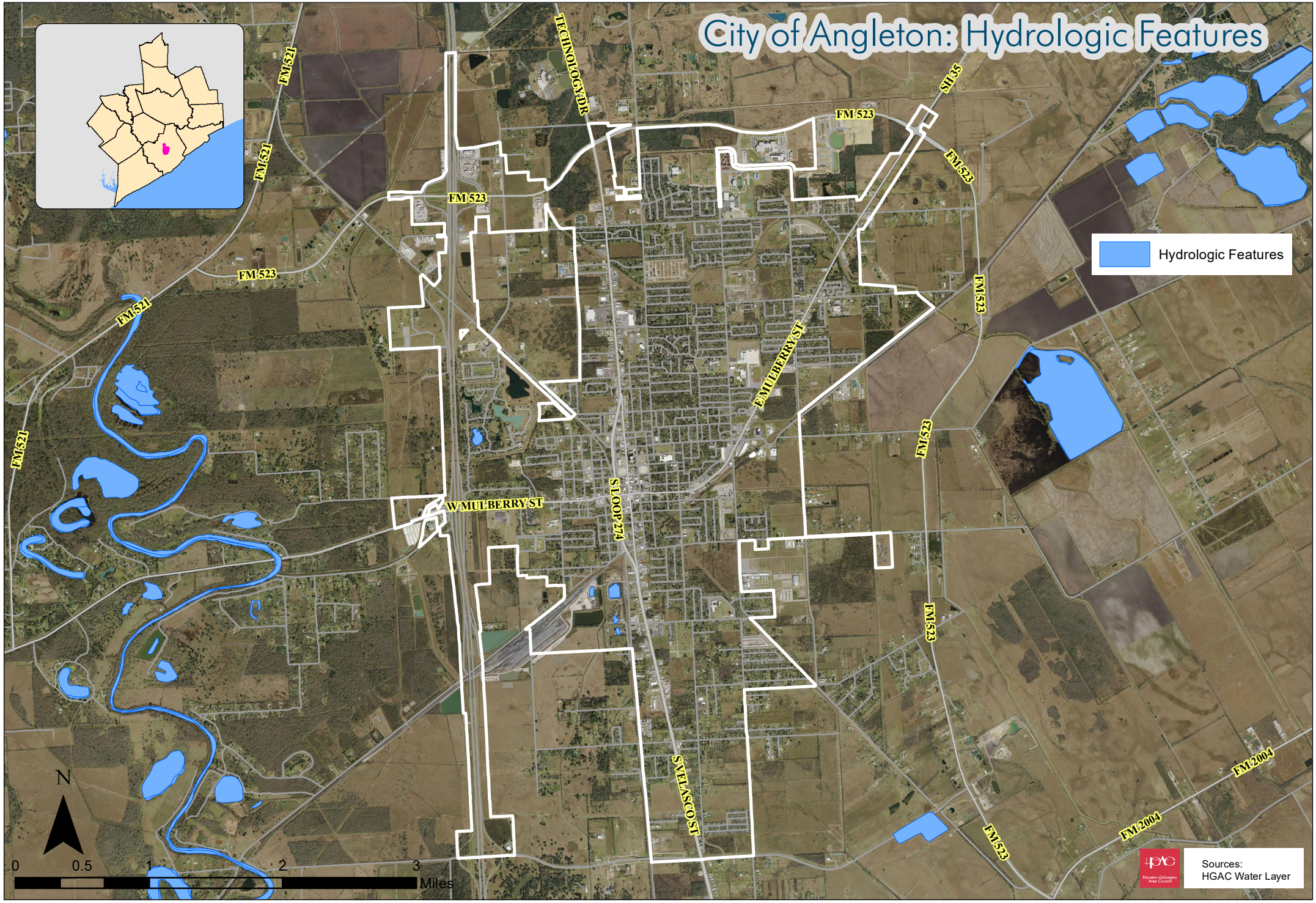
- Category 1
- Category 2
- Category 3
- Category 4
- Category 5

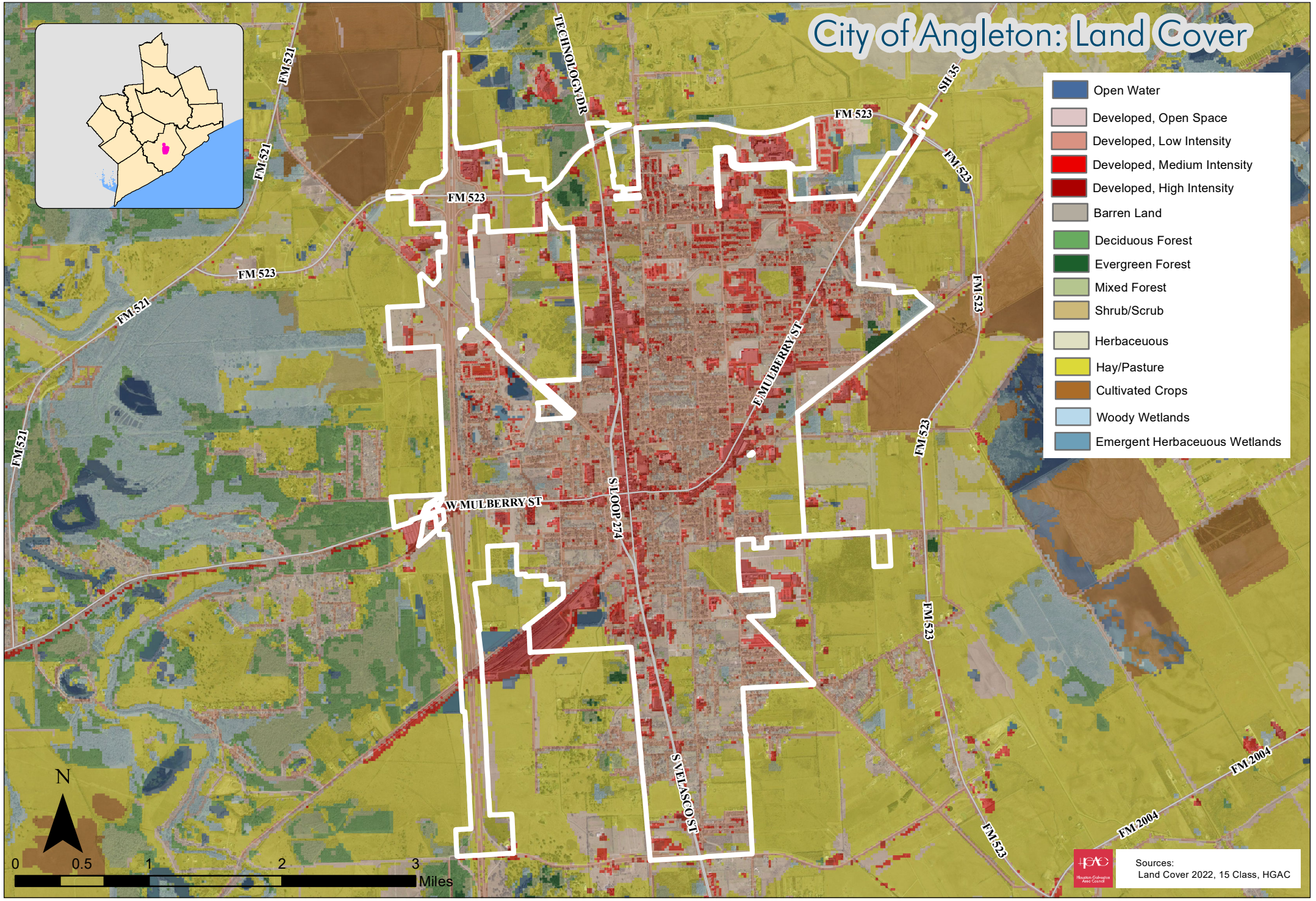
FM 523
FM 523
FM 523
FM 523
FM 523
FM 521
FM 521
FM 2004
FM 2004
OLOGY DR
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST

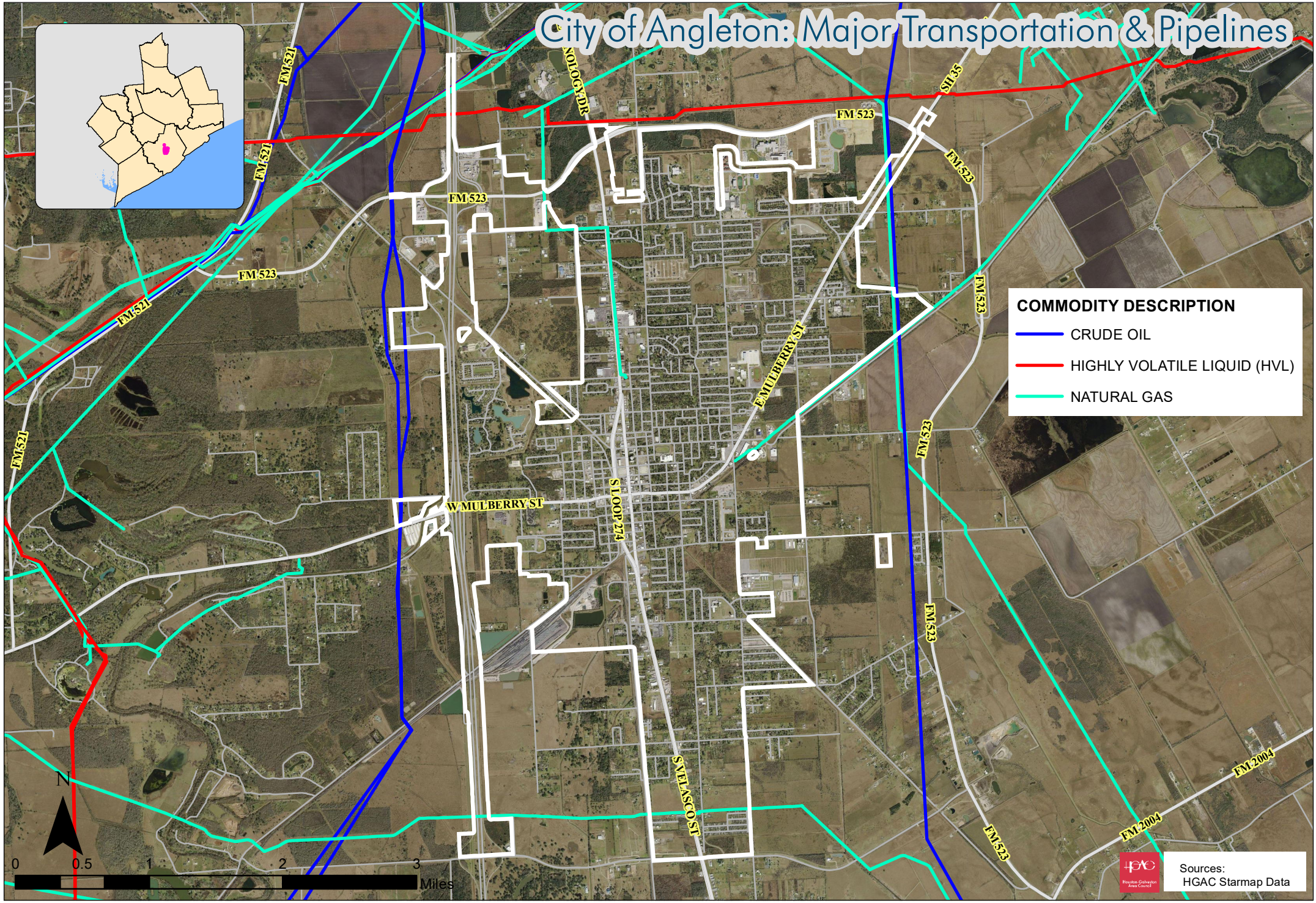
N

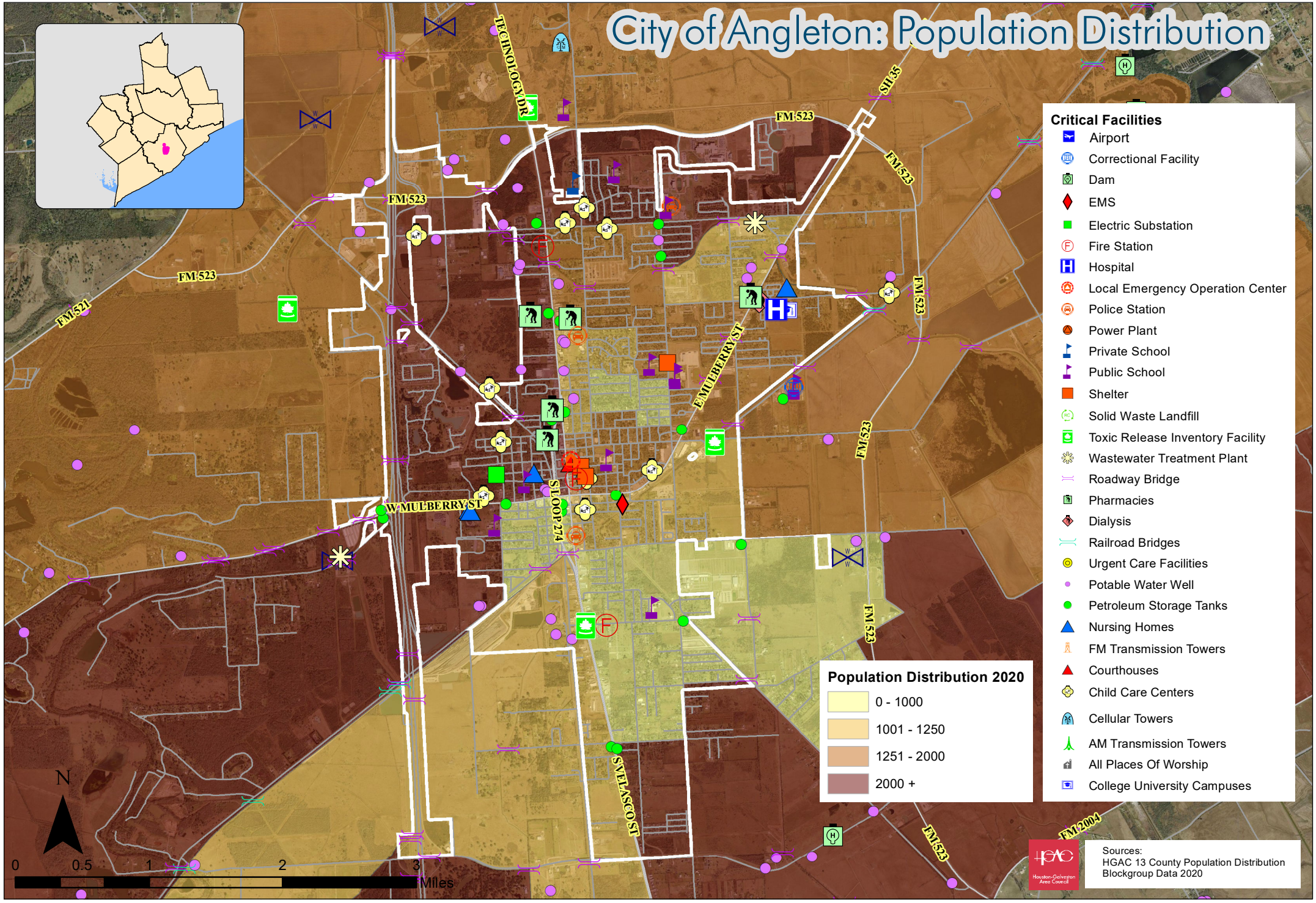
0 0.5 1 2 3 Miles

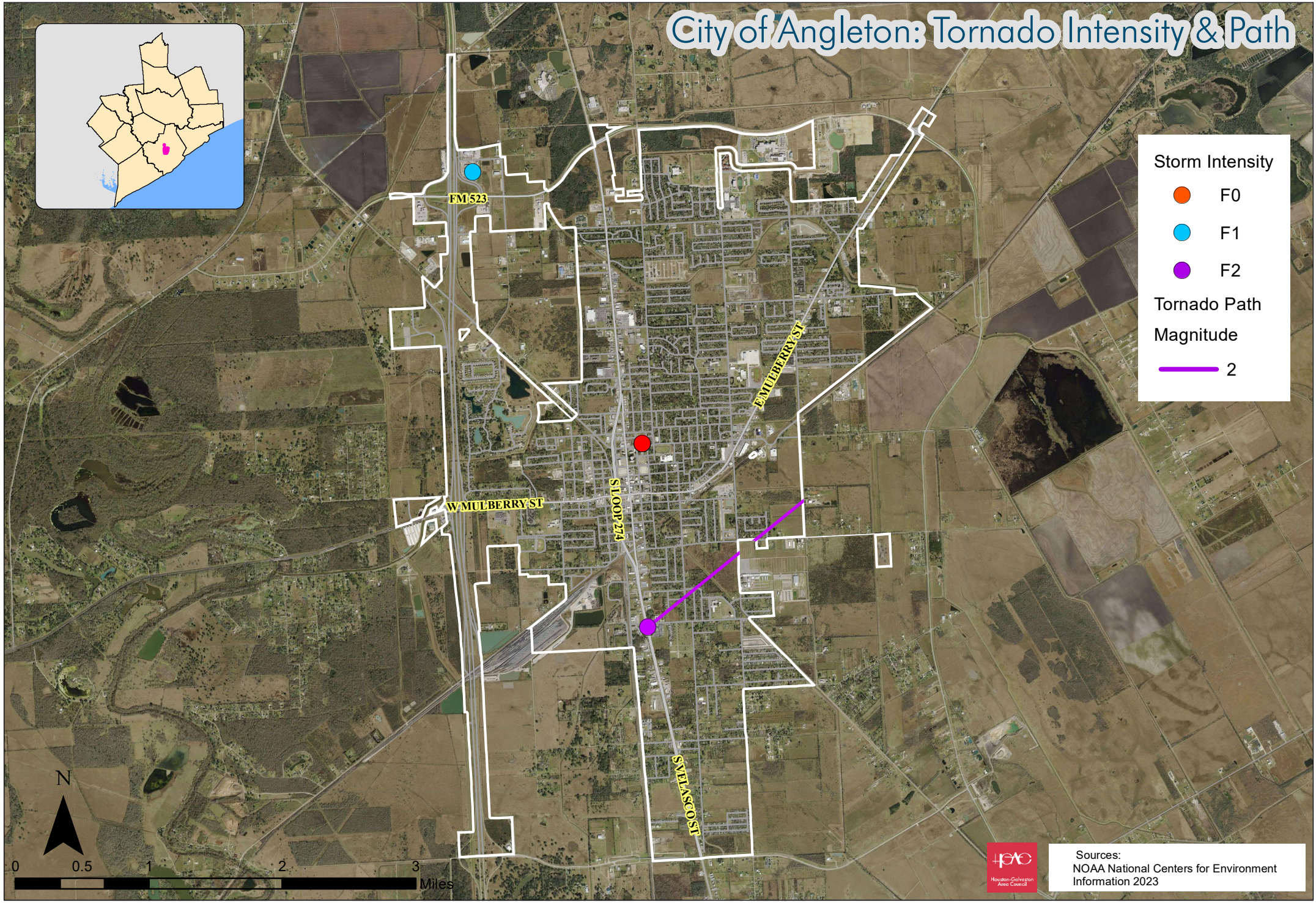
Sources:
Hurricane Risk Analysis, Hazus

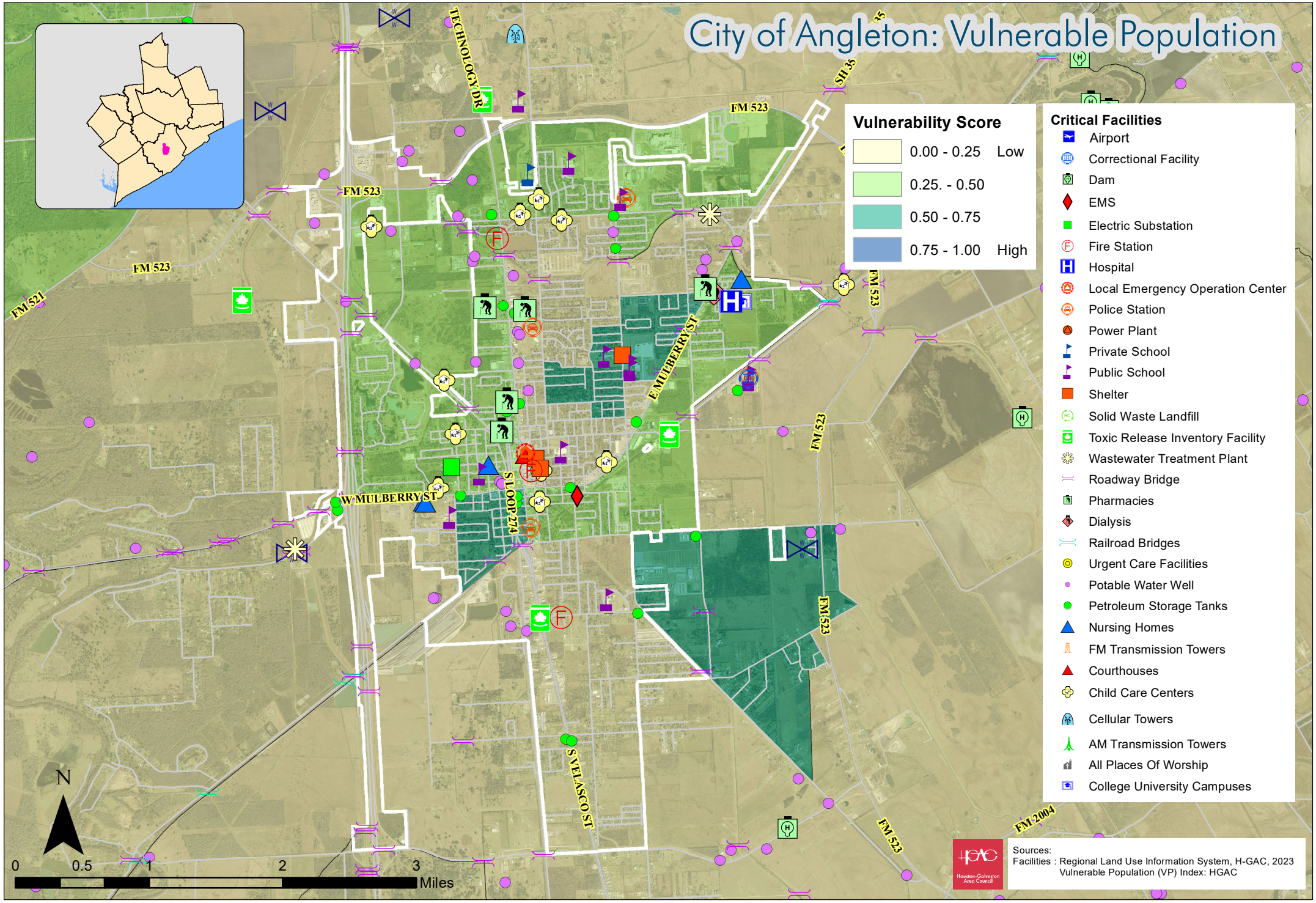

City of Angleton: Hydrologic Features
Hydrologic Features
TECHNOLOGY DR
FM 521
FM 523
SH 35
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Sources:
HGAC Water Layer


City of Angleton: Land Cover
Open Water
Developed, Open Space
Developed, Low Intensity
Developed, Medium Intensity
Developed, High Intensity
Barren Land
Deciduous Forest
Evergreen Forest
Mixed Forest
Shrub/Scrub
Herbaceuous
Hay/Pasture
Cultivated Crops
Woody Wetlands
Emergent Herbaceuous Wetlands
TECHNOLOGY DR
FM 521
FM 523
SH 35
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Sources:
Land Cover 2022, 15 Class, HGAC

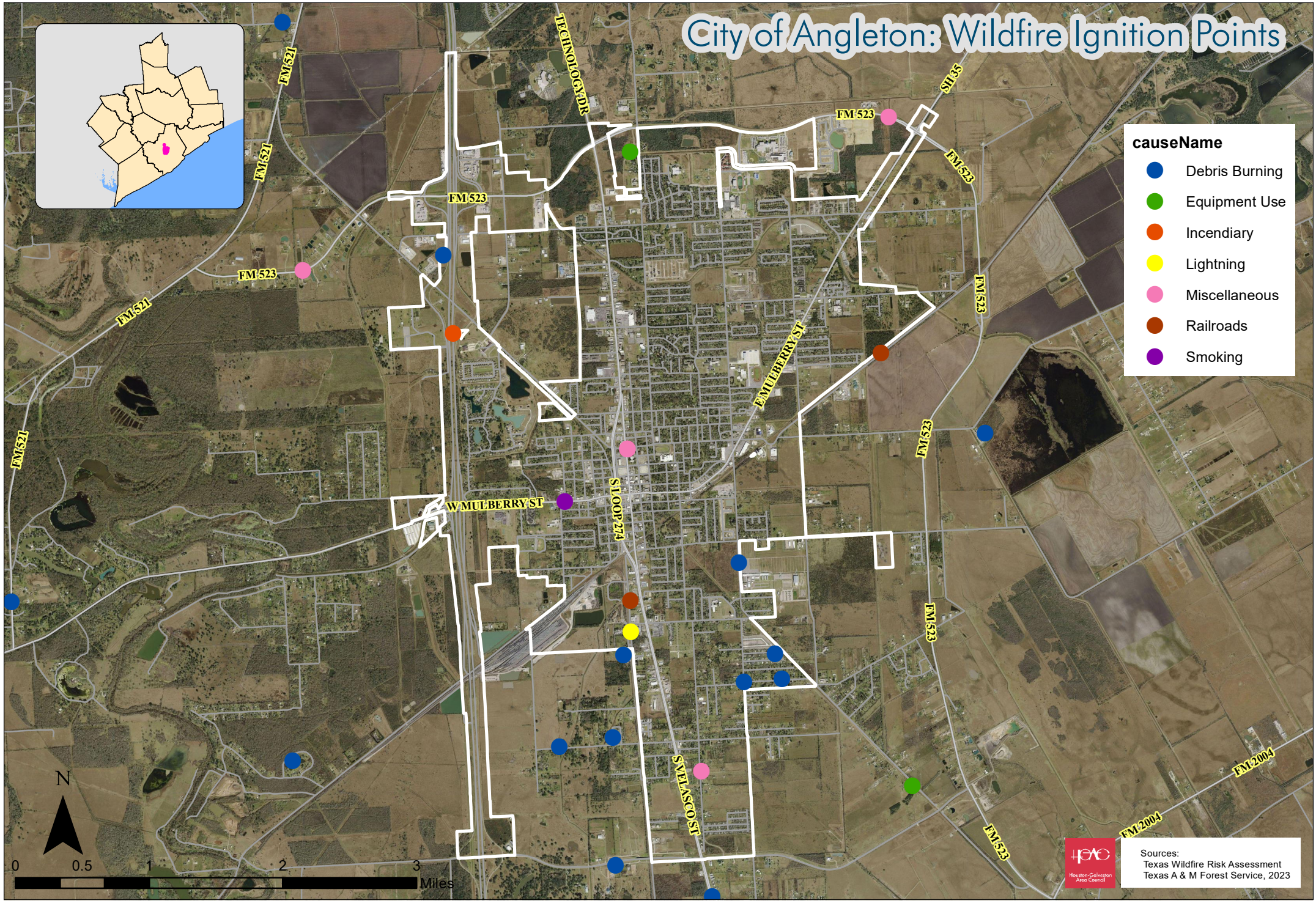

City of Angleton: Major Transportation & Pipelines
FM 521
FM 523
SH 35
NOLOGY DR
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
COMMODITY DESCRIPTION
CRUDE OIL
HIGHLY VOLATILE LIQUID (HVL)
NATURAL GAS
N
0
0.5
1
2
3
Miles
Sources:
HGAC Starmap Data


City of Angleton: Population Distribution
TECHNOLOGY DR
SH35
FM 523
FM 521
E MULBERRY ST
W MULBERRY ST
SL 0274
S VELASCO ST
FM 2004
Critical Facilities
Airport
Correctional Facility
Dam
EMS
Electric Substation
Fire Station
Hospital
Local Emergency Operation Center
Police Station
Power Plant
Private School
Public School
Shelter
Solid Waste Landfill
Toxic Release Inventory Facility
Wastewater Treatment Plant
Roadway Bridge
Pharmacies
Dialysis
Railroad Bridges
Urgent Care Facilities
Potable Water Well
Petroleum Storage Tanks
Nursing Homes
FM Transmission Towers
Courthouses
Child Care Centers
Cellular Towers
AM Transmission Towers
All Places Of Worship
College University Campuses
Population Distribution 2020
0 - 1000
1001 - 1250
1251 - 2000
2000 +
N
0 0.5 1 2 3
Miles
Sources:
HGAC 13 County Population Distribution
Blockgroup Data 2020


City of Angleton: Tornado Intensity & Path
Storm Intensity
F0
F1
F2
Tornado Path
Magnitude
2
FM 523
W MULBERRY ST
E MULBERRY ST
SLOOP 274
SVELASCO ST
N
0
0.5
1
2
3
Miles
Sources:
NOAA National Centers for Environment Information 2023


City of Angleton: Vulnerable Population
Vulnerability Score
0.00 - 0.25 Low
0.25. - 0.50
0.50 - 0.75
0.75 - 1.00 High
Critical Facilities
Airport
Correctional Facility
Dam
EMS
Electric Substation
Fire Station
Hospital
Local Emergency Operation Center
Police Station
Power Plant
Private School
Public School
Shelter
Solid Waste Landfill
Toxic Release Inventory Facility
Wastewater Treatment Plant
Roadway Bridge
Pharmacies
Dialysis
Railroad Bridges
Urgent Care Facilities
Potable Water Well
Petroleum Storage Tanks
Nursing Homes
FM Transmission Towers
Courthouses
Child Care Centers
Cellular Towers
AM Transmission Towers
All Places Of Worship
College University Campuses
TECHNOLOGY DR
FM 523
SH 35
FM 521
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 2004
N
0 0.5 1 2 3 Miles
Sources:
Facilities : Regional Land Use Information System, H-GAC, 2023
Vulnerable Population (VP) Index: HGAC


City of Angleton: Wildfire Risk Assessment
Critical Facilities
Airport
Correctional Facility
Dam
EMS
Electric Substation
Fire Station
Hospital
Local Emergency Operation Center
Police Station
Power Plant
Private School
Public School
Shelter
Solid Waste Landfill
Toxic Release Inventory Facility
Wastewater Treatment Plant
Roadway Bridge
Pharmacies
Dialysis
Railroad Bridges
Urgent Care Facilities
Potable Water Well
Petroleum Storage Tanks
Nursing Homes
FM Transmission Towers
Courthouses
Child Care Centers
Cellular Towers
AM Transmission Towers
All Places Of Worship
College University Campuses
Characteristic Fire Intensity Scale
1 (Very Low)
1.5
2 (Low)
2.5
3 (Moderate)
3.5
4 (High)
4.5
5 (Very High)
FM 523
SH 35
TECHNOLOGY DR
E MULBERRY ST
W MULBERRY ST
S LOOP 274
S VELASCO ST
FM 521
FM 2004
N
0
0.5
1
2
3
Miles
Sources:
Facilities : Regional Land Use Information System, H-GAC, 2023
Texas A & M Forest Service Data 2023


City of Angleton: Wildfire Ignition Points
causeName
Debris Burning
Equipment Use
Incendiary
Lightning
Miscellaneous
Railroads
Smoking
FM 521
FM 523
TECHNOLOGY DR
SH 35
E MULBERRY ST
W MULBERRY ST
SLOOP 274
S VELASCO ST
FM 2004
N
0
0.5
1
2
3
Miles
Sources:
Texas Wildfire Risk Assessment
Texas A & M Forest Service, 2023
Houston-Galveston Area Council

2024

Appendix C

CRITICAL FACILITIES

Type	Name	Address	City	Zip code	County	Latitude	Longitude
Correctional Facility	Brazoria County Detention Center	3602 COUNTY RD 45	Angleton	77515	Brazoria	29.2429	-95.4086
Correctional Facility	Brazoria Juvenile Detention Center	20875 COUNTY RD 171	Angleton	77515	Brazoria	29.1755	-95.4035
Correctional Facility	Scott Prison	6999 RETRIEVE	Angleton	77515	Brazoria	29.0917	-95.4814
Electric Substation	Retrieve		Angleton	77515	Brazoria	29.0999	-95.4928
Electric Substation	Unknown304596		Angleton	77515	Brazoria	29.2267	-95.4281
Electric Substation	Angleton		Angleton	77515	Brazoria	29.1670	-95.4406
EMS	Angleton Area Emergency Medical Services	600 EAST ORANGE STREET	Angleton	77515	Brazoria	29.1634	-95.4252
Fire Station	Angleton Fire Department, Station 2	Cemetery Road	Angleton	77515	Brazoria	29.1502	-95.4276
Fire Station	Angleton Volunteer Fire Department, Station 1	221 North Chenango Street	Angleton	77515	Brazoria	29.1663	-95.4308
Fire Station	Angleton Volunteer Fire Department, Station 3	2743 North Velasco Street	Angleton	77515	Brazoria	29.1916	-95.4341
Fire Station	Holiday Lakes Fire Department	200 Texas Avenue	Angleton	77515	Brazoria	29.2039	-95.5165
Hospital	Utmb Health- Angleton Danbury Campus	132 EAST HOSPITAL DRIVE	Angleton	77515	Brazoria	29.1840	-95.4054
Local Emergency Operation Center	Brazoria County Emergency Operations Center	111 EAST LOCUST STREET	Angleton	77515	Brazoria	29.1683	-95.4314
Police Station	Brazoria County Sheriff's Office/ Jail	3602 COUNTY ROAD 45	Angleton	77515	Brazoria	29.2430	-95.4078
Police Station	Brazoria County Juvenile Detention Center	20875 COUNTY ROAD 171	Angleton	77515	Brazoria	29.1758	-95.4034
Police Station	Angleton ISD Police Department	1201 HENDERSON ROAD	Angleton	77515	Brazoria	29.1956	-95.4180
Police Station	Angleton Police Department	104 CANNAN DRIVE	Angleton	77515	Brazoria	29.1819	-95.4301
Police Station	Texas Department of Public Safety-Highway Patrol Region 2 District A Sergeant 0 Area 7	501 SOUTH VELASCO STREET	Angleton	77515	Brazoria	29.1601	-95.4310
Private School	Angleton Christian School	3133 N VALDERAS ST	Angleton	77515	Brazoria	29.1984	-95.4300

Type	Name	Address	City	Zip code	County	Latitude	Longitude
Public School	Brazoria County Juvenile Justice Alternative Education Program		Angleton	77515	Brazoria	29.1754	-95.4034
Public School	Brazoria County Alternative Education Center		Angleton	77515	Brazoria	29.1757	-95.4034
Public School	Frontier Elementary		Angleton	77515	Brazoria	29.2064	-95.4309
Public School	Central Elementary		Angleton	77515	Brazoria	29.1682	-95.4269
Public School	Angleton High School		Angleton	77515	Brazoria	29.1955	-95.4186
Public School	Northside Elementary		Angleton	77515	Brazoria	29.1784	-95.4212
Public School	Angleton High School		Angleton	77515	Brazoria	29.1955	-95.4186
Public School	Westside Elementary		Angleton	77515	Brazoria	29.1615	-95.4410
Public School	Southside Elementary		Angleton	77515	Brazoria	29.1520	-95.4218
Public School	Brazoria County Juvenile Detention		Angleton	77515	Brazoria	29.1773	-95.4181
Public School	Angleton Junior High School		Angleton	77515	Brazoria	29.1769	-95.4181
Public School	Student Alternative Center		Angleton	77515	Brazoria	29.1661	-95.4371
Public School	Rancho Isabella Elementary		Angleton	77515	Brazoria	29.1995	-95.4249
Shelter	First Baptist Church - Angleton	237 E. Locust	Angleton	77515	Brazoria	29.1676	-95.4301
Shelter	UMC family life center	219 N. Arcola St.	Angleton	77515	Brazoria	29.1665	-95.4296
Shelter	Angleton ISD admin building	1900 N. Downing	Angleton	77515	Brazoria	29.1786	-95.4190
Solid Waste Landfill	Seabreeze environmental landfill	10310 FM 523	Angleton	77515	Brazoria	29.0896	-95.3666
Solid Waste Landfill	Brazoria County Recycling Center Transfer Station facility	10315 FM 523	Angleton	77515	Brazoria	29.1169	-95.3777
Toxic Release Inventory Facility	Allegheny Petroleum Products Co.	22614 N HIGHWAY 288	Angleton	77515	Brazoria	29.2648	-95.4515
Toxic Release Inventory Facility	Mallinckrodt diagnostics division	1111 S. VELASCO	Angleton	77515	Brazoria	29.1503	-95.4302
Toxic Release Inventory Facility	Oil patch brazos valley	22614 N HIGHWAY 288B	Angleton	77515	Brazoria	29.1857	-95.4659
Toxic Release Inventory Facility	Benchmark electronics	3000 TECHNOLOGY DR	Angleton	77515	Brazoria	29.2067	-95.4354
Toxic Release Inventory Facility	Greif Brothers Corp	1508 E. CEDAR ST.	Angleton	77515	Brazoria	29.1698	-95.4135
Toxic Release Inventory Facility	3m Angleton	1508 E CEDAR ST	Angleton	77515	Brazoria	29.1698	-95.4135

Type	Name	Address	City	Zip code	County	Latitude	Longitude
Wastewater Treatment Plant	Oyster Creek WWTP	500 SEBESTA RD	Angleton	77515	Brazoria	29.1586	-95.4603
Wastewater Treatment Plant	Brushy Bayou WWTF	BRUSHY BAYOU 2000F NW ST HWY35	Angleton	77515	Brazoria	29.1936	-95.4077
College/ University Campus	Utmb Health- Angleton Danbury Campus	132 E Hospital Dr.	Angleton	77515	Brazoria	29.1846	-95.4050
Place of Worship	Central Assembly of God	709 W MULBERRY ST	Angleton	77515	Brazoria	29.16	-95.44
Place of Worship	First Missionary Baptist Church	PO BOX 125	Angleton	77515	Brazoria	29.18	-95.43
Place of Worship	New Bethel Baptist Church of Angleton	304 W LIVE OAK ST	Angleton	77515	Brazoria	29.17	-95.44
Place of Worship	Brazosport Baptist Temple	1203 COUNTY ROAD 205	Angleton	77515	Brazoria	29.09	-95.42
Place of Worship	His Hands Puppeteers	1013 SOUTHERN OAKS DR	Angleton	77515	Brazoria	29.18	-95.45
Place of Worship	Sermon on the Mound	2700 E HIGHWAY 35	Angleton	77516	Brazoria	29.19	-95.4
Place of Worship	Christ our Savior Lutheran Church	125 COUNTY ROAD 201B	Angleton	77515	Brazoria	29.07	-95.42
Place of Worship	Mt Pisgah Baptist Church	PO BOX 2174	Angleton	77515	Brazoria	29.18	-95.43
Place of Worship	Holy Comforter Episcopal Church	PO BOX 786	Angleton	77515	Brazoria	29.18	-95.43
Place of Worship	Church of God of Prophecy	313 N PARRISH ST	Angleton	77515	Brazoria	29.17	-95.44
Place of Worship	General Council of the Assemblies of God	PO BOX 1492	Angleton	77515	Brazoria	29.18	-95.43
Place of Worship	Angleton Hispanic Foursquare Church	3133 N VALDERAS ST	Angleton	77516	Brazoria	29.2	-95.43
Place of Worship	First Assembly of God	329 N ANDERSON ST	Angleton	77516	Brazoria	29.17	-95.43
Place of Worship	David Hancock Ministries	PO BOX 532	Angleton	77515	Brazoria	29.18	-95.43
Place of Worship	Angleton foursquare church	501 KARANKAWA ST	Angleton	77516	Brazoria	29.19	-95.44
Place of Worship	Cool water cowboy church	203 COUNTY ROAD 840	Angleton	77515	Brazoria	29.09	-95.42
Place of Worship	New Life Church of Angleton Inc	302 COUNTY ROAD 47	Angleton	77515	Brazoria	29.27	-95.38
Place of Worship	Christ's Servants Church	308 LAURIE LN	Angleton	77516	Brazoria	29.16	-95.43
Place of Worship	Loves Gate Ministry	203 CORNELIA LN	Angleton	77515	Brazoria	29.16	-95.5
Place of Worship	Iglesia Misionera Fuentes de Agua Viva	1379 COUNTY ROAD 687	Angleton	77515	Brazoria	29.07	-95.42
Place of Worship	Hope City Ministries Inc	112 BLACK OAK DR	Angleton	77515	Brazoria	29.15	-95.47
Place of Worship	Burrell Chapel Baptist Church	PO BOX 873	Angleton	77515	Brazoria	29.18	-95.43
Place of Worship	Gulf Coast Baptist Association	2700 E HIGHWAY 35	Angleton	77515	Brazoria	29.19	-95.4
Place of Worship	Second Baptist Church of Angleton	1817 SHANKS RD	Angleton	77515	Brazoria	29.14	-95.42
Place of Worship	Holiday Lakes Baptist church Angleton	RR 4 BOX 762	Angleton	77515	Brazoria	29.17	-95.43

Type	Name	Address	City	Zip code	County	Latitude	Longitude
Place of Worship	Northway Baptist Church	1421 BUCHTA RD	Angleton	77516	Brazoria	29.18	-95.41
Pharmacy	Kroger	1804 NORTH VELASCO STREET	Angleton	77515	Brazoria	29.183704	-95.430961
Pharmacy	Walmart Supercenter - 527	1801 NORTH VELASCO STREET	Angleton	77515	Brazoria	29.184137	-95.435903
Pharmacy	Cvs - 6725	601 NORTH LOOP 274	Angleton	77515	Brazoria	29.170625	-95.434274
Pharmacy	Walgreens - 4373	1001 LOOP 274	Angleton	77515	Brazoria	29.173849	-95.433524
Pharmacy	The medicine shoppe pharmacy / long term care rx	2301 EAST MULBERRY STREET	Angleton	77515	Brazoria	29.185439	-95.408537
Dialysis Center	Angleton kidney center	102 E. HOSPITAL DRIVE	Angleton	77515	Brazoria	29.185034	-95.407457
Urgent Care	Angleton er	1116 E Mulberry St.	Angleton	77515	Brazoria	29.1696	-95.41699013
Petroleum Storage Tank	Handy plus 45 -80003229	2301 W HIGHWAY 35	Angleton	77515	Brazoria	29.16263	-95.45489
Petroleum Storage Tank	Corner market 6	1039 S VELASCO ST	Angleton	77515	Brazoria	29.15058	-95.4297
Petroleum Storage Tank	R b Stewart Petroleum Products	215 S FRONT ST	Angleton	77515	Brazoria	29.162778	-95.432743
Petroleum Storage Tank	Brazoria County mosquito control	1500 E KIBER ST	Angleton	77515	Brazoria	29.15862	-95.41064
Petroleum Storage Tank	Buc-ees 13	2299 E MULBERRY ST	Angleton	77515	Brazoria	29.18497	-95.40862
Petroleum Storage Tank	Murphy USA 5695	1803 N VELASCO ST	Angleton	77515	Brazoria	29.18431	-95.43363
Petroleum Storage Tank	Velasco shell	2901 N VELASCO ST	Angleton	77515	Brazoria	29.19419	-95.43475
Petroleum Storage Tank	Angleton express	1000 N VELASCO ST	Angleton	77515	Brazoria	29.17362	-95.43201
Petroleum Storage Tank	Country food 3	2851 N DOWNING RD	Angleton	77515	Brazoria	29.19369	-95.41964
Petroleum Storage Tank	Speedy express 33	22602 N HIGHWAY 288B	Angleton	77515	Brazoria	29.26536	-95.45092
Petroleum Storage Tank	Brazoria County pct 2	21017 COUNTY ROAD 171	Angleton	77515	Brazoria	29.17429	-95.40492
Petroleum Storage Tank	G & G Mini mart	2609 N DOWNING RD	Angleton	77515	Brazoria	29.19014	-95.41949
Petroleum Storage Tank	Brazoria County Airport North Fuel Farm	8015 AIRPORT WAY	Angleton	77515	Brazoria	29.11372	-95.45967
Petroleum Storage Tank	Buc-ees 21	931 LOOP 274	Angleton	77515	Brazoria	29.1728	-95.4336
Petroleum Storage Tank	Buc-ees 25	2304 W MULBERRY ST	Angleton	77515	Brazoria	29.16349	-95.45509
Petroleum Storage Tank	Mulberry mart	1235 E MULBERRY ST	Angleton	77515	Brazoria	29.17129	-95.41758
Petroleum Storage Tank	Smiths grocery	637 W MULBERRY ST	Angleton	77515	Brazoria	29.16377	-95.439613

Type	Name	Address	City	Zip code	County	Latitude	Longitude
Petroleum Storage Tank	Cross country store	26056 FM 521 RD	Angleton	77515	Brazoria	29.216112	-95.471594
Petroleum Storage Tank	Mmpk	2100 S VELASCO ST	Angleton	77515	Brazoria	29.137038	-95.427515
Petroleum Storage Tank	Circle a grocery	1100 CEMETARY RD	Angleton	77515	Brazoria	29.150461	-95.4181
Petroleum Storage Tank	E-z gas & food store	2113 S VELASCO ST	Angleton	77515	Brazoria	29.136807	-95.426774
Petroleum Storage Tank	Save step food mart	530 E MULBERRY ST	Angleton	77515	Brazoria	29.16437	-95.425959
Petroleum Storage Tank	Brazoria County Airport South Fuel Farm	8000 AIRPORT WAY	Angleton	77515	Brazoria	29.10866	-95.45944
Petroleum Storage Tank	Wal-mart supercenter 527	1801 N VELASCO ST	Angleton	77515	Brazoria	29.184105	-95.435669
Petroleum Storage Tank	Kroger 256	1804 N VELASCO ST	Angleton	77515	Brazoria	29.183433	-95.432255
Petroleum Storage Tank	Angleton Tilden c o w83610	140 W ORANGE ST	Angleton	77515	Brazoria	29.16352	-95.43264
Courthouse	Brazoria County courthouse	111 East Locust Street	Angleton	77515	Brazoria	29.16866106	-95.43137226
Childcare Facility	Ajh summer camp	1201 W HENDERSON RD	Angleton	77515	Brazoria	29.19331	-95.449661
Childcare Facility	Brazoria County head start - Angleton campus	651 W MILLER ST	Angleton	77515	Brazoria	29.17053	-95.43999
Childcare Facility	Greenhouse cc and lc	700 E HENDERSON RD	Angleton	77515	Brazoria	29.19338	-95.42606
Childcare Facility	Happy faces Angleton	2924 N VALDERAS ST	Angleton	77515	Brazoria	29.19569	-95.42881
Childcare Facility	Holy comforter day school	227 S CHENANGO ST	Angleton	77515	Brazoria	29.16289	-95.42985
Childcare Facility	Imagination Station Learning Academy - 44	1107 ANCHOR RD	Angleton	77515	Brazoria	29.17638	-95.44122
Childcare Facility	Imagination Station Learning Academy - hospital drive	948 HOSPITAL DR	Angleton	77515	Brazoria	29.185462	-95.391372
Childcare Facility	Kingdom class academy	938 E MYRTLE ST	Angleton	77515	Brazoria	29.167	-95.42142
Childcare Facility	Methodist day school	219 N ARCOLA ST	Angleton	77515	Brazoria	29.16634	-95.42955
Childcare Facility	Tiny treasures learning ctr	724 W MULBERRY ST	Angleton	77515	Brazoria	29.164736	-95.44232
Childcare Facility	Usk Tae Kwon Do summer program	213 E HENDERSON RD	Angleton	77515	Brazoria	29.19413	-95.43121
Cellular Tower	Verizon Wireless	24788 Country Road 48	Angleton	77515	BRAZORIA	29.214139	-95.431056
Cellular Tower	AT&T Mobility Spectrum LLC	2021 BRAZOSPORT BOULEVARD	Angleton	77515	BRAZORIA	29.067111	-95.319889

Type	Name	Address	City	County	Zip Code	Latitude	Longitude	Notes: Facility Type	Notes: Population
Elder Care Facility	Cypress Woods Care Center	135 1/2 HOSPITAL DR	Angleton	Brazoria	77515	29.186391	-95.404015	Nursing Home	105
Elder Care Facility	White's Cottage Center	332 MARSHALL ALLEY	Angleton	Brazoria	77515	29.167068	-95.436005	Assisted Living	16
Elder Care Facility	Country Village Care Inc	721 W MULBERRY	Angleton	Brazoria	77515	29.163273	-95.444121	Assisted Living	32
Elder Care Facility	K's Place Personal Care Home LLC	25806 CR 46	Angleton	Brazoria	77515	29.223526	-95.35615	Assisted Living	12
Elder Care Facility	Country Village Care Inc	721 W MULBERRY	Angleton	Brazoria	77515	29.163127	-95.443965	Nursing Home	136

Type	Name	Address	City	Zip code	County	Latitude	Longitude	Notes: Well Type	Notes: State Well ID Number
Potable Water Well	City of Angleton	--	Angleton	--	Brazoria	29.194167	-95.438889	Withdrawal of Water	6553513
Potable Water Well	Texas-Louisiana Power Co.	--	Angleton	--	Brazoria	29.165278	-95.434722	Withdrawal of Water	6553805
Potable Water Well	City of Angleton Well #3	--	Angleton	--	Brazoria	29.165001	-95.434445	Withdrawal of Water	6553801
Potable Water Well	City of Angleton Well #9	--	Angleton	--	Brazoria	29.189167	-95.437222	Withdrawal of Water	6553510
Potable Water Well	Mrs. W.B. Pruitt	--	Angleton	--	Brazoria	29.148889	-95.431944	Withdrawal of Water	6553808
Potable Water Well	Intermedics Headquarters	--	Angleton	--	Brazoria	29.198056	-95.436945	Withdrawal of Water	6553514
Potable Water Well	Anchor Road MHP Well #1	--	Angleton	--	Brazoria	29.185278	-95.453056	Withdrawal of Water	6553516
Potable Water Well	City of Angleton Well #10	--	Angleton	--	Brazoria	29.178333	-95.437222	Withdrawal of Water	6553511
Potable Water Well	Martha Paricer	--	Angleton	--	Brazoria	29.149445	-95.433889	Withdrawal of Water	6553809
Potable Water Well	Richmond Tank Car Co.	--	Angleton	--	Brazoria	29.151112	-95.434445	Withdrawal of Water	6553802
Potable Water Well	City of Angleton Well #7	--	Angleton	--	Brazoria	29.178055	-95.431944	Withdrawal of Water	6553501
Potable Water Well	City of Angleton Well #6	--	Angleton	--	Brazoria	29.181389	-95.431944	Withdrawal of Water	6553503
Potable Water Well	City of Angleton Well #1	--	Angleton	--	Brazoria	29.181111	-95.431667	Withdrawal of Water	6553515
Potable Water Well	City of Angleton Well #2	--	Angleton	--	Brazoria	29.165001	-95.434445	Withdrawal of Water	6553803
Potable Water Well	City of Angleton Well #8	--	Angleton	--	Brazoria	29.1875	-95.432222	Withdrawal of Water	6553506
Potable Water Well	City of Angleton Well #13	--	Angleton	--	Brazoria	29.188611	-95.408334	Withdrawal of Water	6553607
Potable Water Well	City of Angleton Well #4	--	Angleton	--	Brazoria	29.189722	-95.436944	Withdrawal of Water	6553804
Potable Water Well	Brazoria Co. WC & ID #8	--	Angleton	--	Brazoria	29.1875	-95.408889	Withdrawal of Water	6553605
Potable Water Well	City of Angleton Well #12	--	Angleton	--	Brazoria	29.190556	-95.404445	Withdrawal of Water	6553606
Potable Water Well	City of Angleton Well #5	--	Angleton	--	Brazoria	29.175	-95.430833	Withdrawal of Water	6553502
Oil or Gas Well	Lee Oil Unit #1	--	Angleton	--	Brazoria	29.191945	-95.419722	Oil or Gas	6553509

Type	Name	City	Zip code	County	Latitude	Longitude	Notes: Location	Notes: Average Daily Travel
Roadway Bridge	CR 220	Angleton	--	Brazoria	29.12566	-95.45038	2.6 MI SOUTH OF SH 35	6,680
Roadway Bridge	SH 288 SB OFF RAMP	Angleton	--	Brazoria	29.127639	-95.452683	0.15 MI NORTH OF CR 220	6,680
Roadway Bridge	SH 288 SB OFF RAMP	Angleton	--	Brazoria	29.128206	-95.452358	0.2 MI NORTH OF CR 220	6,680
Roadway Bridge	SH 288 NB	Angleton	--	Brazoria	29.142851	-95.451642	1.25 MI S OF SH 35	17,706
Roadway Bridge	CR 491- GIFFORD LN	Angleton	--	Brazoria	29.14393	-95.41045	0.01 MI W OF FM 523	610
Roadway Bridge	SH 288 SB	Angleton	--	Brazoria	29.147794	-95.45233	1.25 MI S OF SH 35	6,307
Roadway Bridge	BRYAN ST	Angleton	--	Brazoria	29.156648	-95.435575	0.28 MI E OF S WALKER ST	1,300
Roadway Bridge	LOOP 274	Angleton	--	Brazoria	29.158204	-95.432145	0.4 MI S. OF SH 35	12,906
Roadway Bridge	SH 288 SB	Angleton	--	Brazoria	29.163945	-95.453284	1.30 MI W OF SH 288 BUS	11,720
Roadway Bridge	SH 288 NB	Angleton	--	Brazoria	29.16401	-95.452937	1.30 MI W OF SH 288 BUS	11,720
Roadway Bridge	SH 288 NB	Angleton	--	Brazoria	29.16893	-95.4528	0.35 MI N OF SH 35	11,978
Roadway Bridge	SH 288 SB	Angleton	--	Brazoria	29.168954	-95.453439	0.35 MI N OF SH 35	12,415
Roadway Bridge	CR 171	Angleton	--	Brazoria	29.17172	-95.41122	0.50 MI NE OF SH 35	2,770
Roadway Bridge	SH 35	Angleton	--	Brazoria	29.176652	-95.41381	2.15 MI SW OF LP 558	9,016
Roadway Bridge	SH 35	Angleton	--	Brazoria	29.18108	-95.411091	5.6 MILE WEST OF SPUR 28	9,016
Roadway Bridge	SH 288 NB OFF RAMP	Angleton	--	Brazoria	29.181824	-95.452461	0.15 MI SOUTH OF CR 220	6,480
Roadway Bridge	CR 44(SH 288 Ramp)	Angleton	--	Brazoria	29.18373	-95.45054	0.06 Mi SE of SH 288	2,770
Roadway Bridge	CR 44	Angleton	--	Brazoria	29.185493	-95.452361	1.5 MI NORTH OF SH 35	27,720
Roadway Bridge	VALDERAS ST	Angleton	--	Brazoria	29.187074	-95.428987	0.45 MI S OF HENDERSON RD	3,110
Roadway Bridge	DOWNING RD	Angleton	--	Brazoria	29.188758	-95.419177	0.35 MI S OF HENDERSON RD	5,100
Roadway Bridge	SH 35	Angleton	--	Brazoria	29.189762	-95.405268	1.10 MI SW OF FM 523	9,016
Roadway Bridge	BS 288B	Angleton	--	Brazoria	29.189799	-95.433294	1.75 MI N OF SH 35	18,960
Roadway Bridge	BUCHTA RD	Angleton	--	Brazoria	29.193819	-95.410987	0.01 MI S OF HENDERSON RD	1,000
Roadway Bridge	FM 523	Angleton	--	Brazoria	29.197244	-95.452321	2.35 MI N OF SH 35	19,660
Roadway Bridge	SH 288 NB	Angleton	--	Brazoria	29.212704	-95.451873	1.05 MI N OF FM 523	11,414
Roadway Bridge	SH 288 SB	Angleton	--	Brazoria	29.2129	-95.452443	1.05 MI N OF FM 523	11,445

Type	Name	Address	City	Zip code	County	Latitude	Longitude	Notes: Unique ID	Notes: Bridge Type
Railroad Bridge	NONE	--	Angleton	--	Brazoria	29.201479	-95.373529	W1590_TX9478	Above Water
Railroad Bridge	NONE	--	Angleton	--	Brazoria	29.209705	-95.365331	W1589_TX9477	Above Water
Railroad Bridge	NONE	--	Angleton	--	Brazoria	29.132379	-95.471982	W1406_TX9765	Above Water
Railroad Bridge	NONE	--	Angleton	--	Brazoria	29.143789	-95.454591	W1436_TX9790	Above Water
Railroad Bridge	NONE	--	Angleton	--	Brazoria	29.183669	-95.393317	W1167_TX9702	Above Water
Railroad Bridge	OYSTER CREEK	--	Angleton	--	Brazoria	29.125215	-95.480727	W2636_TX10770	Above Water
Railroad Bridge	None	--	Angleton	--	Brazoria	29.112287	-95.429834	W722_TX76442	Above Water
Railroad Bridge	None	--	Angleton	--	Brazoria	29.144587	-95.453367	W1615_TX77030	Above Water

2024

Appendix D

MEETING DOCUMENTATION

City of Angleton Hazard Mitigation Plan Kickoff Meeting

March 16, 2023

AGENDA

9:30 AM	**Registration & Sign-in**
10:00 AM	**Welcome & Introductions**
10:20 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.
	Next Steps
	Hazard Identification & Risk Assessment
11:30 AM	**Adjourn**

City of Angleton Hazard Mitigation Plan Kickoff Meeting

March 16, 2023

ATTENDANCE

Name	Title	Organization
Glenn LaMont	City of Angleton	Emergency Management Coordinator
Hector Renteria	City of Angleton	Assistant Public Works Director
John Deptuch	City of Angleton	Safety & Facilities Coordinator
Chris Whittaker	City of Angleton	City Manager
Corey Lukasheay	City of Angleton	Fire Department Lieutenant
John Peterson	HDR	City Engineer
Will Blackstock	City of Clute	Director of Parks and Recreation / Deputy Emergency Management Coordinator
Bryan Sidebottom	City of Lake Jackson	Assistant Chief - Emergency Operations | Deputy EOC Coordinator
Sara Grether Richards	Country Village Care	Owner
Cheryl Mergo	H-GAC	Senior Manager
Amanda Ashcroft	H-GAC	Planner

MEETING NOTES

Welcome and Introductions

Glenn LaMont welcomed participants and explained the reasons behind hazard mitigation planning as well as some of the benefits of mitigation. The hazard mitigation planning committee members introduced their name, title, and the organization they represented.

Overview of Hazard Mitigation Plans & Procedures

Amanda 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.

City of Angleton Hazard Mitigation Plan Kickoff Meeting

March 16, 2023

Roles and Responsibilities of the Hazard Mitigation Planning Committee were outlined.

- 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 scheduled the next meeting for Thursday, April 20th from 10:00 AM – 11:30 AM. The committee agreed keeping the same date/time and meeting hybrid (teams and in-person) would allow for greater attendance 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 H-GAC and Glenn LaMont so they can be included in future updates regarding the plan. H-GAC staff will begin running the HAZUS model for outputs to help inform the continuation of the risk assessment activity that the next meeting will cover.

Hazard identification and Risk Assessment

Amanda passed out a risk assessment handout and listed hazards from the 2018 Brazoria County Multi-Jurisdictional Hazard Mitigation Plan that the City of Angleton was a participating jurisdiction of. She outlined updates the hazard mitigation planning committee may want to make to certain hazard titles or regroupings and gave examples of what 2023 plans were doing similarly.

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

The hazard mitigation committee began working on the hazard identification and risk assessment handout for the remainder of the meeting.

Meeting adjourned at 11:00 AM.

2023 City of Angleton Hazard Mitigation Plan Update

Meeting #1: Kickoff Meeting
March 16, 2023
10 AM - 12 PM

1

Meeting Goals & Objectives

- ***Explain*** hazard mitigation
- Review the ***benefits*** of developing a hazard mitigation plan
- Provide an overview of the ***planning process***
- Inform about ***your role*** in the planning process

2

Introductions

- Name
- Organization
- How has a hazard impacted you? (optional)

3

What is Hazard Mitigation Planning?

- Hazard Mitigation Planning- Acting before disaster strikes.
- Mitigation- any sustained action taken to ***reduce or eliminate long-term risk*** to life and property from a hazard event

4

Benefits of Hazard Mitigation

- Prevent injury and loss of life
- Prevent damage to community assets
- Reduce exposure to risk from natural hazards
- Reduce costs of disaster response/recovery
- Advance other community objectives

5

Disaster Mitigation Act of 2000 (DMA 2000)

"to reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from natural disasters."

- Section 322 specifically addresses mitigation planning and requires state and local governments to prepare hazard mitigation plans as a precondition for receiving FEMA mitigation project grants.

6

Updated Policies

- On April 19, 2022, FEMA released the updated state and local mitigation planning policies.
- These updated policies will be in effect for all mitigation plans approved on or after:

April 19, 2023.

7

Updated Policies

- Defines who local governments must include in the planning process.
- Requires local governments to include the effects of climate change and other future conditions in the risk assessment.
- Recognizes the important role of adopting and enforcing building codes and land use/development ordinances
- Facilitates stronger alignment with other FEMA mitigation program & incorporates new FEMA grant programs

8

Participation Requirements

- The whole community approach
  - Emergency Management
  - County/City Staff
  - The General Public!
  - Elected Officials
  - Utility Companies
  - Industry/Business
  - ISDs

9

Participation Requirements

1. Attend meetings, including public hearings or meetings/workshops that occurs during the plan update process
2. Assist with coordination or participation in the public input process
3. Review plan updates and provide timely feedback
4. Adopt & Implement the plan

10

Outreach Methods

- What methods of public involvement have worked well in your community in the past?
  - Community events?
  - Questionnaires/surveys?
  - Roundtable/forums?
  - Social media?
  - Web sites?

11

Tentative Project Timeline

- March 14, Meeting 1: Kickoff ⟵
- April, Meeting #2: Hazard Identification & Risk Assessment
- May, Meeting #3: Capability Assessment
- June, Public Input Workshop
- July, Meeting #4: Policy Development & Project Identification (Mitigation Action Plan)
- August, Draft Plan Available for Public Comment
- Meeting #5: Adoption & Implementation

12

Project Objectives

- A fully updated Hazard Mitigation Plan which complies with State and Federal guidance

13

Hazard Identification

- 2018 Hazards

Flooding	Hurricanes & Tropical Storms
Wildfire	Drought
Lightning	Heat
Hail	Winter Weather
Tornado	Dam/Levee Failure
Coastal Erosion	Expansive Soils

14

Updating Hazards for 2023

- Add pandemic and extreme temperature hazards?
- Are there any new hazards to include?
- Are there any hazards to remove or combine?

15

Hazard Identification

- HAZUS is a nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods, hurricanes, and tsunamis.
- HAZUS uses Geographic Information Systems (GIS) technology to estimate physical, economic, and social impacts of disasters.

16

Next Steps

- Provide any additional stakeholder contacts
  - ⑩Hazard Mitigation Committee members, participants
- Determine meeting #2 date for hazard identification & risk assessment
  - All
- Run HAZUS
  - H-GAC Staff

17

Contact Information

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

18

Houston-Galveston Area Council

City of Angleton 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
Flood	3/4	8/4	16	1
Fire	2	2	4	5
Hail	2	1	3	6
Freeze	3	2	6	4
Hurricane	4	8/4	16	1
Drought	4	2	8	3
Levee Failure	2	8/4	8	3
Tornado	3	8/4	12	2
Train Derailment	3	2	6	4
Cyber Water Crime	3	4	12	2
Terrorism	2/1	4	4	5
Earthquake	1	2	3	6

Houston-Galveston Area Council

City of Angleton 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
Hurricans/Storms	4	8	32	1
Drought	3	2	6	8
Flooding	4	8	32	2
Lightning	4	~~8~~	16	4
Wildfire	4	~~8~~	16	3
Winter Weather	2	4	8	6
HEAT	4	2	8	7
Dam/Levee Failure	2	8	16	5
Hail	2	2	4	9

Houston-Galveston Area Council

City of Angleton 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
Heat	4	4	8	5
Drought	3	2	5	6
Lightning	2	1	3	13
Flooding	3	8/4	11/6	4
hail	2	2	4	8
winter Weather	2	4	6	7
Dam/levee	2	8/4	10/6	10
Expansive soil	2	2	4	11
Coastal Erosion	1	1	2	12
Wind Storm	3	2	5	3
drinking water	3	8	11	2
wild fire	2	2	4	9
Hurricanes	4	8	12	1
tornado	1	8	9	13

Houston-Galveston Area Council

City of Angleton 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 (1, 2, 3, 4)	Severity (1, 2, 4, 8)	Risk (P x S)	Ranking
Hurricane and Tropical Storm	3	3	9	2
Dam Levee Failure	2	3	6	4
Flooding	3	1	3	6
Drought	4	1	4	5
Expansive Soils	4	1	4	5
Lighting	3	1	3	7
Winter Weather	3	1	3	7
Hail	3	1	3	7
Tornado	3	5	15	1
Aging Infrastructure (Water & Sewer Facilities)	4	2	8	3

From: Jamie Praslicka <jpraslicka@angleton.tx.us>
Sent: Monday, February 12, 2024 01:03 PM
To: Ashcroft, Amanda <Amanda.Ashcroft@h-gac.com>
Subject: Re: [EXTERNAL] Draft HMP Comments

1. Hurricanes
2. Flooding
3. Excessive Heat/Drought
4. Severe weather / Tornado/Windstorm
5. Winter Weather / Hail
6. Aging Infrastructure
7. Cyber Security
8. Hazmat
9. Wildfire
10. Levee Failure
11. Erosion
12. Earthquake

How do these look?

Jamie Praslicka
Emergency Management Coordinator
979-900-5370
www.angleton.tx.us
City of Angleton
121 S. Velasco
Angleton, TX 77515

City of Angleton
Hazard Mitigation Plan Committee Meeting
April 20, 2023

AGENDA

10:00 AM	**Welcome & Sign-in**
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
	Questions from last meeting
	Where are we now? H-GAC staff will discuss project timeline and next steps
	Capability Assessment Overview
10:45 AM	**Capability Assessment Exercise**
11:30 AM	**Adjourn**

City of Angleton
Hazard Mitigation Plan Committee Meeting
April 20, 2023

ATTENDANCE

Name	Title	Organization
Amanda Ashcroft	H-GAC	Planner
Beth Reimschissel	UTMB	Administrator, Angleton Danbury Campus Associate Chief Nursing & Patient Care Services Officer
Bryan Sidebottom	City of Lake Jackson	Assistant Chief - Emergency Operations | Deputy EOC Coordinator
Cheryl Mergo	H-GAC	Senior Manager
Corey Lukasheay	City of Angleton	Fire Department Lieutenant
Glenn LaMont	City of Angleton	Emergency Management Coordinator
Hector Renteria	City of Angleton	Assistant Public Works Director
John Deptuch	City of Angleton	Safety & Facilities Coordinator
John Peterson	HDR	City Engineer
KJ Rabe	Brazoria County Center for Independent Living	Senior Independent Living-Community Integration Specialist (Sr. IL-CIS)
Otis Spriggs	City of Angleton	Director of Development Services/City Planner
Pam Goodson	Brazoria County Center for Independent Living	Independent Living Program Manager
Stephenie Pharr	UTMB	Director, Ambulatory Care Services

City of Angleton
Hazard Mitigation Plan Committee Meeting
April 20, 2023

MEETING NOTES

Welcome and Introductions
Glenn LaMont welcomed participants and had those in attendance who were new introduce their name, title, and the organization they represented.

March Meeting Recap
Amanda went over meeting topics and discussion items from the kickoff and risk identification/ assessment meeting held in March. She thanked everyone for returning their handouts and explained that results would be summarized and reviewed next meeting.

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 returned today, 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, such as the Brazoria County Hurricane Expo occurring on June 17th. Amanda informed the committee that H-GAC staff had secured a booth at the expo to share information about, and solicit public feedback for, the Hazard Mitigation Plan from those in attendance.

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- Glan LaMont and H-GAC staff.

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

After the presentation, the Hazard Mitigation Planning Committee worked through the Capability Assessment worksheet together.

Meeting adjourned at 11:35 AM.

Hazard Mitigation Plan Worksheet
Capability Assessment

2018 Capability Assessment:

HMP: Hazard Mitigation Plan
DRP: Disaster Recovery Plan
CP: Comprehensive Land Use Plan
FMP: Floodplain Management Plan
SMP: Stormwater Management Plan
EOP: Emergency Operations Plan
COOP: Continuity of Operations Plan
REP: Radiological Emergency Plan
SARA: SARA Title III Emergency Response Plan
TP: Transportation Plan
REG-PL: Regional Planning
SO: Subdivision Ordinance
FDPO: Flood Damage Prevention Ordinance
MA: Mutual Aid Agreements
CRS: Community Rating System
CIP: Capital Improvements Plan (that regulates infrastructure in hazard areas)

Jurisdiction	DRP	CP	FMP	SMP	EOP	COOP	REP	SARA	TP	REG	SO	AB	MA	FDPO	CRS	CIP
Angleton	x	x	x	x	x	x	x	x	x	x	x	x	X	x		x

Jurisdiction	Capability Expansion Opportunities
Angleton	Identified an inadequate budget as a factor that decreases their capability to implement mitigation actions and reduce future damages. Angleton will apply for state and federal funding to help fund mitigation actions that reduce the impact of natural hazards. They also plan to expand their mutual aid agreements to address flood emergency response needs.

Hazard Mitigation Plan Worksheet
Capability Assessment

Houston-Galveston Area Council

Name: Due date: First Friday in May-5th

Title and Employer: _____

Jurisdiction represented: _____

Date: _____

Amount of time worked on this document: _____

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))

Hazard Mitigation Plan Worksheet
Capability Assessment

Houston-Galveston Area Council

Building Code, Permitting, and Inspections	Yes/ No	1. Are codes adequately enforced?
Building Code	Yes	Version/Year: 2015 electric code-2014
Building Code Effectiveness Grading Schedule (BCEGS)	No	Score:
Fire department ISO rating	Yes	Rating: 4
Site plan review requirements	Yes	yes
Other (if any)		

Planning, Ordinances, & Regulatory Capability	Yes/ No	1. Is the plan/ordinance an effective measure for reducing hazard impacts? 2. Is the ordinance adequately administered and enforced?
Capital Improvements Plan (Regulates infrastructure in hazard areas)		Yes- 2021, update annually
Comprehensive Plan	Yes	2007, pending update 2025
Continuity of Operations Plan		None
Disaster Recovery Plan	Yes	(will look up year)
Economic Development Plan	No	
Emergency Operations Plan	Yes	2021
Floodplain Management Plan	No	Covered by Angleton Drainage District, floodplain section in code (2020)
Hazard Mitigation Plan	Yes	Expires 9/30/2023
Radiological Emergency Plan	Yes	2022
Regional Planning	No	
SARA Title III Emergency Response Plan	No	
Stormwater Management Plan		Part of the County Ms4 permit
Transportation Plan	Yes	Transportation annex to EOP and a thoughfare plan
Zoning Ordinance	Yes	

Hazard Mitigation Plan Worksheet
Capability Assessment

Houston-Galveston Area Council

Planning, Ordinances, & Regulatory Capability	**Yes/ No**	**1. Is the plan/ordinance an effective measure for reducing hazard impacts?** **2. Is the ordinance adequately administered and enforced?**
Subdivision Regulation/Ordinance	Yes	
Flood Damage Prevention Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural hazard specific ordinance (Stormwater, wildfire, etc.)	No	
National Flood Insurance Program	Yes	
Flood insurance rate maps	Yes	2020
Community Rating System	No	TBD
Acquisition of land for open space and public recreation uses	Yes	Parkland dedication ordinance, Purchased acreage on Cemetary for new park
Other (if any)	Rolling park land into drainage relief and retention becoming an amenity used by the community	

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

Hazard Mitigation Plan Worksheet
Capability Assessment

Houston-Galveston Area Council

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**	**1. Describe capability.** **2. Is coordination effective?**
Planning Commission	Yes	Meet monthly
Planning Committee	Yes	Sub-committees/TBD
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	No	Require development agreements on all new large scale developments, maintenance activities occurr (part of checklist before large storm events and prep)
Mutual aid agreement(s)	No	Lake Jackson for Fire Dept. Others- not a formal agreement

Staff	**Yes/ No** **FT/ PT[1]**	**1. Is staffing adequate to enforce regulations?** **2. Is staff trained on hazards and mitigation?** **3. Is coordination between agencies and staff effective?**
Chief Building Official	Yes (•) No ( ) FT (•) PT ( )	yes yes, certifying staff for CFM Yes
Civil Engineer	Yes (•) No ( ) FT (•) PT ( )	HDR-Consulting Yes, yes, yes
Community Planner	Yes (•) No ( ) FT (•) PT ( )	yes, yes, yes
Emergency Management	Yes (•) No ( ) FT (•) PT ( )	Yes yes yes
Floodplain Administrator	Yes (•) No ( ) FT (•) PT ( )	HDR/ADD(drainage district overlap)-Consulting Yes, yes, yes Staff getting CFM
GIS Coordinator	Yes (•) No ( ) FT (•) PT ( )	HDR-Consulting Yes, yes, yes

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

Hazard Mitigation Plan Worksheet
Capability Assessment

Houston-Galveston Area Council

Staff	**Yes/ No** **FT/ PT**[1]	**1. Is staffing adequate to enforce regulations?** **2. Is staff trained on hazards and mitigation?** **3. Is coordination between agencies and staff effective?**
Grant Manager	Yes (•) No ( ) FT (•) PT ( )	Consulting/contract
Local Staff who can assess community's vulnerability to hazards	Yes (•) No ( ) FT (•) PT ( )	PW Directors, Fire Marshal, Building inspectors
Other (if any)		

Technical	**Yes/ No**	**1. Describe capability.** 2. **Has capability been used to assess/mitigate risk in the past?**
Warning systems/services (Reverse 911, outdoor warning signals)	Yes	CodeRed- mass notification Warning sirens- in process
Hazard data and information	Yes	SDS, ERP for plants, MS4
Grant writing	Yes	TWDB funding in processm GLO previously Post-Harvey mitigation funds for various projects
HAZUS Analysis	Yes	
Other (if any)		

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

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

Hazard Mitigation Plan Worksheet
Capability Assessment

Houston-Galveston Area Council

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)	1. Has the funding resource been used in past and for what type of activities? 2. Could the resource be used to fund future mitigation actions?
Authority to levy Taxes for specific purposes (Such as mitigation projects)	No	
Capital Improvement Plan/ 1- & 5-Year plan	Yes	
Capital improvements project funding	No	
Community Development Block Grant	Yes	
Applied for grants in the past	Yes	
Awarded a grant in the past	Yes	
Gas/Electric Service Fees	No	
Stormwater Service Fees	No	
Water/Sewer Service Fees	Yes	
Development Impact Fees	Yes	2 active impact areas in the city that are defined and working on city-wide
Impact fees for new development	Yes	--Duplicate--
Incur debt through General Obligation Revenue or Special Tax Bonds	Yes	
Incur debt through private activities	No	
Other federal funding programs	Yes	ARPA, CARES, GLO
State funding programs	Yes	actively pursuing state revolving fund clean drinking water
Other (if any)		

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

Houston-Galveston Area Council

Hazard Mitigation Plan Worksheet
Capability Assessment

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	1. Describe program/organization and how relates to disaster resilience and mitigation. 2. 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	County- CERT teams Emergency preparedness- STEER Redcross GulfCoast Transit District
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	City sends out education Angleton University Fire Safety- BCCIL October- Fire Prevention Month! Fire Safety, BBQ Safety, related safety messages throughout the year Keep Angleton Beautiful Community Wide cleanup (2x/yr) DEA Druge take back days 24/7 permanenet drop off box at PD Several events throughout thethrough communications dept year (please list here)
Natural Disaster or Safety related school programs	Yes	
Storm Ready Certification	No	

Other (if any)	

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

Houston-Galveston Area Council

Hazard Mitigation Plan Worksheet
Capability Assessment

Education and Outreach	Yes/ No	1. Describe program/organization and how relates to 2. disaster resilience and mitigation. 3. Could the program/organization help implement future mitigation activities?
Firewise Communities Certification	No	
Tree City USA	No	
Public-private partnership initiatives addressing disaster-related issues	Yes	works with 2 churches to setup shelter, food pantry Actions- nonprofit that brings food to elderly and uses city rec for social activities Angleton residents can bring household hazardous waste to pearland
Other (if any)		
How can these capabilities be expanded and improved to reduce risk?		

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

Hazard Mitigation Plan Worksheet
Capability Assessment

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)

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
City of Angleton	Moder	Moder	Moder	Limite	Moder	Moder	Moder

What are some barriers to implementing proposed mitigation strategies?
What mechanisms could enhance or further implementation of proposed mitigation strategies?

1

Meeting Agenda

- Welcome
- March Meeting Recap:
  - Risk Identification Categories
  - Questions from last meeting
  - Where are we now?
- Capability Assessment
  - What is it?
  - Types of resources
- Worksheets

2

March Meeting Recap:
2018 Hazards Ranked by Risk

Risk Rating	Ranking	Hazard Name

Hazards Ranked by Risk

Each identified hazard poses a risk to Brazoria County. Ranking the hazards from greatest to lowest risk allows the communities to prioritize their resources and focus efforts where they are most needed.

Risk Rating	Ranking	Hazards
High	1	Flooding
	2	Hurricanes and Tropical Storms
	3	Tornadoes
Moderate	4	Drought
	5	Lightning
	6	Heat Events
	7	Hail
Low	8	Expansive Soils
	9	Winter Weather
	12	Coastal Erosion

	12	Coastal Erosion

3

Questions from last meeting

- Cyber security & man-made hazards?
  - BRIC and FMA awards cannot fund a stand-alone cybersecurity project. An eligible cybersecurity activity must serve as a functional component of an eligible mitigation activity and otherwise meet all applicable programmatic requirements.

Example: Harden facilities (buildings, wiring, rooms) that house the cybersecurity system component such as computers, hardware, or the system's servers

Source: https://www.fema.gov/sites/default/files/documents/fema_bric-fma-cybersecurity-information-activities_112022.pdf

4

Tentative Project Timeline

- March 16, Meeting 1: Kickoff
- April 20, Meeting #2: Hazard Identification & Risk Assessment ⟵
- May, Meeting #3: Capability Assessment
- June, Public Input Workshop
- July, Meeting #4: Policy Development & Project Identification (Mitigation Action Plan)
- August, Draft Plan Available for Public Comment
- Meeting #5: Adoption & Implementation

5

Updated Project Timeline

	March	April	May	June	July	August	Sept.	Oct.	Nov.
Kickoff Meeting									
Risk Assessment		HAZUS							
Capability Assessment		We are Here							
Public Input Workshop/ Events				#1 June 17th			#2		#3
Mitigation Action Plan Workshop									
Plan Drafting									
Review Final Draft									
Plan Adoption									
Submit Plan to State & FEMA									

6

Capability Assessment

What you are doing

What you are not doing

What you can do

What you are doing wrong?

…helps to determine which mitigation actions are practical and likely to be implemented given a local government's various resources and capabilities.

7

Capability Assessment Components

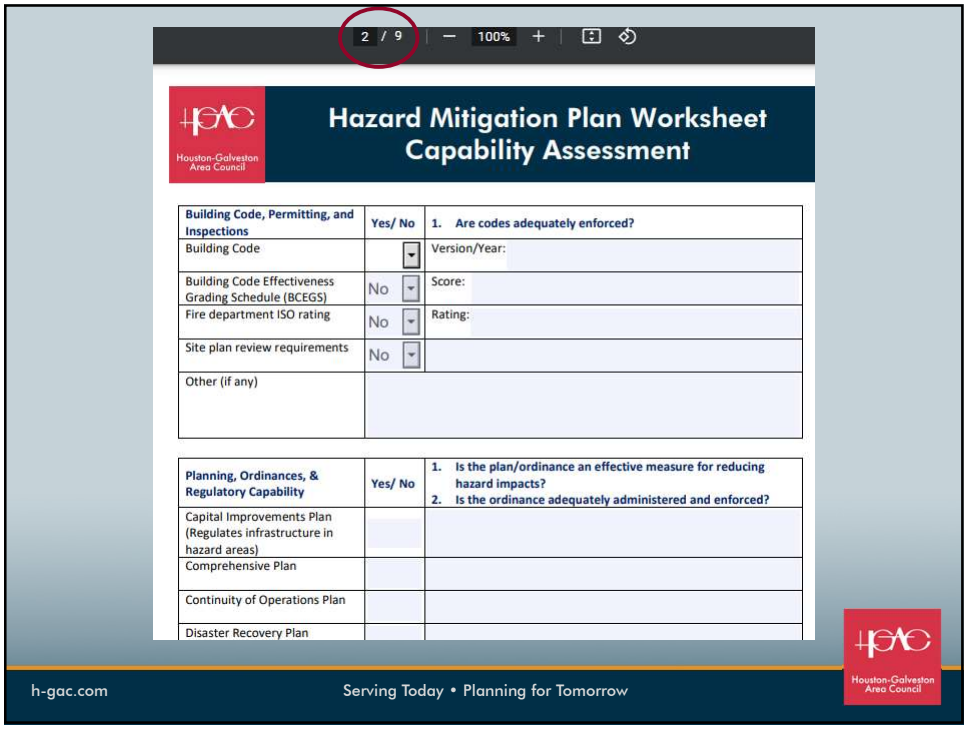
- 1) An inventory of a local jurisdiction's relevant existing plans, ordinances, and programs
- 2) Analysis of a local jurisdiction's capacity to carry out existing plans, ordinances, and programs.

8

Policy & Regulatory Inventory

- Adequate building codes
- Land use, zoning and subdivision regulations
- Floodplain and storm water ordinances
- Comprehensive plans
- Capital improvement and transportation plans
- Facilities and needs studies
- Population growth and future development studies
- Economic development plans
- Emergency management response and recovery plans
- National Flood Insurance Program (NFIP) participation
- NFIP Community Rating System programs

9



2 / 9 — 100%

Hazard Mitigation Plan Worksheet Capability Assessment

Building Code, Permitting, and Inspections	Yes/ No	1. Are codes adequately enforced?
Building Code		Version/Year:
Building Code Effectiveness Grading Schedule (BCEGS)	No	Score:
Fire department ISO rating	No	Rating:
Site plan review requirements	No	
Other (if any)		

Planning, Ordinances, & Regulatory Capability	Yes/ No	1. Is the plan/ordinance an effective measure for reducing hazard impacts? 2. Is the ordinance adequately administered and enforced?
Capital Improvements Plan (Regulates infrastructure in hazard areas)		
Comprehensive Plan		
Continuity of Operations Plan		
Disaster Recovery Plan		

10

Planning, Ordinances, and Regulatory Capability

- Demonstrate commitment to guiding and managing growth, development, and redevelopment in a responsible manner
  - Examples: Mitigation planning, comprehensive land use planning, enforcement of zoning ordinances and building codes, protecting environmental resources in the community

11

Administrative and Technical Capability

- Staff and skills for planning and mitigation such as:
  - Engineers
  - Planners
  - GIS analysts
  - Building inspectors
  - Emergency managers
  - Grant writers

12

Financial Capability

- Resources available to fund mitigation actions such as:
  - Operating budgets
  - Stormwater utility fees
  - Development impact fees

13

Education and Outreach Capability

- Existing programs that implement mitigation and communicate risk such as:
  - School programs
  - Firewise communities
  - Storm Ready communities
  - Hazard awareness campaigns
    - *Example: Tornado Awareness Month!*
  - Public Information Officer
  - Community newsletter

14

Political Capability

- Guiding development away from identified hazard areas
- Restricting public investments or capital improvements within hazard areas
- Enforcing local development standards that go beyond minimum state or federal requirements
  - (e.g., building codes, floodplain management)

15

Next Steps

- HAZUS, Website updates, Public & stakeholder survey, Begin drafting plan
  - H-GAC Staff
- Complete & return Capability Assessment worksheet, Determine dates for public events in June/July
  - Hazard Mitigation Committee

16

Public & Stakeholder Online Survey

- Survey questions are being adapted from FEMA's Local Mitigation Planning Handbook and incorporating other sources
- When available: please share!

17

Contact Information

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

18

CITY OF ANGLETON

Local Hazard Mitigation Plan

THE HEART OF BRAZORIA COUNTY
ANGLETON

Houston-Galveston Area Council

Public Meeting

2 Hour Event

Learn about the Hazard Mitigation Plan and provide valuable local feedback!

Date:

Thursday
September 14, 2023

Location:

First Presbyterian Church
130 South Arcola Street
Angleton, TX 77515

Time:

6:00- 8:00 PM

6-7 PM: COME LEARN ABOUT THE HAZARD MITIGATION PLAN.
7-8 PM: MAKE YOUR VOICE HEARD!
Provide input at stations around the room.

For More Information: www.h-gac.com/regional-hazard-mitigation-planning

2023 Multijurisdictional Hazard Mitigation Plan Update

City of Angleton
Public Meeting
September 2023

1

Meeting Agenda

- Introductions
- Overview
- Planning Process
- Timeline
- Data Gathering Exercises

2

Introductions

- WHO AM I?
  - Amanda Ashcroft, AICP
    - Planner at H-GAC within the Community & Environmental Planning Department
- Hazard Mitigation Planning Committee
  - Members Present- Introductions
    - (Name, Title, Jurisdiction represented)
- Last Plan
  - FEMA approval: 9/30/2018
  - Expired: 9/29/2023
  - New FEMA Policy updates

3

The purpose of hazard mitigation is to implement actions that eliminate the risk from hazards or reduce the severity of the effects of hazards on people and property.

4

Overview

- What is a natural hazard?
  - naturally occurring event vs. man-made
  - destructive or negative impact on health, safety, life, and/or property
- WHAT IS MITIGATION?
  - Steps, or actions, taken by the public, municipal leadership, or private entities to reduce the negative impacts
    - Hazard mitigation is any sustainable action that reduces or eliminates long-term risk to people and property from future disasters.

5

Mitigation actions

- Examples:
  - Removing property or infrastructure from hazard areas
  - Assisting and supporting naturally occurring resilient areas
  - Strategic planning and hardening the built environment

Elevated HVAC unit
The Zulu Social Aid and Pleasure Club reduced risk to its HVAC unit by elevating the unit significantly above ground level.

Source: NEW ORLEANS BUILDING HARDENING GUIDE

6

Overview- Funding

- Federal funding
  - Hazard Mitigation Grant Program (HMGP)
  - Flood Mitigation Assistance (FMA)
  - Pre-Disaster Mitigation Grant Program (PDM)
  - Building Resilient Infrastructure and Communities (BRIC)
    - Buyout Program Implementation/Residential Elevations
    - Residential and Commercial Floodproofing
    - Flood Control Projects
    - Coastal Resilience
    - Nature Based Solutions
    - Infrastructure and Utility Hardening
  - Hazard Mitigation Grant Program- Post Fire

7

Overview- Why are we here?

- Public participation and feedback are vital parts of the hazard mitigation planning process!
- What can I do to stay involved?
  - Attend meetings
  - Provide data
  - Identify Natural Hazards
    - What hazards have impacted your community?
    - Where do hazards have the most destructive or negative impact on health, safety, life, and/or property within your community?
  - Locate assets, infrastructure, at-risk communities
    - What tools do you have to support your community through disasters?
    - What tools do you need?
- Identify what we can we do in the future to be more resilient!
- Break the disaster cycle!

8

Who Else Can We Reach Out To?

Businesses

Academia

Private Organizations

Nonprofit Organizations

Community-based Organizations

Entities that provide support to underserved communities and socially vulnerable populations "Community Lifelines"

9

Community Lifelines

10

Planning Process

11

Timeline

	March	April	May	June	July	August	Sept.	Oct.	Nov.	
Kickoff Meeting										
Risk Assessment		HAZUS								
Capability Assessment										
Public Input Events				#1			We are Here		#3	
HMAP Meeting										
Plan Drafting										
Review Final Plan Draft										
Plan Adoption by jurisdictions										
Submit Plan to State & FEMA										

12

Data Gathering Exercises

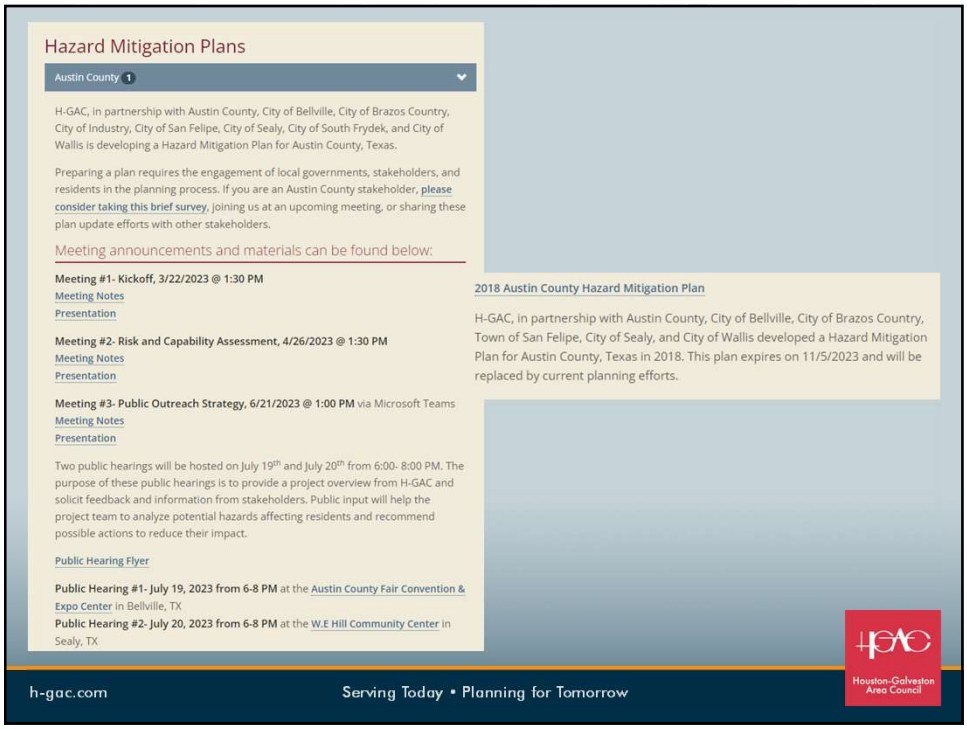
- Stations around the room
  - Instructions at each station
  - HMP Committee members and H-GAC staff are available to answer your questions
- Online survey- Still open

13

How can I stay Informed?

www.h-gac.com/regional-hazard-mitigation-planning

14



15

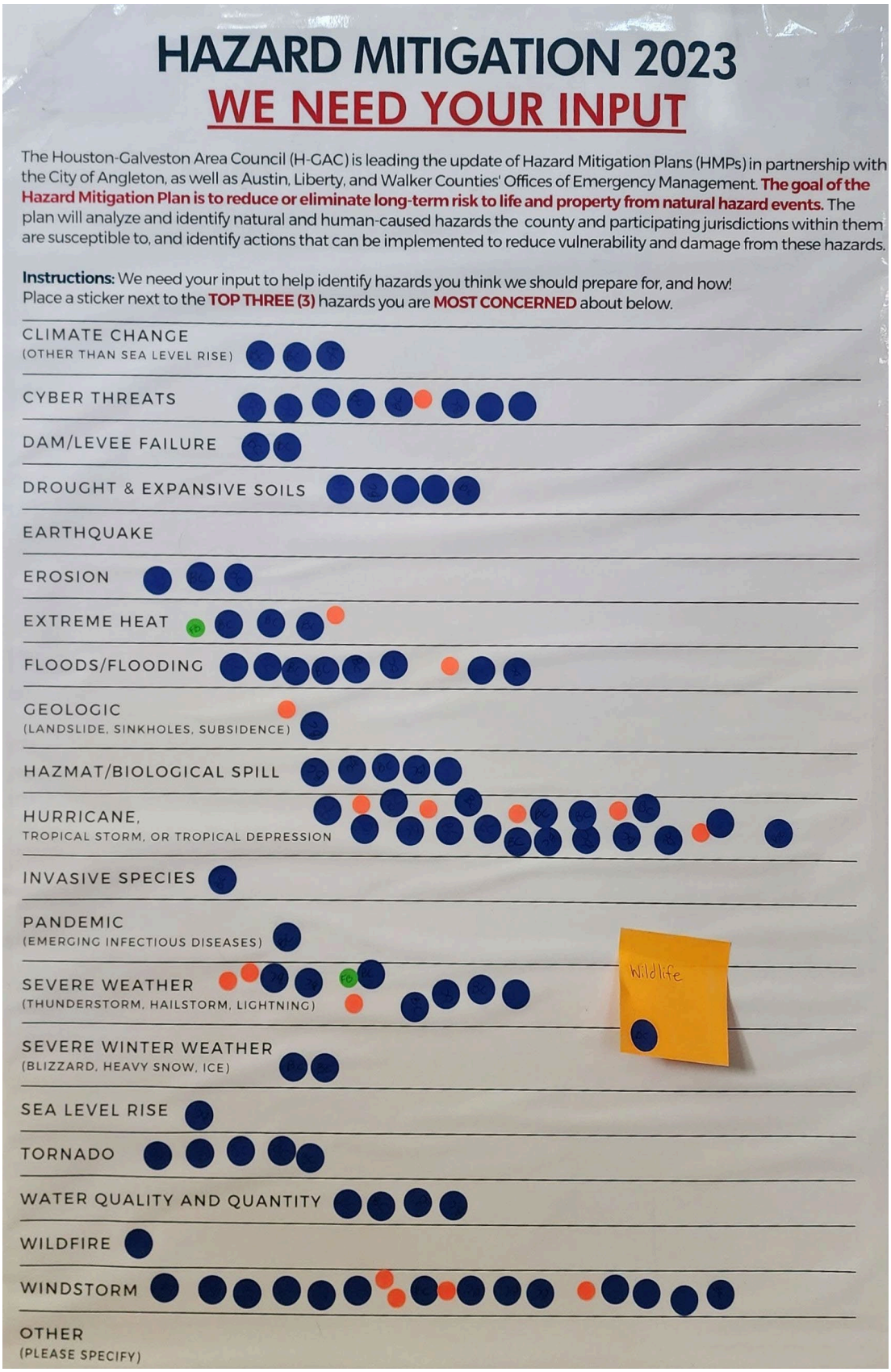
Contact Information

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

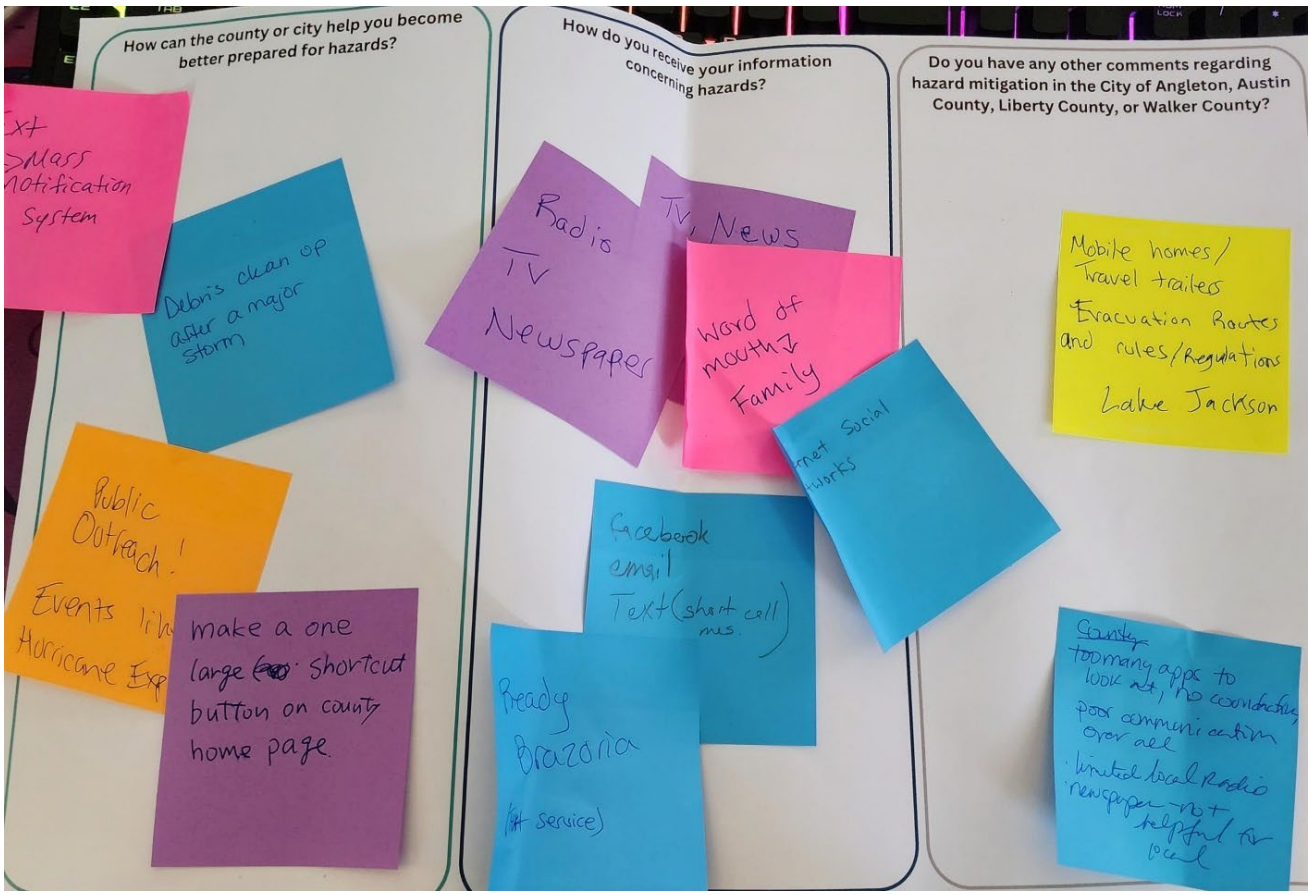
h-gac.com
Serving Today • Planning for Tomorrow
Houston-Galveston Area Council

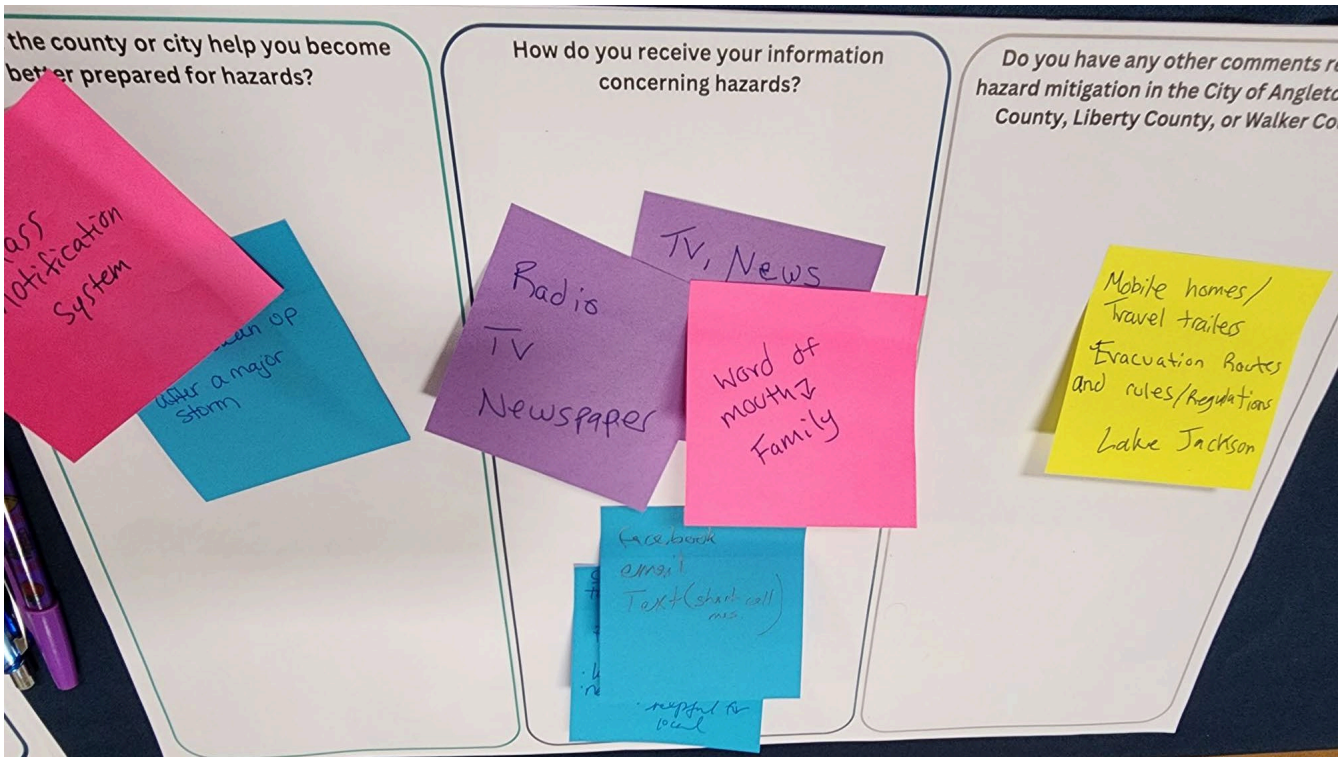
16

Brazoria County Hurricane Expo, 6/17/2023- Event Photos

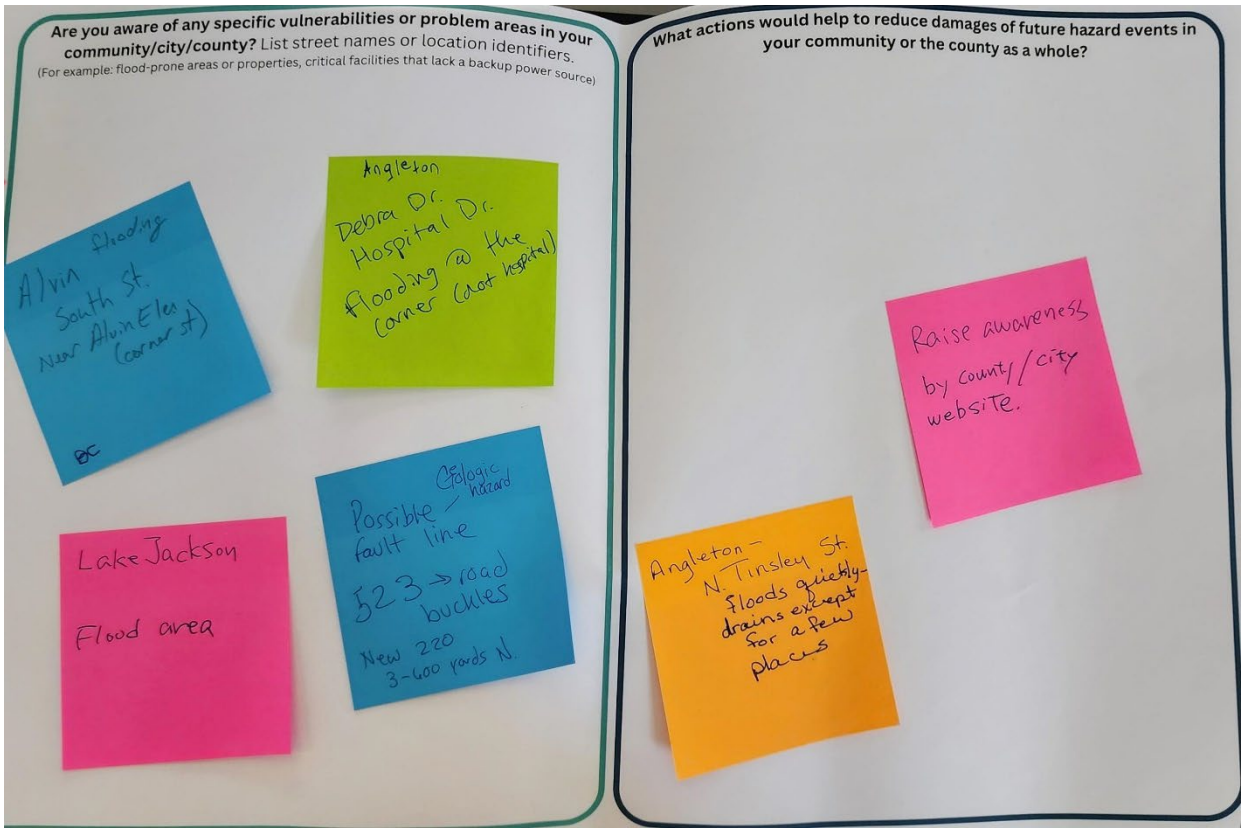


Brazoria County Hurricane Expo, 6/17/2023- Event Photos





Brazoria County Hurricane Expo, 6/17/2023- Event Photos



Brazoria County Hurricane Expo, 6/17/2023- Event Photos

2024

Appendix E

SURVEY RESULTS

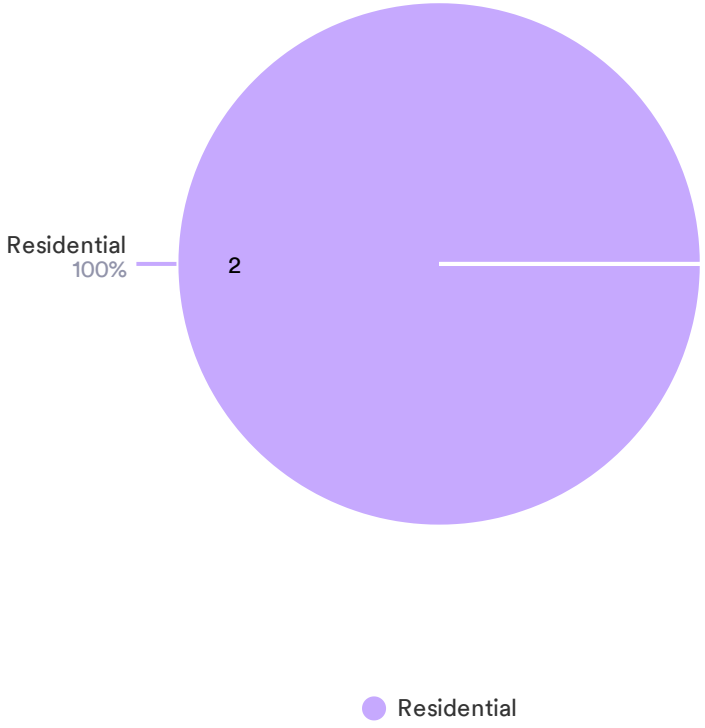
Hazard Mitigation Plan Survey

City of Angleton

Hazard Mitigation Plan Survey

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

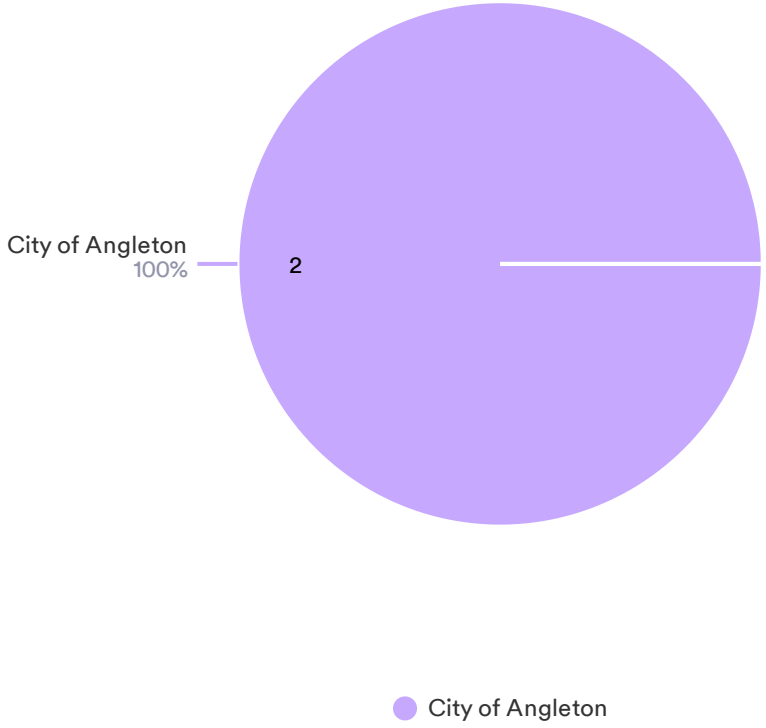
2 Responses



Hazard Mitigation Plan Survey

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

2 Responses



Hazard Mitigation Plan Survey

In what city is the property located?

2 Responses

Data	Responses
Angleton	2

Hazard Mitigation Plan Survey

What is the zip code for the property?

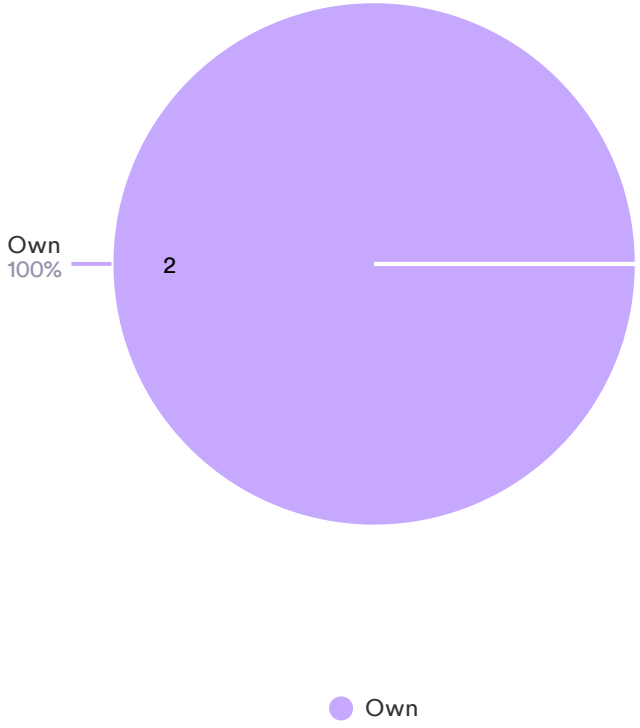
2 Responses

Data	Responses
77515	2

Hazard Mitigation Plan Survey

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

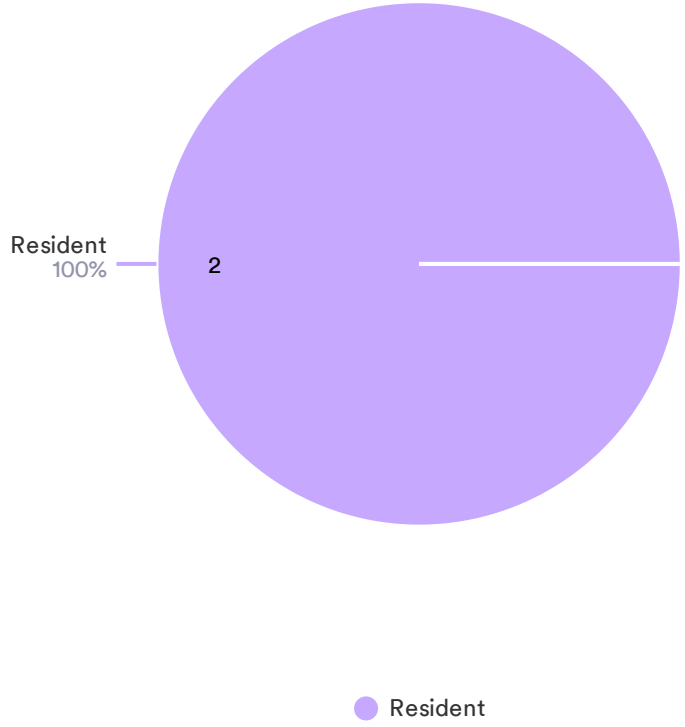
2 Responses



Hazard Mitigation Plan Survey

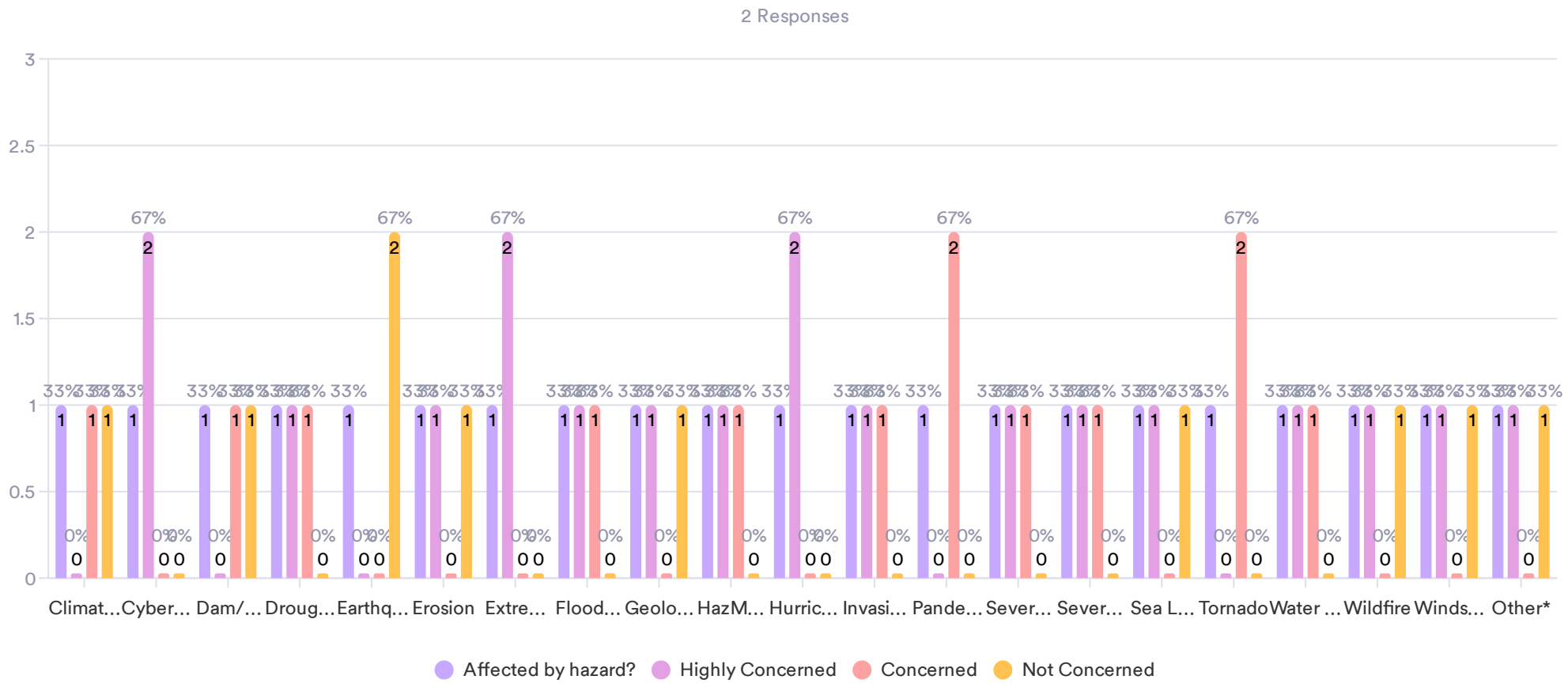
Which of the following best defines your role in the community?

2 Responses



Hazard Mitigation Plan Survey

This question includes a list of hazards and will ask you a two-part question. In the past 5 years, have you been affected by each hazard and how concerned are you about each hazard?



Hazard Mitigation Plan Survey

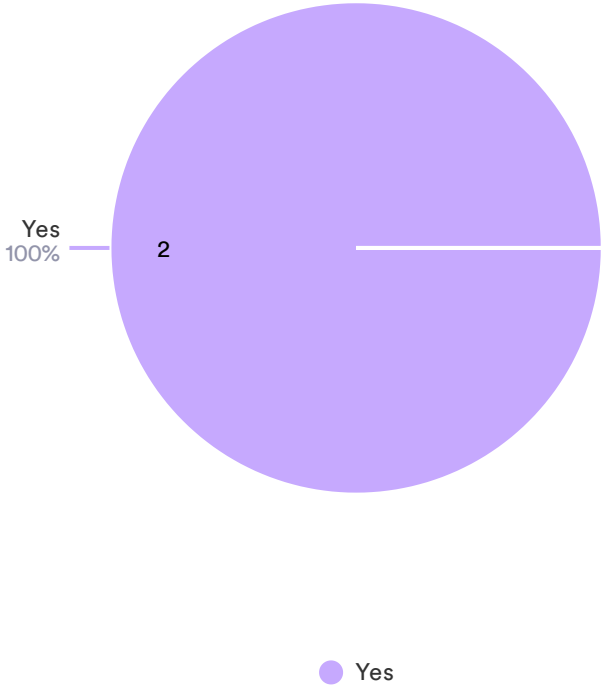
*Please specify the "other" hazard for which you have a concern if indicated above.

0 Response

Hazard Mitigation Plan Survey

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.)

2 Responses



Hazard Mitigation Plan Survey

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

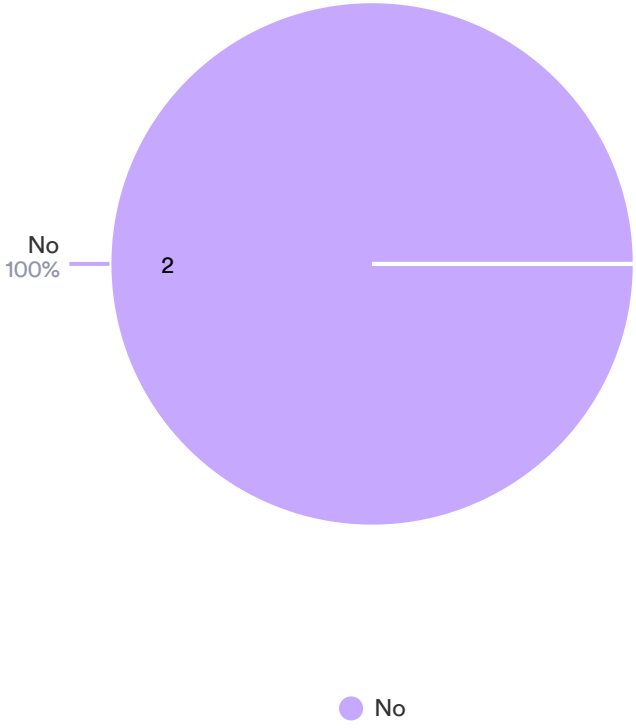
2 Responses

Data	Responses
Jan 2021. Burst pipe. Downstairs kitchen, living room and laundry room affected and replaced.	1
Pipes froze due to extreme winter temperatures in February 2021. Fence blew down during Hurricane Ike in 2008.	1

Hazard Mitigation Plan Survey

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

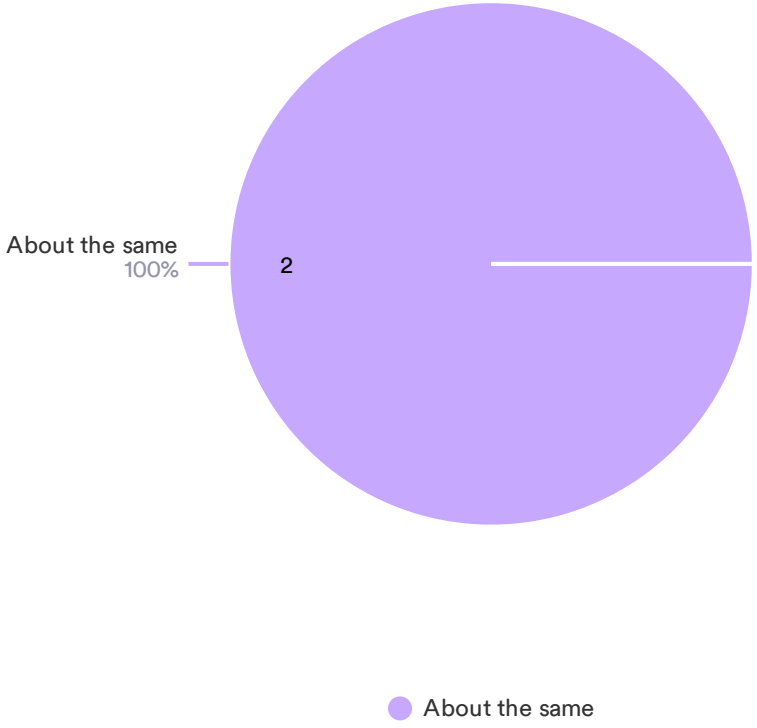
2 Responses



Hazard Mitigation Plan Survey

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

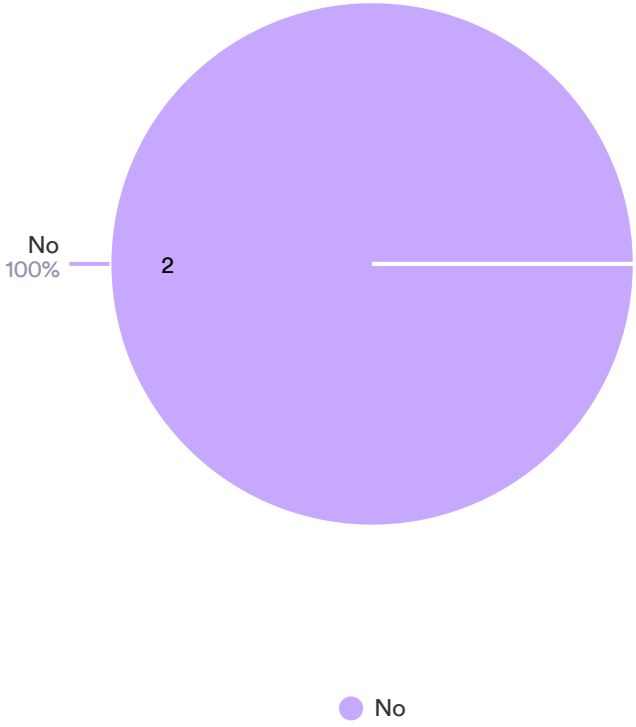
2 Responses



Hazard Mitigation Plan Survey

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

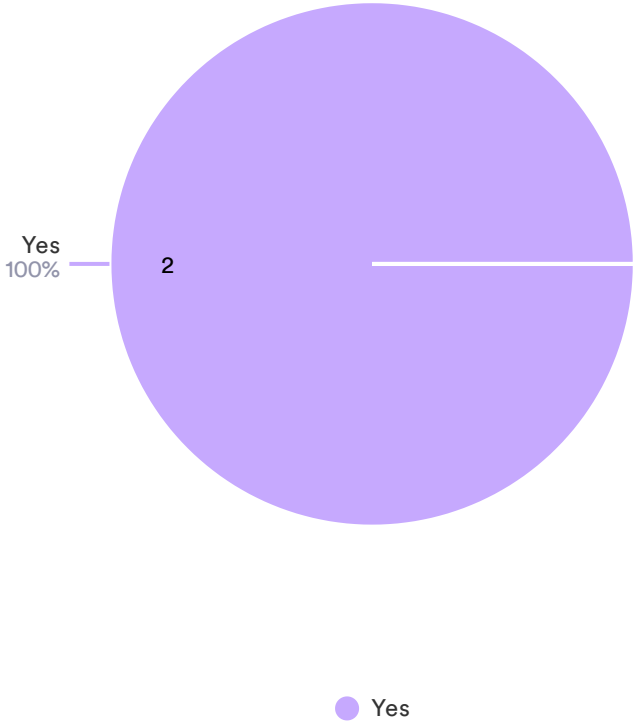
2 Responses



Hazard Mitigation Plan Survey

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

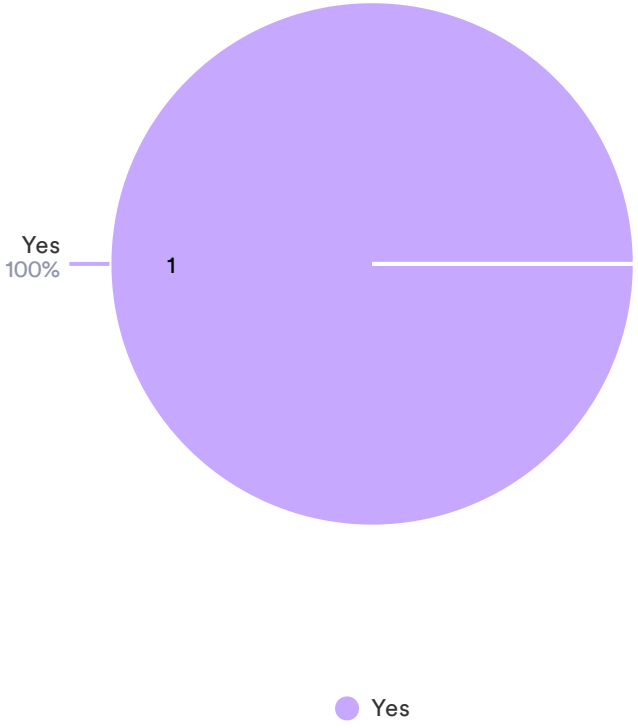
2 Responses



Hazard Mitigation Plan Survey

If your property is located outside of the floodplain, do you have flood insurance?

1 Response



Hazard Mitigation Plan Survey

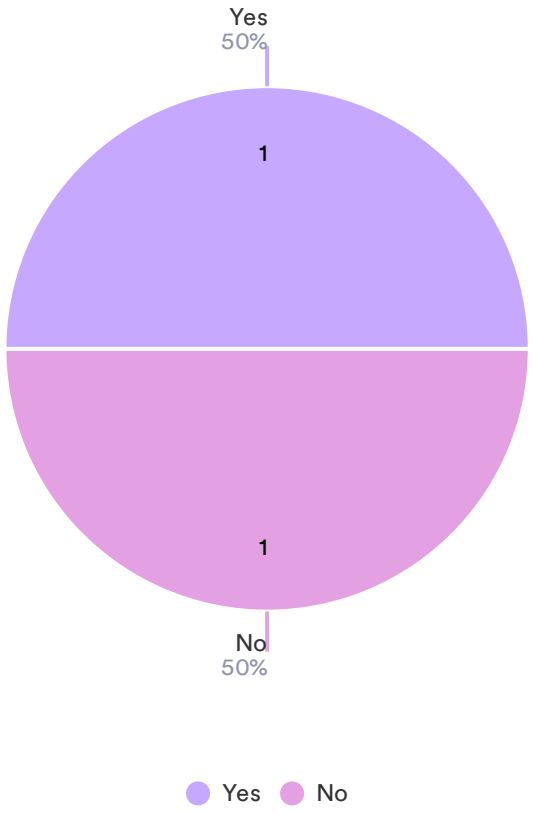
If you do not have flood insurance, please select the reasons that may apply.

0 Response

Hazard Mitigation Plan Survey

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

2 Responses



Hazard Mitigation Plan Survey

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

1 Response

Data	Responses
Purchase all insurances. Keep trees away from my roof. Insulated pipes.	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.

1 Response

Data	Responses
Our local recreation center on Valderas Street could use a generator so it can be a public shelter.	1

Hazard Mitigation Plan Survey

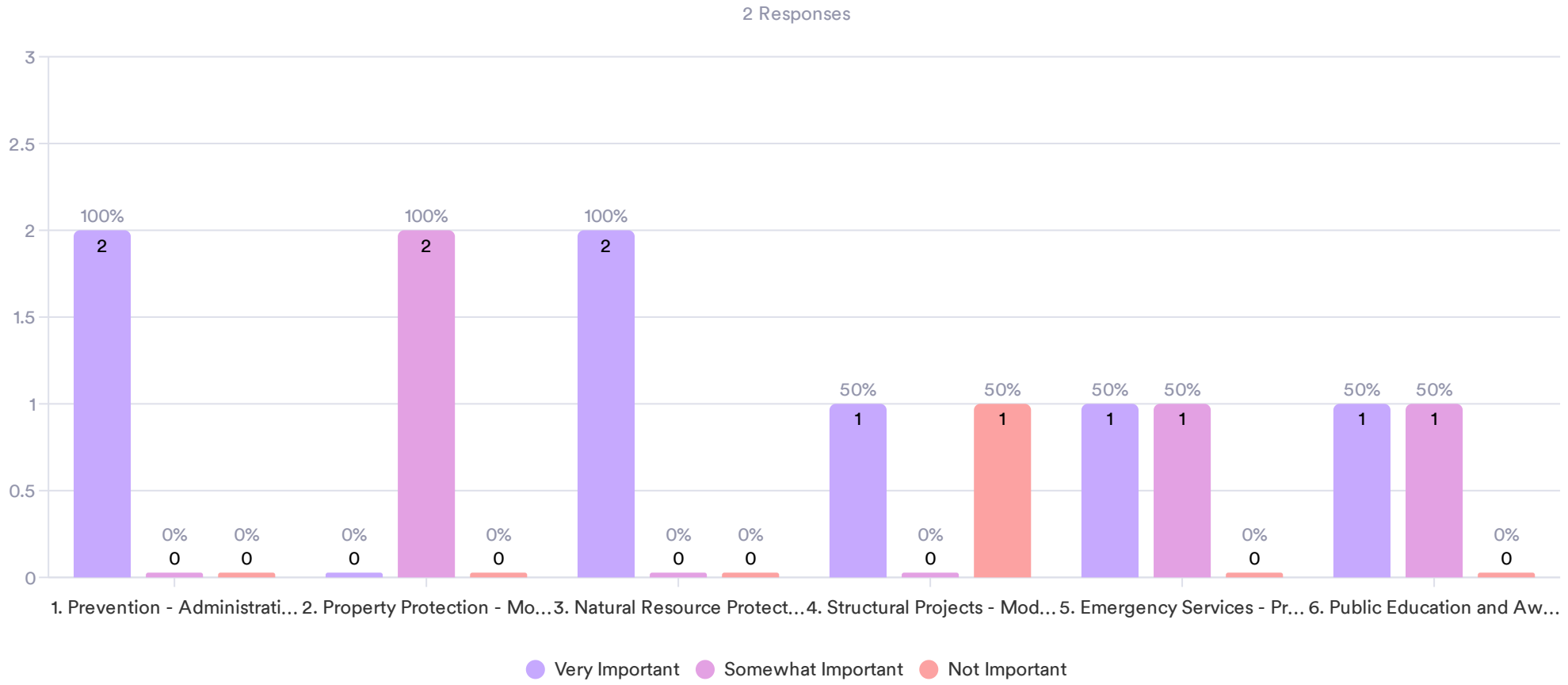
Which of the following categories of community assets do you believe are most susceptible to the impacts caused by hazards? Please rank the below in order of vulnerability with 1 being most vulnerable and 6 being least vulnerable. Drag and drop each category to change your order preference.

12 Responses

Data	Responses
2: Infrastructure - Damage or loss of bridges, utilities, schools, etc.	2
3: Governance - Ability to maintain order/provide public amenities and services	1
6: Cultural/Historic - Damage or loss of libraries, museums, fairgrounds, etc.	1
1: Human - Loss of Life/injuries	1
5: Cultural/Historic - Damage or loss of libraries, museums, fairgrounds, etc.	1
3: Economic - Business closures/job losses	1
4: Environmental - Damage or loss of forests, wetlands, waterways, etc.	1
5: Governance - Ability to maintain order/provide public amenities and services	1
Other entries	3

Hazard Mitigation Plan Survey

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.



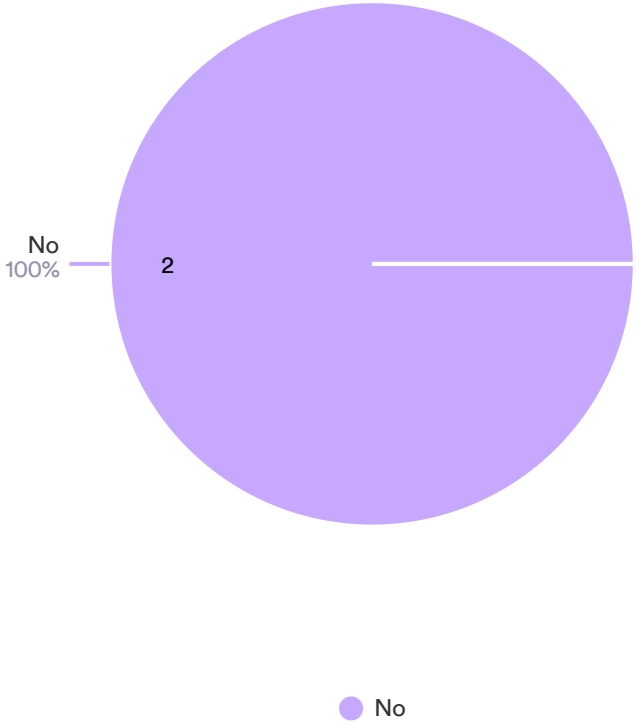
Hazard Mitigation Plan Survey

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.

Hazard Mitigation Plan Survey

Do you have project ideas for how to protect the community from the impacts of hazards?

2 Responses



Hazard Mitigation Plan Survey

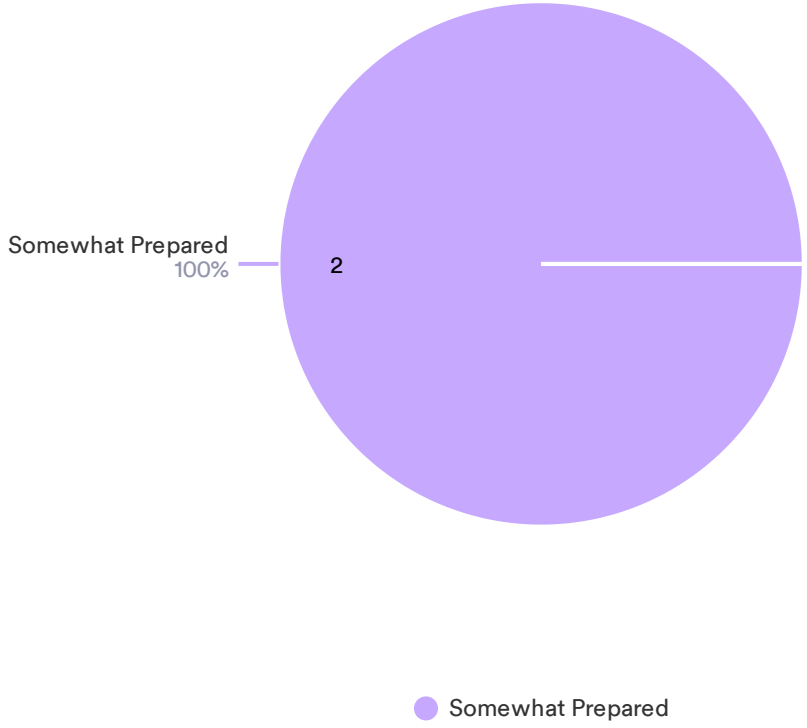
Please provide additional details about your project ideas for how to protect the community from the impacts of hazards.

0 Response

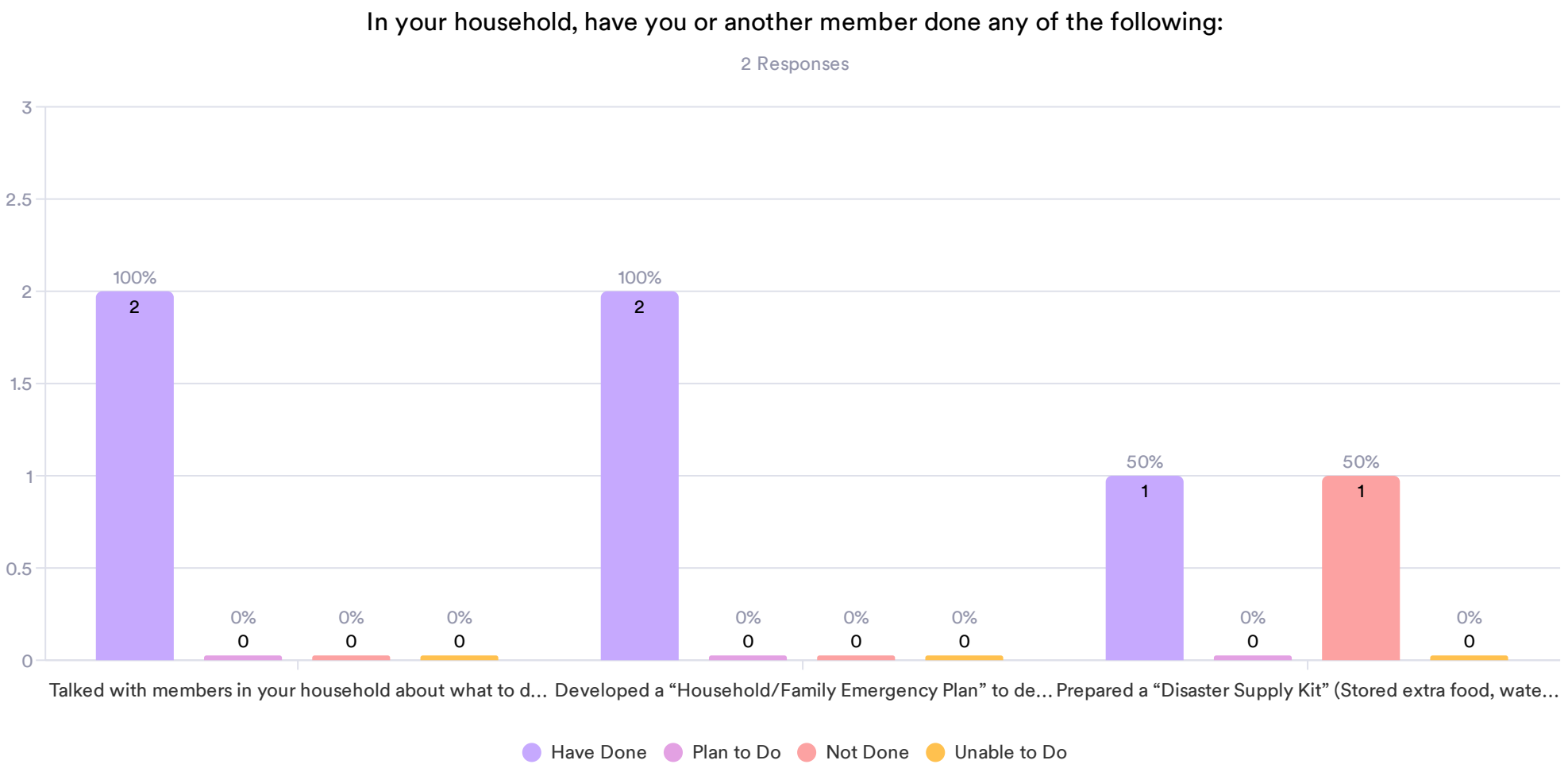
Hazard Mitigation Plan Survey

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

2 Responses



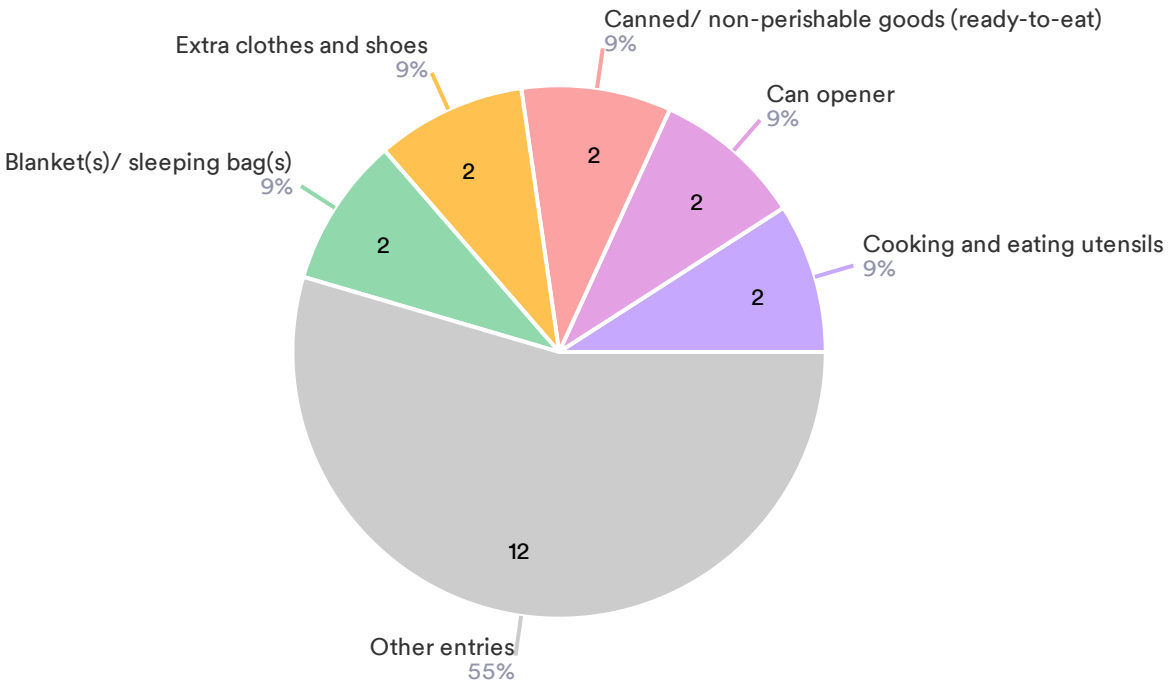
Hazard Mitigation Plan Survey



Hazard Mitigation Plan Survey

If a disaster occurred today such that all services were cut off from your home (power, gas, water, sewer), and you could not leave or access a store for 72 hours, which of these items do you have readily available? Please check all that apply.

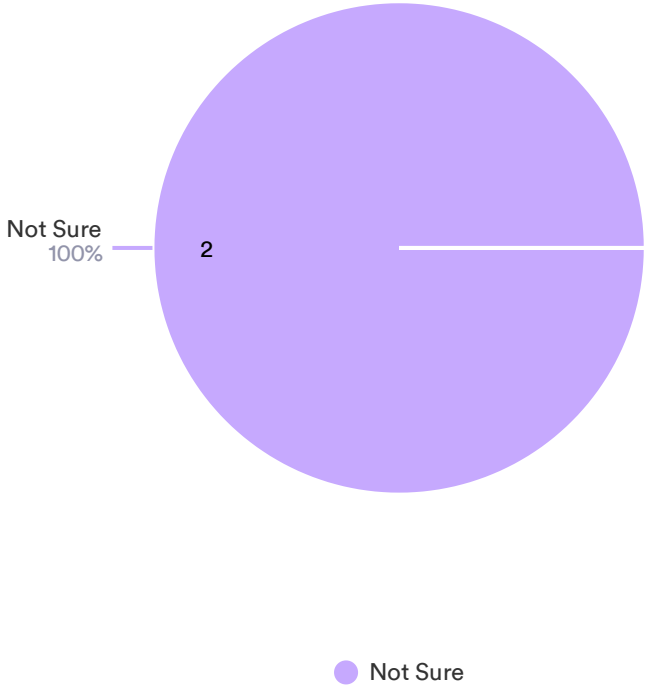
22 Responses



Hazard Mitigation Plan Survey

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

2 Responses



Hazard Mitigation Plan Survey

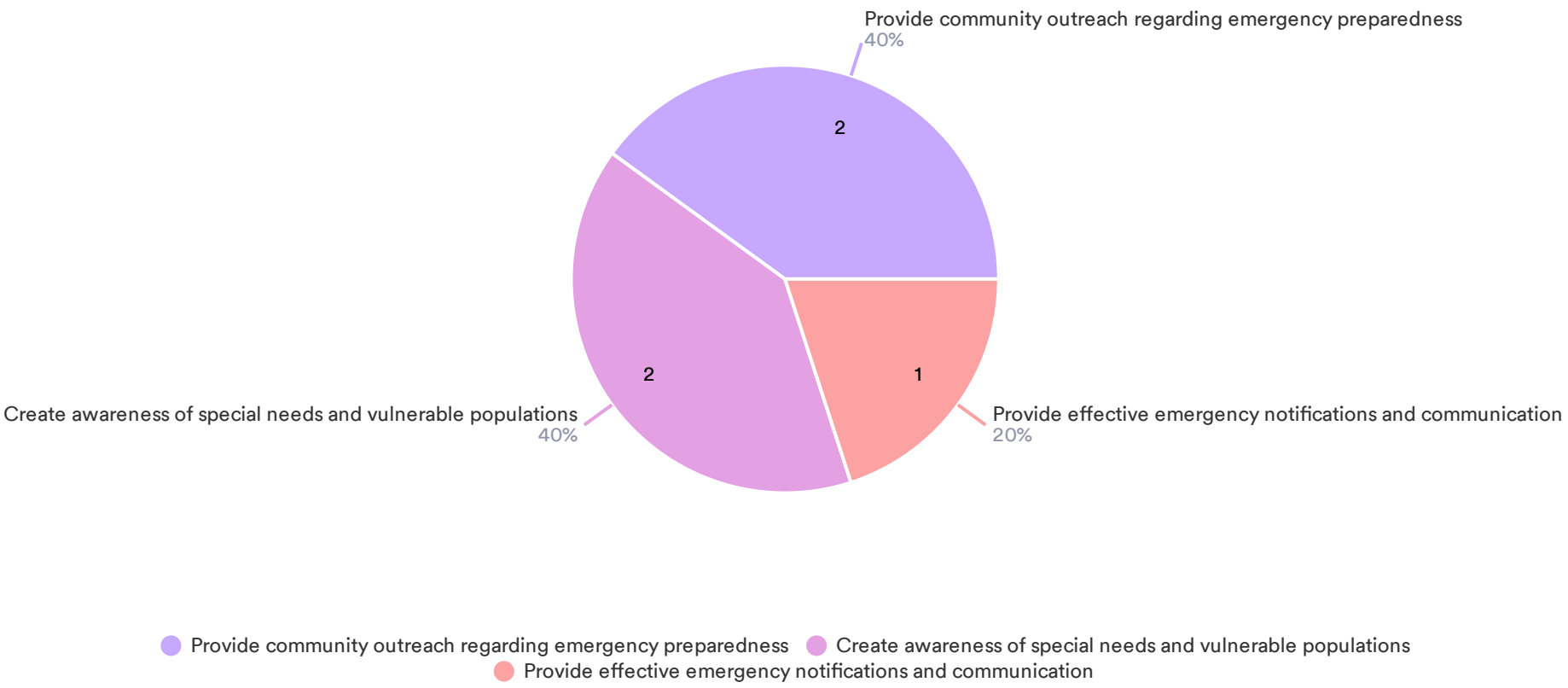
Briefly explain why you feel emergency services (fire, ambulance, police, hospital, etc.) are not adequately prepared to deal with a natural disaster in your community/city/county.

0 Response

Hazard Mitigation Plan Survey

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

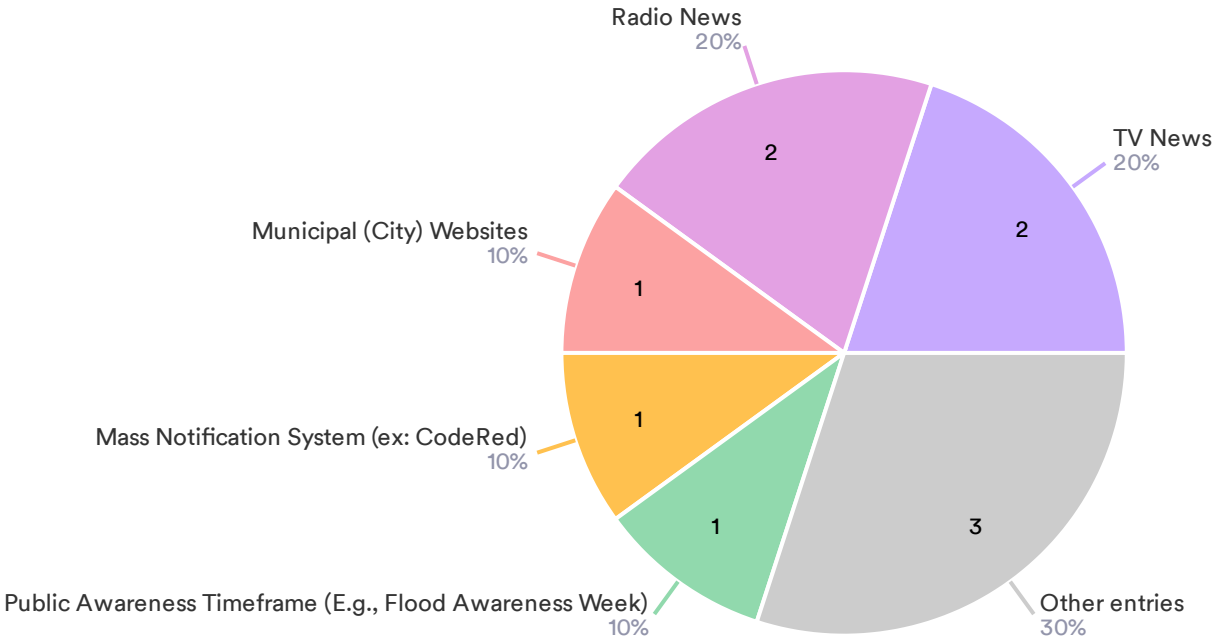
5 Responses



Hazard Mitigation Plan Survey

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

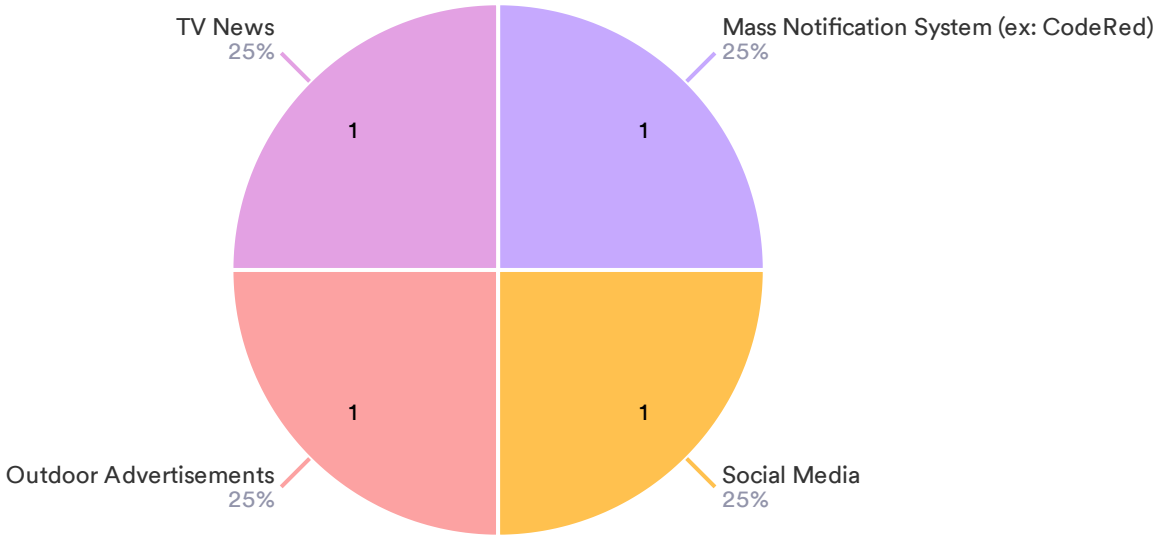
10 Responses



Hazard Mitigation Plan Survey

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)

4 Responses



Hazard Mitigation Plan Survey

Do you have any other comments, questions, or concerns regarding hazard mitigation in the City of Angleton, Austin County, Liberty County, or Walker County?

1 Response

Data	Responses
Long survey and not easy to fill in	1

Thank You!

Hazard Mitigation Plan Survey

H-GAC, in partnership with the City of Angleton's Office of Emergency Management, are pleased to post the draft City of Angleton Hazard Mitigation Plan 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

First Name | Last Name

My Organization is:

(use "General Public" if not associated with a specific organization)

E-mail

ex: myname@example.com

example@example.com

I wish to comment on *

Please Select

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

2024

Appendix F

PLAN ADOPTION

RESOLUTION NO. 20240423-011

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS, ADOPTING THE HOUSTON-GALVESTON AREA COUNCIL OF GOVERNMENTS – CITY OF ANGLETON HAZARD MITIGATION PLAN, AND VESTING THE MAYOR WITH THE RESPONSIBILITY, AUTHORITY, AND MEANS TO INFORM ALL CONCERNED PARTIES OF THIS ACTION; FINDING THAT THE MEETING COMPLIED WITH THE OPEN MEETINGS ACT; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, certain areas of the City of Angleton 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 Angleton 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 of Governments (H-GAC) in partnership with the City of Angleton Office of Emergency Management, in order to meet this requirement, have initiated and completed the development of a Hazard Mitigation Plan for the City of Angleton

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS:

SECTION 1. That the findings set out in the preamble of this resolution are in all things approved and adopted.

SECTION 2. That the City Council of the City of Angleton, Texas adopts the Houston-Galveston Area Council of Governments – City of Angleton Hazard Mitigation Plan; and vests the Mayor of the City of Angleton, 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's unique situation warrants such an addendum.

SECTION 3. That the City Council of the City of Angleton, Texas appoints the Mayor of the City to ensure that the Hazard Mitigation Plan is reviewed at least annually and that any needed adjustment to the Hazard Mitigation Plan is developed and presented to the City of Angleton City Council for consideration.

SECTION 4. That the City Council of the City of Angleton, Texas agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

SECTION 5. That the meeting at which this resolution was approved was in all things conducted in strict compliance with the Texas Open Meetings Act, Texas Government Code Chapter 551.

SECTION 6. This resolution shall be effective immediately upon passage.

PASSED AND APPROVED ON THIS THE 23rd DAY OF APRIL 2024.

CITY OF ANGLETON, TEXAS

John Wright
Mayor

ATTEST:

Michelle Perez, TRMC
City Secretary

CITY OF ANGLETON TEXAS

RESOLUTION NO. 20250422-004

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS, ADOPTING THE HOUSTON-GALVESTON AREA COUNCIL OF GOVERNMENTS – CITY OF ANGLETON HAZARD MITIGATION PLAN, AND VESTING THE MAYOR WITH THE RESPONSIBILITY, AUTHORITY, AND MEANS TO INFORM ALL CONCERNED PARTIES OF THIS ACTION; FINDING THAT THE MEETING COMPLIED WITH THE OPEN MEETINGS ACT; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, certain areas of the City of Angleton 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 Angleton 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 of Governments (H-GAC) in partnership with the City of Angleton Office of Emergency Management, in order to meet this requirement, have initiated and completed the development of a Hazard Mitigation Plan for the City of Angleton

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS:

SECTION 1. That the findings set out in the preamble of this resolution are in all things approved and adopted.

SECTION 2. That the City Council of the City of Angleton, Texas adopts the Houston-Galveston Area Council of Governments – City of Angleton Hazard Mitigation Plan; and vests the Mayor of the City of Angleton, 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's unique situation warrants such an addendum.

SECTION 3. That the City Council of the City of Angleton, Texas appoints the Mayor of the City to ensure that the Hazard Mitigation Plan is reviewed at least annually and that any needed adjustment to the Hazard Mitigation Plan is developed and presented to the City of Angleton City Council for consideration.

SECTION 4. That the City Council of the City of Angleton, Texas agrees to take such other official action as may be reasonably necessary to carry out the objectives of the Hazard Mitigation Plan.

SECTION 5. That the meeting at which this resolution was approved was in all things conducted in strict compliance with the Texas Open Meetings Act, Texas Government Code Chapter 551.

SECTION 6. This resolution shall be effective immediately upon passage.

PASSED AND APPROVED ON THIS THE 22nd DAY OF APRIL 2025.

CITY OF ANGLETON, TEXAS

John Wright
Mayor

ATTEST:

Michelle Perez, TRMC, CMC
City Secretary