

# Appendix A

## HAZUS RESULTS



# Hazus: Flood Global Risk Report

**Region Name:** Liberty County

**Flood Scenario:** 100-yr

**Print Date:** Friday, May 12, 2023

**Disclaimer:**

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

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



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## General Description of the Region

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

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

- Texas

Note:

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

The geographical size of the region is approximately 38 square miles and contains 2,311 census blocks. The region contains over 29 thousand households and has a total population of 91,492 people. The distribution of population by State and County for the study region is provided in Appendix B .

There are an estimated 36,343 buildings in the region with a total building replacement value (excluding contents) of 10,264 million dollars. Approximately 89.55% of the buildings (and 57.45% of the building value) are associated with residential housing.



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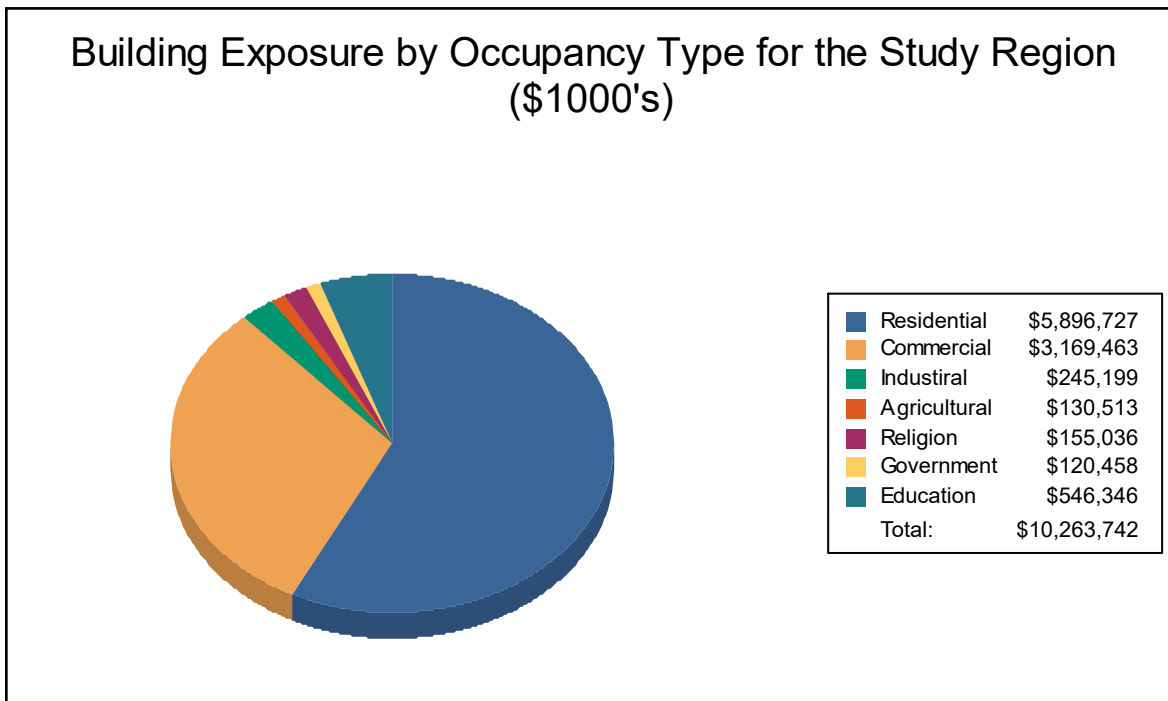
## Building Inventory

### General Building Stock

Hazus estimates that there are 36,343 buildings in the region which have an aggregate total replacement value of 10,264 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	5,896,727	57.5%
Commercial	3,169,463	30.9%
Industrial	245,199	2.4%
Agricultural	130,513	1.3%
Religion	155,036	1.5%
Government	120,458	1.2%
Education	546,346	5.3%
<b>Total</b>	<b>10,263,742</b>	<b>100%</b>



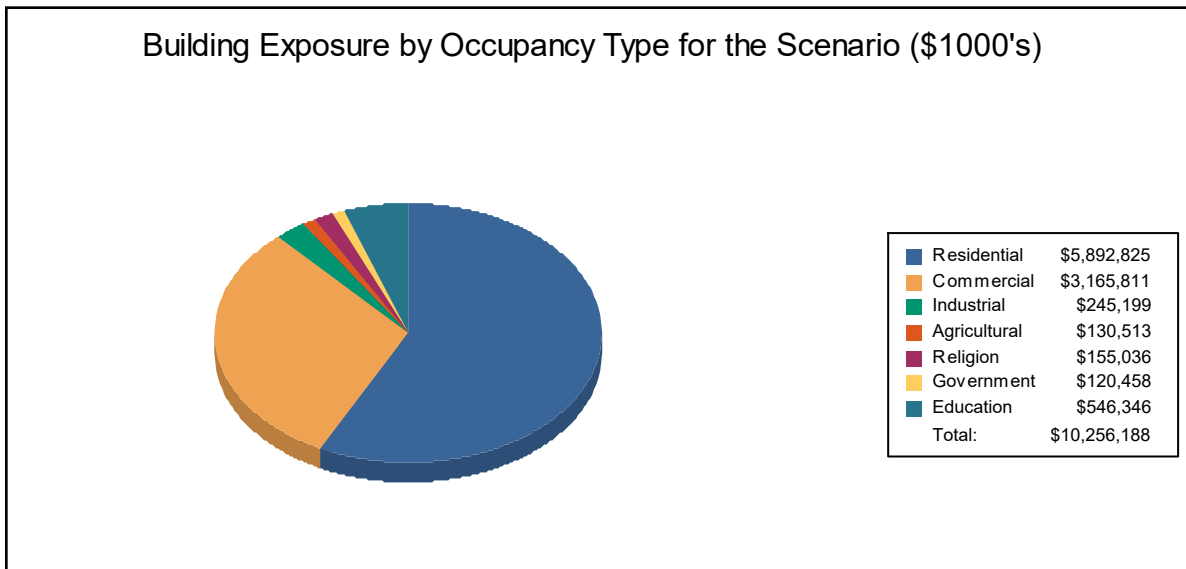
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**Table 2**  
**Building Exposure by Occupancy Type for the Scenario**

Occupancy	Exposure (\$1000)	Percent of Total
Residential	5,892,825	57.5%
Commercial	3,165,811	30.9%
Industrial	245,199	2.4%
Agricultural	130,513	1.3%
Religion	155,036	1.5%
Government	120,458	1.2%
Education	546,346	5.3%
<b>Total</b>	<b>10,256,188</b>	<b>100%</b>



**Essential Facility Inventory**

For essential facilities, there are 3 hospitals in the region with a total bed capacity of 136 beds. There are 34 schools, 19 fire stations, 7 police stations and 2 emergency operation centers.



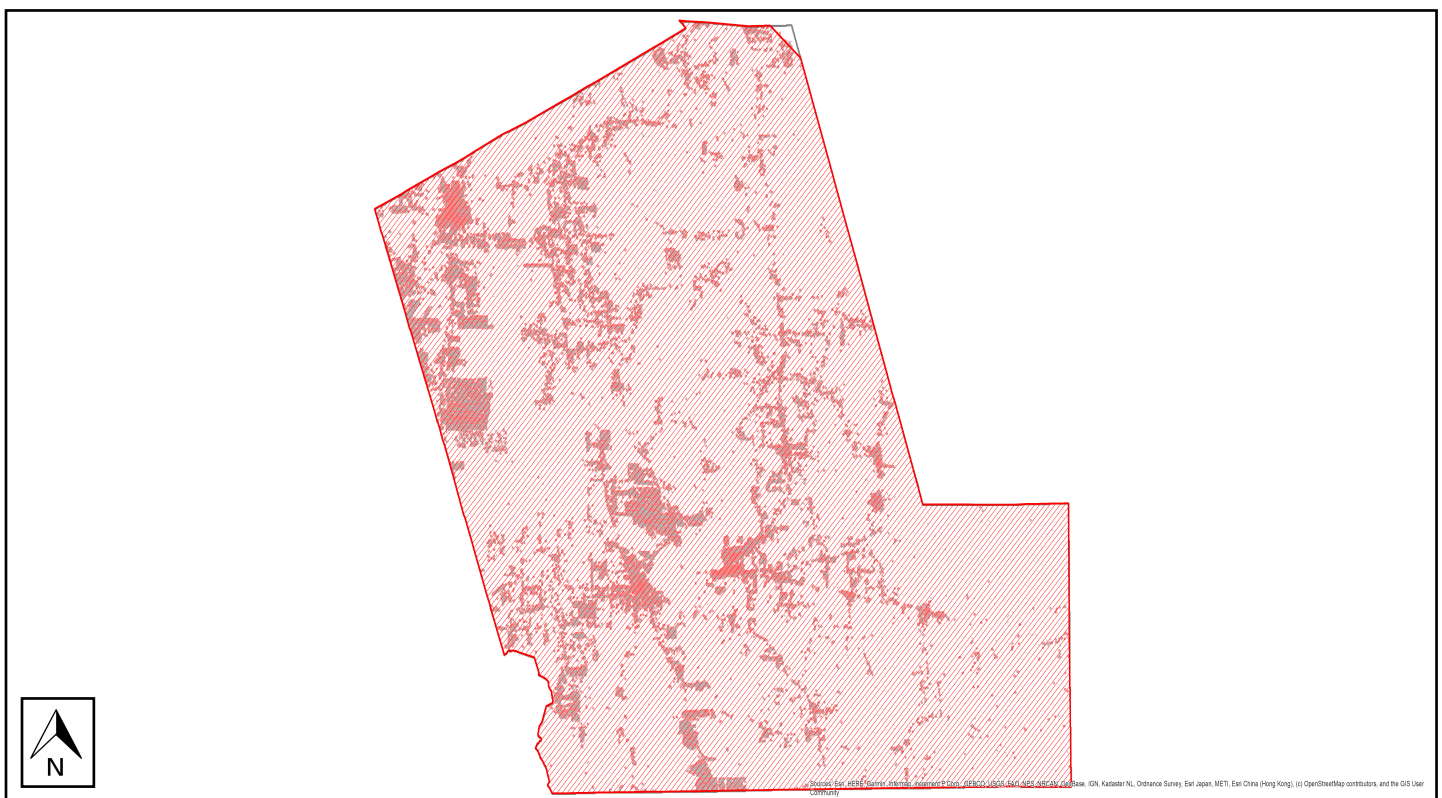


## Building Damage

### General Building Stock Damage

Hazus estimates that about 28,192 buildings will be at least moderately damaged. This is over 2% of the total number of buildings in the scenario. There are an estimated 25,115 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**



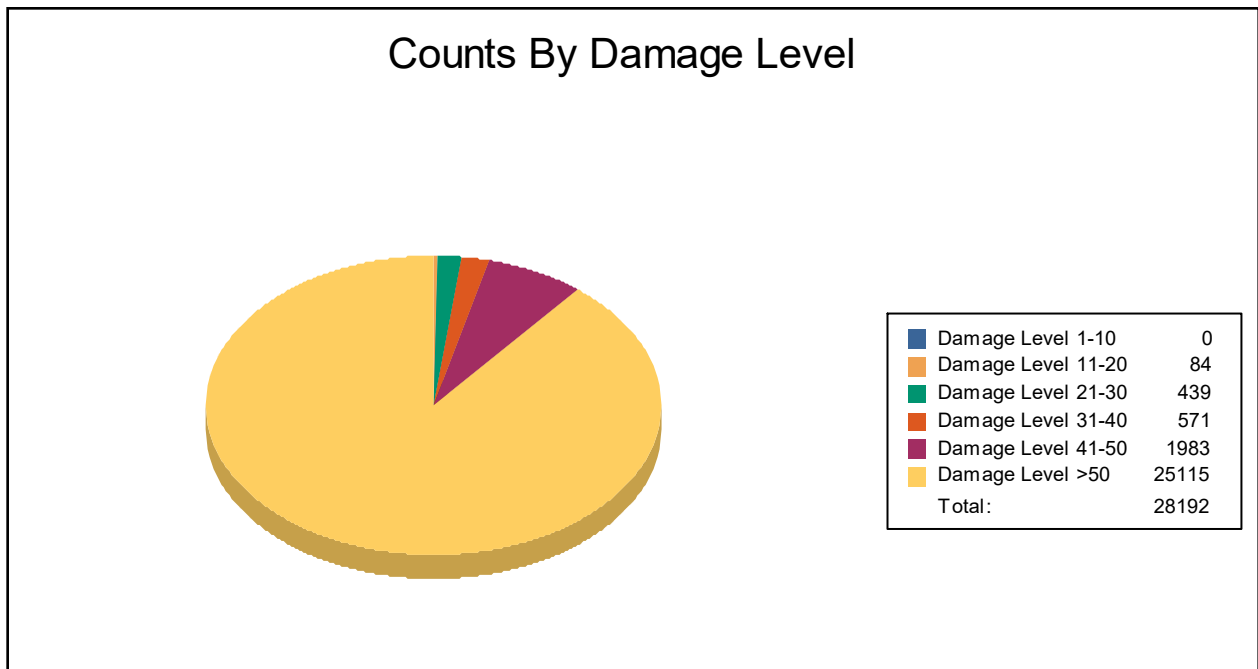
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**Table 3: Expected Building Damage by Occupancy**

Occupancy	1-10		11-20		21-30		31-40		41-50		>50	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	0	0	0	0	2	2	0	0	7	7	94	91
Commercial	0	0	12	1	85	4	63	3	329	16	1,506	75
Education	0	0	5	24	2	10	0	0	1	5	13	62
Government	0	0	6	23	1	4	0	0	0	0	19	73
Industrial	0	0	0	0	1	1	9	9	14	14	75	76
Religion	0	0	16	36	1	2	2	4	0	0	26	58
Residential	0	0	45	0	347	1	497	2	1,632	6	23,382	90
<b>Total</b>	<b>0</b>		<b>84</b>		<b>439</b>		<b>571</b>		<b>1,983</b>		<b>25,115</b>	





**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	0	0	2	1	5	3	27	17	127	79
ManufHousing	0	0	0	0	1	0	0	0	3	0	9,359	100
Masonry	0	0	16	1	49	2	60	3	229	11	1,817	84
Steel	0	0	4	1	24	4	18	3	106	17	461	75
Wood	0	0	48	0	343	2	475	3	1,598	10	13,147	84



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## Essential Facility Damage

Before the flood analyzed in this scenario, the region had 136 hospital beds available for use. On the day of the scenario flood event, the model estimates that 136 hospital beds are available in the region.

**Table 5: Expected Damage to Essential Facilities**

Classification	# Facilities			
	Total	At Least Moderate	At Least Substantial	Loss of Use
Emergency Operation Centers	2	0	0	0
Fire Stations	19	0	0	0
Hospitals	3	0	0	0
Police Stations	7	0	0	0
Schools	34	0	0	0

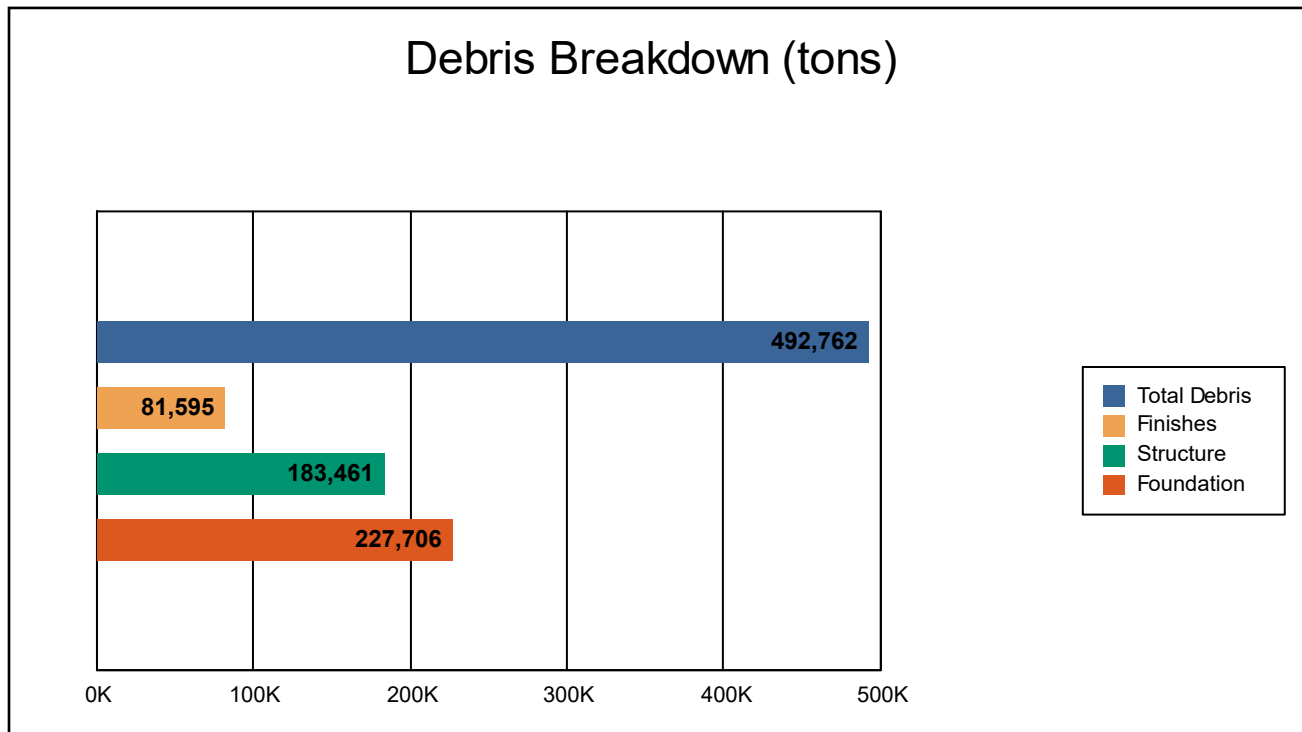
If this report displays all zeros or is blank, two possibilities can explain this.

- (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.



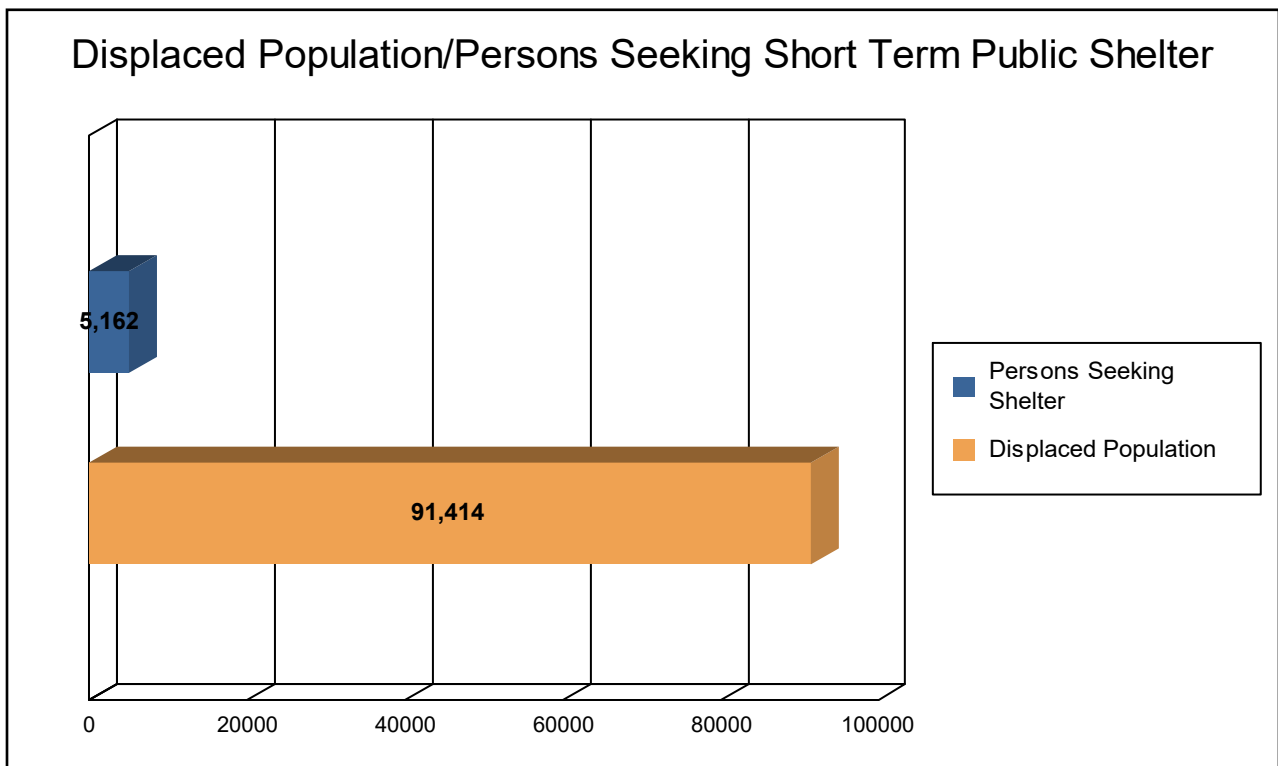
The model estimates that a total of 492,762 tons of debris will be generated. Of the total amount, Finishes comprises 17% of the total, Structure comprises 37% of the total, and Foundation comprises 46%. If the debris tonnage is converted into an estimated number of truckloads, it will require 19711 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 30,471 households (or 91,414 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 5,162 people (out of a total population of 91,492) will seek temporary shelter in public shelters.



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## Economic Loss

The total economic loss estimated for the flood is 21,102.51 million dollars, which represents 205.75 % 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 13,074.24 million dollars. 38% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 35.48% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.



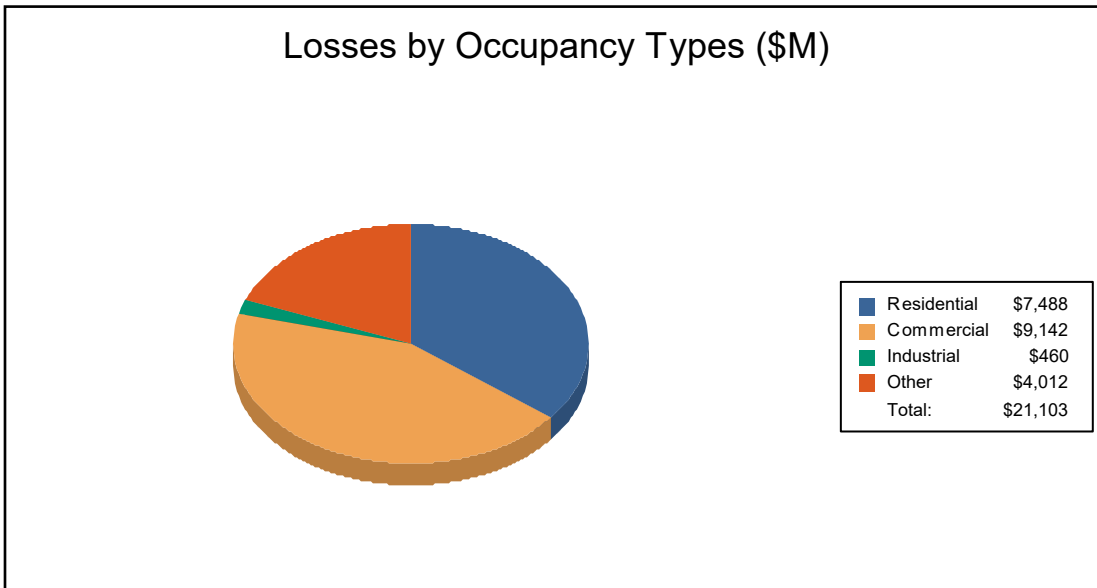
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**Table 6: Building-Related Economic Loss Estimates**  
(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
<u>Building Loss</u>						
	Building	4,118.86	1,974.83	141.45	613.38	6,848.51
	Content	2,070.31	2,534.30	249.57	919.68	5,773.87
	Inventory	0.00	283.75	44.58	123.53	451.86
	<b>Subtotal</b>	<b>6,189.17</b>	<b>4,792.88</b>	<b>435.60</b>	<b>1,656.59</b>	<b>13,074.24</b>
<u>Business Interruption</u>						
	Income	34.28	1,986.31	6.72	299.90	2,327.21
	Relocation	843.64	558.73	5.86	178.06	1,586.29
	Rental Income	340.01	413.26	1.77	17.99	773.03
	Wage	80.58	1,391.23	10.42	1,859.52	3,341.75
	<b>Subtotal</b>	<b>1,298.50</b>	<b>4,349.53</b>	<b>24.77</b>	<b>2,355.47</b>	<b>8,028.27</b>
<b>ALL</b>	<b>Total</b>	<b>7,487.67</b>	<b>9,142.41</b>	<b>460.37</b>	<b>4,012.07</b>	<b>21,102.51</b>





## **Appendix A: County Listing for the Region**

Texas

- Liberty



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**Appendix B: Regional Population and Building Value Data**

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
<b>Texas</b>				
Liberty	91,492	5,896,727	4,367,015	10,263,742
<b>Total</b>	<b>91,492</b>	<b>5,896,727</b>	<b>4,367,015</b>	<b>10,263,742</b>
<b>Total Study Region</b>	<b>91,492</b>	<b>5,896,727</b>	<b>4,367,015</b>	<b>10,263,742</b>



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# Hazus: Flood Global Risk Report

**Region Name:** Liberty County

**Flood Scenario:** 500-yr

**Print Date:** Friday, May 12, 2023

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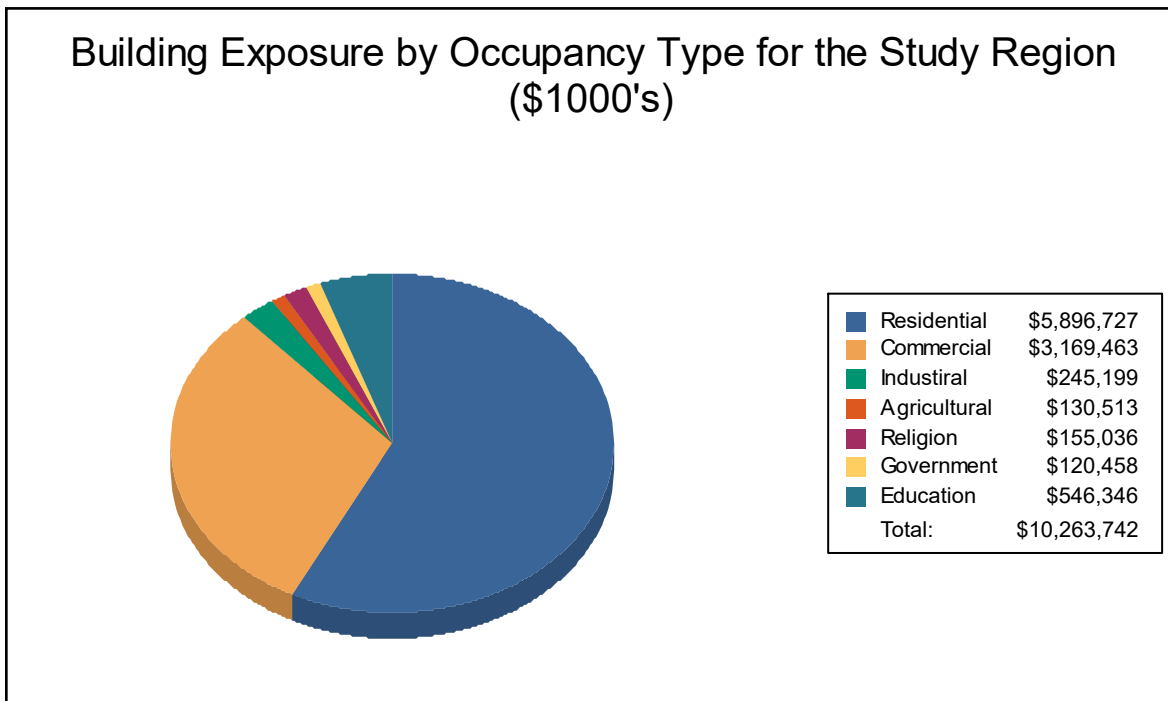
## Building Inventory

### General Building Stock

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**Table 1**  
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Agricultural	130,513	1.3%
Religion	155,036	1.5%
Government	120,458	1.2%
Education	546,346	5.3%
<b>Total</b>	<b>10,263,742</b>	<b>100%</b>



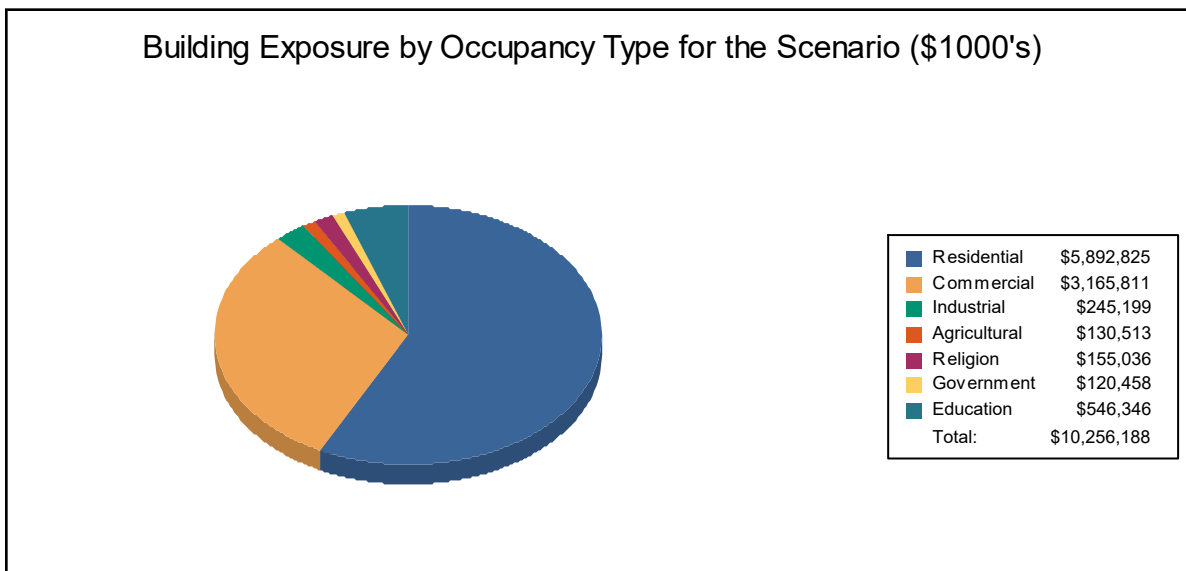
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**Table 2  
Building Exposure by Occupancy Type for the Scenario**

<b>Occupancy</b>	<b>Exposure (\$1000)</b>	<b>Percent of Total</b>
Residential	5,892,825	57.5%
Commercial	3,165,811	30.9%
Industrial	245,199	2.4%
Agricultural	130,513	1.3%
Religion	155,036	1.5%
Government	120,458	1.2%
Education	546,346	5.3%
<b>Total</b>	<b>10,256,188</b>	<b>100%</b>



**Essential Facility Inventory**

For essential facilities, there are 3 hospitals in the region with a total bed capacity of 136 beds. There are 34 schools, 19 fire stations, 7 police stations and 2 emergency operation centers.

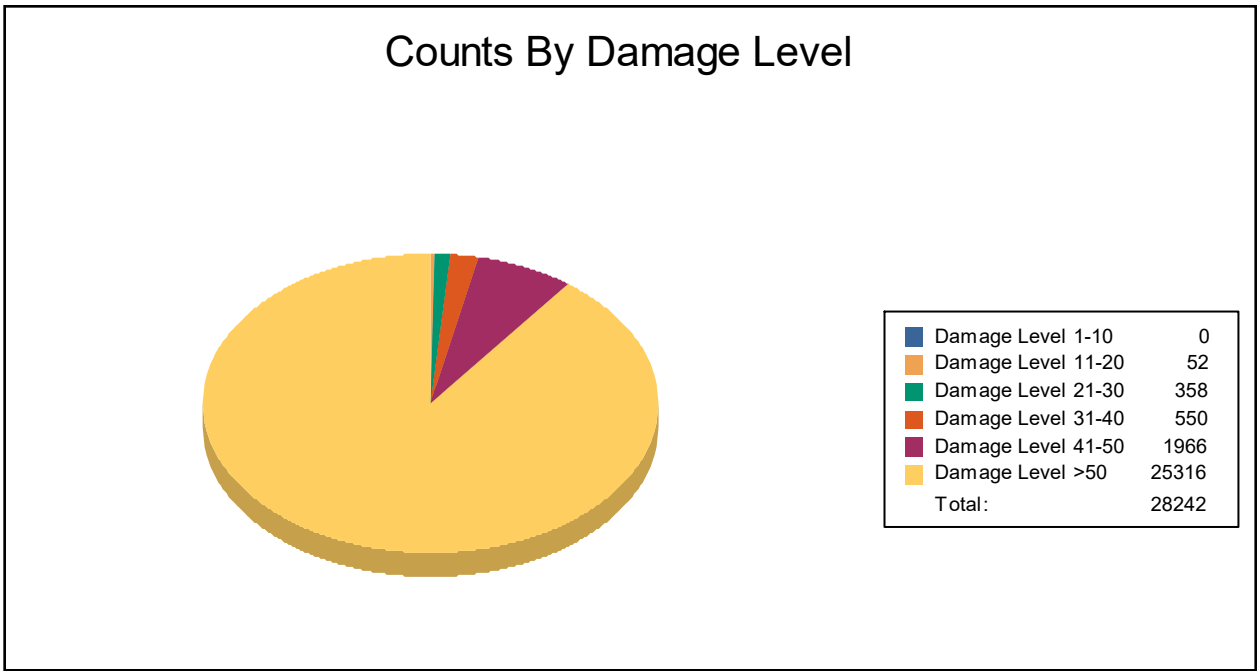






**Table 3: Expected Building Damage by Occupancy**

Occupancy	1-10		11-20		21-30		31-40		41-50		>50	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	0	0	0	0	1	1	1	1	4	4	97	94
Commercial	0	0	1	0	61	3	54	3	297	15	1,599	79
Education	0	0	3	13	5	21	0	0	1	4	15	63
Government	0	0	1	4	6	23	0	0	0	0	19	73
Industrial	0	0	0	0	0	0	9	9	16	16	72	74
Religion	0	0	11	29	2	5	0	0	0	0	25	66
Residential	0	0	36	0	283	1	486	2	1,648	6	23,489	91
<b>Total</b>	<b>0</b>		<b>52</b>		<b>358</b>		<b>550</b>		<b>1,966</b>		<b>25,316</b>	



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**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	0	0	1	1	5	3	21	13	140	84
ManufHousing	0	0	0	0	1	0	0	0	1	0	9,366	100
Masonry	0	0	6	0	38	2	54	2	237	11	1,871	85
Steel	0	0	1	0	14	2	17	3	101	16	495	79
Wood	0	0	35	0	276	2	463	3	1,603	10	13,257	85



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## Essential Facility Damage

Before the flood analyzed in this scenario, the region had 136 hospital beds available for use. On the day of the scenario flood event, the model estimates that 136 hospital beds are available in the region.

**Table 5: Expected Damage to Essential Facilities**

Classification	# Facilities			
	Total	At Least Moderate	At Least Substantial	Loss of Use
Emergency Operation Centers	2	0	0	0
Fire Stations	19	0	0	0
Hospitals	3	0	0	0
Police Stations	7	0	0	0
Schools	34	0	0	0

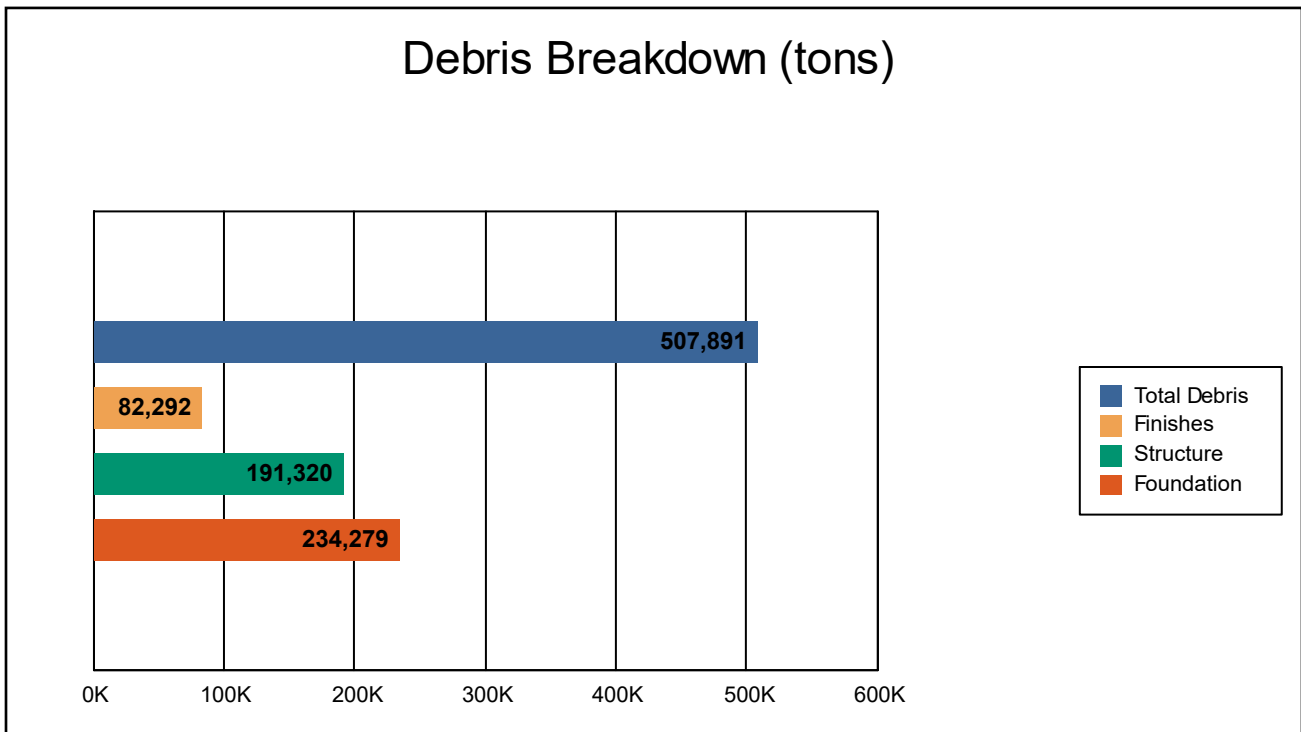
If this report displays all zeros or is blank, two possibilities can explain this.

- (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.



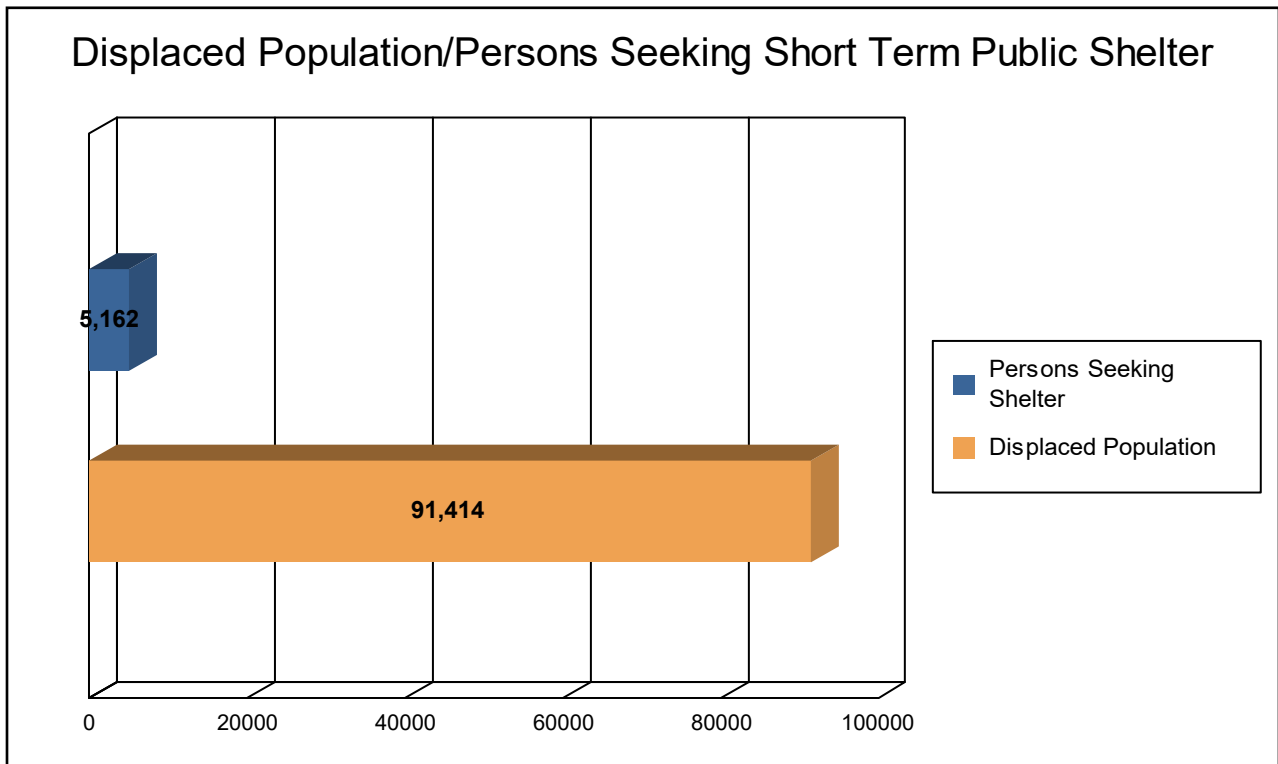
The model estimates that a total of 507,891 tons of debris will be generated. Of the total amount, Finishes comprises 16% of the total, Structure comprises 38% of the total, and Foundation comprises 46%. If the debris tonnage is converted into an estimated number of truckloads, it will require 20316 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 30,471 households (or 91,414 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 5,162 people (out of a total population of 91,492) will seek temporary shelter in public shelters.



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## Economic Loss

The total economic loss estimated for the flood is 21,283.60 million dollars, which represents 207.52 % 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 13,197.11 million dollars. 38% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 35.41% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.



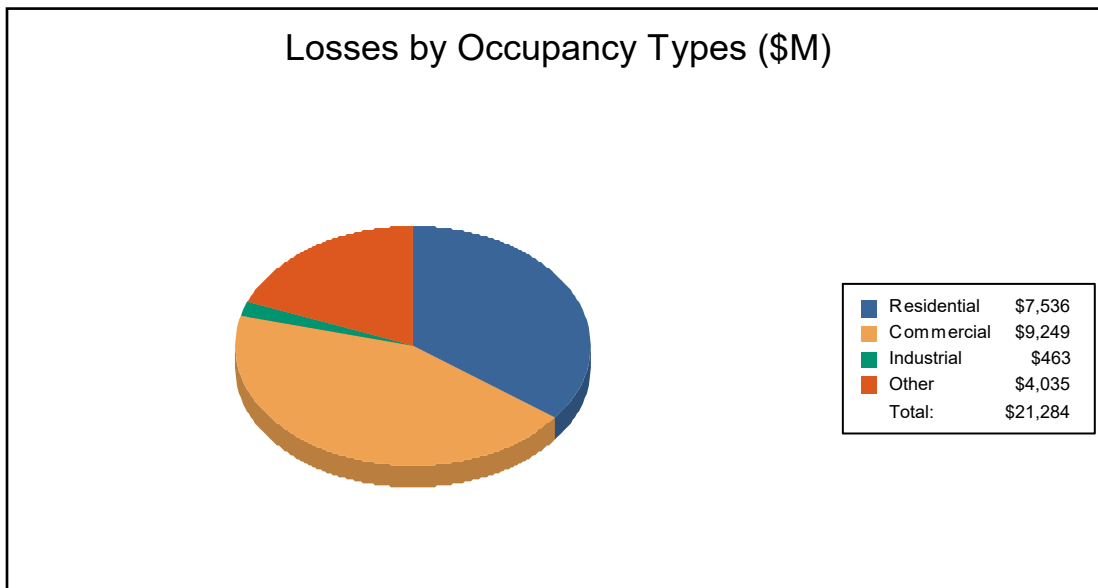
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**Table 6: Building-Related Economic Loss Estimates**  
(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
<u>Building Loss</u>						
	Building	4,149.47	2,011.07	142.74	615.15	6,918.42
	Content	2,084.65	2,560.65	250.77	927.27	5,823.35
	Inventory	0.00	287.05	44.76	123.53	455.34
	<b>Subtotal</b>	<b>6,234.12</b>	<b>4,858.76</b>	<b>438.28</b>	<b>1,665.94</b>	<b>13,197.11</b>
<u>Business Interruption</u>						
	Income	34.41	2,003.34	6.74	302.25	2,346.73
	Relocation	845.82	564.54	5.87	179.39	1,595.62
	Rental Income	341.24	417.76	1.77	18.11	778.89
	Wage	80.90	1,404.63	10.42	1,869.30	3,365.25
	<b>Subtotal</b>	<b>1,302.36</b>	<b>4,390.27</b>	<b>24.80</b>	<b>2,369.05</b>	<b>8,086.49</b>
<b>ALL</b>	<b>Total</b>	<b>7,536.49</b>	<b>9,249.03</b>	<b>463.08</b>	<b>4,034.99</b>	<b>21,283.60</b>



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## **Appendix A: County Listing for the Region**

Texas

- Liberty



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**Appendix B: Regional Population and Building Value Data**

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
<b>Texas</b>				
Liberty	91,492	5,896,727	4,367,015	10,263,742
<b>Total</b>	<b>91,492</b>	<b>5,896,727</b>	<b>4,367,015</b>	<b>10,263,742</b>
<b>Total Study Region</b>	<b>91,492</b>	<b>5,896,727</b>	<b>4,367,015</b>	<b>10,263,742</b>





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# Hazus: Hurricane Global Risk Report

**Region Name:** Liberty County

**Hurricane Scenario:** Probabilistic 100-year Return Period

**Print Date:** Friday, May 12, 2023

**Disclaimer:**

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## General Description of the Region

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

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

- Texas

Note:

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

The geographical size of the region is 1,180.14 square miles and contains 17 census tracts. There are over 29 thousand households in the region and a total population of 91,628 people. The distribution of population by State and County is provided in Appendix B.

There are an estimated 36 thousand buildings in the region with a total building replacement value (excluding contents) of 10,267 million dollars. Approximately 90% of the buildings (and 57% of the building value) are associated with residential housing.

## Building Inventory

### General Building Stock

Hazus estimates that there are 36,343 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 provides distribution of the building value by State and County.

### Building Exposure by Occupancy Type

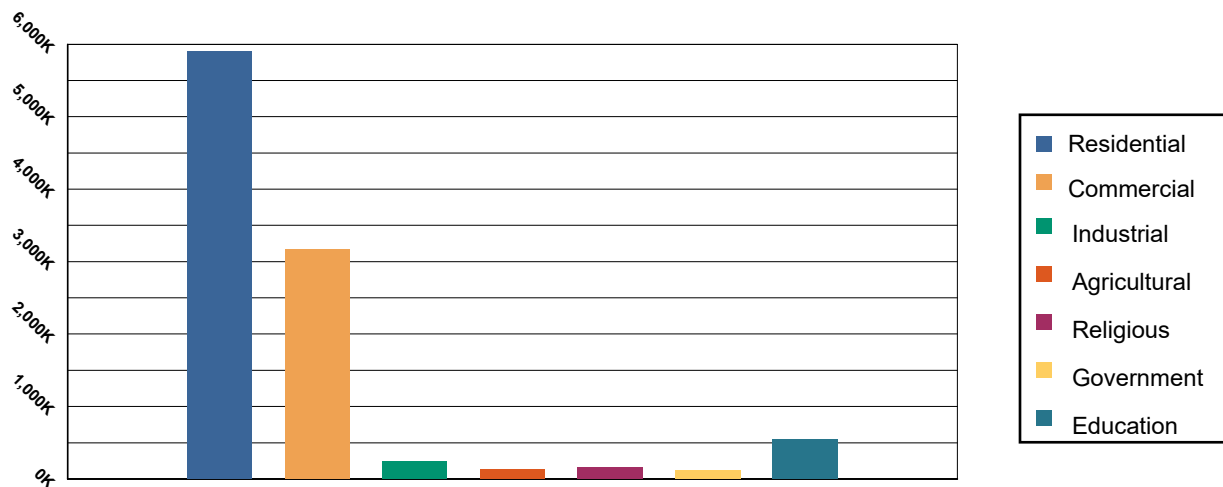


Table 1: Building Exposure by Occupancy Type

Occupancy	Exposure (\$1000)	Percent of Tot
Residential	5,898,790	57.46%
Commercial	3,170,112	30.88%
Industrial	245,282	2.39%
Agricultural	130,588	1.27%
Religious	155,083	1.51%
Government	120,484	1.17%
Education	546,355	5.32%
<b>Total</b>	<b>10,266,694</b>	<b>100.00%</b>

### Essential Facility Inventory

For essential facilities, there are 3 hospitals in the region with a total bed capacity of 136 beds. There are 34 schools, 19 fire stations, 7 police stations and 2 emergency operation facilities.



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## 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

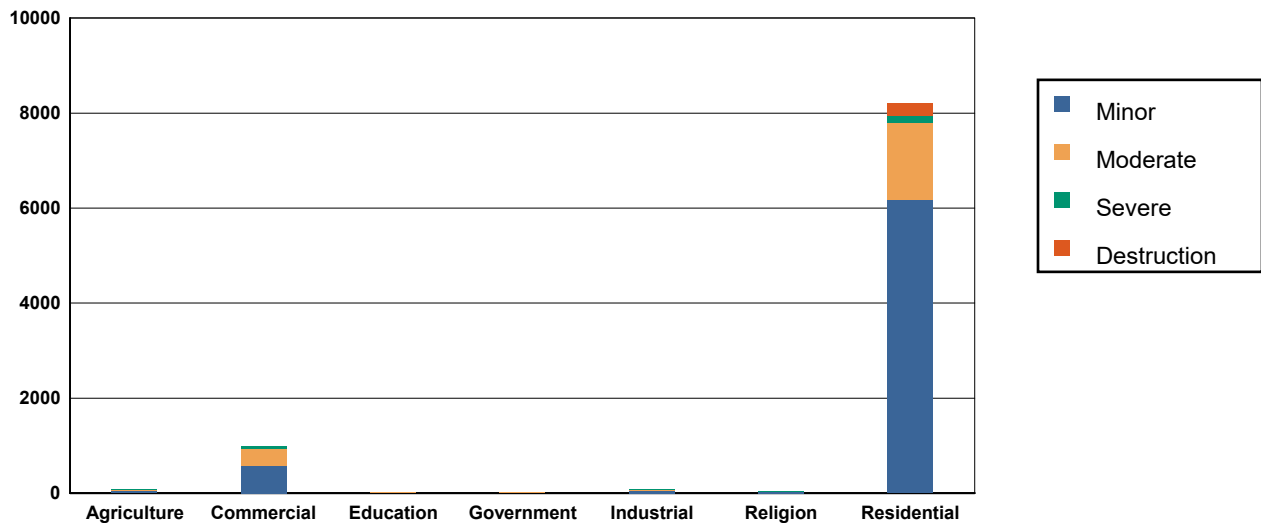
**Type:** Probabilistic

## Building Damage

### General Building Stock Damage

Hazus estimates that about 2,554 buildings will be at least moderately damaged. This is over 7% of the total number of buildings in the region. There are an estimated 272 buildings that will be completely destroyed. The definition of the 'damage states' is provided in the Hazus Hurricane technical manual. Table 2 below summarizes the expected damage by general occupancy for the buildings in the region. Table 3 summarizes the expected damage by general building type.

### Expected Building Damage by Occupancy



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

Occupancy	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	153.93	61.82	40.79	16.38	30.05	12.07	20.53	8.25	3.69	1.48
Commercial	2,064.79	67.79	567.44	18.63	362.89	11.91	50.39	1.65	0.48	0.02
Education	32.67	72.59	7.94	17.65	3.76	8.35	0.63	1.41	0.00	0.00
Government	54.78	72.07	13.44	17.69	6.41	8.44	1.37	1.80	0.00	0.00
Industrial	175.76	71.16	43.15	17.47	21.85	8.85	6.19	2.51	0.05	0.02
Religion	98.09	73.20	23.72	17.70	9.85	7.35	2.35	1.75	0.00	0.00
Residential	24,328.24	74.75	6,184.16	19.00	1,608.33	4.94	157.91	0.49	267.36	0.82
<b>Total</b>	<b>26,908.26</b>		<b>6,880.63</b>		<b>2,043.14</b>		<b>239.37</b>		<b>271.58</b>	



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

Building Type	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	330	66.19	89	17.97	68	13.66	11	2.18	0	0.00
Masonry	2,821	71.27	721	18.23	341	8.60	69	1.74	6	0.16
MH	9,061	86.41	661	6.30	480	4.58	38	0.36	246	2.35
Steel	722	64.39	184	16.37	185	16.51	30	2.69	0	0.03
Wood	14,326	70.68	4,857	23.96	944	4.66	98	0.48	44	0.22



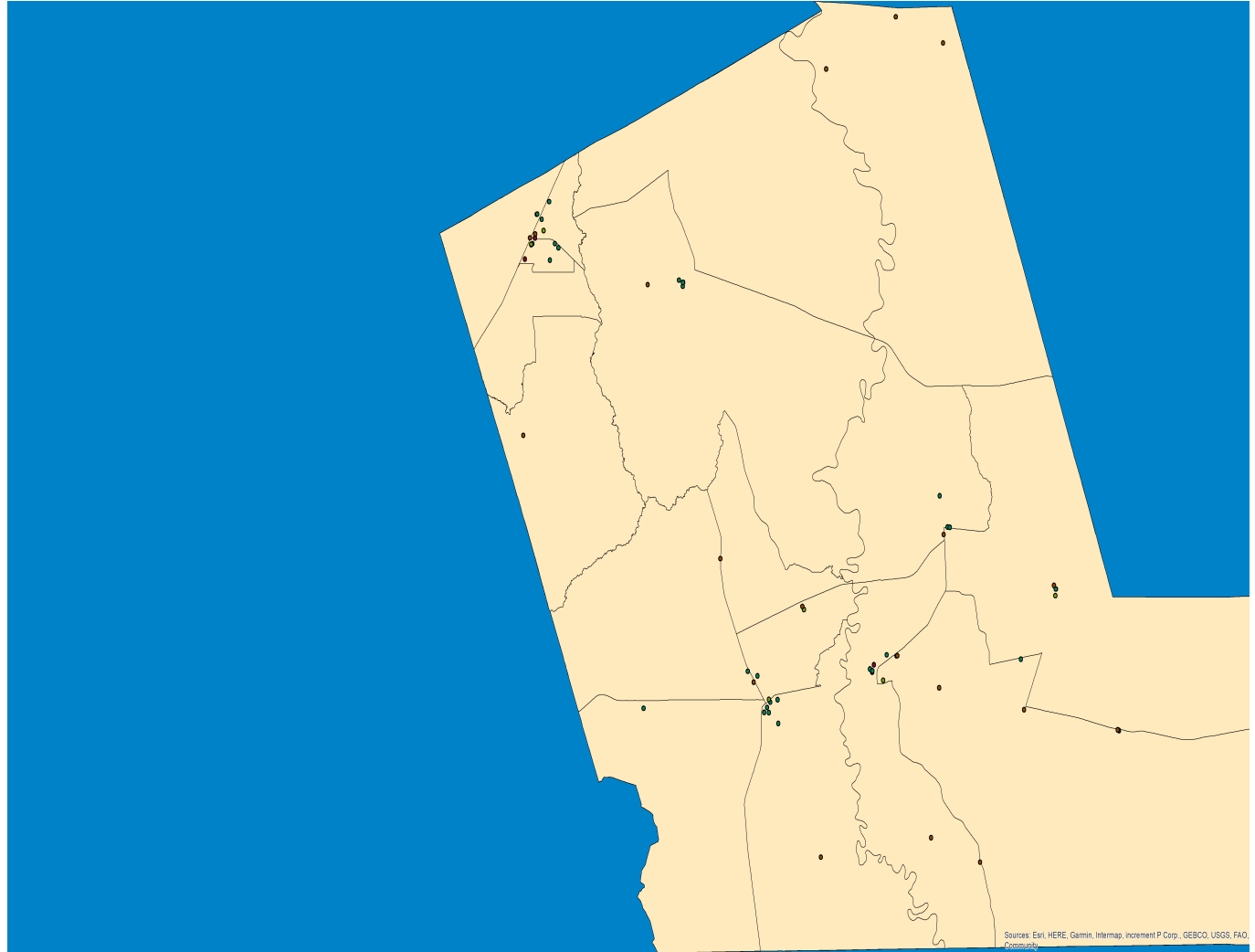
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### **Essential Facility Damage**

Before the hurricane, the region had 136 hospital beds available for use. On the day of the hurricane, the model estimates that 136 hospital beds (100%) are available for use by patients already in the hospital and those injured by the hurricane. After one week, 100% of the beds will be in service. By 30 days, 100% will be operational.

**Thematic Map of Essential Facilities**

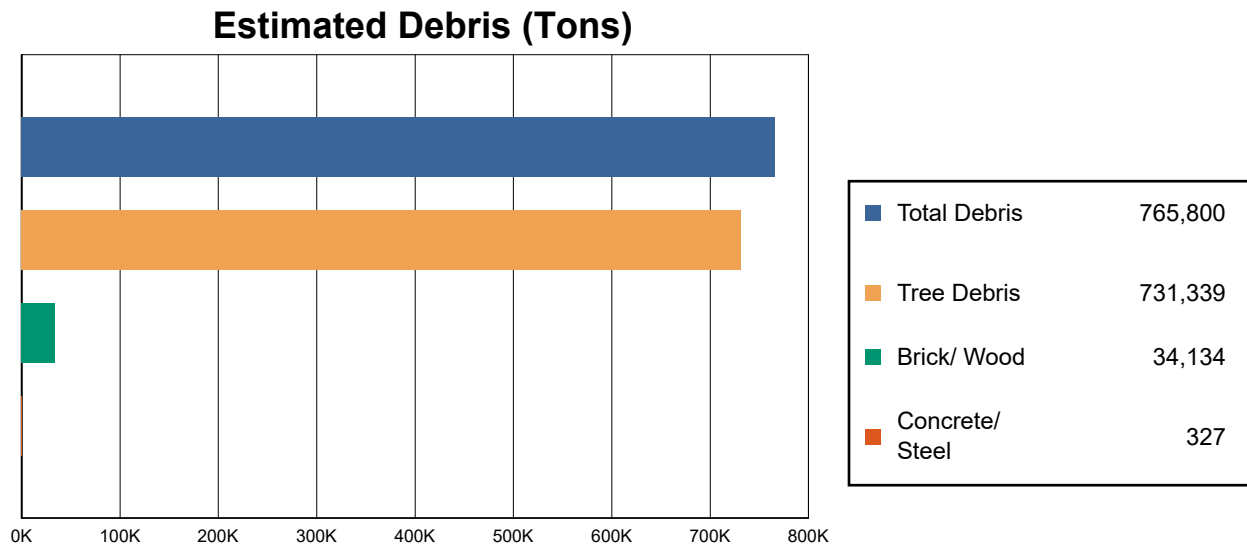


**Table 4: Expected Damage to Essential Facilities**

Classification	Total	# Facilities		
		Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use < 1 day
EOCs	2	0	0	2
Fire Stations	19	0	0	19
Hospitals	3	0	0	3
Police Stations	7	0	0	7
Schools	34	3	0	13

## Induced Hurricane Damage

### Debris Generation

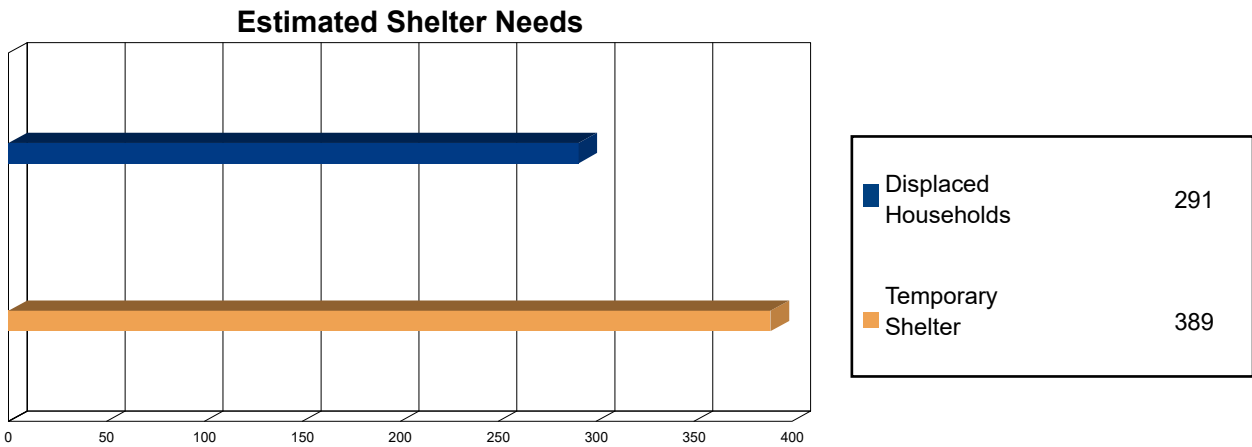


Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling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

The model estimates that a total of 765,800 tons of debris will be generated. Of the total amount, 674,633 tons (88%) is Other Tree Debris. Of the remaining 91,167 tons, Brick/Wood comprises 37% of the total, Reinforced Concrete/Steel comprises of 0% of the total, with the remainder being Eligible Tree Debris. If the building debris tonnage is converted to an estimated number of truckloads, it will require 1378 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 56,706 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 291 households to be displaced due to the hurricane. Of these, 389 people (out of a total population of 91,628) will seek temporary shelter in public shelters.



## Economic Loss

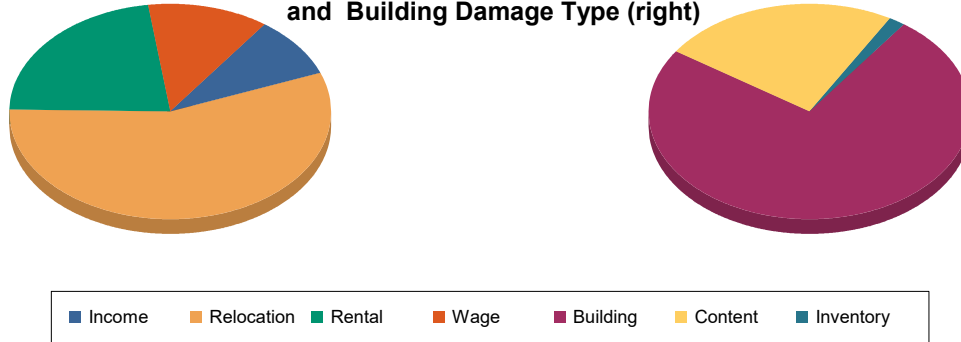
The total economic loss estimated for the hurricane is 391.5 million dollars, which represents 3.81 % of the total replacement value of the region's buildings.

### **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 392 million dollars. 16% 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 66% of the total loss. Table 5 below provides a summary of the losses associated with the building damage.

Loss by Business Interruption Type (left) and Building Damage Type (right)



Loss Type by General Occupancy

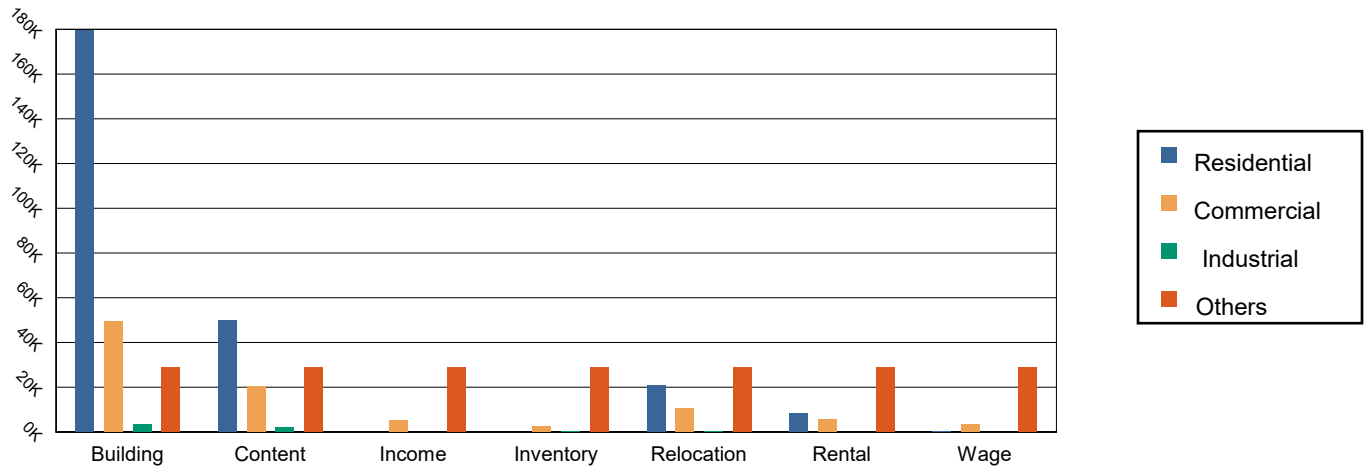


Table 5: Building-Related Economic Loss Estimates  
(Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
<b>Property Damage</b>						
	Building	179,718.69	49,560.45	3,416.39	12,971.42	245,666.95
	Content	49,759.16	20,308.83	2,106.19	6,221.18	78,395.36
	Inventory	0.00	2,597.16	327.25	2,473.27	5,397.67
	<b>Subtotal</b>	<b>229,477.85</b>	<b>72,466.44</b>	<b>5,849.83</b>	<b>21,665.87</b>	<b>329,459.98</b>
<b>Business Interruption Loss</b>						
	Income	76.02	5,029.43	34.04	600.38	5,739.87
	Relocation	20,865.79	10,657.80	377.15	2,790.70	34,691.44
	Rental	8,112.92	5,731.27	40.25	188.29	14,072.73
	Wage	179.10	3,543.40	55.15	3,761.34	7,538.99
	<b>Subtotal</b>	<b>29,233.82</b>	<b>24,961.90</b>	<b>506.59</b>	<b>7,340.71</b>	<b>62,043.02</b>



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Total

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Total	258,711.67	97,428.34	6,356.42	29,006.58	391,503.01
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**Appendix A: County Listing for the Region**

Texas  
- Liberty



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**Appendix B: Regional Population and Building Value Data**

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
<b>Texas</b>				
Liberty	91,628	5,898,790	4,367,904	10,266,694
<b>Total</b>	<b>91,628</b>	<b>5,898,790</b>	<b>4,367,904</b>	<b>10,266,694</b>
<b>Study Region Total</b>	<b>91,628</b>	<b>5,898,790</b>	<b>4,367,904</b>	<b>10,266,694</b>



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**RiskMAP**  
Increasing Resilience Together

# Hazus: Hurricane Global Risk Report

**Region Name:** Liberty County

**Hurricane Scenario:** Probabilistic 500-year Return Period

**Print Date:** Friday, May 12, 2023

**Disclaimer:**

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

*The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique.*

*Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Hurricane. These results can be improved by using enhanced inventory data.*



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## General Description of the Region

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

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

- Texas

Note:

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

The geographical size of the region is 1,180.14 square miles and contains 17 census tracts. There are over 29 thousand households in the region and a total population of 91,628 people. The distribution of population by State and County is provided in Appendix B.

There are an estimated 36 thousand buildings in the region with a total building replacement value (excluding contents) of 10,267 million dollars. Approximately 90% of the buildings (and 57% of the building value) are associated with residential housing.

## Building Inventory

### General Building Stock

Hazus estimates that there are 36,343 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 provides distribution of the building value by State and County.

### Building Exposure by Occupancy Type

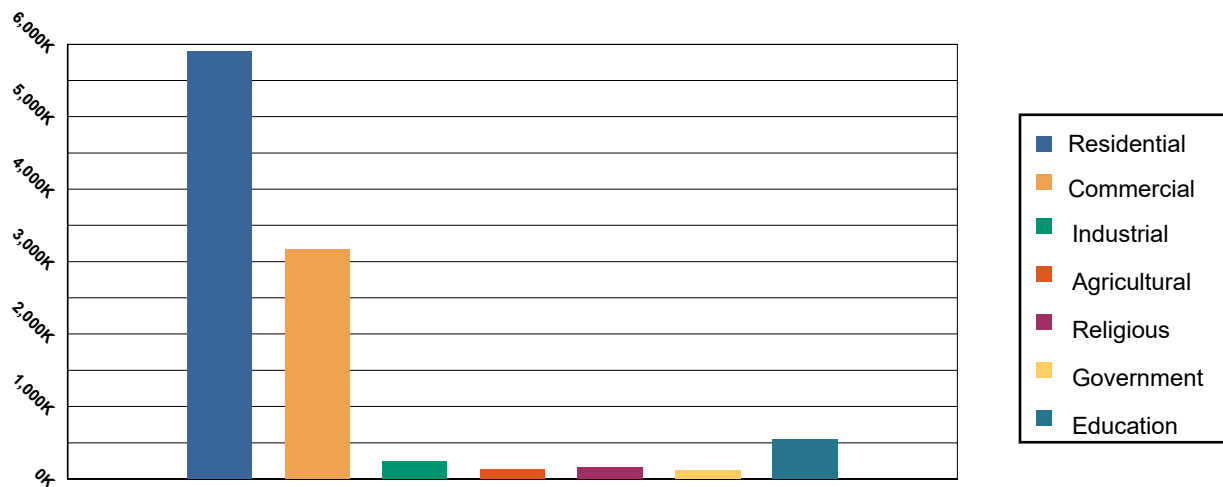


Table 1: Building Exposure by Occupancy Type

Occupancy	Exposure (\$1000)	Percent of Tot
Residential	5,898,790	57.46%
Commercial	3,170,112	30.88%
Industrial	245,282	2.39%
Agricultural	130,588	1.27%
Religious	155,083	1.51%
Government	120,484	1.17%
Education	546,355	5.32%
<b>Total</b>	<b>10,266,694</b>	<b>100.00%</b>

### Essential Facility Inventory

For essential facilities, there are 3 hospitals in the region with a total bed capacity of 136 beds. There are 34 schools, 19 fire stations, 7 police stations and 2 emergency operation facilities.



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## 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

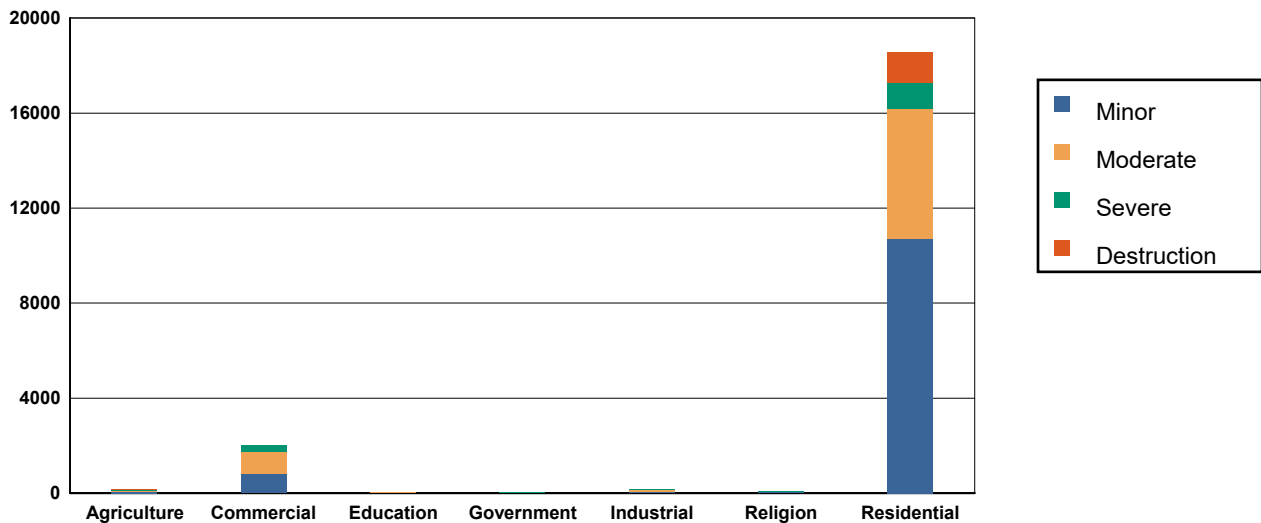
**Type:** Probabilistic

## Building Damage

### General Building Stock Damage

Hazus estimates that about 9,384 buildings will be at least moderately damaged. This is over 26% of the total number of buildings in the region. There are an estimated 1,321 buildings that will be completely destroyed. The definition of the 'damage states' is provided in the Hazus Hurricane technical manual. Table 2 below summarizes the expected damage by general occupancy for the buildings in the region. Table 3 summarizes the expected damage by general building type.

### Expected Building Damage by Occupancy



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

Occupancy	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	75.50	30.32	48.89	19.64	56.09	22.53	53.90	21.65	14.61	5.87
Commercial	1,027.69	33.74	816.79	26.82	919.65	30.19	278.20	9.13	3.67	0.12
Education	17.82	39.60	11.41	25.35	10.83	24.07	4.94	10.98	0.00	0.00
Government	30.03	39.52	19.73	25.97	17.76	23.37	8.47	11.14	0.00	0.00
Industrial	91.96	37.23	63.79	25.82	58.87	23.83	32.09	12.99	0.30	0.12
Religion	52.52	39.19	38.82	28.97	29.39	21.93	13.26	9.89	0.01	0.01
Residential	13,970.85	42.93	10,693.01	32.86	5,490.25	16.87	1,089.84	3.35	1,302.06	4.00
<b>Total</b>	<b>15,266.36</b>		<b>11,692.44</b>		<b>6,582.84</b>		<b>1,480.69</b>		<b>1,320.67</b>	



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

Building Type	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	160	32.08	107	21.39	170	34.20	61	12.32	0	0.00
Masonry	1,498	37.85	1,138	28.75	940	23.76	347	8.77	35	0.87
MH	6,209	59.21	1,413	13.48	1,589	15.15	229	2.18	1,047	9.98
Steel	350	31.21	209	18.60	411	36.59	150	13.40	2	0.21
Wood	7,459	36.80	8,345	41.17	3,428	16.91	719	3.55	318	1.57

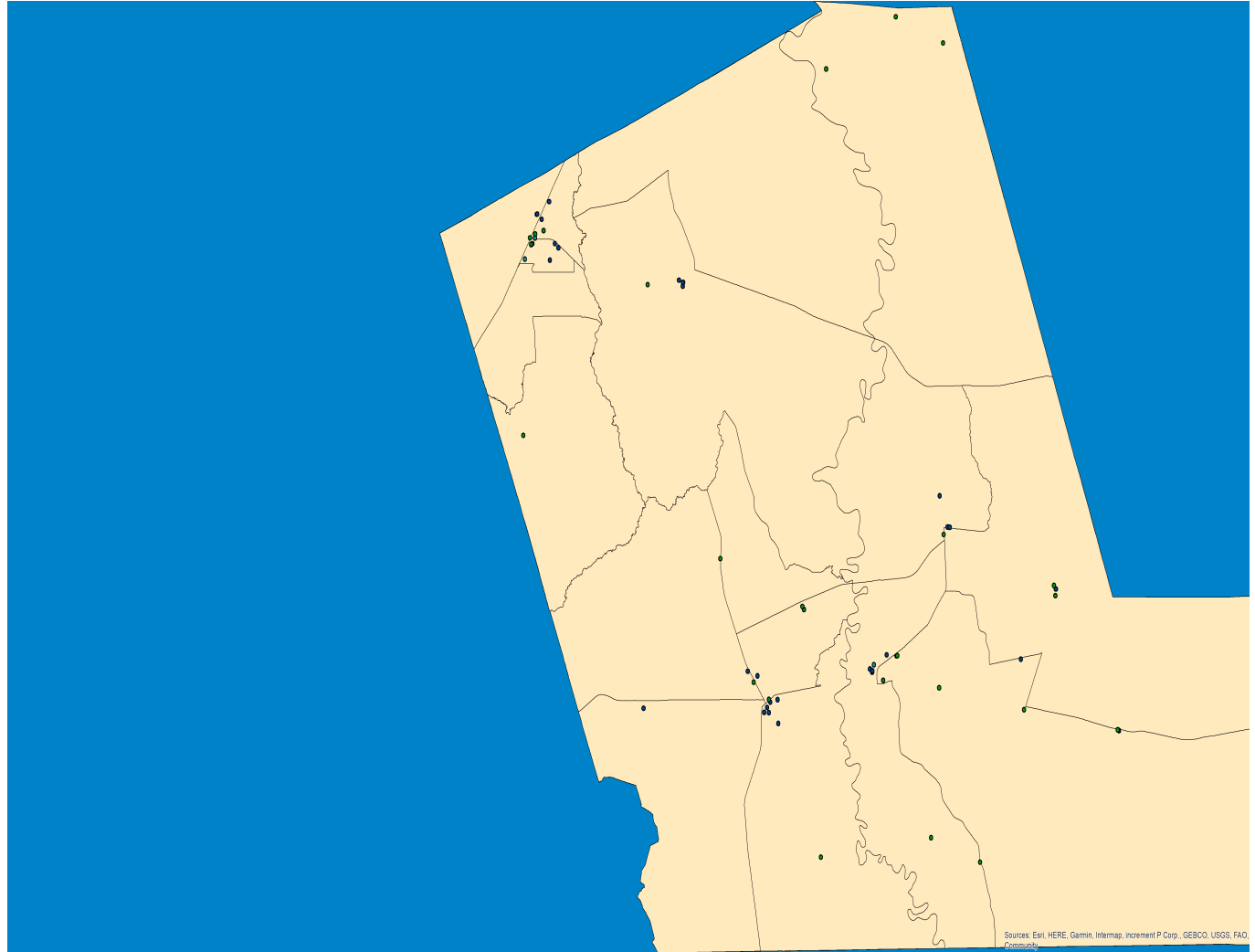


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### **Essential Facility Damage**

Before the hurricane, the region had 136 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, 100% of the beds will be in service. By 30 days, 100% will be operational.

**Thematic Map of Essential Facilities**

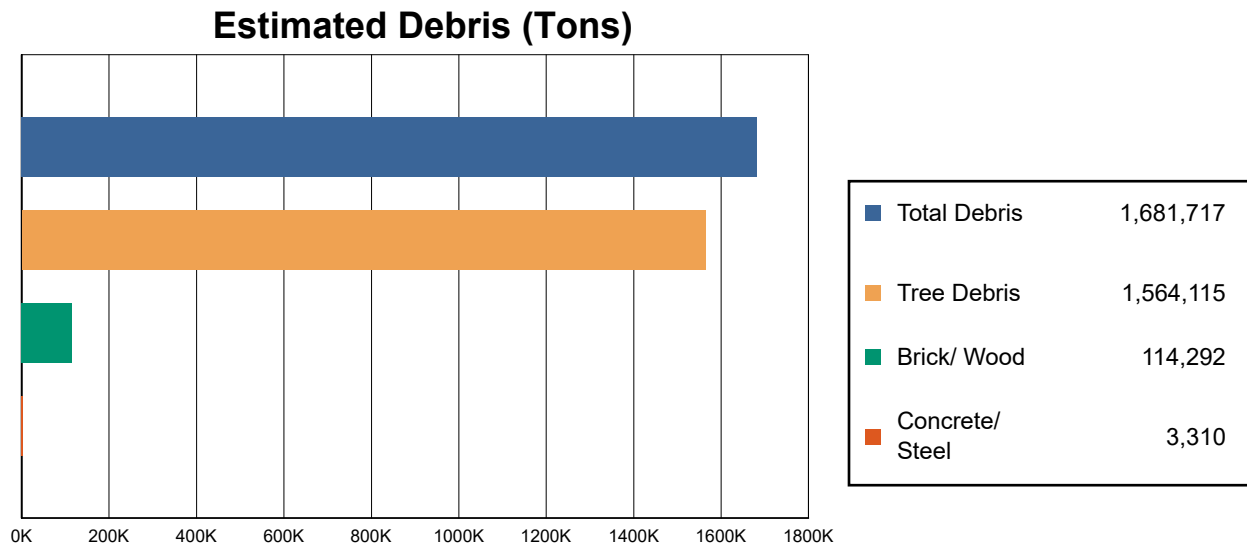


**Table 4: Expected Damage to Essential Facilities**

Classification	Total	# Facilities		
		Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use < 1 day
EOCs	2	0	0	2
Fire Stations	19	0	0	19
Hospitals	3	0	0	0
Police Stations	7	0	0	7
Schools	34	24	0	0

## Induced Hurricane Damage

### Debris Generation

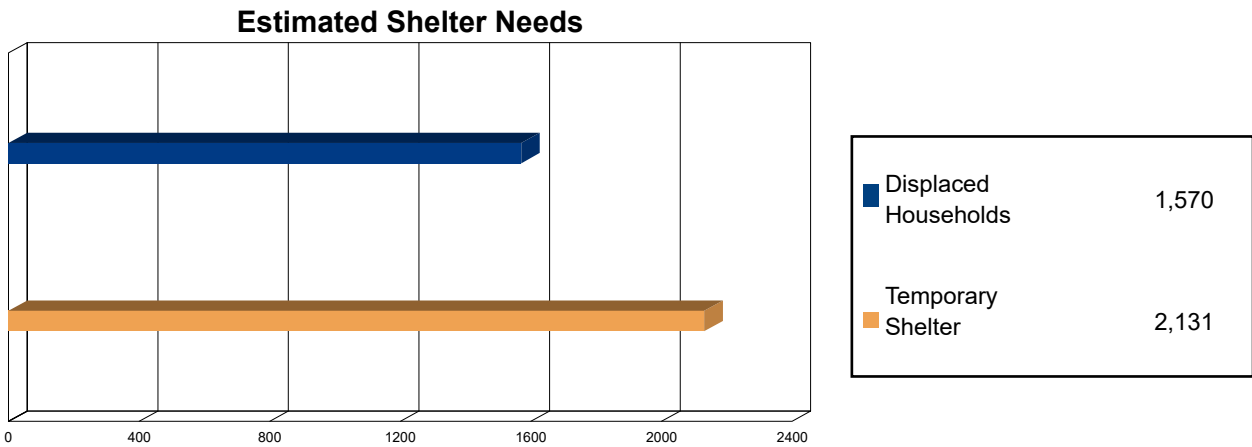


Hazus estimates the amount of debris that will be generated by the hurricane. The model breaks the debris into four general categories: a) Brick/Wood, b) Reinforced Concrete/Steel, c) Eligible Tree Debris, and d) Other Tree Debris. This distinction is made because of the different types of material handling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

The model estimates that a total of 1,681,717 tons of debris will be generated. Of the total amount, 1,441,874 tons (86%) is Other Tree Debris. Of the remaining 239,843 tons, Brick/Wood comprises 48% 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 4704 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 122,241 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 1,570 households to be displaced due to the hurricane. Of these, 2,131 people (out of a total population of 91,628) will seek temporary shelter in public shelters.



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## Economic Loss

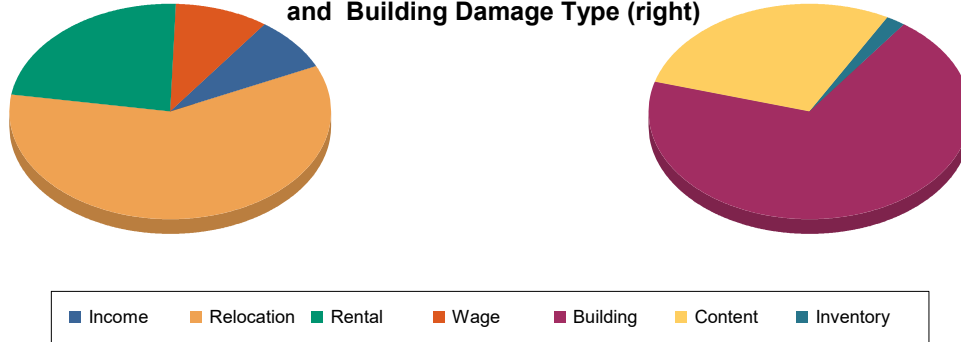
The total economic loss estimated for the hurricane is 1466.2 million dollars, which represents 14.28 % of the total replacement value of the region's buildings.

### **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 1,466 million dollars. 16% 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 64% of the total loss. Table 5 below provides a summary of the losses associated with the building damage.

Loss by Business Interruption Type (left) and Building Damage Type (right)



Loss Type by General Occupancy

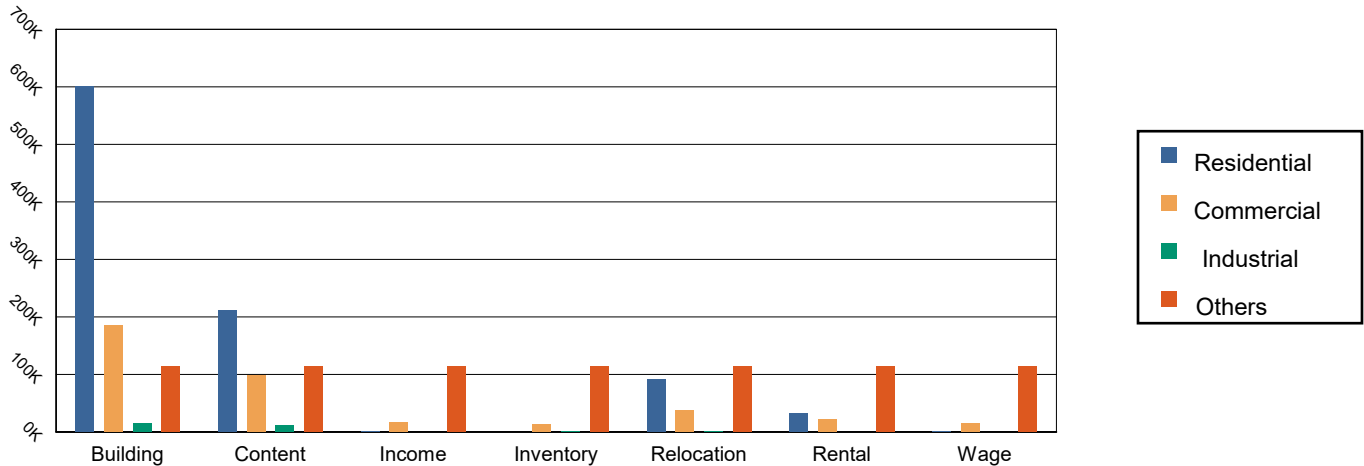


Table 5: Building-Related Economic Loss Estimates  
(Thousands of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
<b>Property Damage</b>						
	Building	600,495.27	185,051.35	14,825.06	54,933.74	855,305.42
	Content	211,703.78	97,801.70	10,827.62	30,805.85	351,138.95
	Inventory	0.00	12,307.45	1,723.92	8,785.52	22,816.89
	<b>Subtotal</b>	<b>812,199.05</b>	<b>295,160.49</b>	<b>27,376.60</b>	<b>94,525.11</b>	<b>1,229,261.26</b>
<b>Business Interruption Loss</b>						
	Income	404.69	17,578.16	163.30	1,246.19	19,392.35
	Relocation	90,663.29	37,169.52	1,344.54	11,570.14	140,747.48
	Rental	32,007.27	21,351.70	186.02	863.90	54,408.89
	Wage	953.08	15,223.73	266.57	5,922.71	22,366.09
	<b>Subtotal</b>	<b>124,028.32</b>	<b>91,323.11</b>	<b>1,960.43</b>	<b>19,602.94</b>	<b>236,914.81</b>



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Total

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Total	936,227.37	386,483.61	29,337.03	114,128.06	1,466,176.07
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**Appendix A: County Listing for the Region**

Texas  
- Liberty



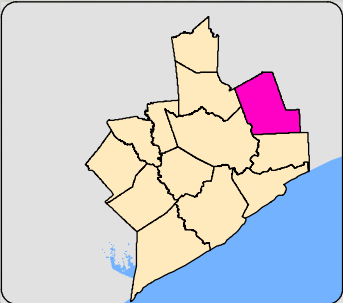
**Appendix B: Regional Population and Building Value Data**

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
<b>Texas</b>				
Liberty	91,628	5,898,790	4,367,904	10,266,694
<b>Total</b>	<b>91,628</b>	<b>5,898,790</b>	<b>4,367,904</b>	<b>10,266,694</b>
<b>Study Region Total</b>	<b>91,628</b>	<b>5,898,790</b>	<b>4,367,904</b>	<b>10,266,694</b>

# Appendix B

## H-GAC MAPS

# Liberty County Planning Area Map



San Jacinto County

Polk County

Hardin County
































Montgomery County

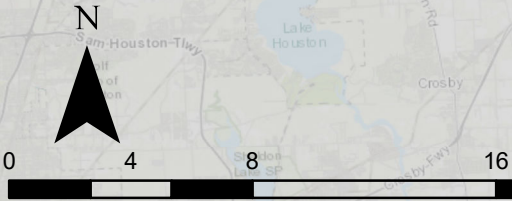
Liberty County

Harris County

Chambers County

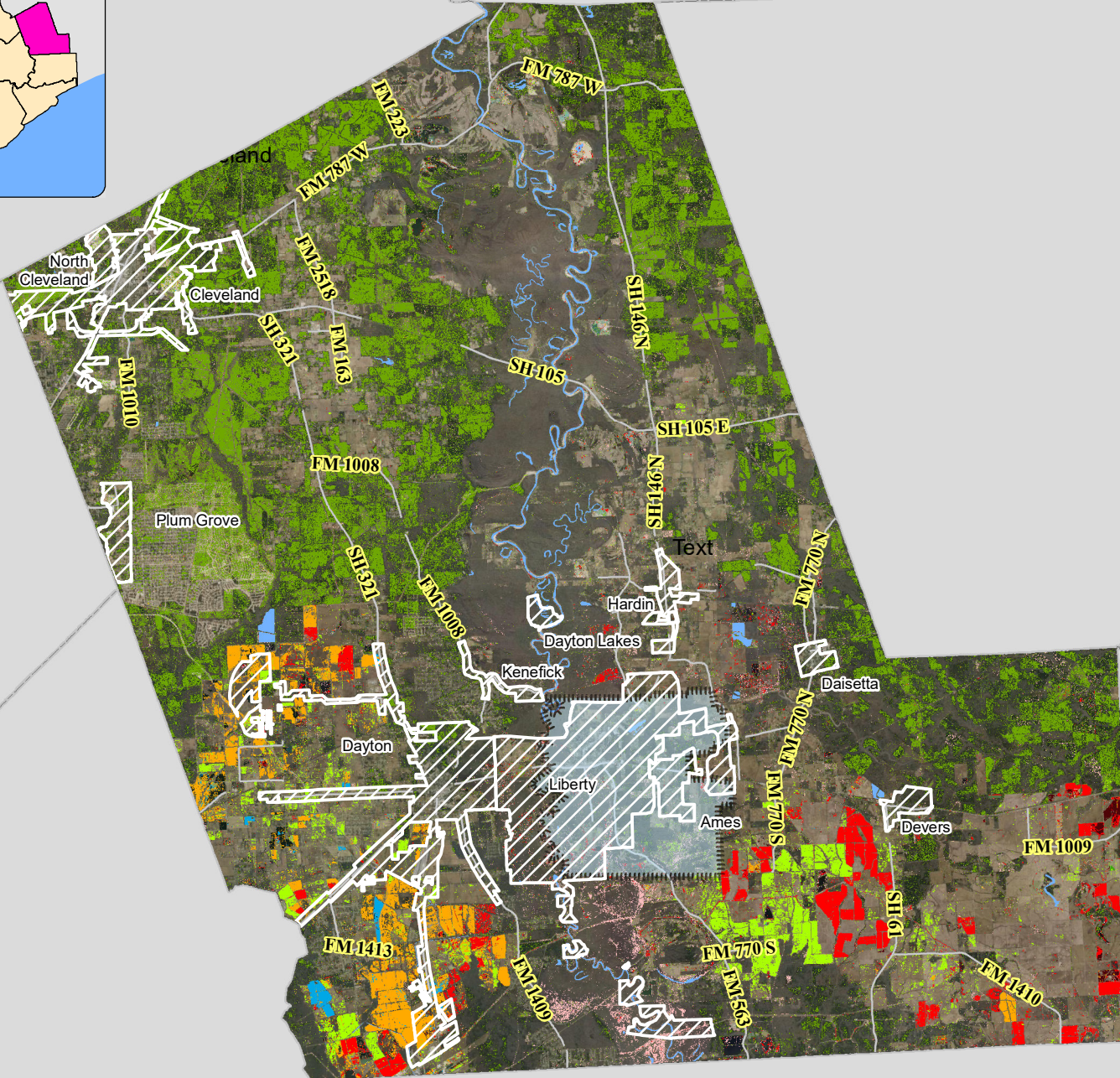
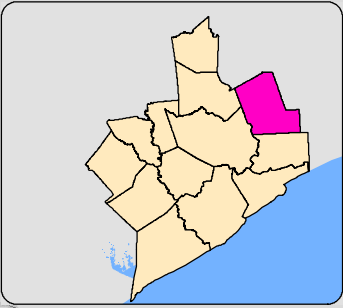
### Critical Facilities

-  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



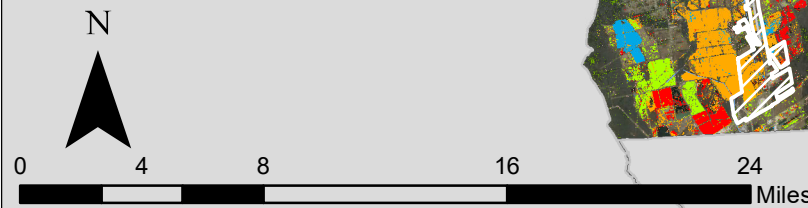
Sources:  
Facilities : Regional Land Use Information System,  
H-GAC, 2023

# Liberty County: Crop Cover



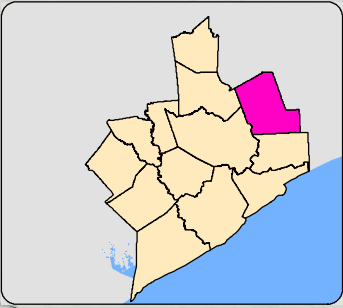
**Crop Cover Class**

	Alfalfa
	Aquaculture
	Carrots
	Citrus
	Corn
	Cotton
	Dbl Crop WinWht/Cotton/Soybeans
	Deciduous Forest
	Dry Beans
	Evergreen Forest
	Herbaceous Wetlands
	Misc Veggies & Fruits
	Oats
	Olives
	Other Hay/Non Alfalfa
	Pecans
	Potatoes
	Rice
	Rye
	Sorghum
	Soybeans
	Spring Wheat
	Squash
	Sugarcane
	Switchgrass
	Triticale
	Watermelons
	Winter Wheat



Sources:  
 USDA - United States Department of Agriculture,  
 National 2022 CDL

# Liberty County: Dams



San Jacinto County

Polk County

Hardin County

Montgomery County

Liberty County

Jefferson County

Harris County

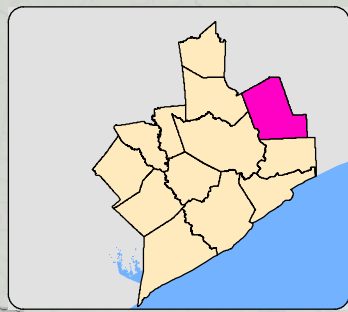
Chambers County

**Owner Type**

- Federal
- State
- Local Government
- Private
- High
- Significant

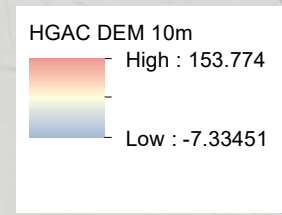


# Liberty County: Elevation



San Jacinto County

Polk County



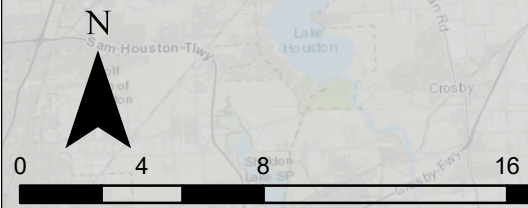
- Critical Facilities**
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  - FM Transmission Towers
  - Courthouses
  - Child Care Centers
  - Cellular Towers
  - AM Transmission Towers
  - All Places Of Worship
  - College University Campuses

Montgomery County

Hardin County

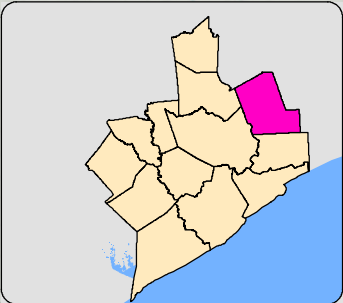
Harris County

Chambers County



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Elevation Data: HGAC, 2023

# Liberty County: Evacuation Route



San Jacinto County

Hardin County

Montgomery County

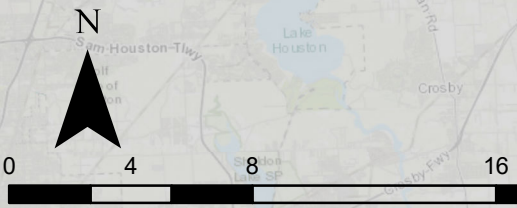
Harris County

Chambers County

**Critical Facilities**

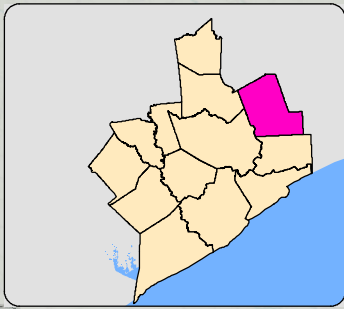
- Airport
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Evacuation Route



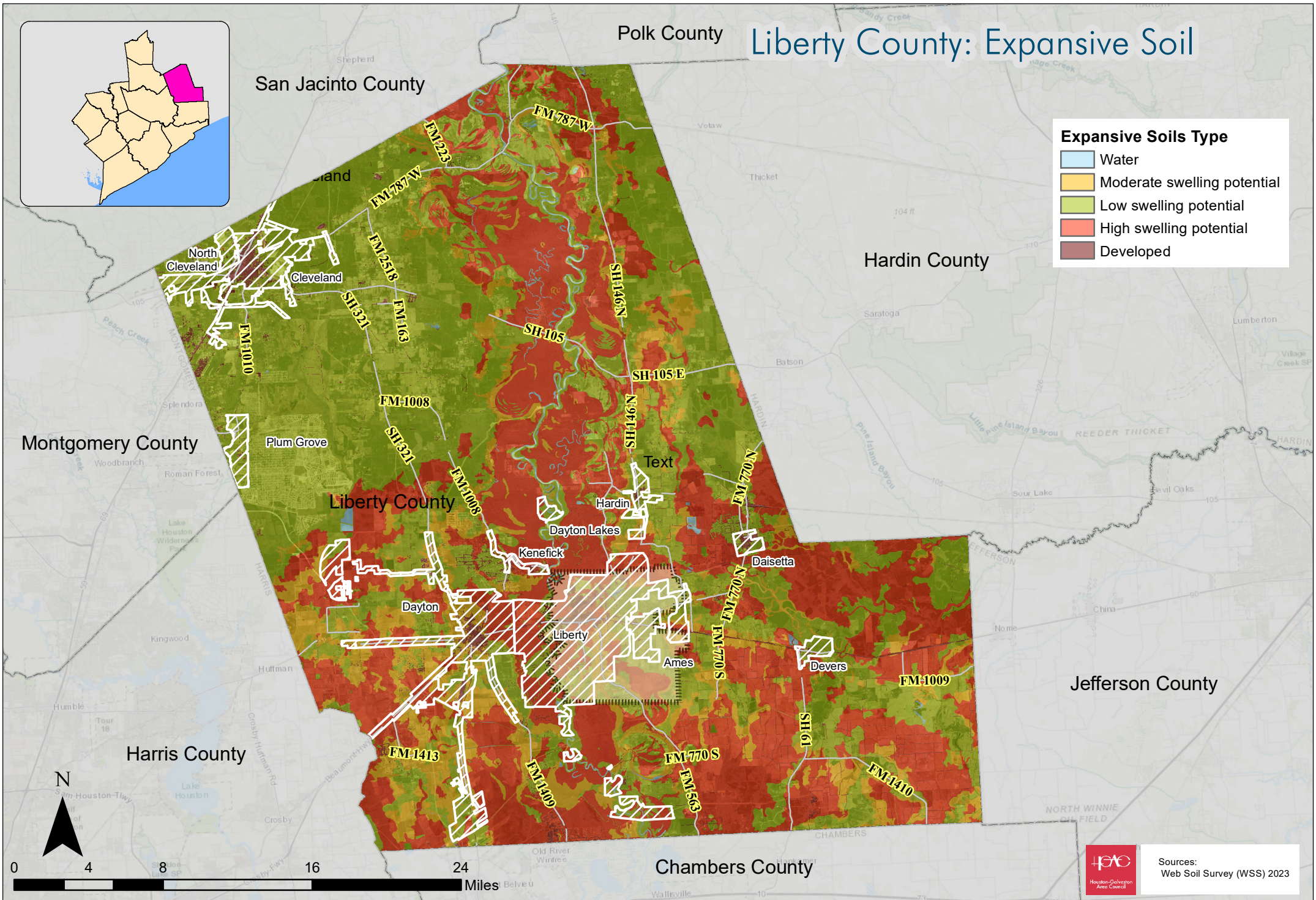
Sources: Regional Land Use Information System, H-GAC, 2023

# Liberty County: Expansive Soil



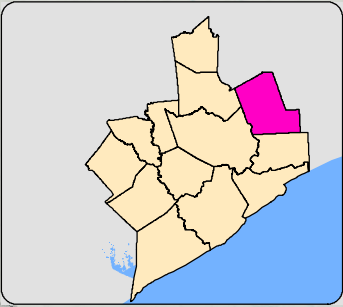
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



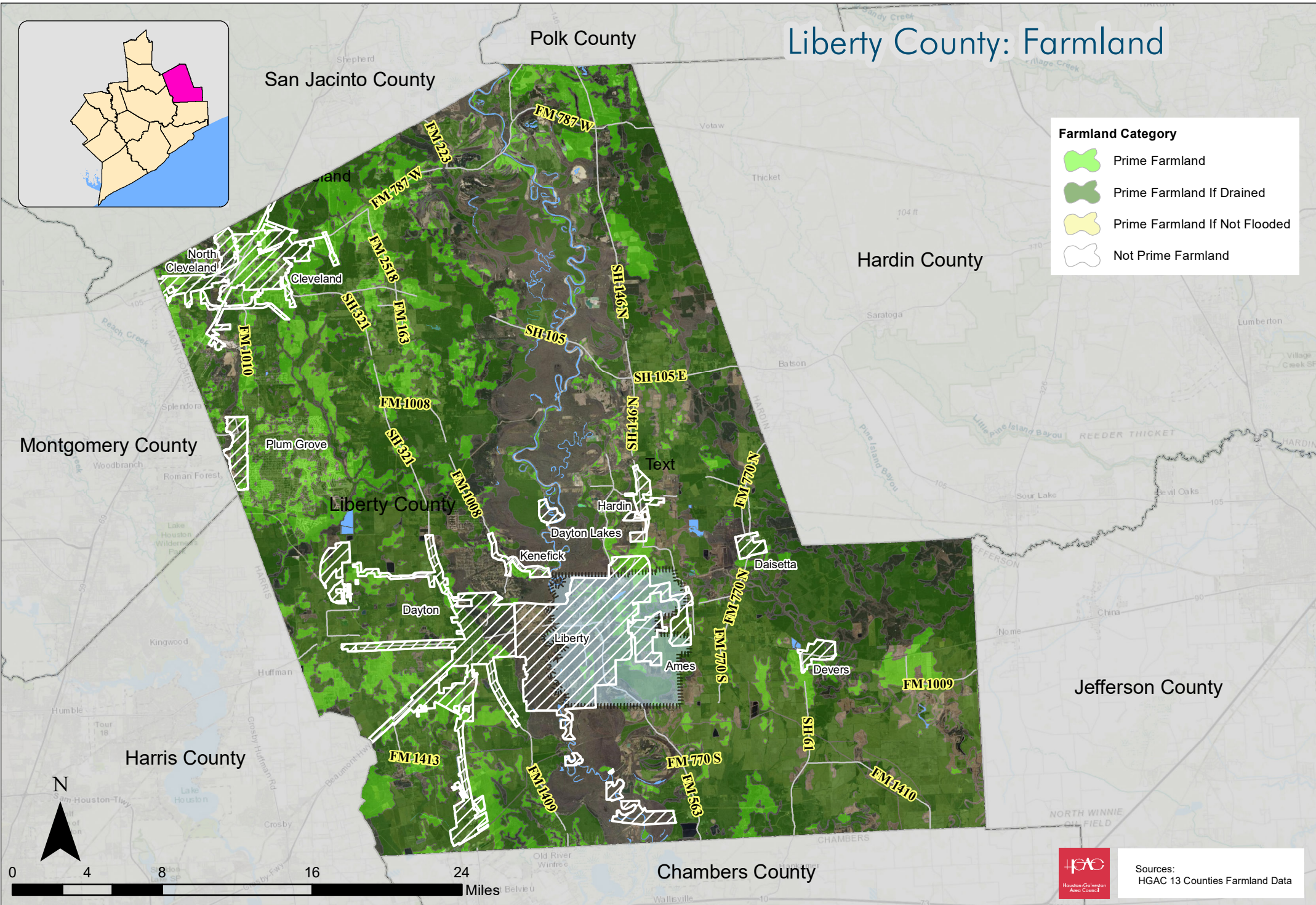
Sources:  
Web Soil Survey (WSS) 2023

# Liberty County: Farmland



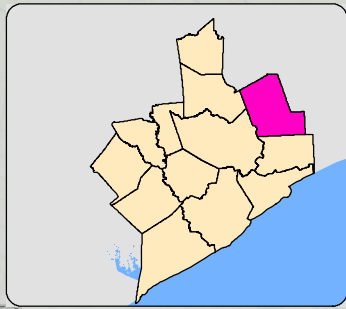
**Farmland Category**

- Prime Farmland
- Prime Farmland If Drained
- Prime Farmland If Not Flooded
- Not Prime Farmland



Sources:  
HGAC 13 Counties Farmland Data

# Liberty County: Floodplain



San Jacinto County





Polk County

Montgomery County
































Harris County

Chambers County

**FLOODPLAIN ZONE**

-  0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
-  0.2 PCT ANNUAL CHANCE FLOOD HAZARD
-  FLOODWAY
-  AREA OF MINIMAL FLOOD HAZARD

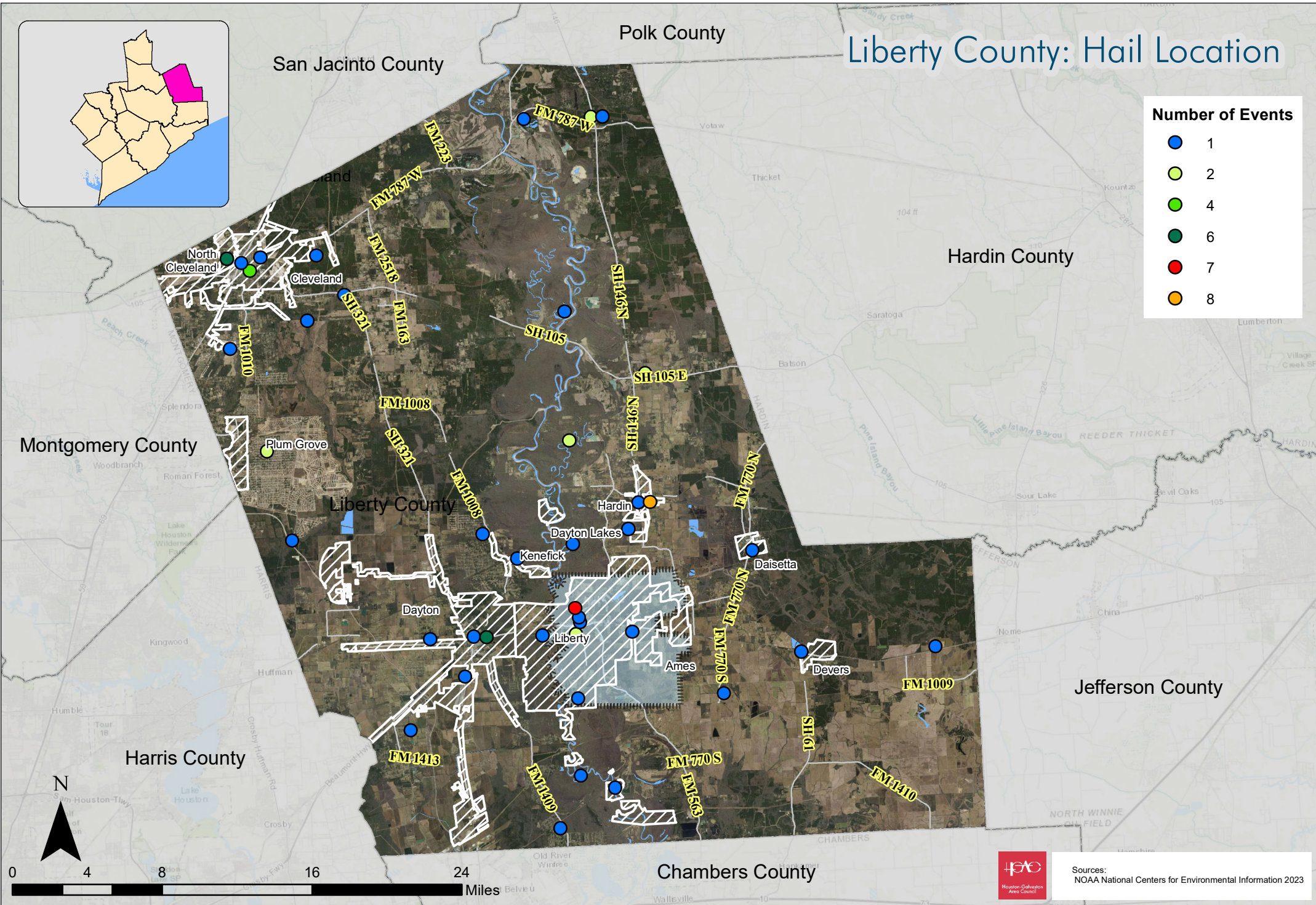
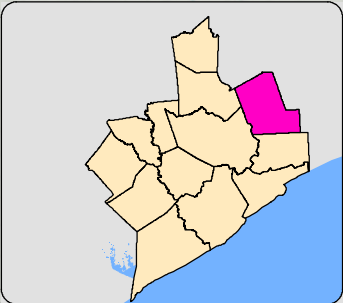
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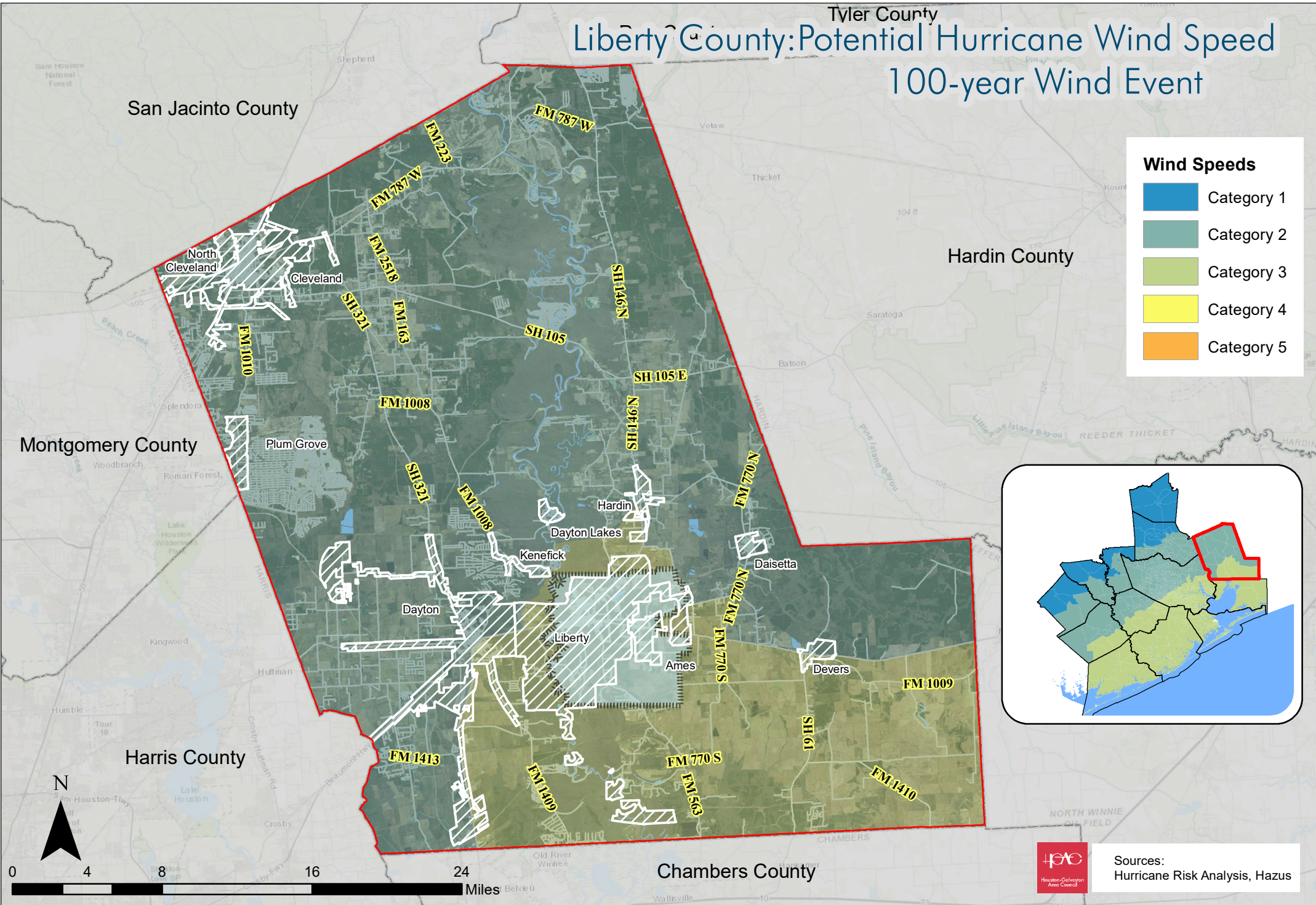
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data

# Liberty County: Hail Location



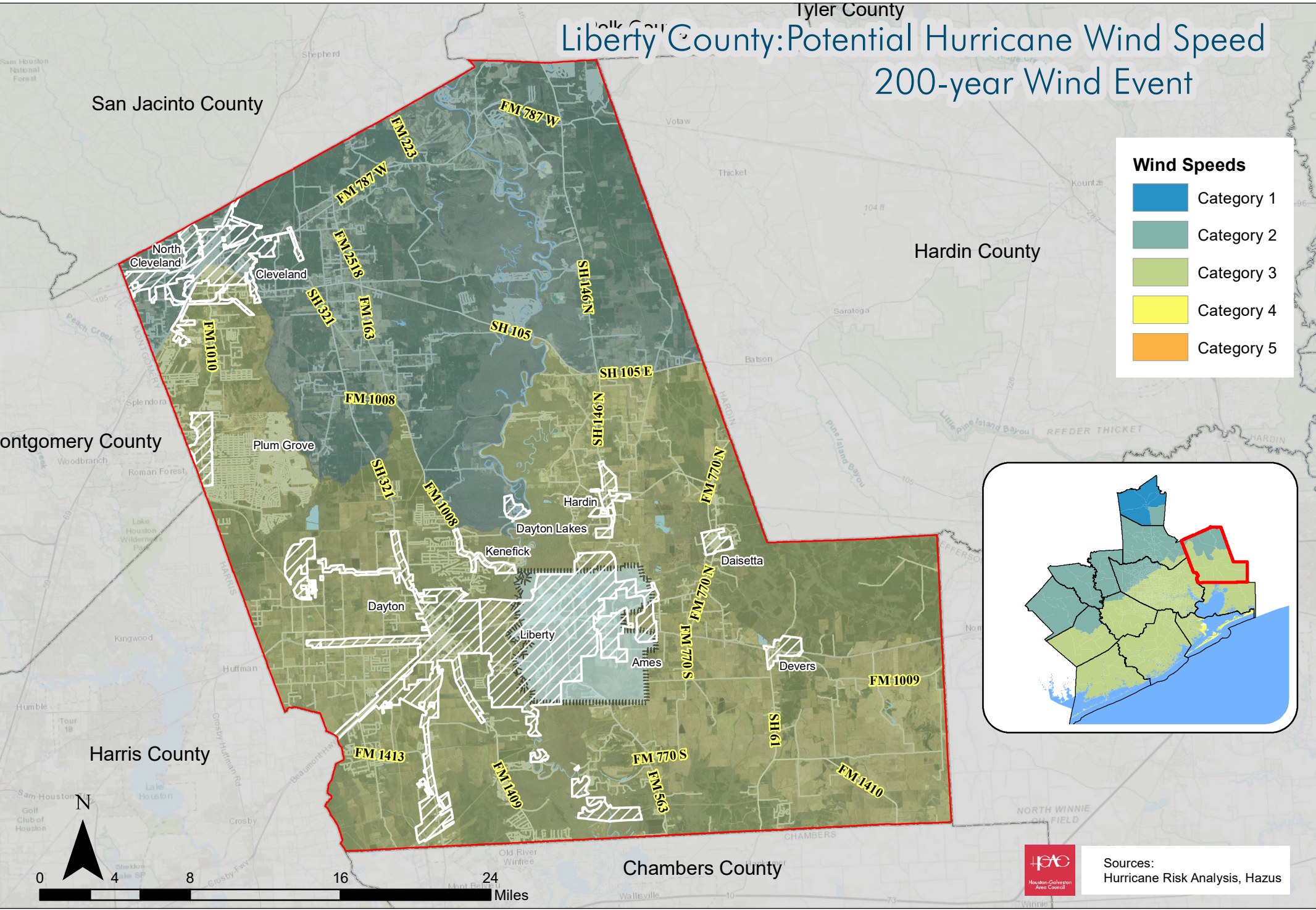
Sources:  
NOAA National Centers for Environmental Information 2023

# Liberty County: Potential Hurricane Wind Speed 100-year Wind Event



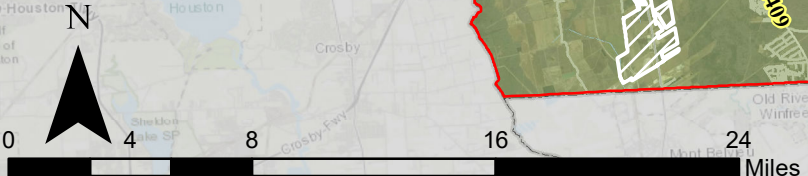
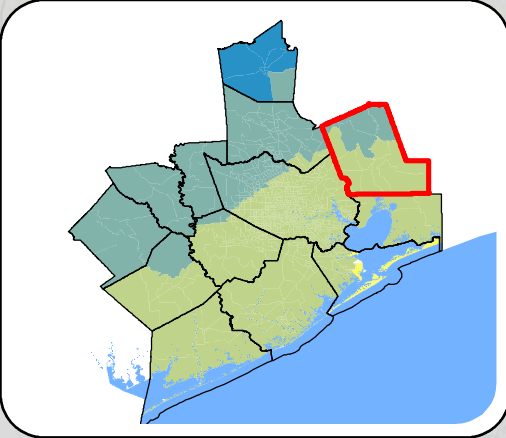
Sources:  
Hurricane Risk Analysis, Hazus

# Liberty County: Potential Hurricane Wind Speed 200-year Wind Event

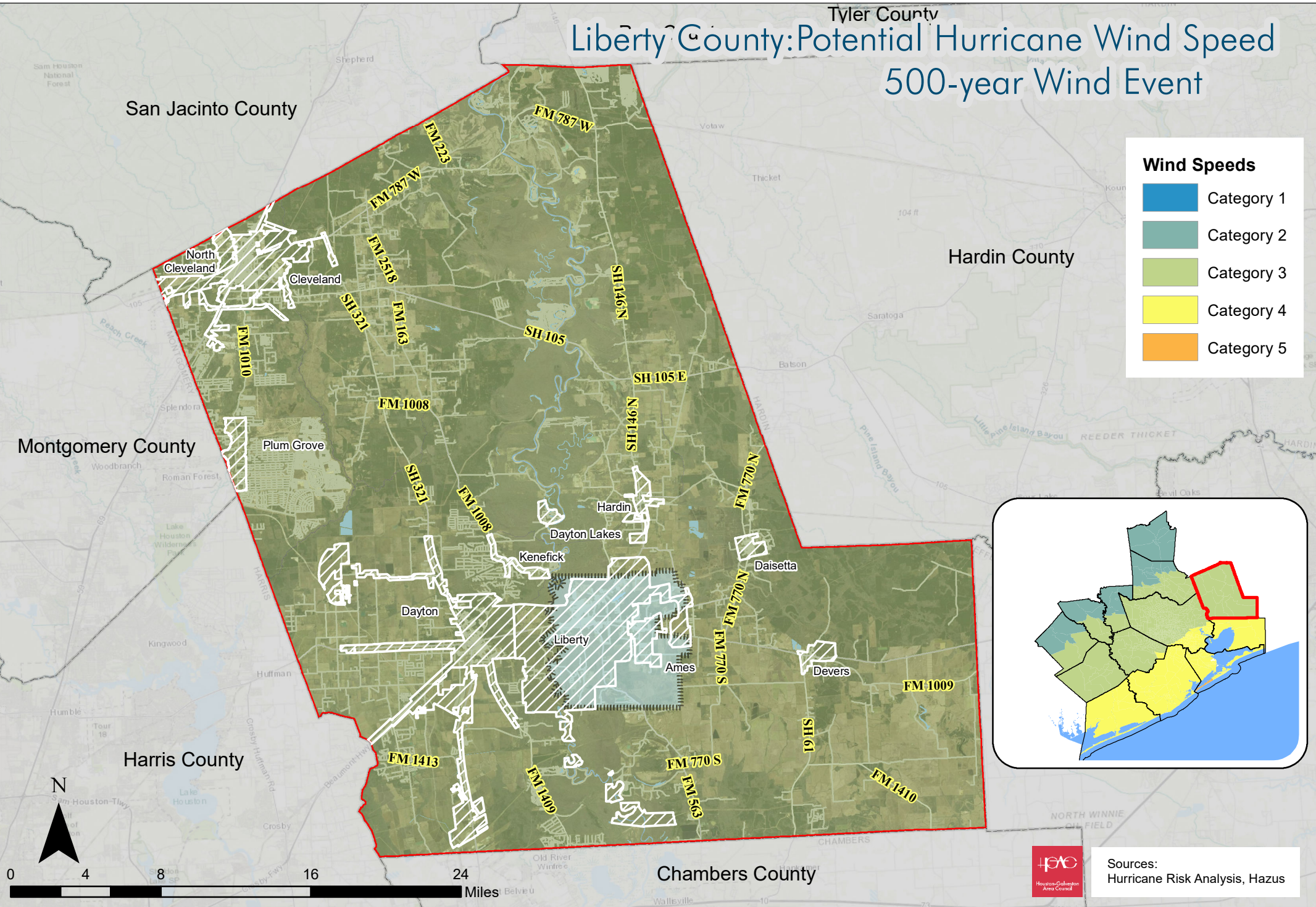


**Wind Speeds**

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

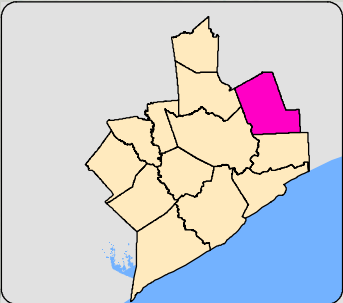



# Liberty County: Potential Hurricane Wind Speed 500-year Wind Event

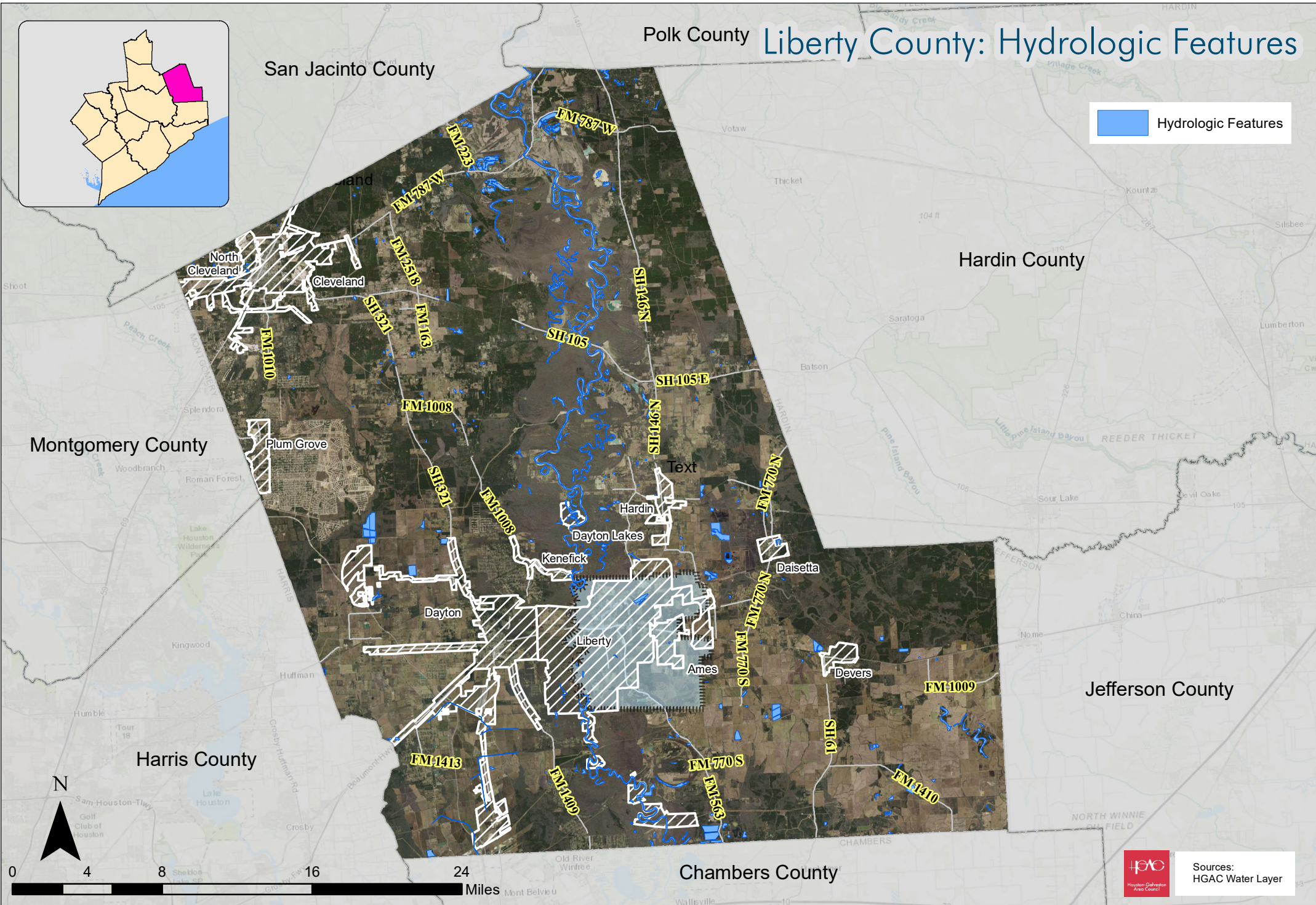


Sources:  
Hurricane Risk Analysis, Hazus

# Liberty County: Hydrologic Features

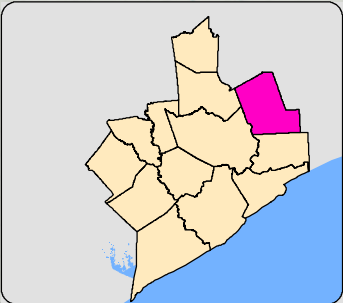


 Hydrologic Features



Sources:  
HGAC Water Layer

# Liberty County: Land Cover



San Jacinto County

Polk County

Hardin County

Montgomery County

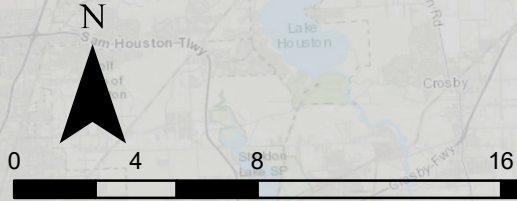
Liberty County

Jefferson County

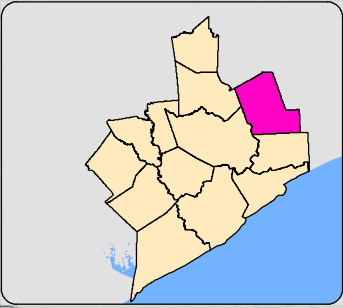
Harris County

Chambers County

- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Herbaceous
- Hay/Pasture
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands



# Liberty County: Major Transportation & Pipelines



San Jacinto County

Hardin County

Montgomery County

Liberty County

Jefferson County

Harris County

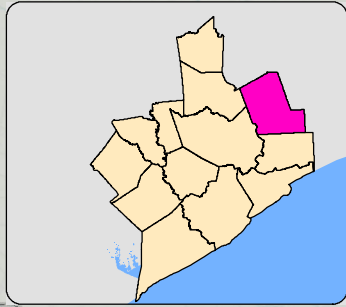
Chambers County

COMMODITY DESCRIPTION	
	CARBON DIOXIDE
	CRUDE OIL
	HIGHLY VOLATILE LIQUID (HVL)
	NATURAL GAS
	NATURAL GAS FWS
	OTHER GAS
	REFINED LIQUID PRODUCT



Sources:  
HGAC Starmap Data

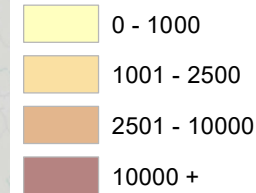
# Liberty County: Population Distribution



San Jacinto County

Polk County

## Population Distribution 2020



## 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
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- AM Transmission Towers
- All Places Of Worship
- College University Campuses

Montgomery County

Plum Grove

Hardin

Dayton Lakes

Dayton

Kenefick

Liberty

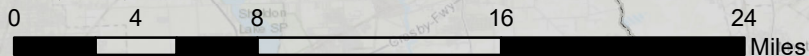
Ames

Daisetta

Devers

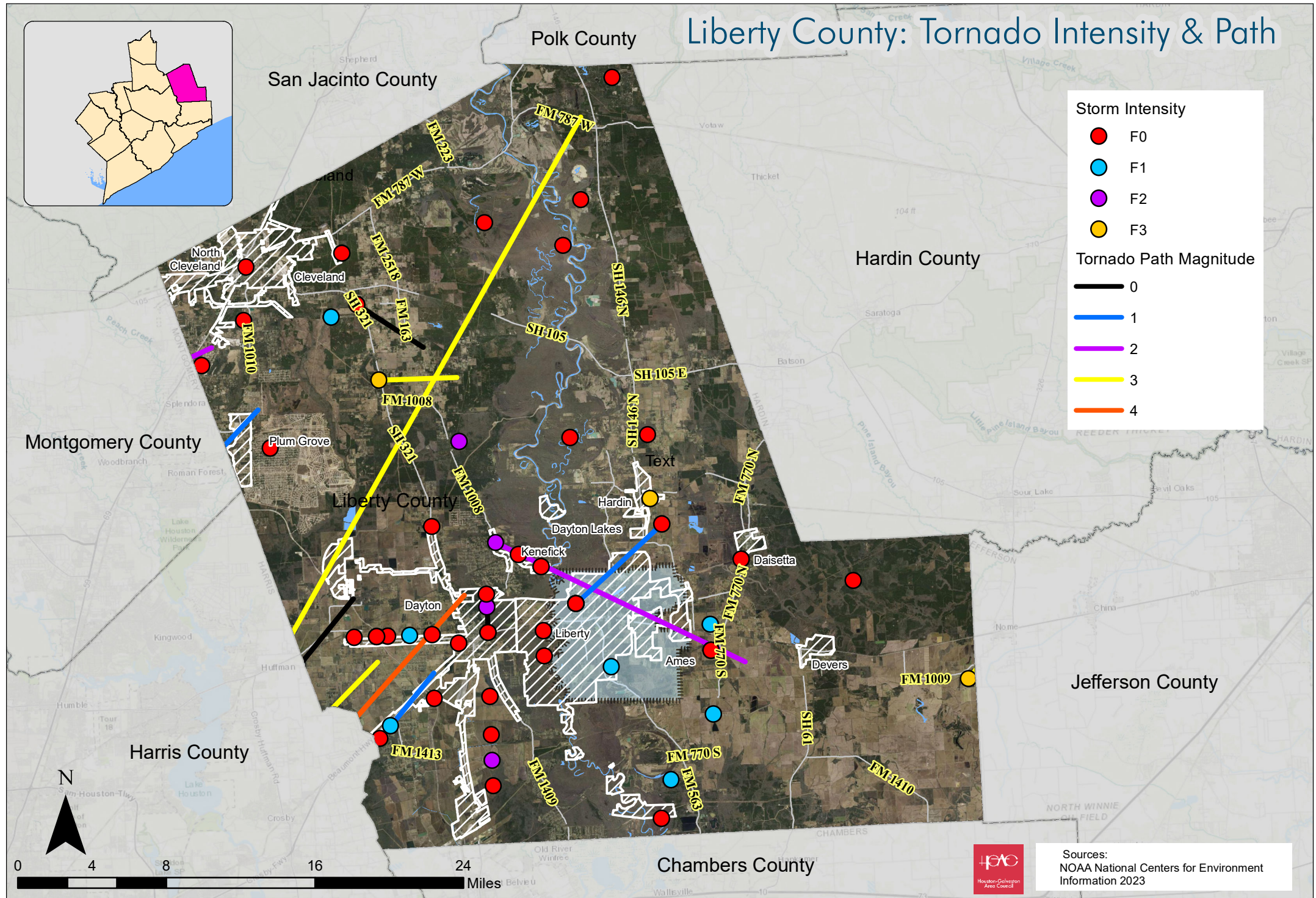
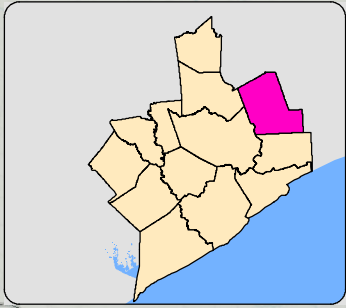
Harris County

Chambers County



Sources:  
HGAC 13 County Population Distribution  
Blockgroup Data 2020

# Liberty County: Tornado Intensity & Path

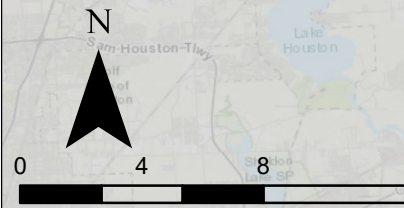


**Storm Intensity**

- F0
- F1
- F2
- F3

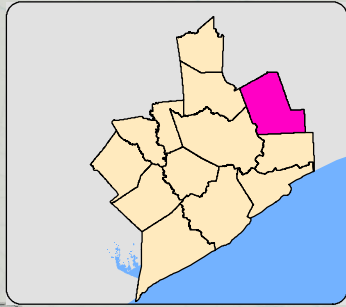
**Tornado Path Magnitude**

- 0
- 1
- 2
- 3
- 4



Sources:  
NOAA National Centers for Environment  
Information 2023

# Liberty County: Vulnerable Population



San Jacinto County

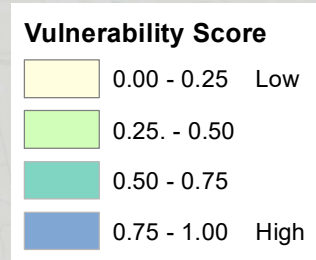
Polk County

Montgomery County

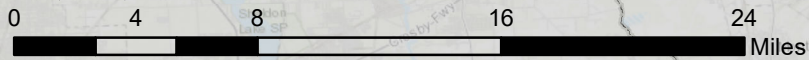
Liberty County

Harris County

Chambers County

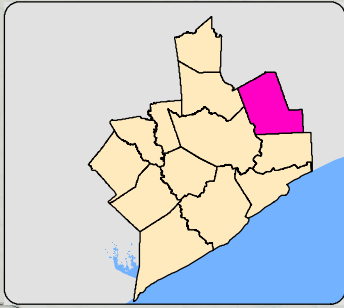


- Critical Facilities**
- Airport
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  - College University Campuses



Sources:  
 Facilities : Regional Land Use Information System,  
 H-GAC, 2023  
 Vulnerable Population (VP) Index: HGAC

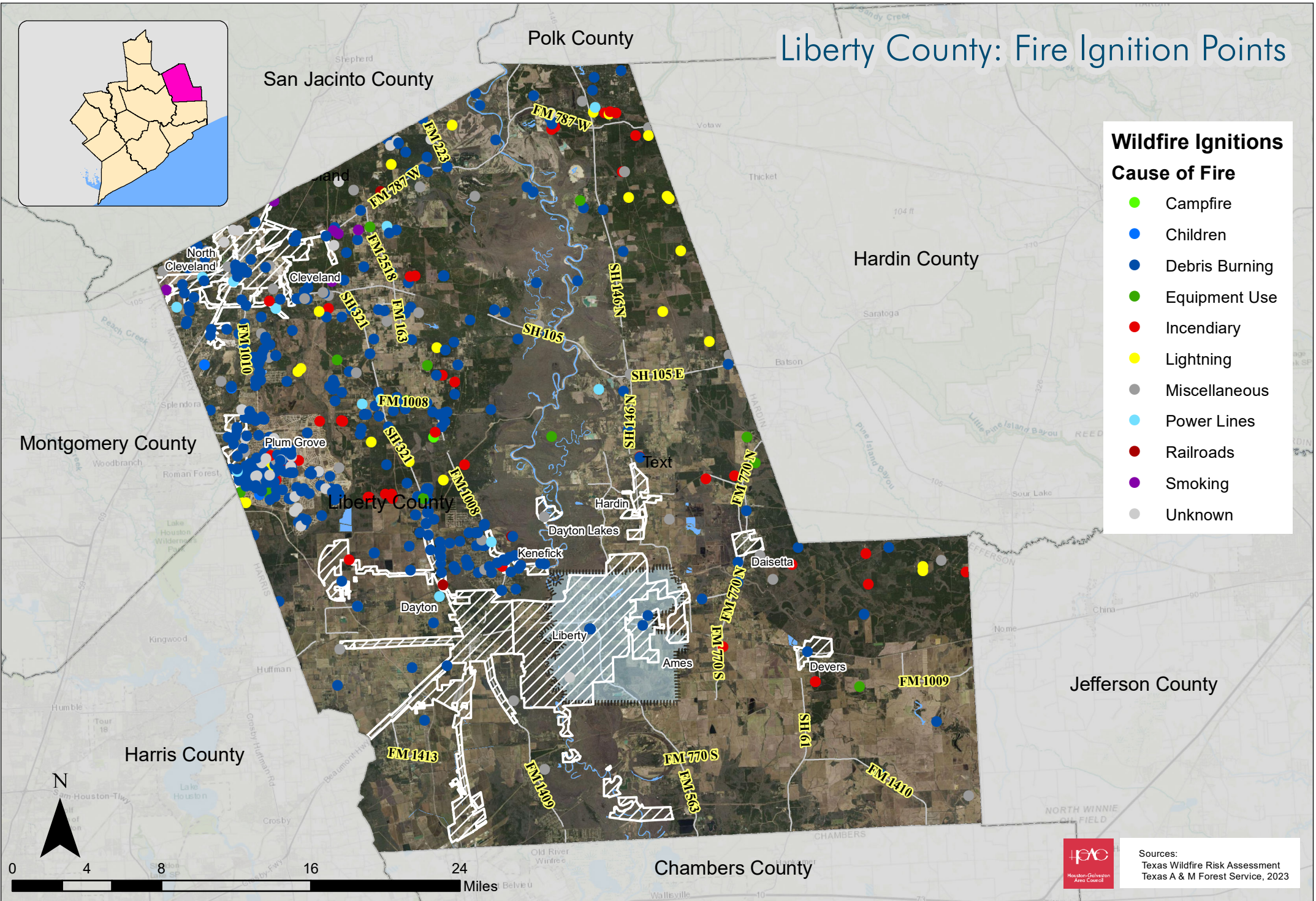
# Liberty County: Fire Ignition Points



**Wildfire Ignitions**

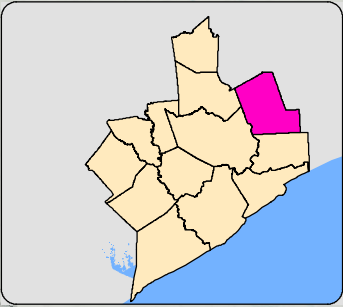
**Cause of Fire**

- Campfire
- Children
- Debris Burning
- Equipment Use
- Incendiary
- Lightning
- Miscellaneous
- Power Lines
- Railroads
- Smoking
- Unknown



Sources:  
Texas Wildfire Risk Assessment  
Texas A & M Forest Service, 2023

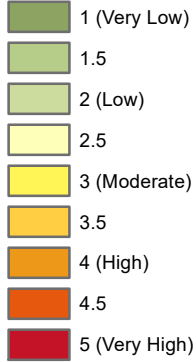
# Liberty County: Wildfire Risk Assessment



San Jacinto County

Polk County

### Characteristic Fire Intensity Scale



### Critical Facilities

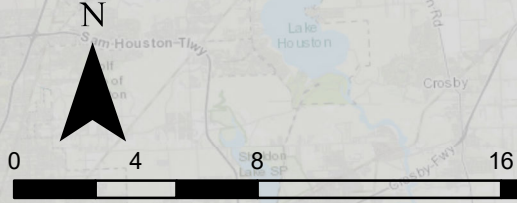
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Montgomery County

Hardin County

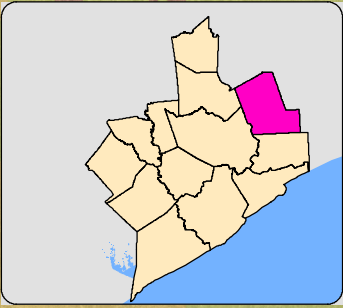
Harris County

Chambers County



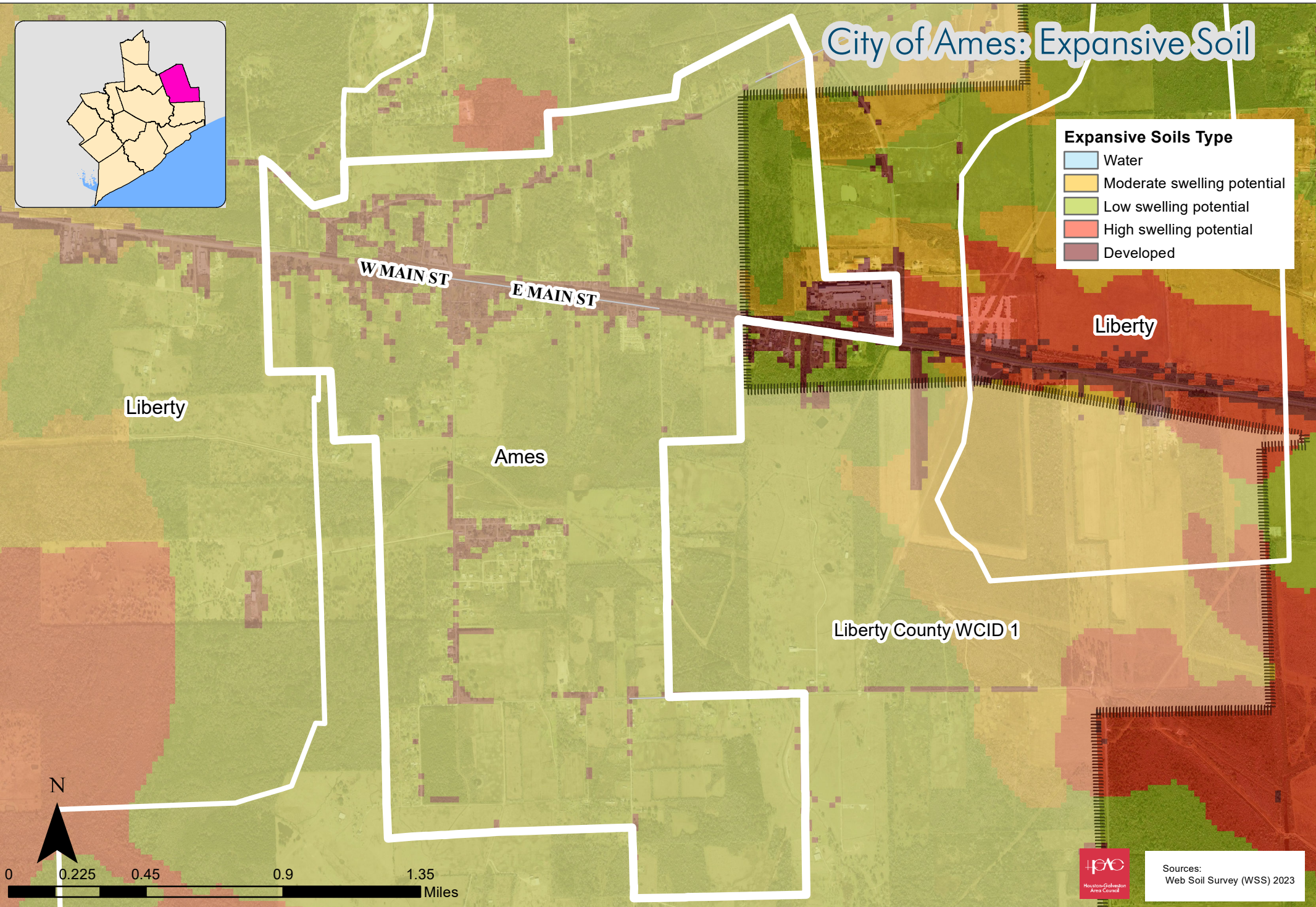
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Ames: Expansive Soil



**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed

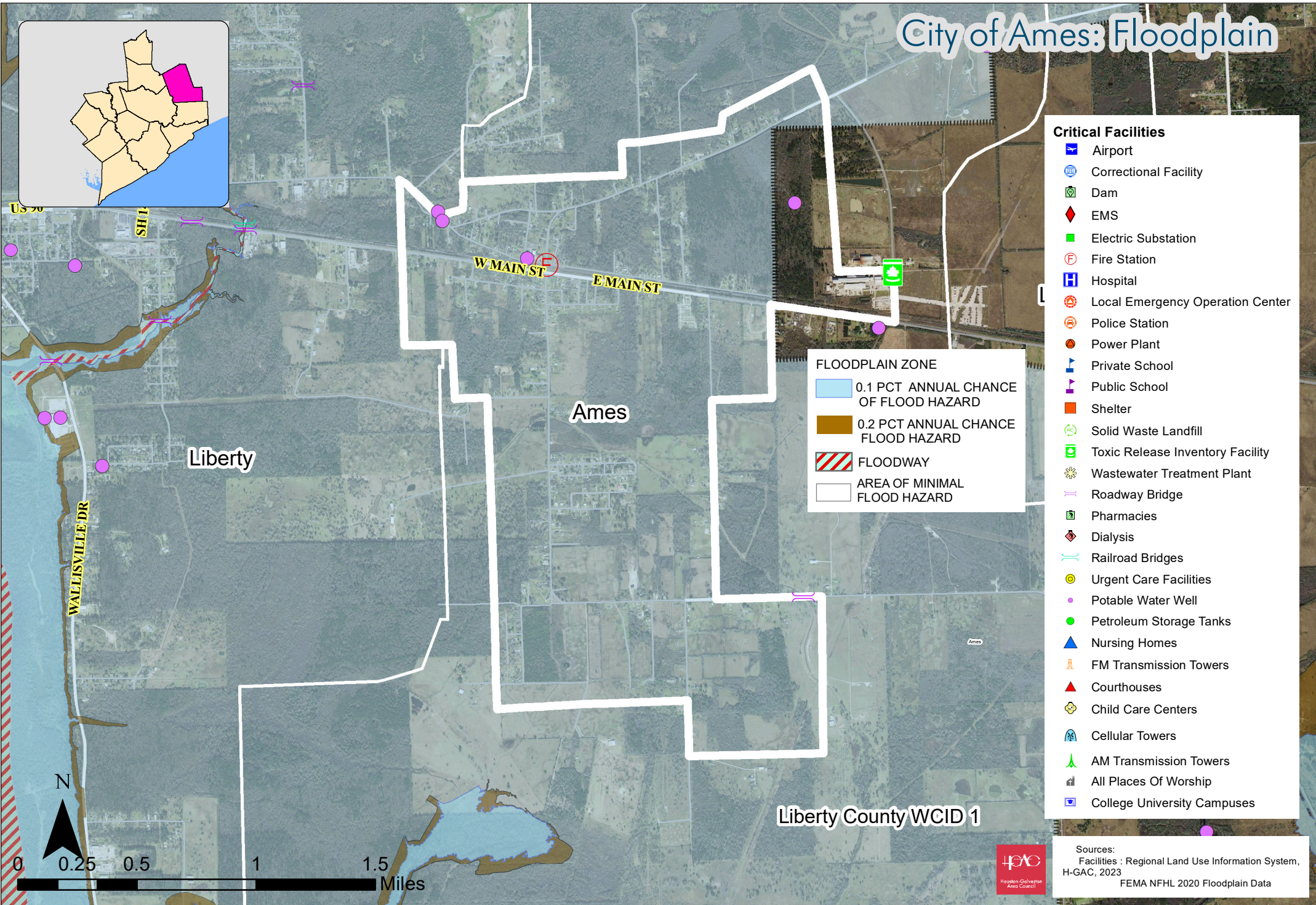
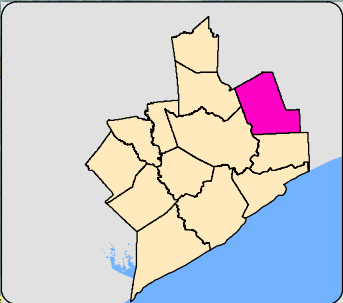


N



Sources:  
Web Soil Survey (WSS) 2023

# City of Ames: Floodplain



**FLOODPLAIN ZONE**

- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD

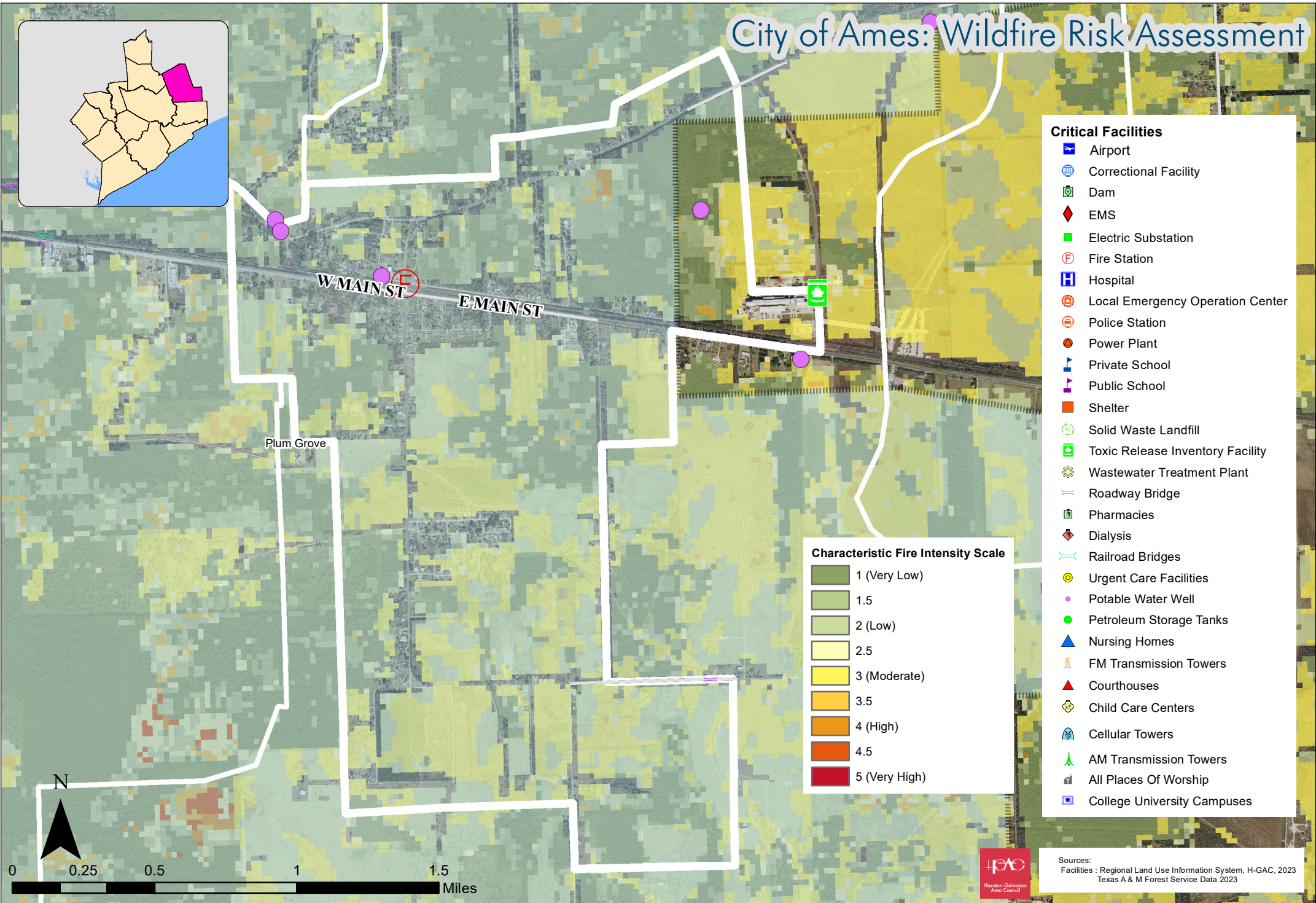
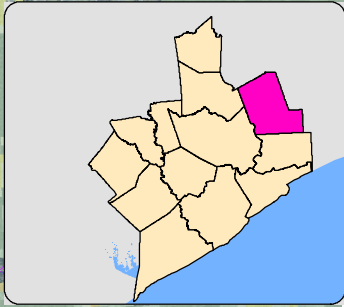
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- College University Campuses



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data

# City of Ames: Wildfire Risk Assessment



## Critical Facilities

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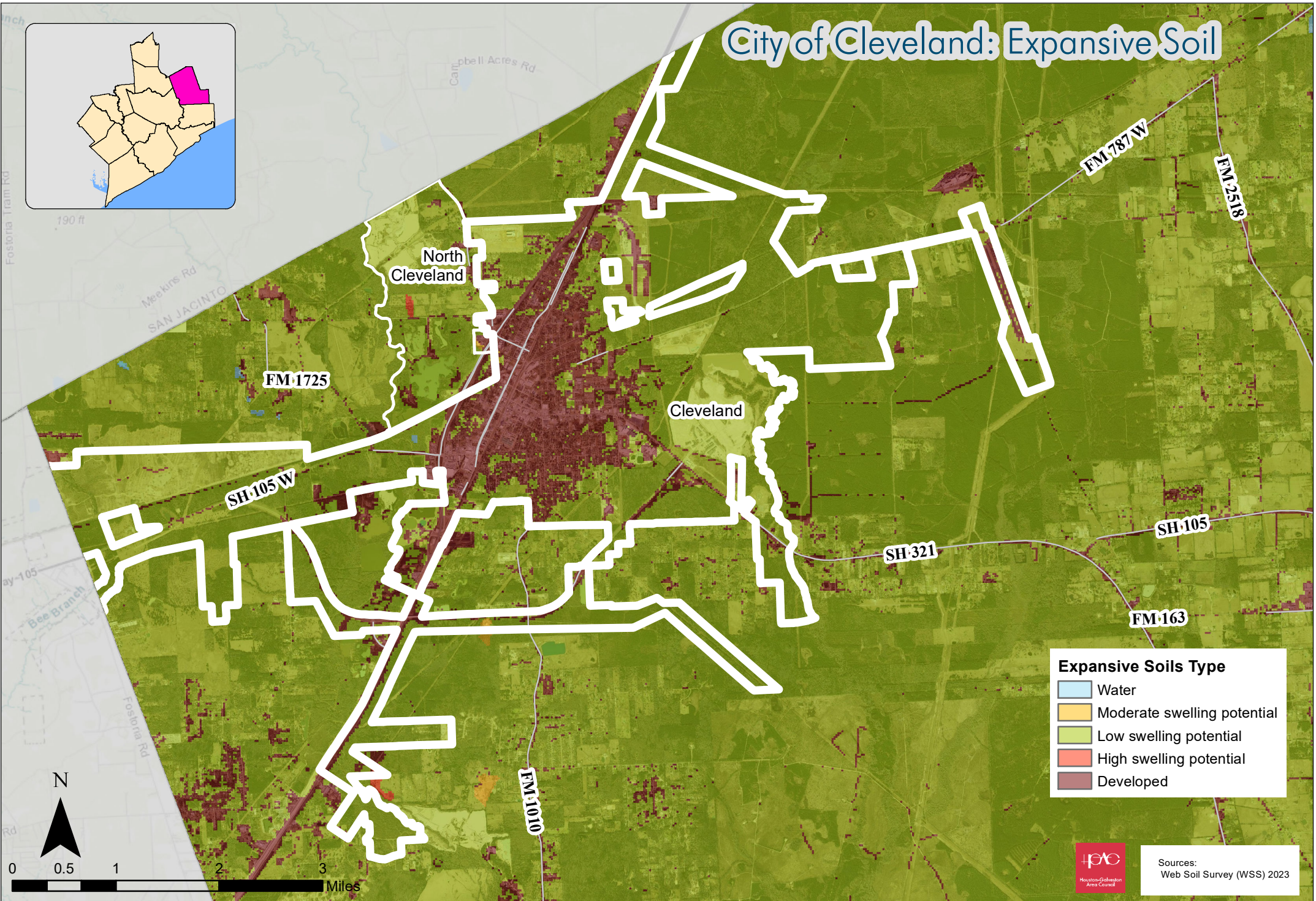
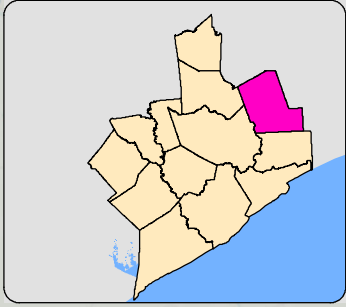
## Characteristic Fire Intensity Scale

- 1 (Very Low)
- 1.5
- 2 (Low)
- 2.5
- 3 (Moderate)
- 3.5
- 4 (High)
- 4.5
- 5 (Very High)



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Cleveland: Expansive Soil



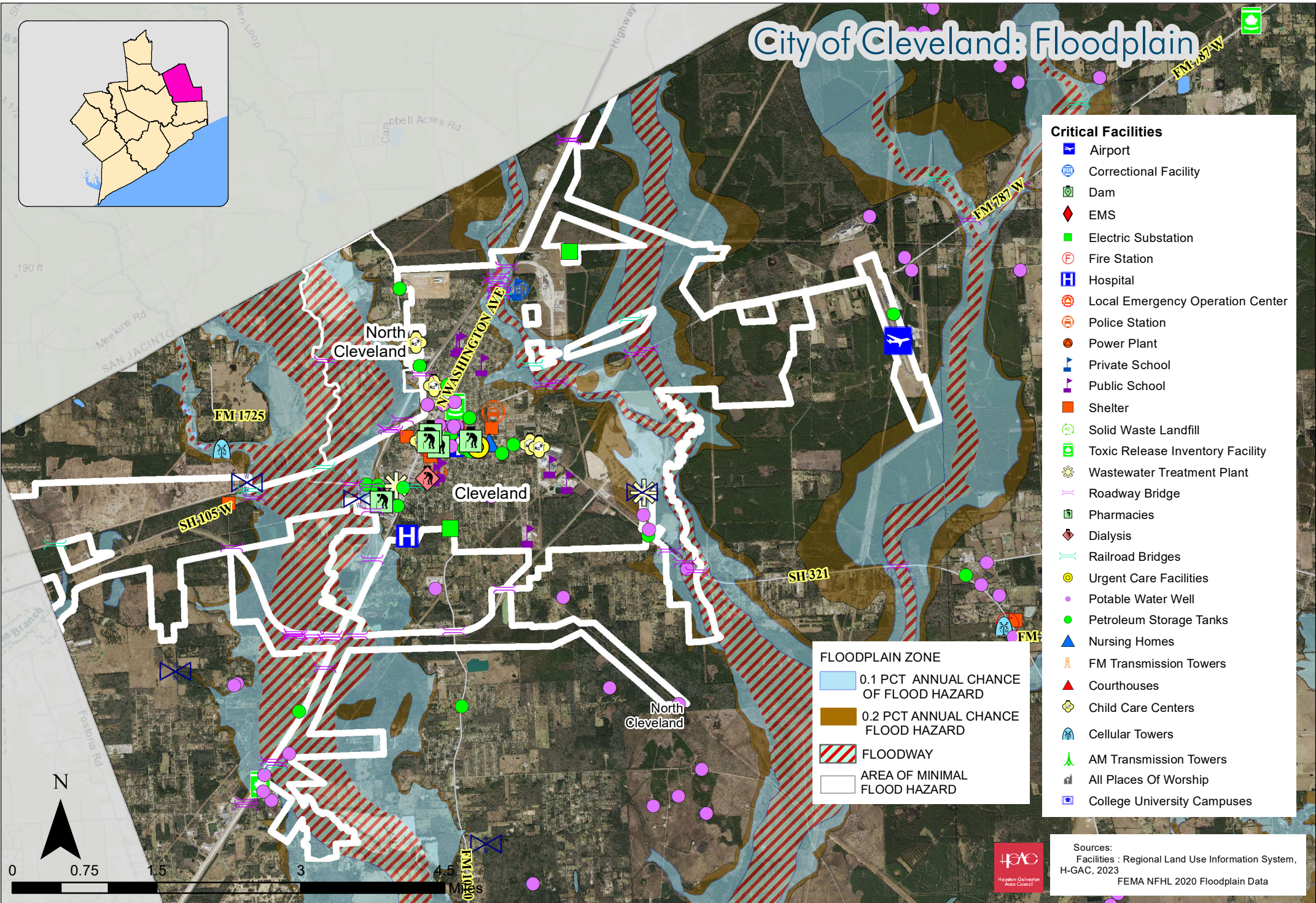
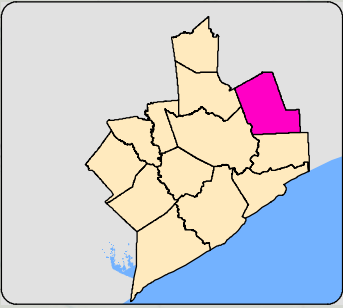
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Cleveland: Floodplain



## Critical Facilities

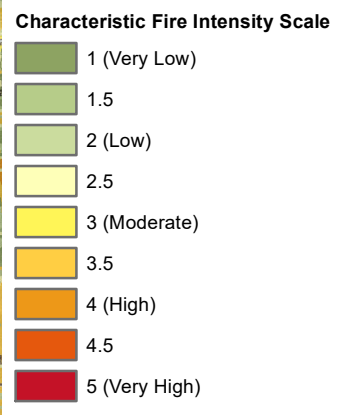
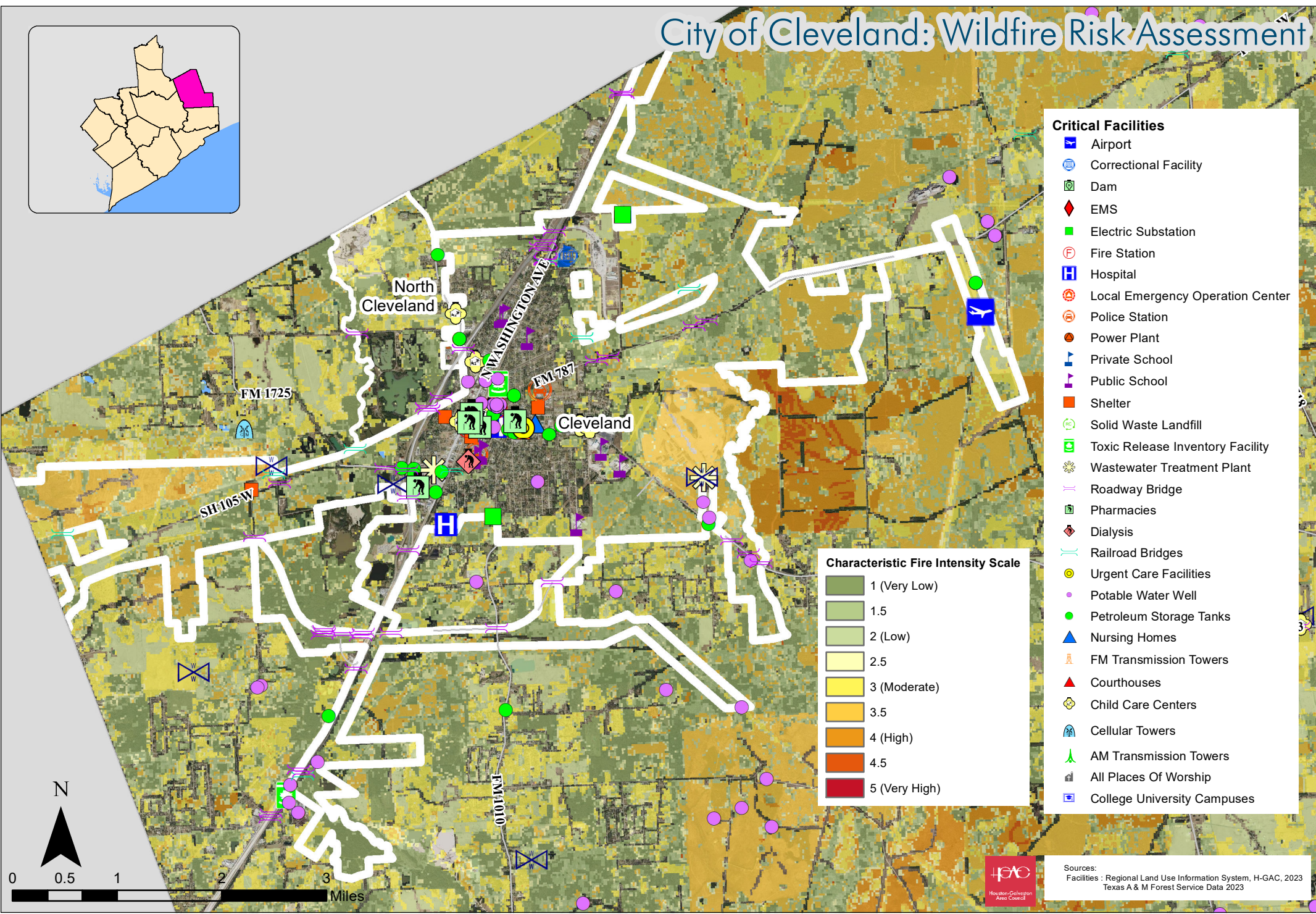
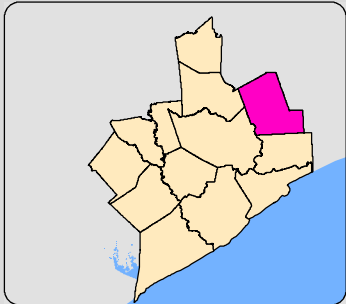
- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
- Local Emergency Operation Center
- Police Station
- Power Plant
- Private School
- Public School
- Shelter
- Solid Waste Landfill
- Toxic Release Inventory Facility
- Wastewater Treatment Plant
- Roadway Bridge
- 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

- ### FLOODPLAIN ZONE
- 0.1 PCT ANNUAL CHANGE OF FLOOD HAZARD
  - 0.2 PCT ANNUAL CHANGE FLOOD HAZARD
  - FLOODWAY
  - AREA OF MINIMAL FLOOD HAZARD

Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data



# City of Cleveland: Wildfire Risk Assessment

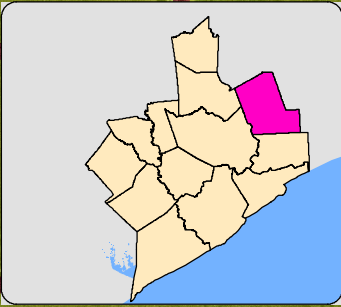


- ### Critical Facilities
- Airport
  - Correctional Facility
  - Dam
  - EMS
  - Electric Substation
  - Fire Station
  - Hospital
  - Local Emergency Operation Center
  - Police Station
  - Power Plant
  - Private School
  - Public School
  - Shelter
  - Solid Waste Landfill
  - Toxic Release Inventory 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



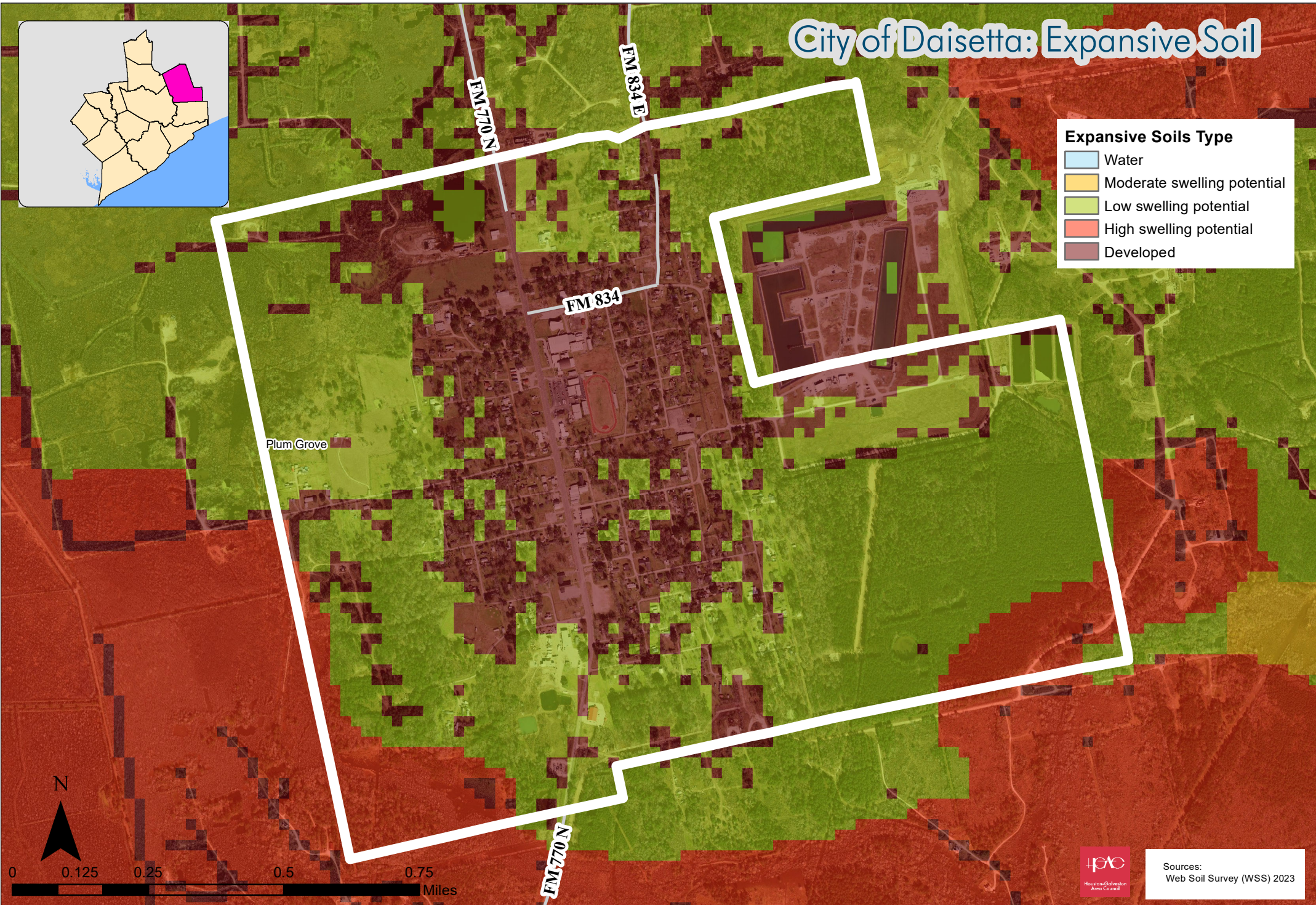
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Daisetta: Expansive Soil



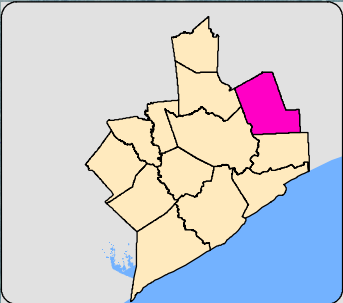
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Daisetta: Floodplain



**FLOODPLAIN ZONE**

- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD

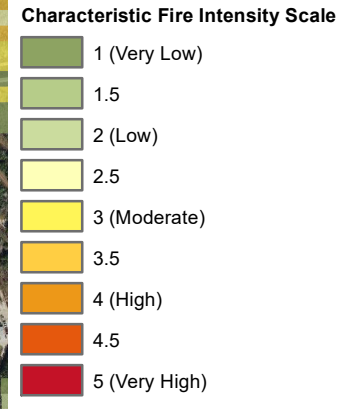
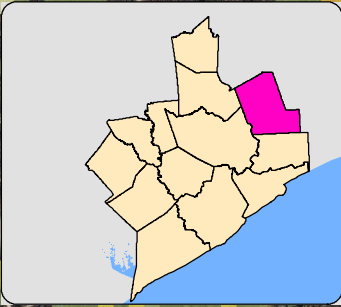
**Critical Facilities**

- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
- Local Emergency Operation Center
- Police Station
- Power Plant
- Private School
- Public School
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- 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



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data

# City of Daisetta: Wildfire Risk Assessment

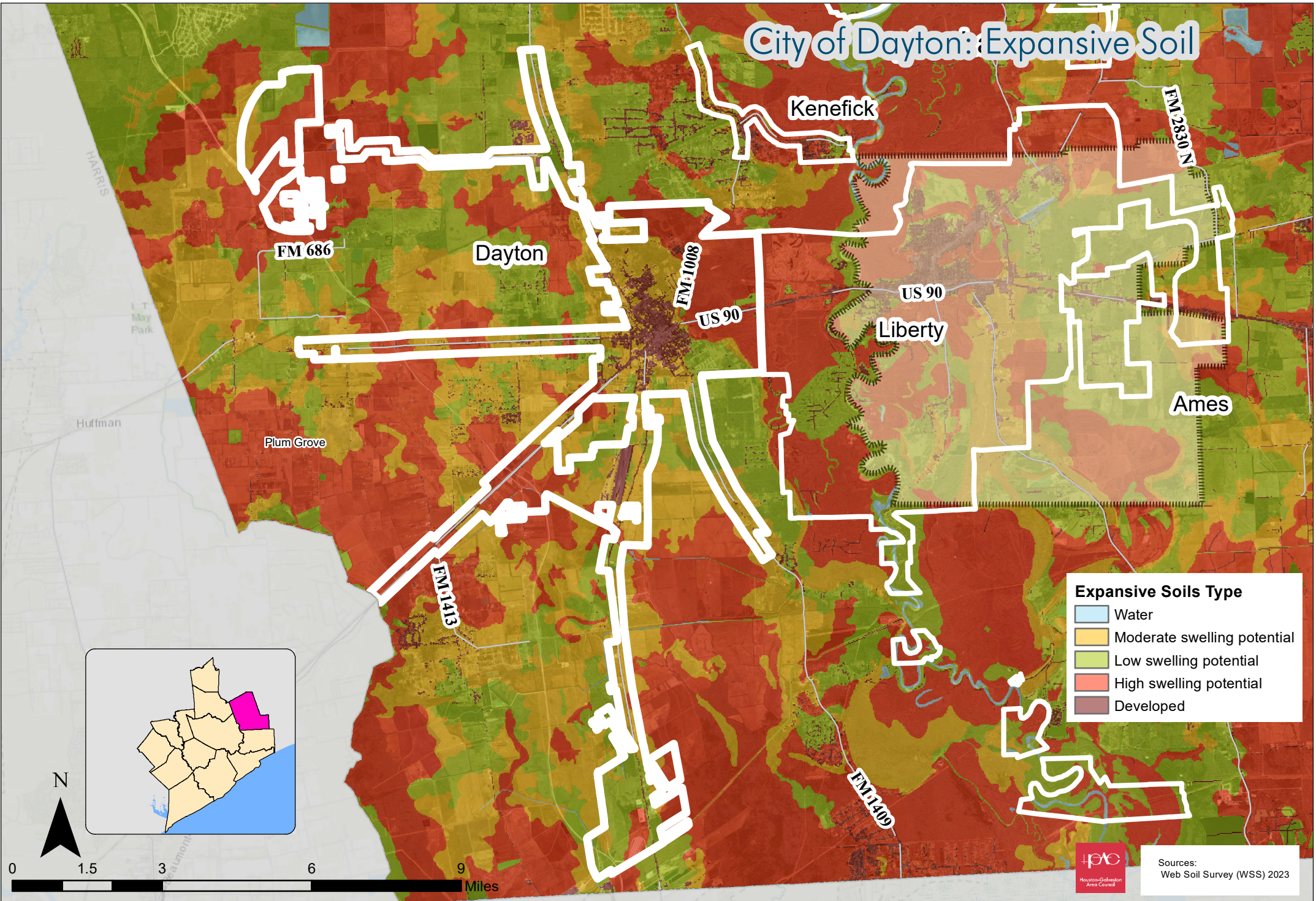


- Critical Facilities**
- Airport
  - Correctional Facility
  - Dam
  - EMS
  - Electric Substation
  - Fire Station
  - Hospital
  - Local Emergency Operation Center
  - Police Station
  - Power Plant
  - Private School
  - Public School
  - Shelter
  - Solid Waste Landfill
  - Toxic Release Inventory Facility
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  - 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



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Dayton: Expansive Soil



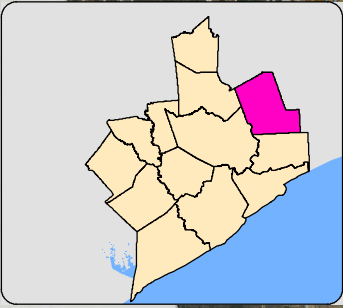
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Dayton: Floodplain

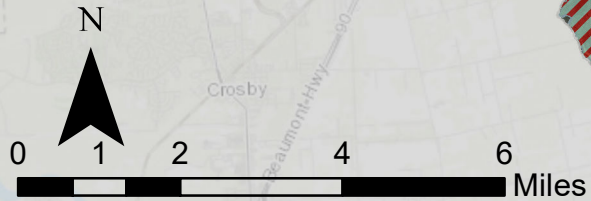


## Critical Facilities

- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
- Local Emergency Operation Center
- Police Station
- Power Plant
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- Child Care Centers
- Cellular Towers
- AM Transmission Towers
- All Places Of Worship
- College University Campuses

## FLOODPLAIN ZONE

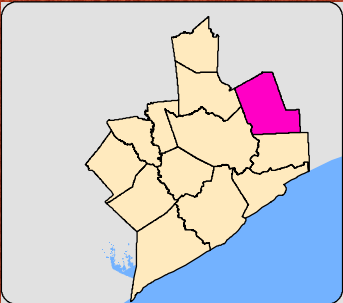
- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data

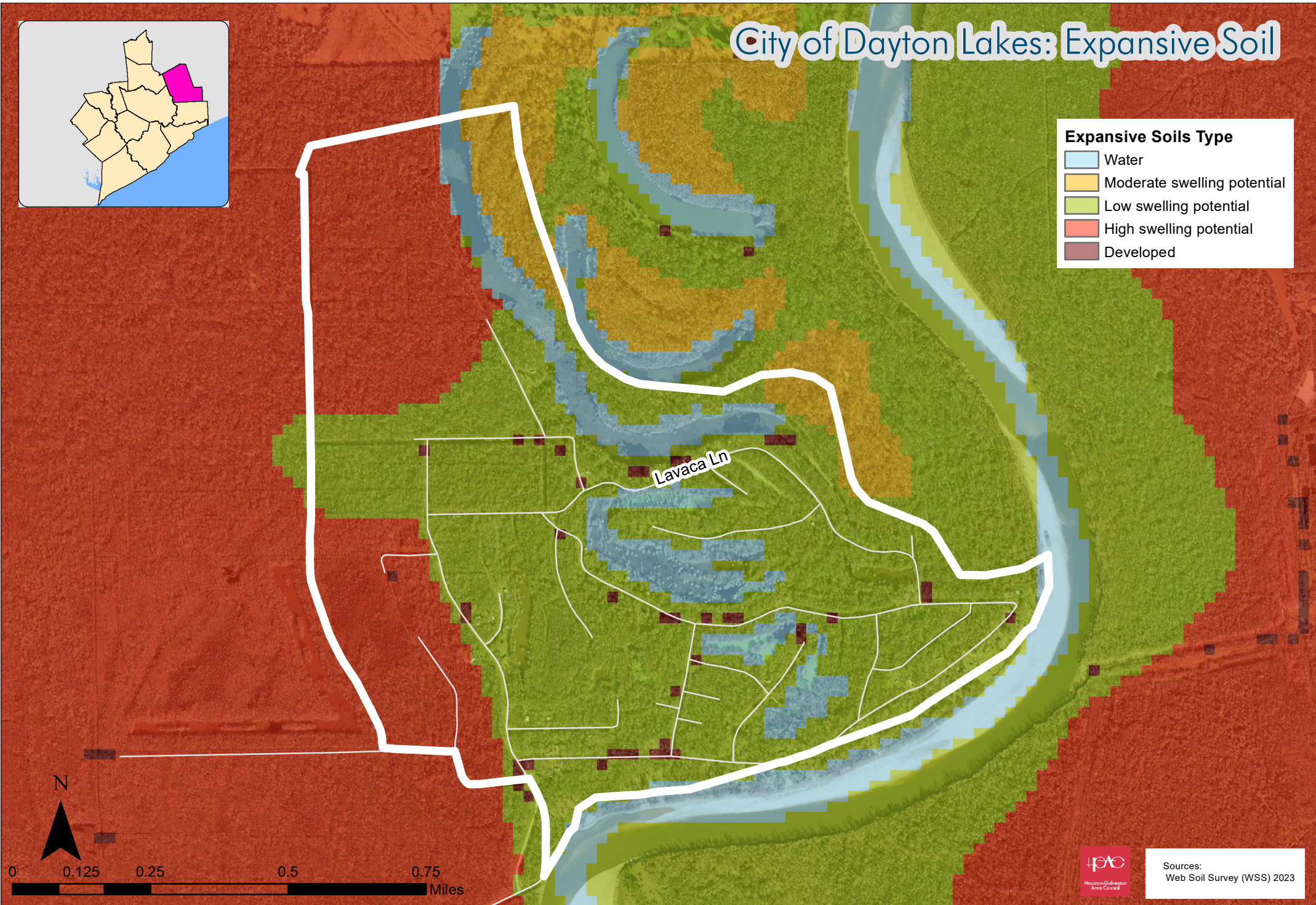


# City of Dayton Lakes: Expansive Soil



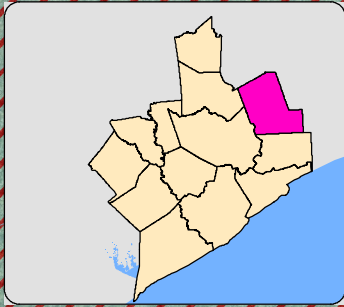
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Dayton Lakes: Floodplain

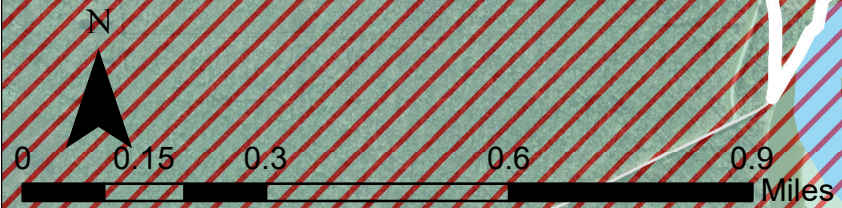


**FLOODPLAIN ZONE**

- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD

**Critical Facilities**

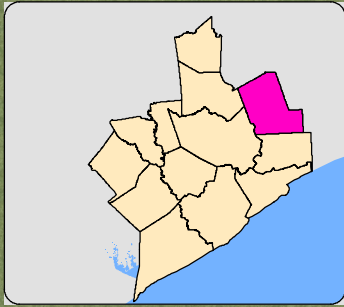
- Airport
- Correctional Facility
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- Electric Substation
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- FM Transmission Towers
- Courthouses
- Child Care Centers
- Cellular Towers
- AM Transmission Towers
- All Places Of Worship
- College University Campuses



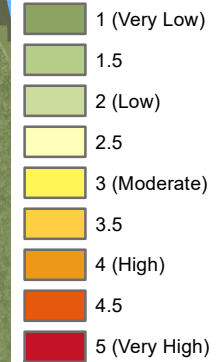
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data



# City of Dayton Lakes: Wildfire Risk Assessment



## Characteristic Fire Intensity Scale



## Critical Facilities

- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
- Local Emergency Operation Center
- Police Station
- Power Plant
- Private School
- Public School
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- Courthouses
- Child Care Centers
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- AM Transmission Towers
- All Places Of Worship
- College University Campuses

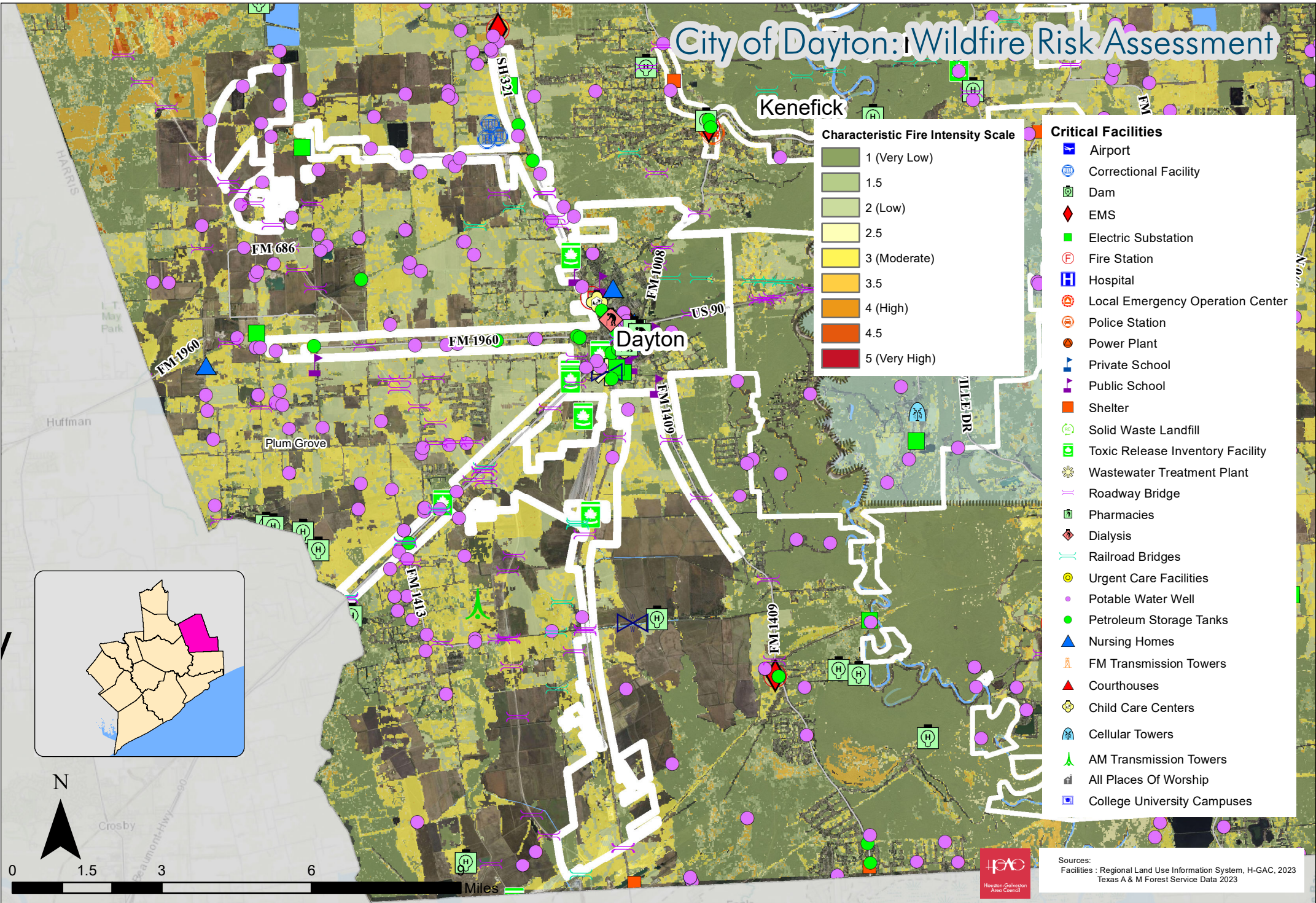
Layaca Ln

N



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Dayton: Wildfire Risk Assessment



**Characteristic Fire Intensity Scale**

- 1 (Very Low)
- 1.5
- 2 (Low)
- 2.5
- 3 (Moderate)
- 3.5
- 4 (High)
- 4.5
- 5 (Very High)

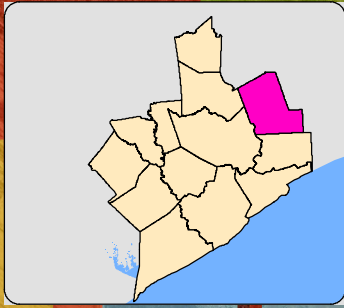
**Critical Facilities**

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- College University Campuses



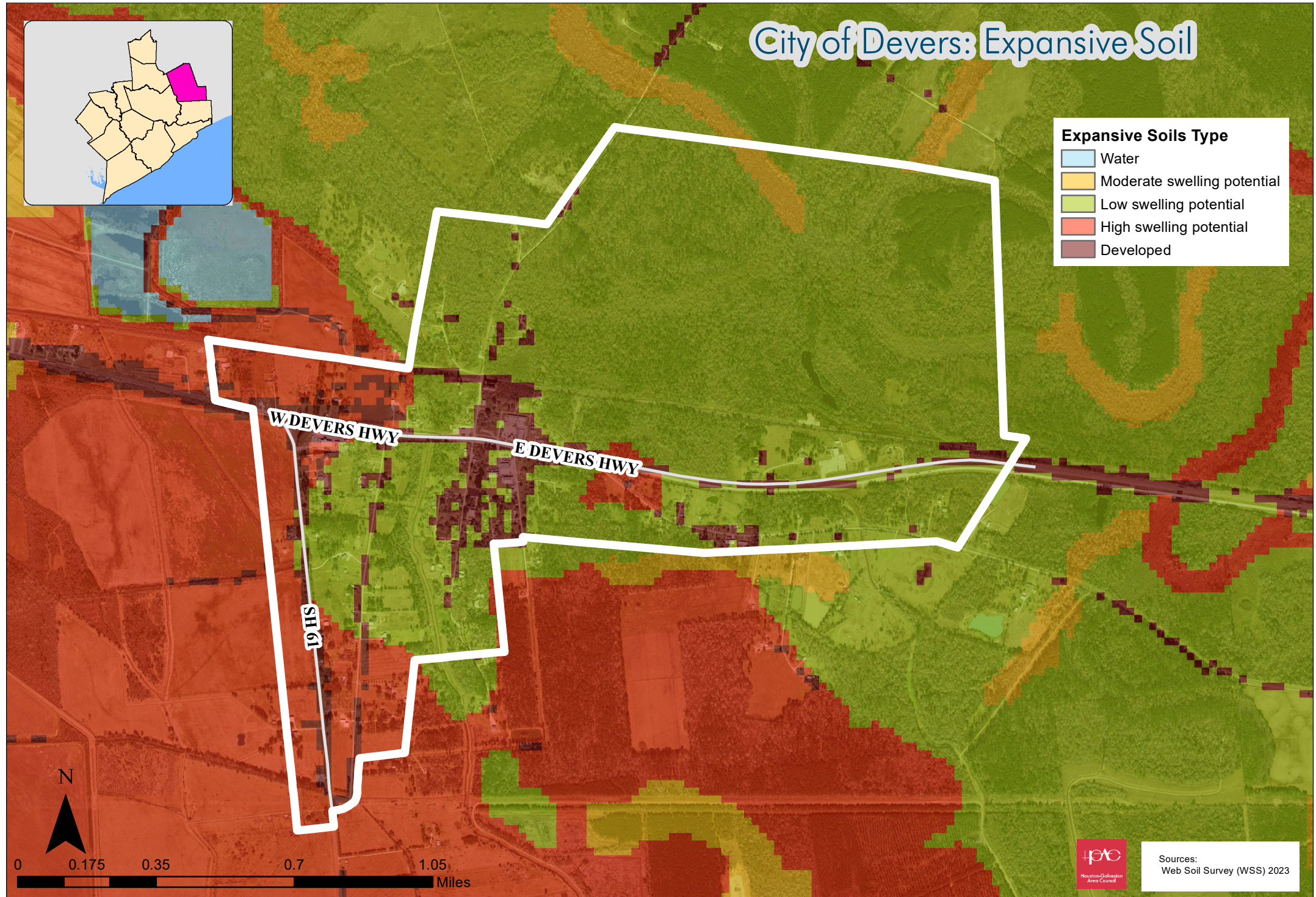
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Devers: Expansive Soil



**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed

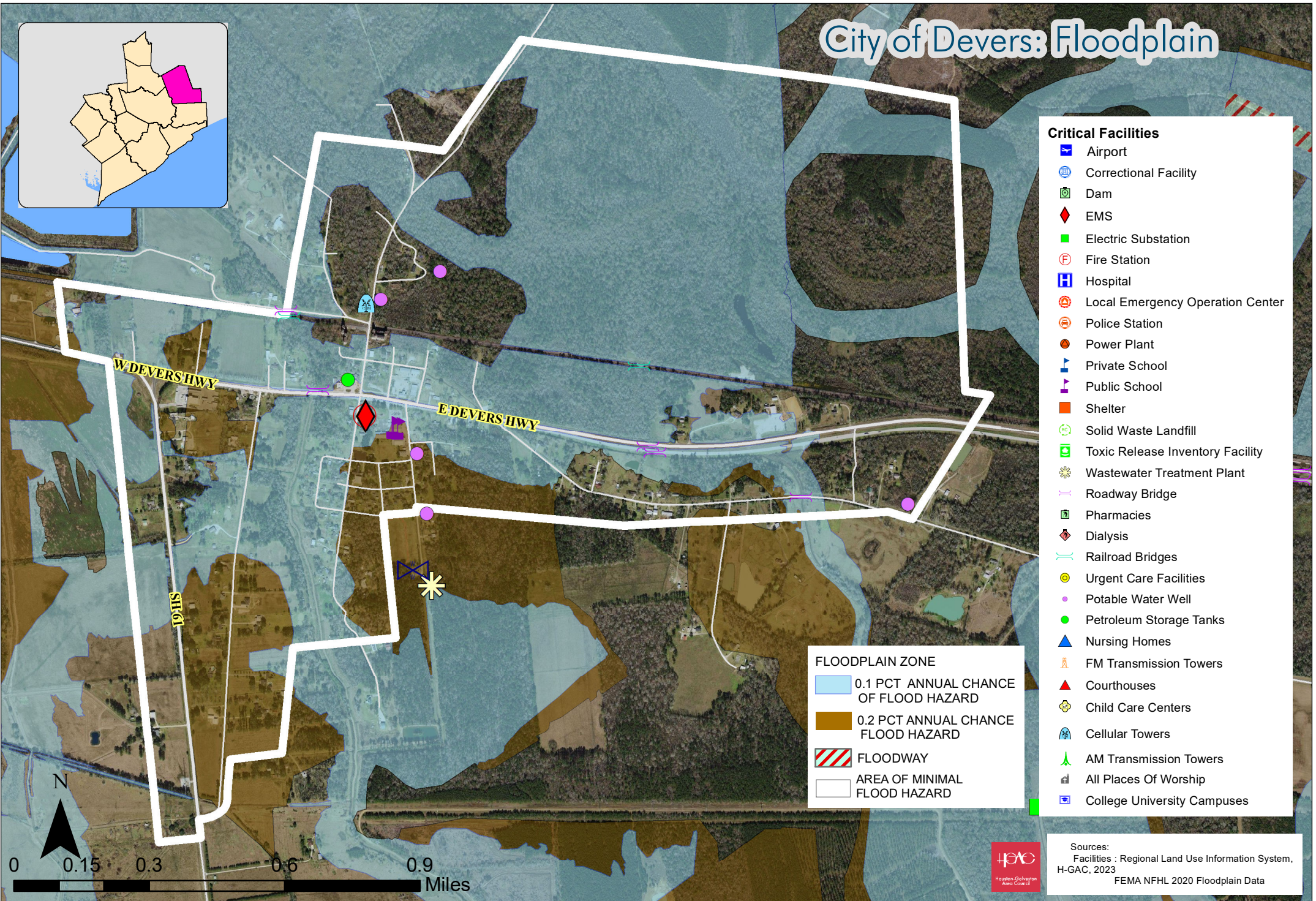
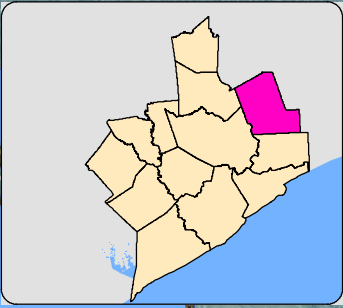


N



Sources:  
Web Soil Survey (WSS) 2023

# City of Devers: Floodplain



## Critical Facilities

- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
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- Wastewater Treatment Plant
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- Courthouses
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- Cellular Towers
- AM Transmission Towers
- All Places Of Worship
- College University Campuses

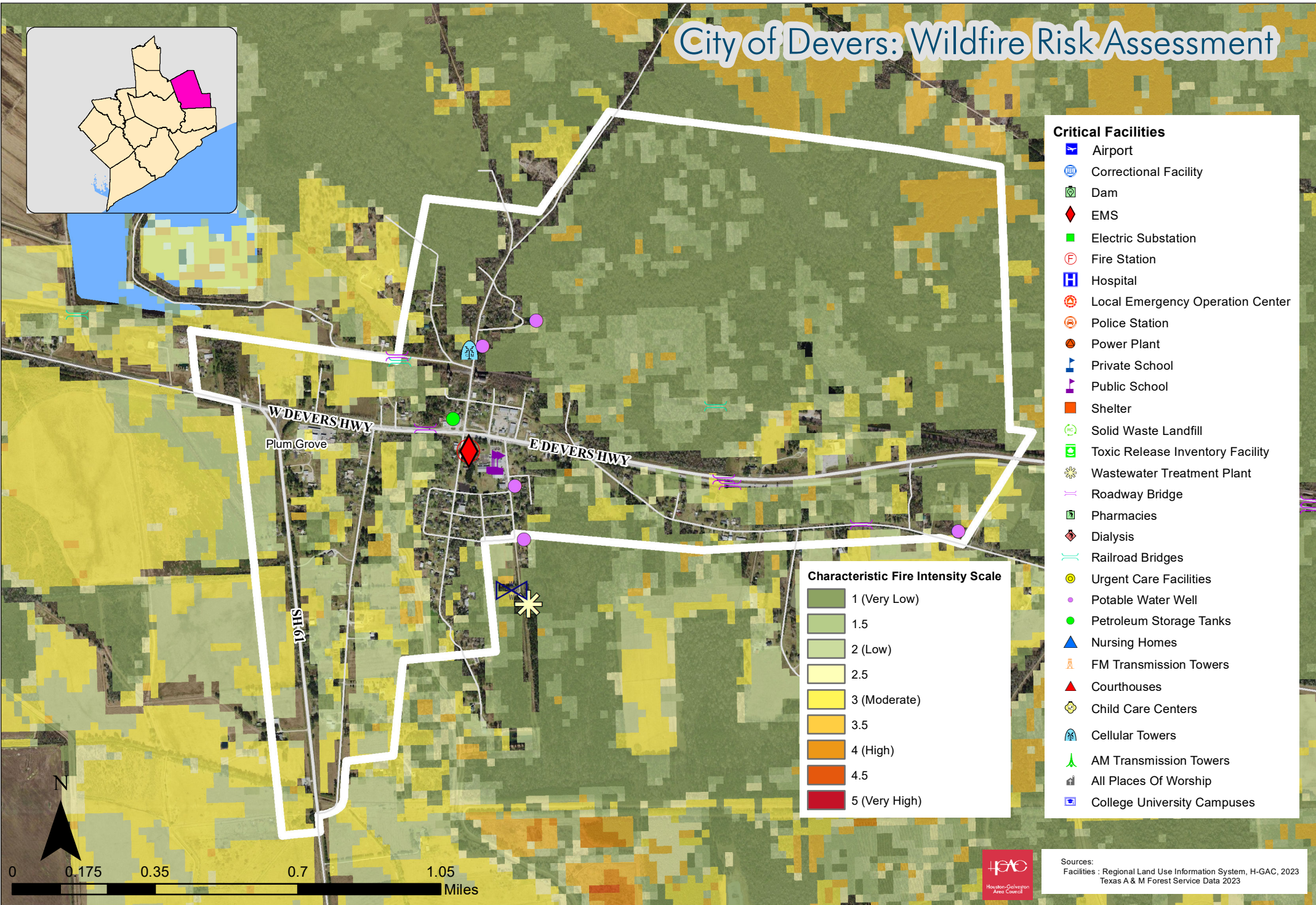
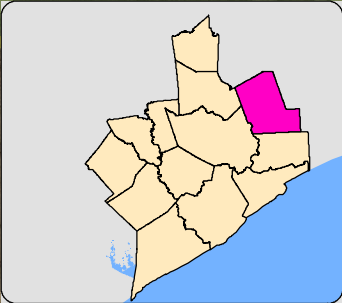
## FLOODPLAIN ZONE

- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD



Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data

# City of Devers: Wildfire Risk Assessment



### Critical Facilities

- Airport
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- Dam
- EMS
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- AM Transmission Towers
- All Places Of Worship
- College University Campuses

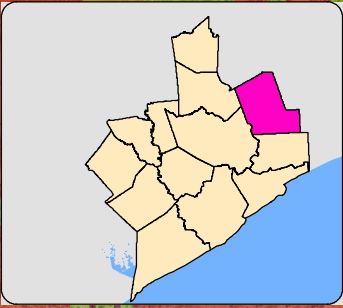
### Characteristic Fire Intensity Scale

- 1 (Very Low)
- 1.5
- 2 (Low)
- 2.5
- 3 (Moderate)
- 3.5
- 4 (High)
- 4.5
- 5 (Very High)



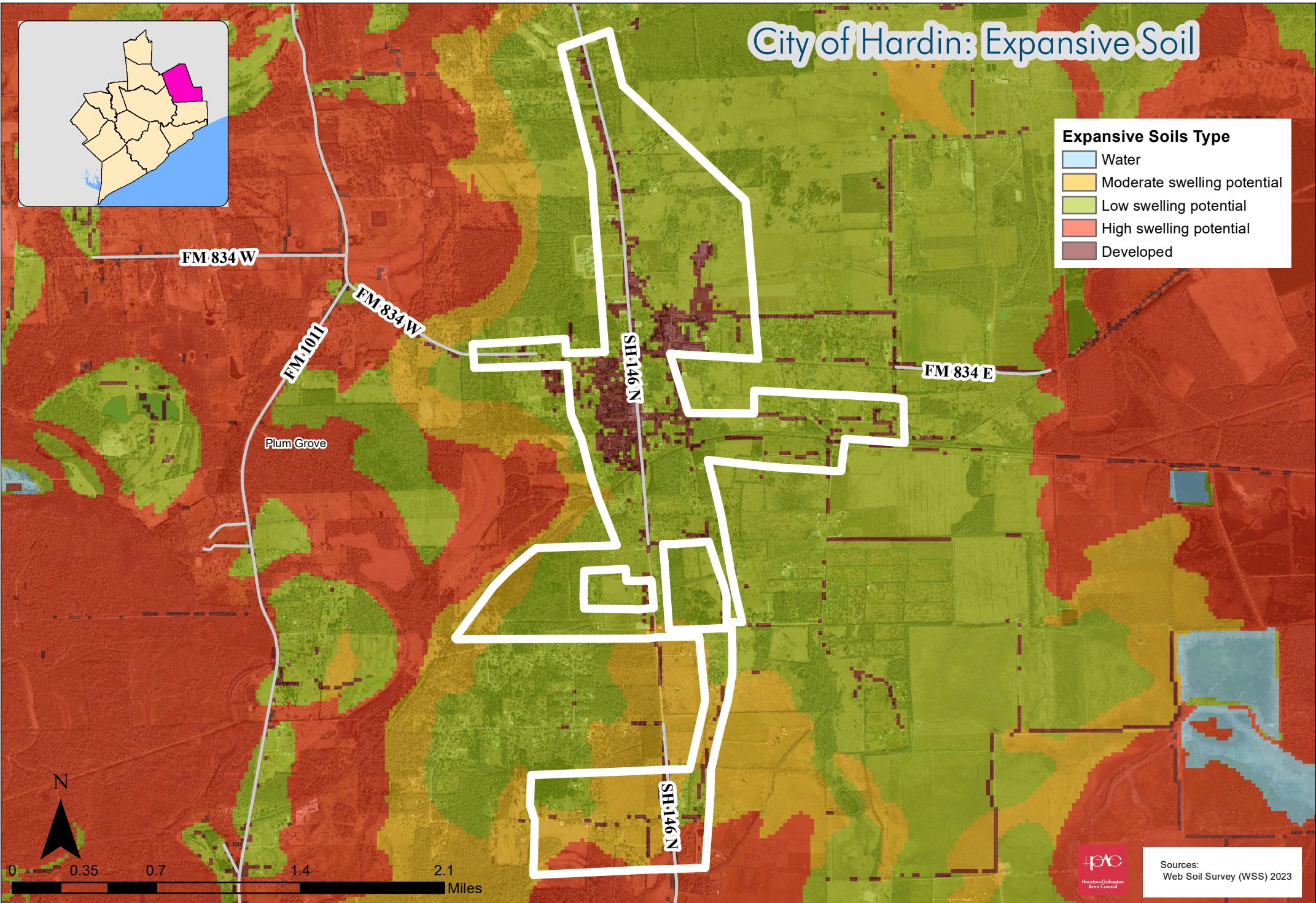
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Hardin: Expansive Soil



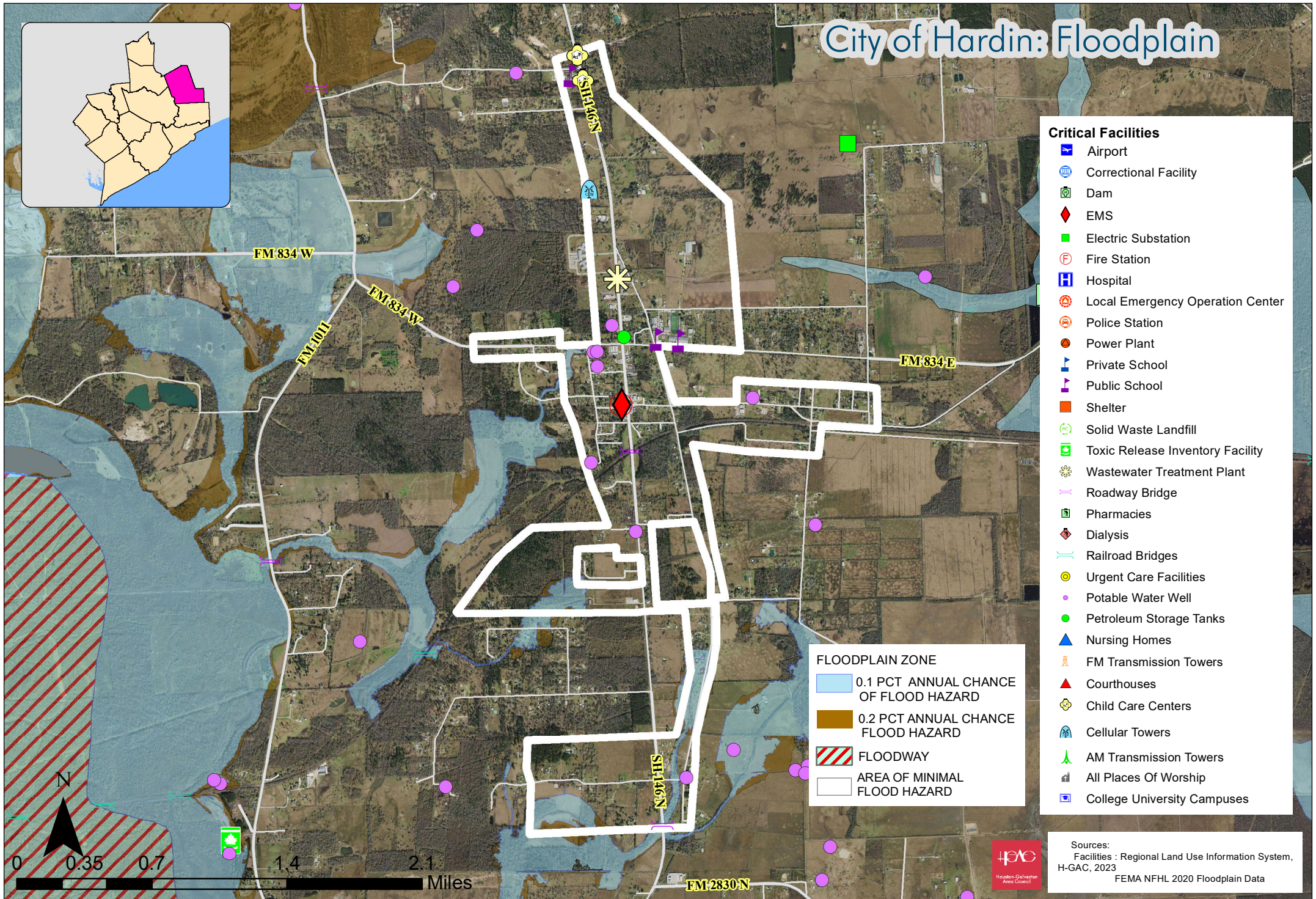
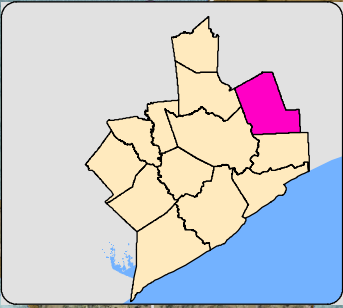
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Hardin: Floodplain



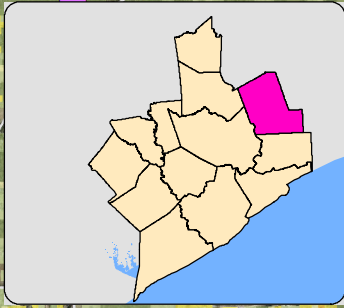
- Critical Facilities**
- Airport
  - Correctional Facility
  - Dam
  - EMS
  - Electric Substation
  - Fire Station
  - Hospital
  - Local Emergency Operation Center
  - Police Station
  - Power Plant
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  - Public School
  - Shelter
  - Solid Waste Landfill
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  - 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

- FLOODPLAIN ZONE**
- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
  - 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
  - FLOODWAY
  - AREA OF MINIMAL FLOOD HAZARD

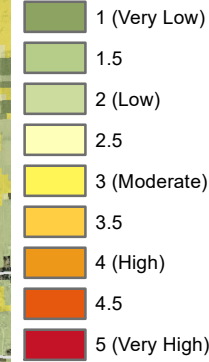
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data



# City of Hardin: Wildfire Risk Assessment

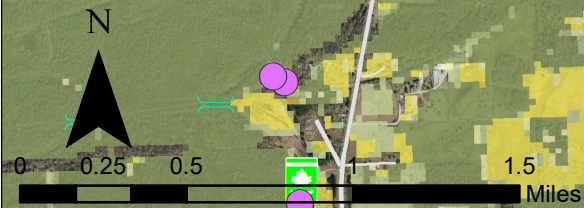
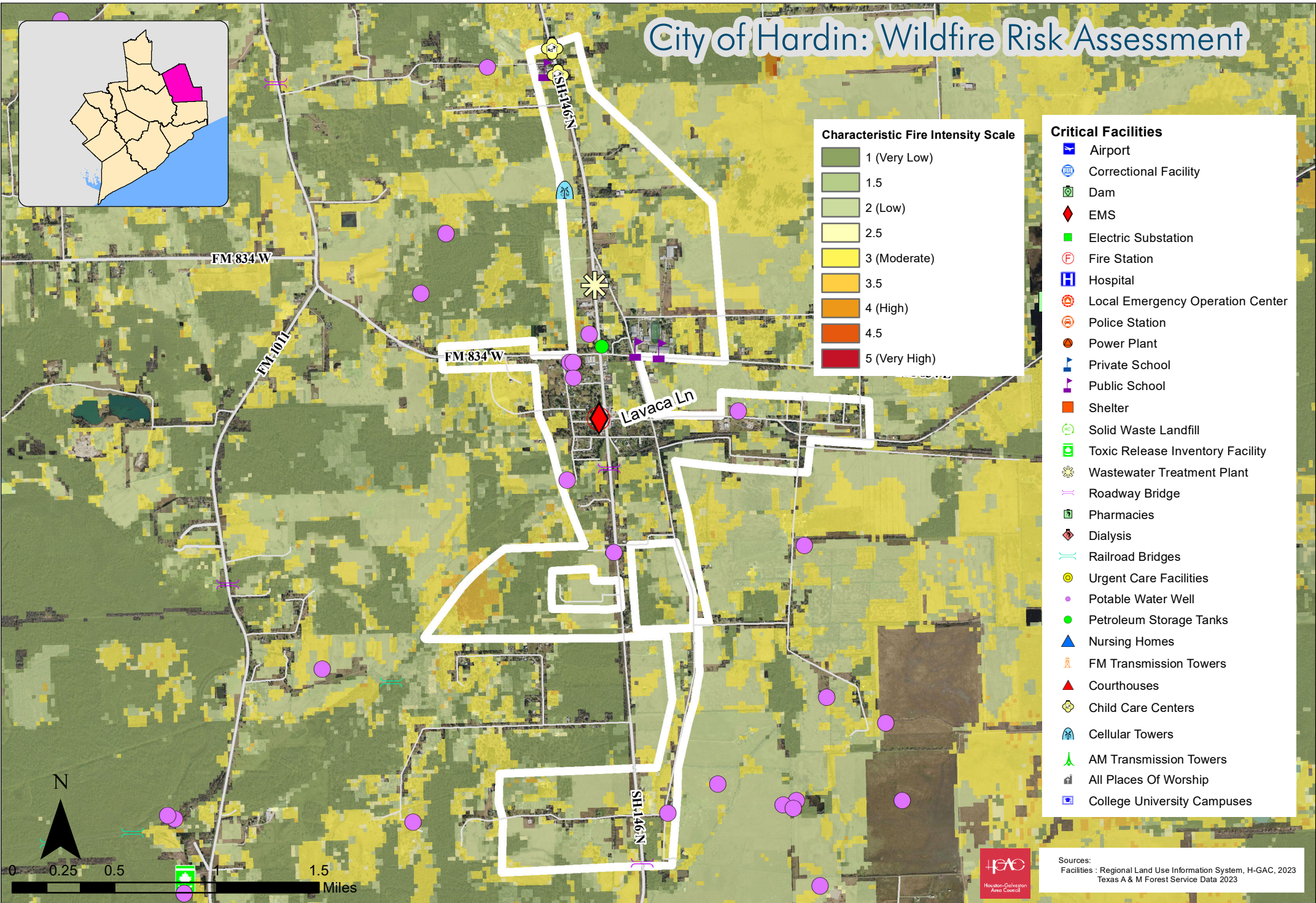


## Characteristic Fire Intensity Scale



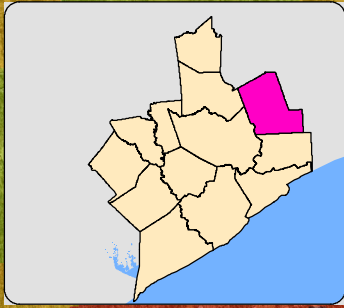
## Critical Facilities

- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
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- Police Station
- Power Plant
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- College University Campuses



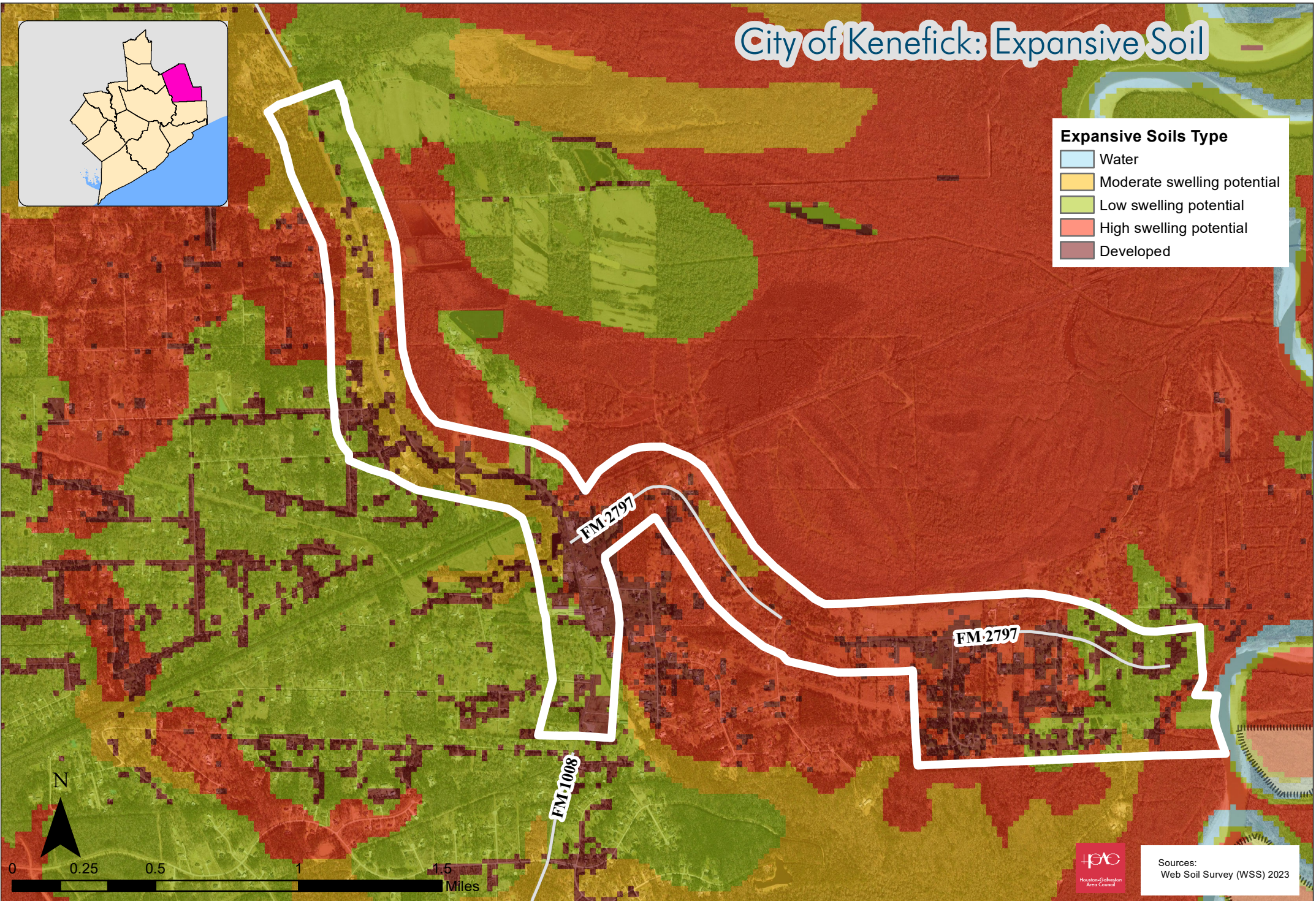
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Kenefick: Expansive Soil



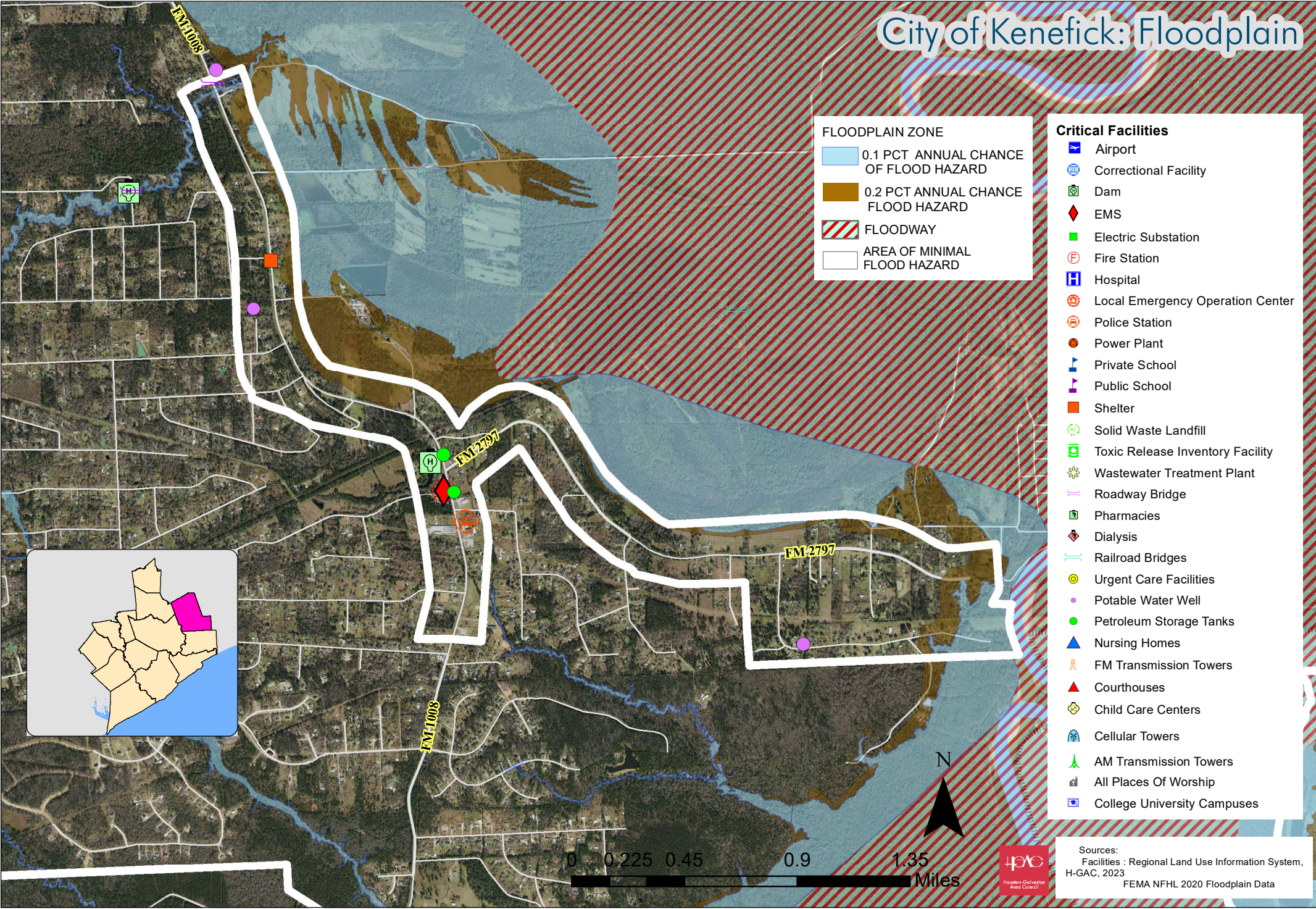
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Kenefick: Floodplain



**FLOODPLAIN ZONE**

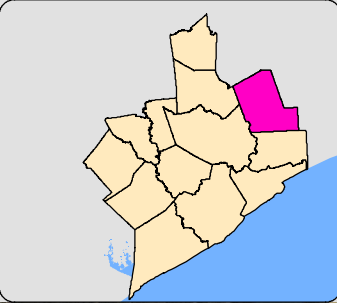
- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD

**Critical Facilities**

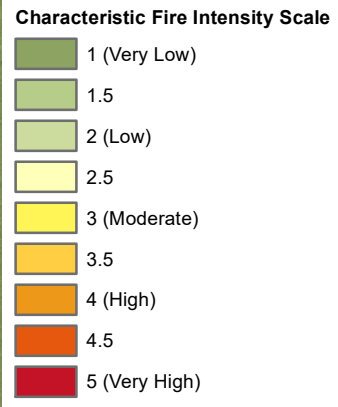
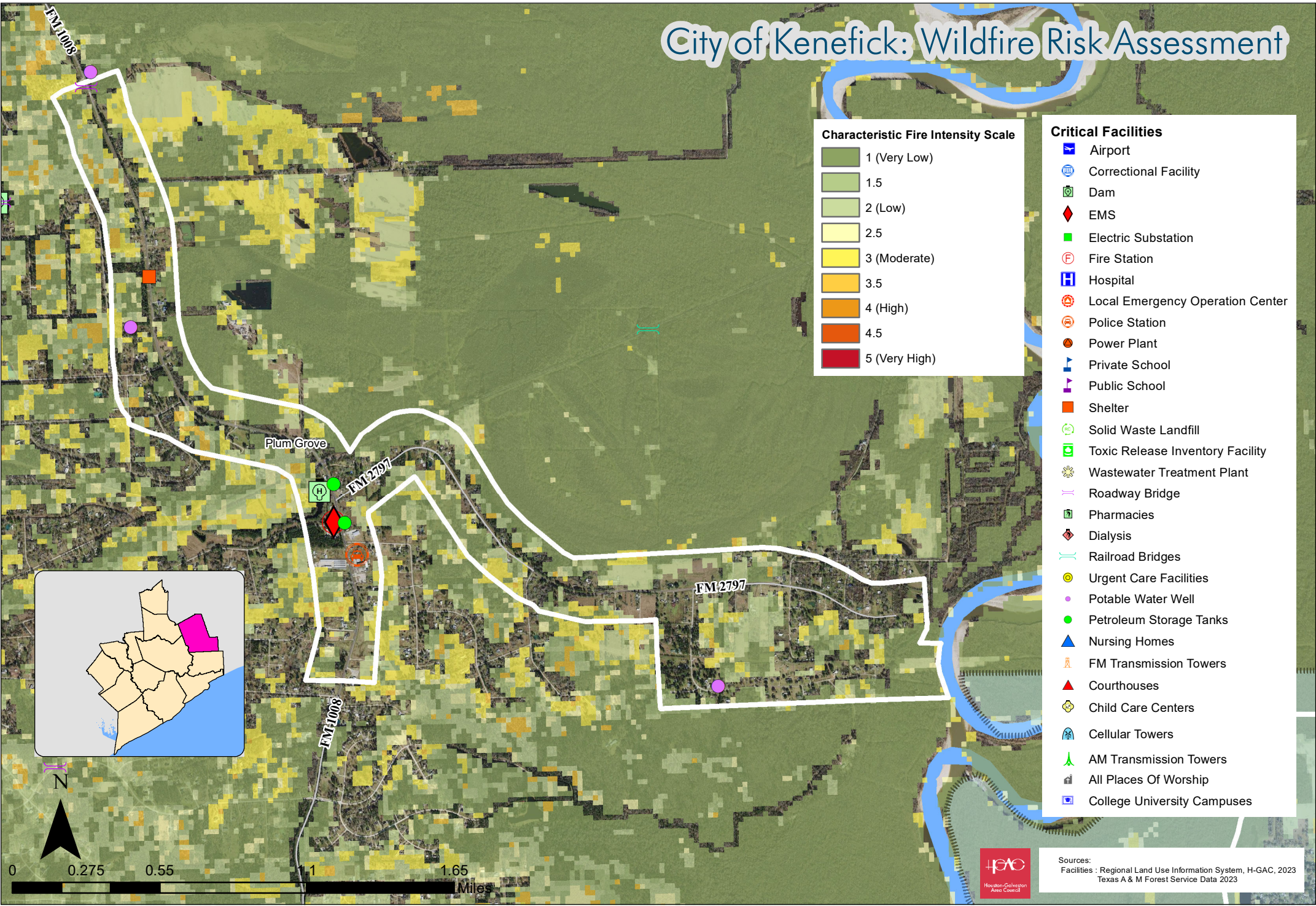
- Airport
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- Electric Substation
- Fire Station
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- College University Campuses



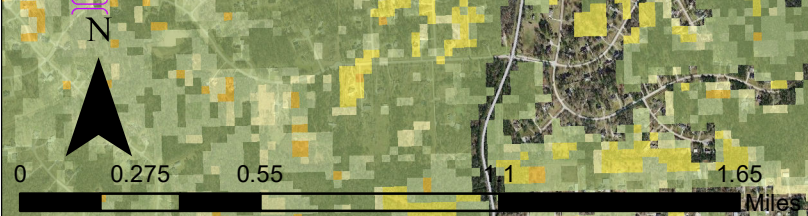
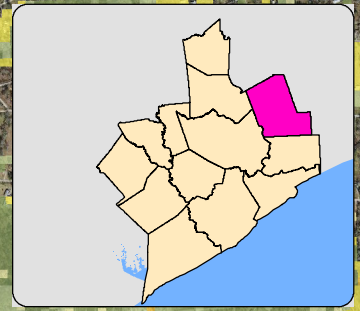
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data



# City of Kenefick: Wildfire Risk Assessment

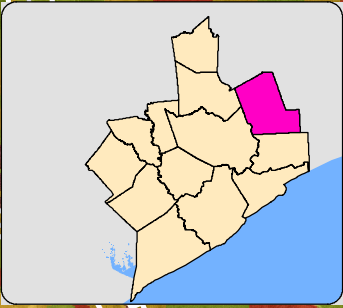


- Critical Facilities**
- Airport
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  - FM Transmission Towers
  - Courthouses
  - Child Care Centers
  - Cellular Towers
  - AM Transmission Towers
  - All Places Of Worship
  - College University Campuses



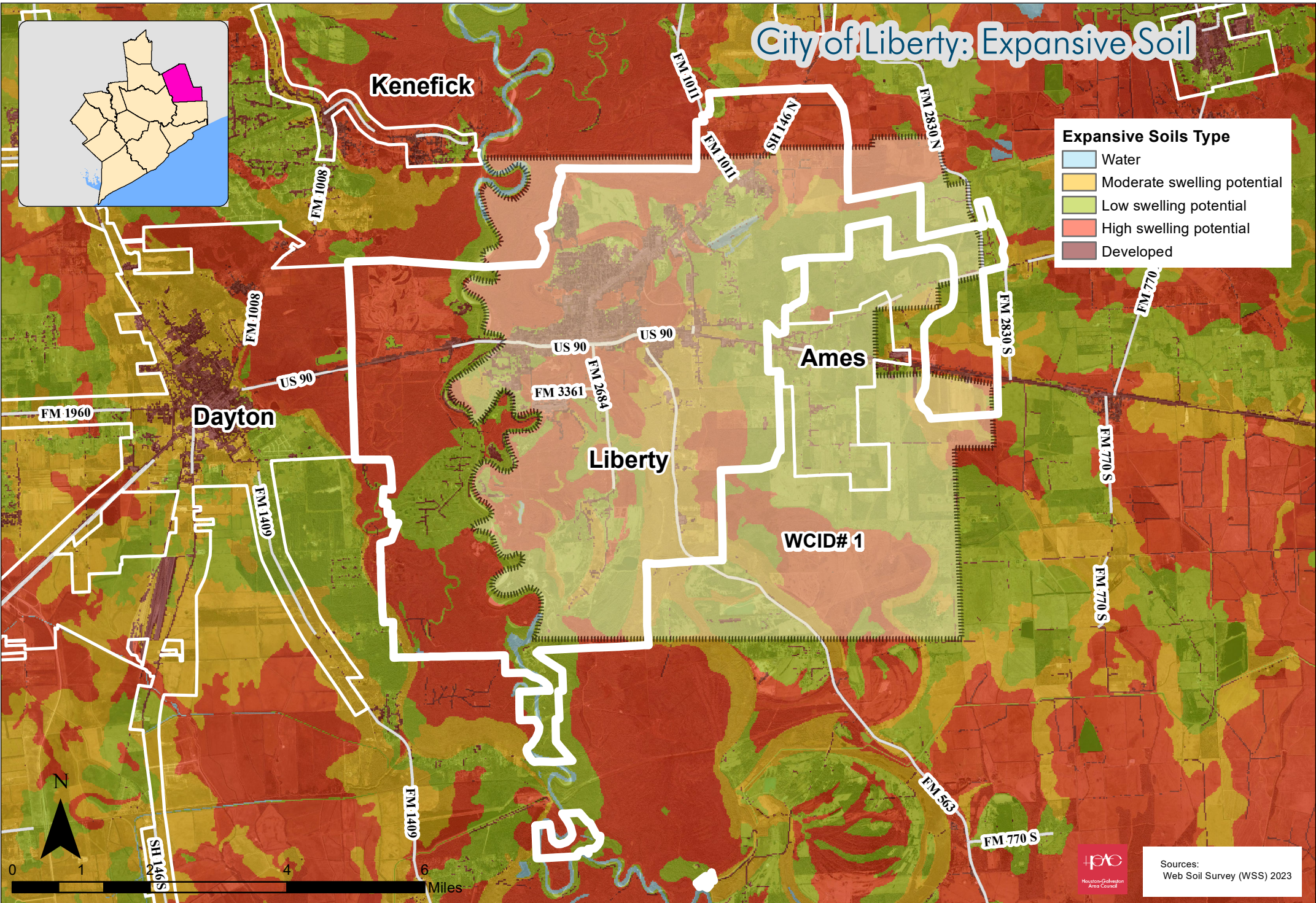
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

# City of Liberty: Expansive Soil



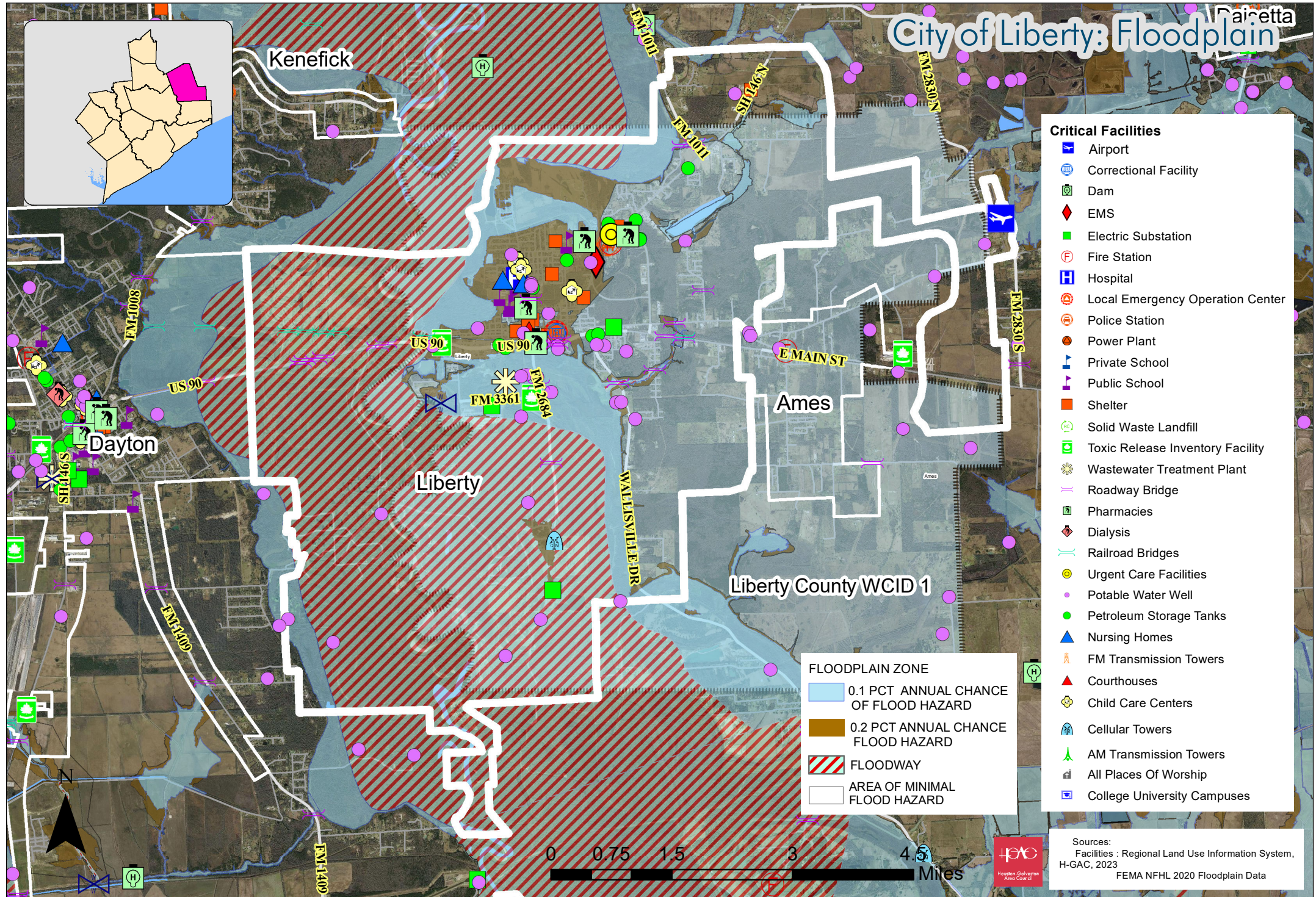
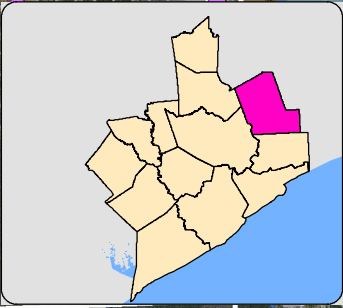
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Liberty: Floodplain



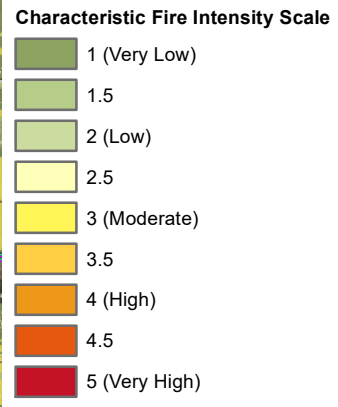
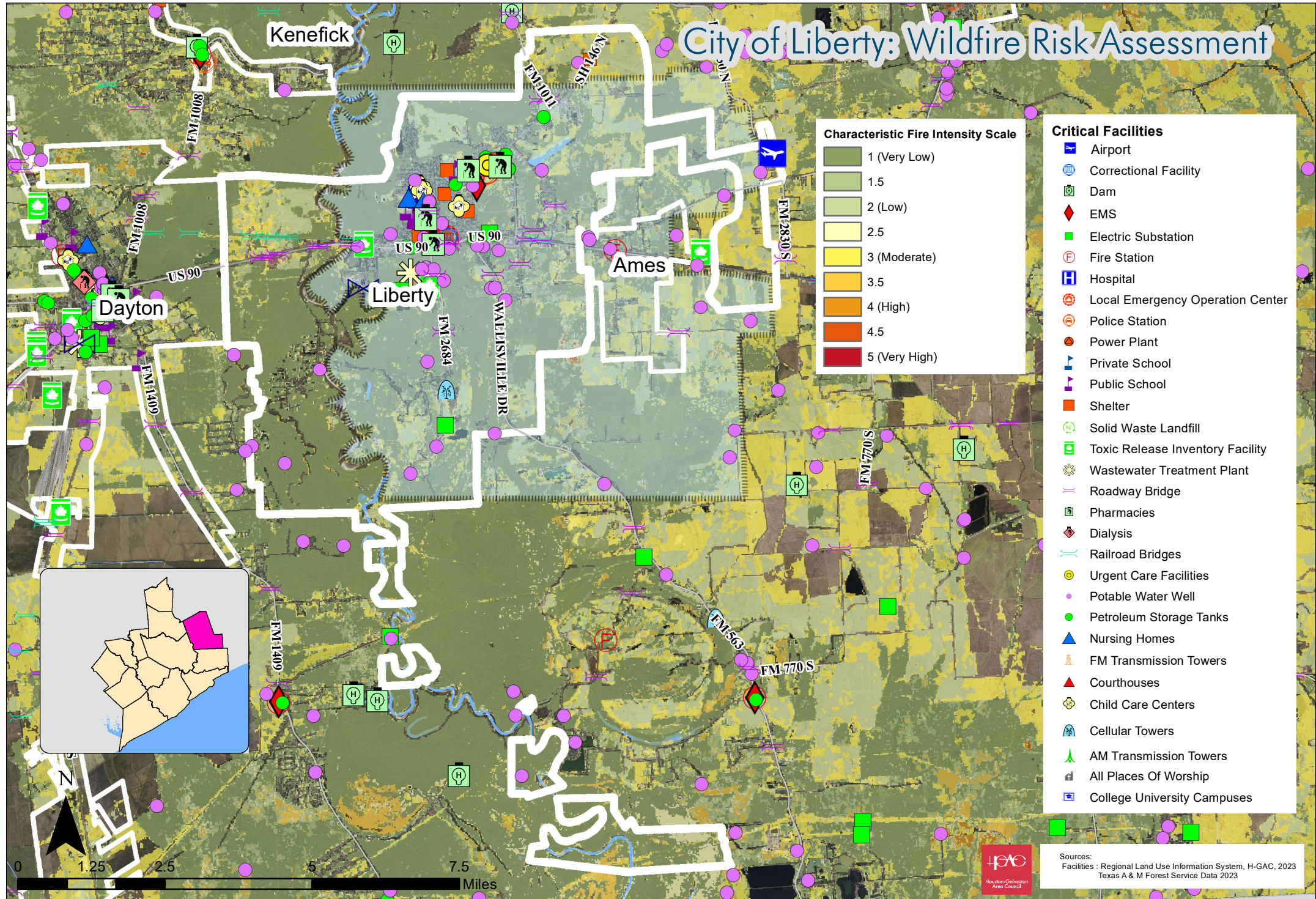
- ### Critical Facilities
- Airport
  - Correctional Facility
  - Dam
  - EMS
  - Electric Substation
  - Fire Station
  - Hospital
  - Local Emergency Operation Center
  - Police Station
  - Power Plant
  - Private School
  - Public School
  - Shelter
  - Solid Waste Landfill
  - Toxic Release Inventory 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

- ### FLOODPLAIN ZONE
- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
  - 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
  - FLOODWAY
  - AREA OF MINIMAL FLOOD HAZARD



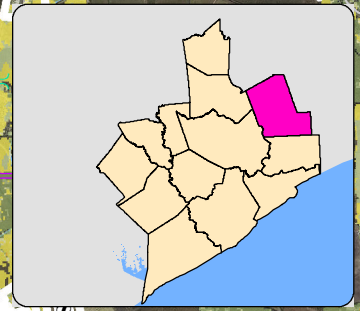
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data

# City of Liberty: Wildfire Risk Assessment

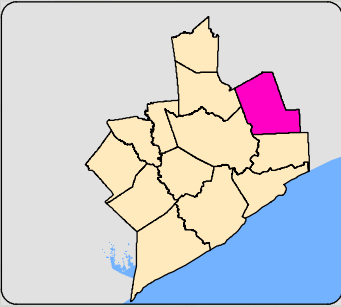


- ### Critical Facilities
- Airport
  - Correctional Facility
  - Dam
  - EMS
  - Electric Substation
  - Fire Station
  - Hospital
  - Local Emergency Operation Center
  - Police Station
  - Power Plant
  - Private School
  - Public School
  - Shelter
  - Solid Waste Landfill
  - Toxic Release Inventory Facility
  - Wastewater Treatment Plant
  - Roadway Bridge
  - Pharmacies
  - Dialysis
  - Railroad Bridges
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  - Potable Water Well
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  - Nursing Homes
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  - Child Care Centers
  - Cellular Towers
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Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023

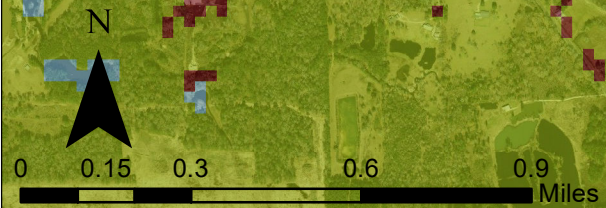
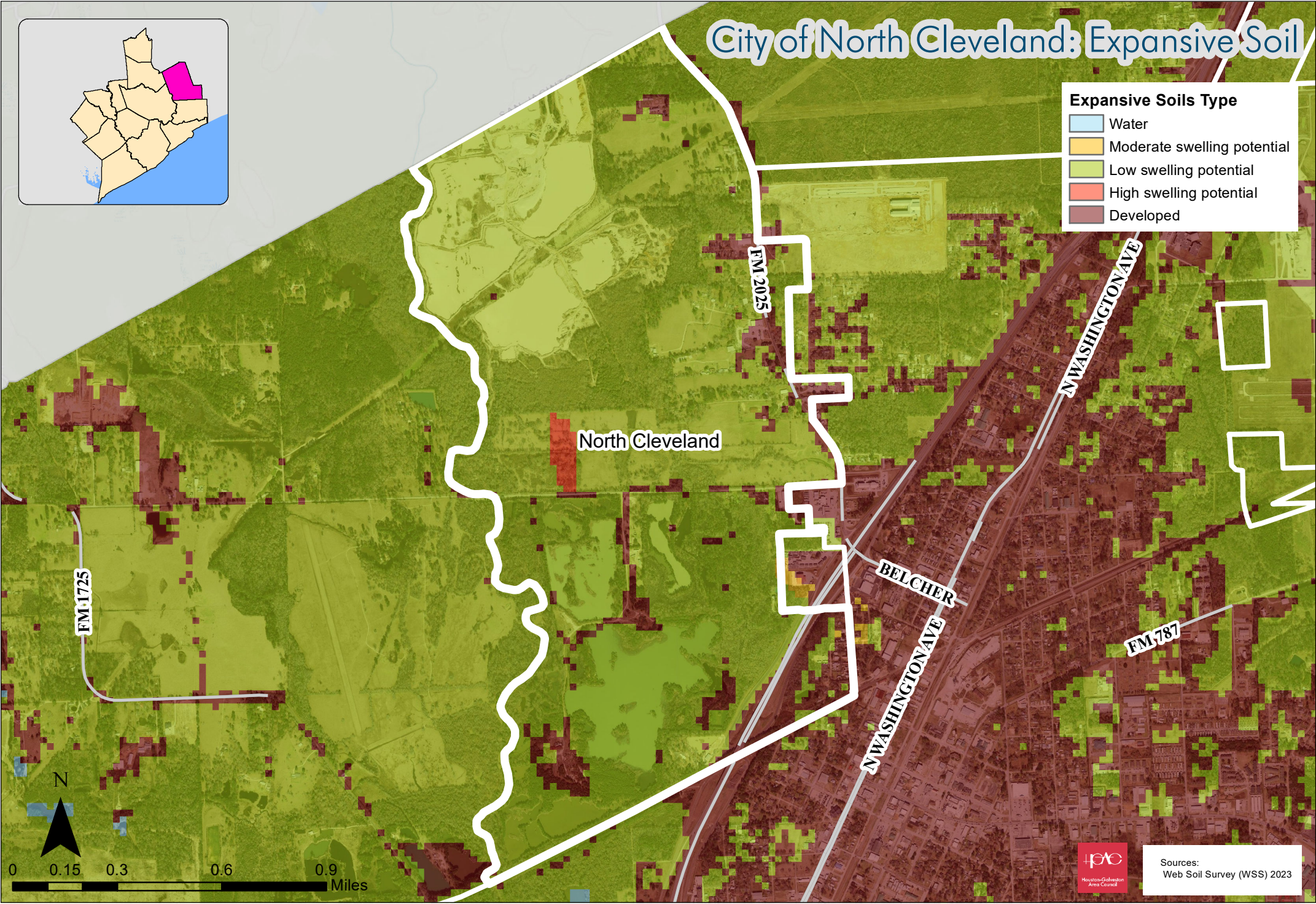


# City of North Cleveland: Expansive Soil



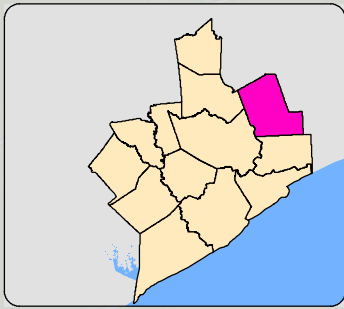
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of North Cleveland: Floodplain

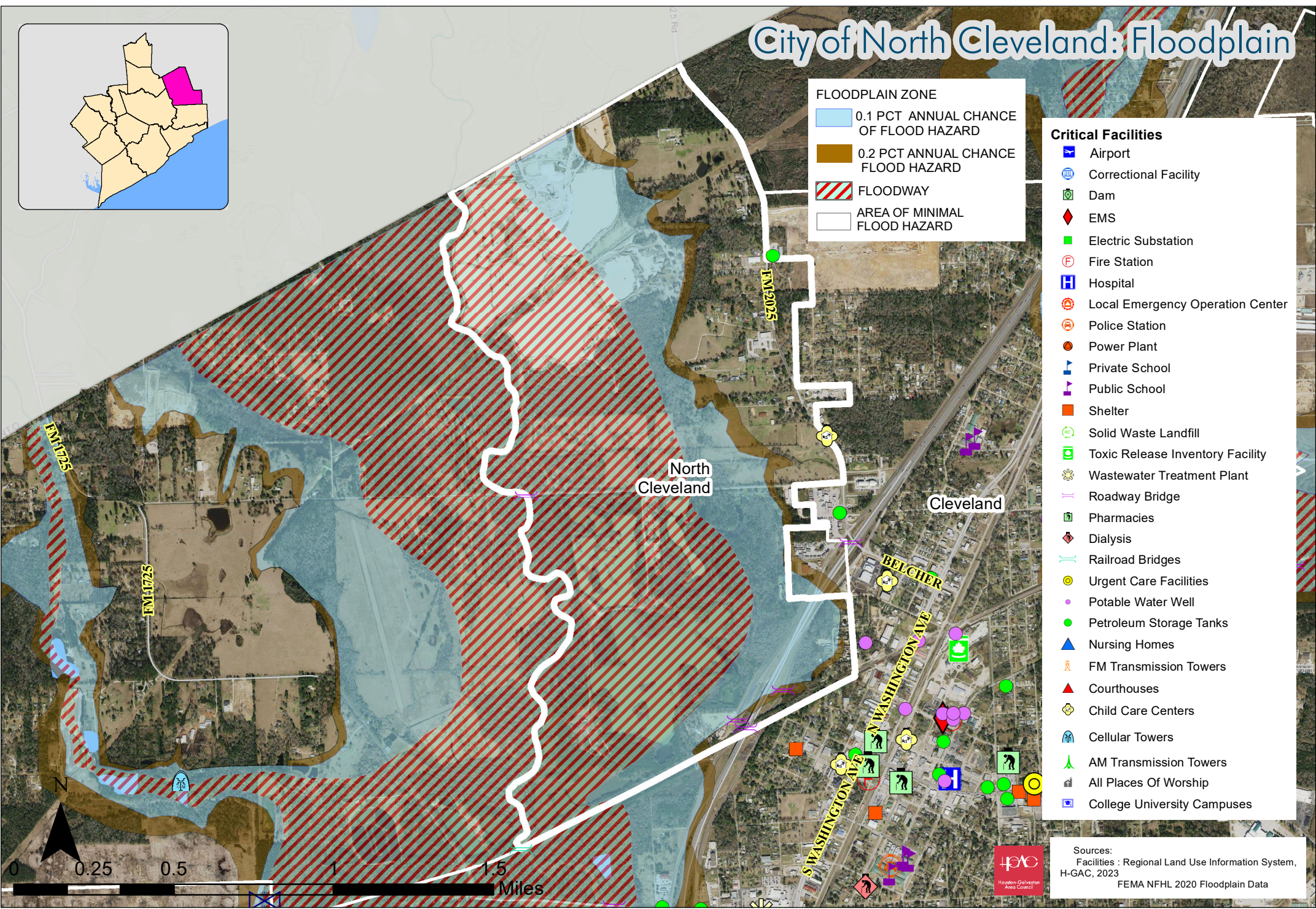


**FLOODPLAIN ZONE**

- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD

**Critical Facilities**

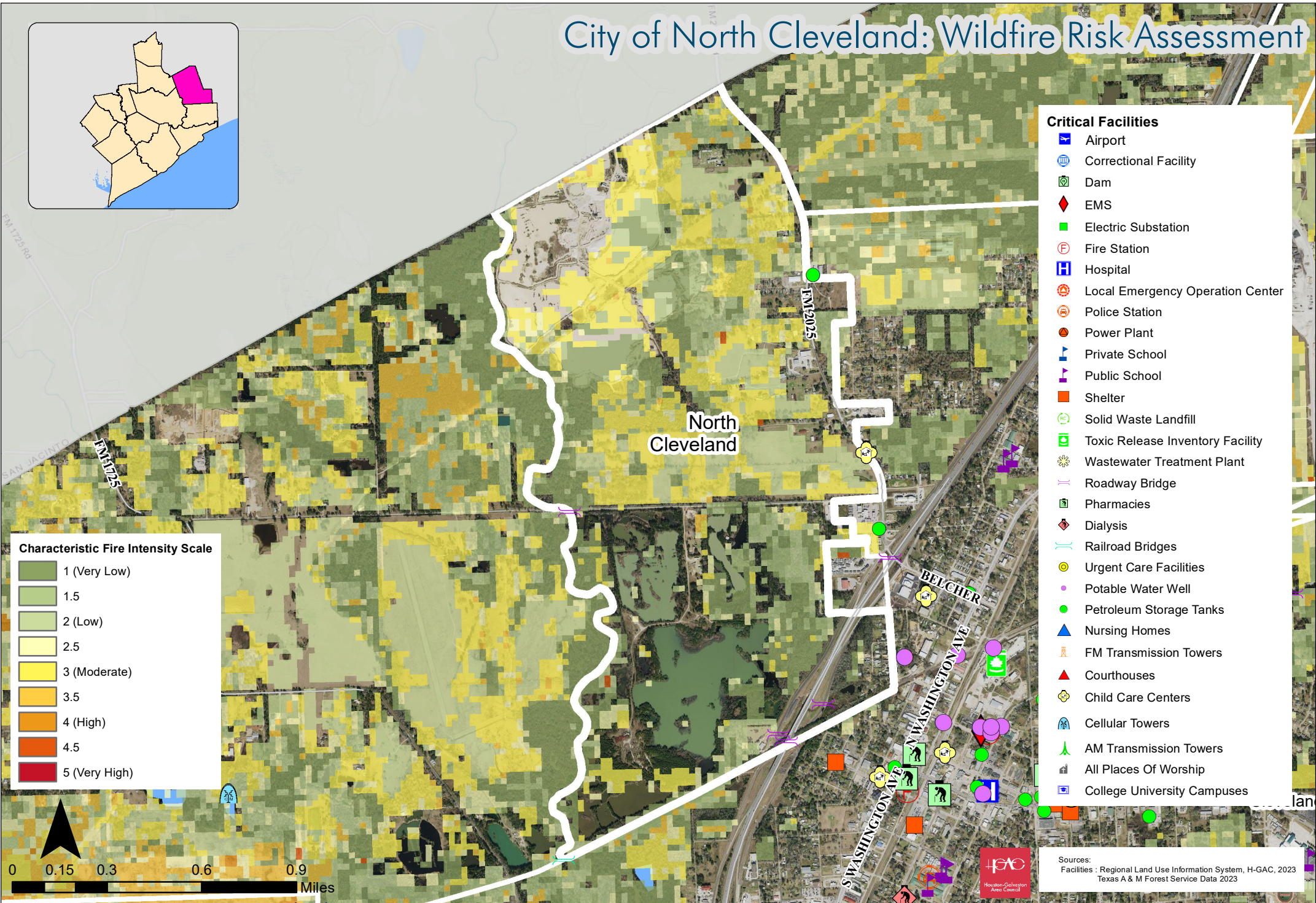
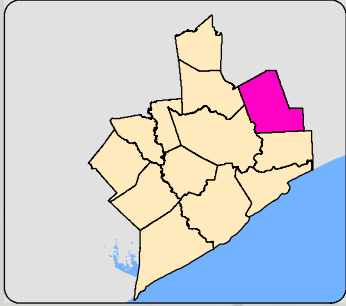
- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
- Local Emergency Operation Center
- Police Station
- Power Plant
- Private School
- Public School
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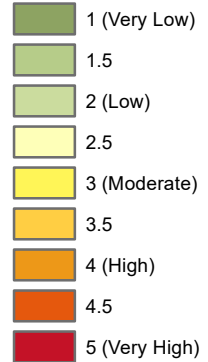
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data



# City of North Cleveland: Wildfire Risk Assessment



## Characteristic Fire Intensity Scale



## Critical Facilities

- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
- Local Emergency Operation Center
- Police Station
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- Private School
- Public School
- Shelter
- Solid Waste Landfill
- Toxic Release Inventory Facility
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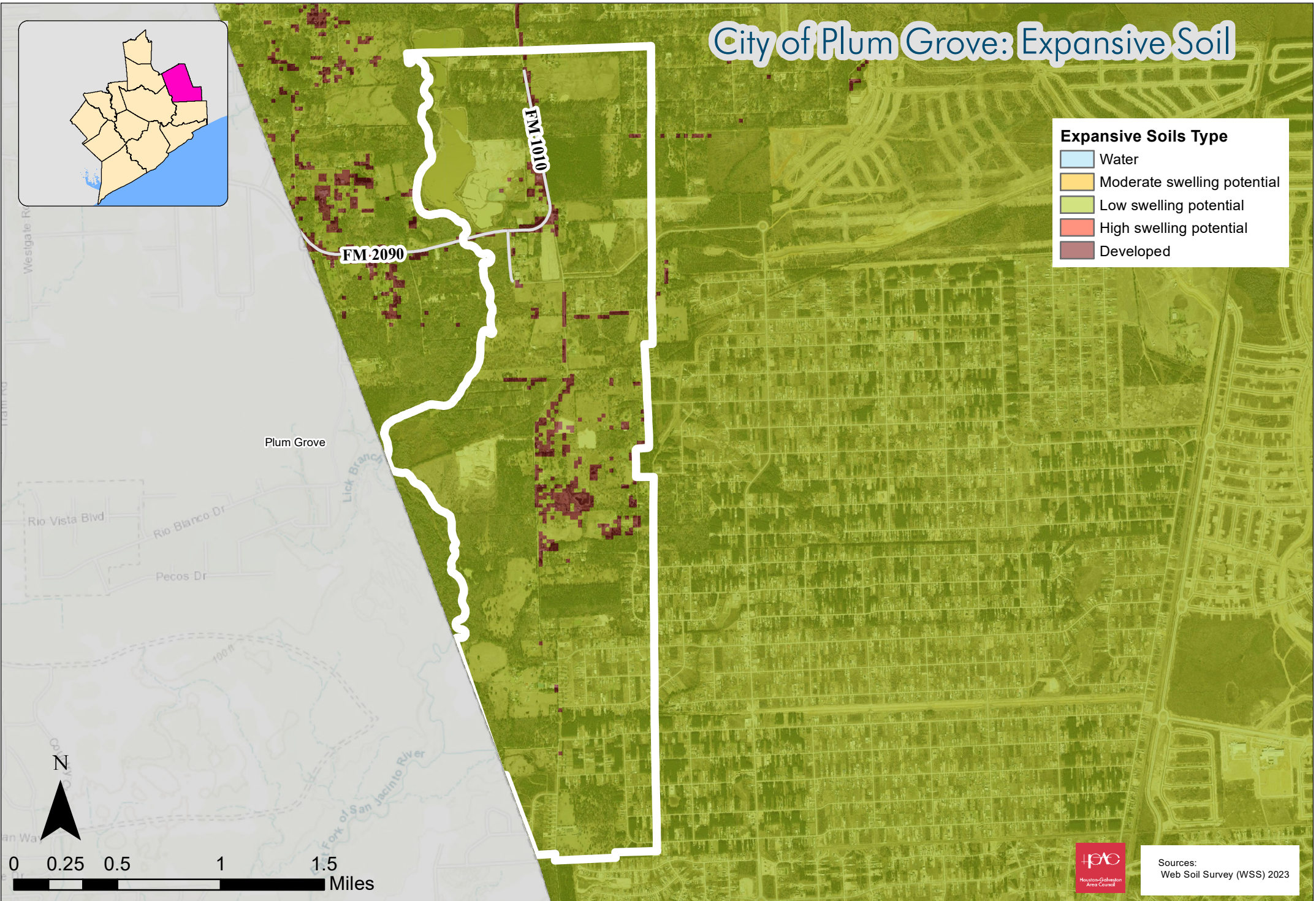
Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023



# City of Plum Grove: Expansive Soil

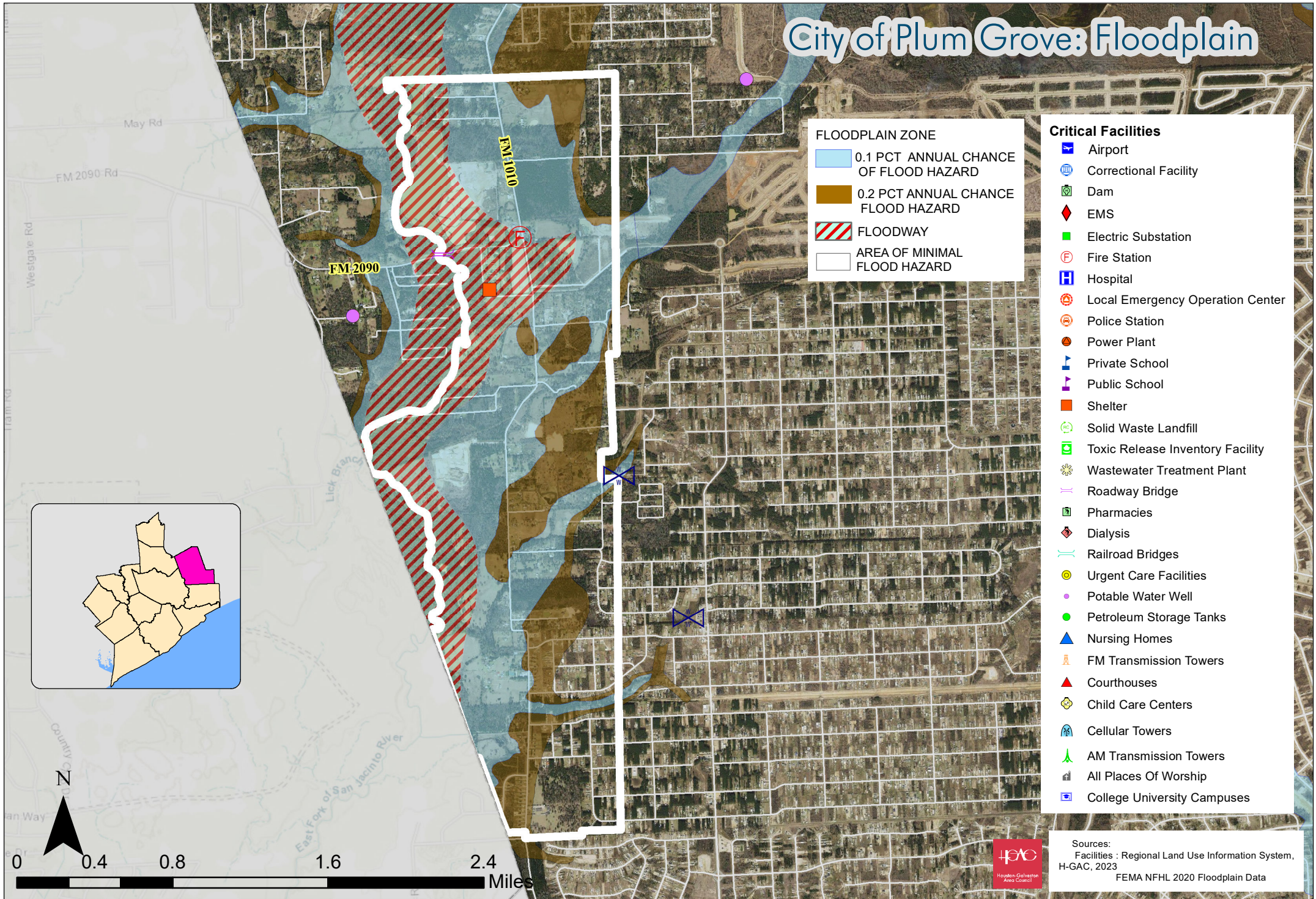
**Expansive Soils Type**

- Water
- Moderate swelling potential
- Low swelling potential
- High swelling potential
- Developed



Sources:  
Web Soil Survey (WSS) 2023

# City of Plum Grove: Floodplain



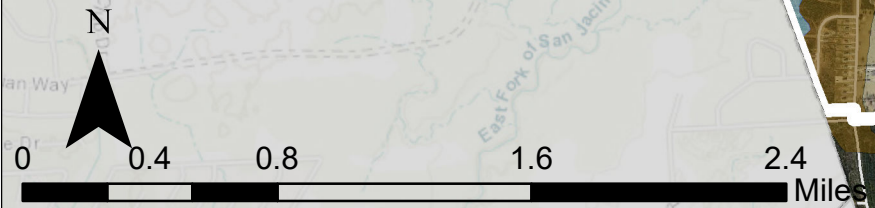
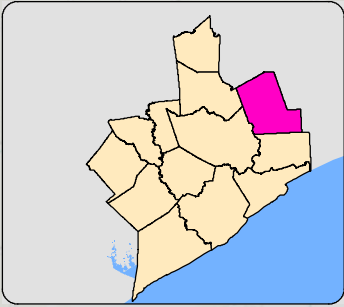
**FLOODPLAIN ZONE**

- 0.1 PCT ANNUAL CHANCE OF FLOOD HAZARD
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- FLOODWAY
- AREA OF MINIMAL FLOOD HAZARD

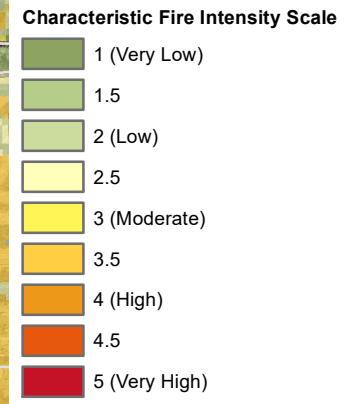
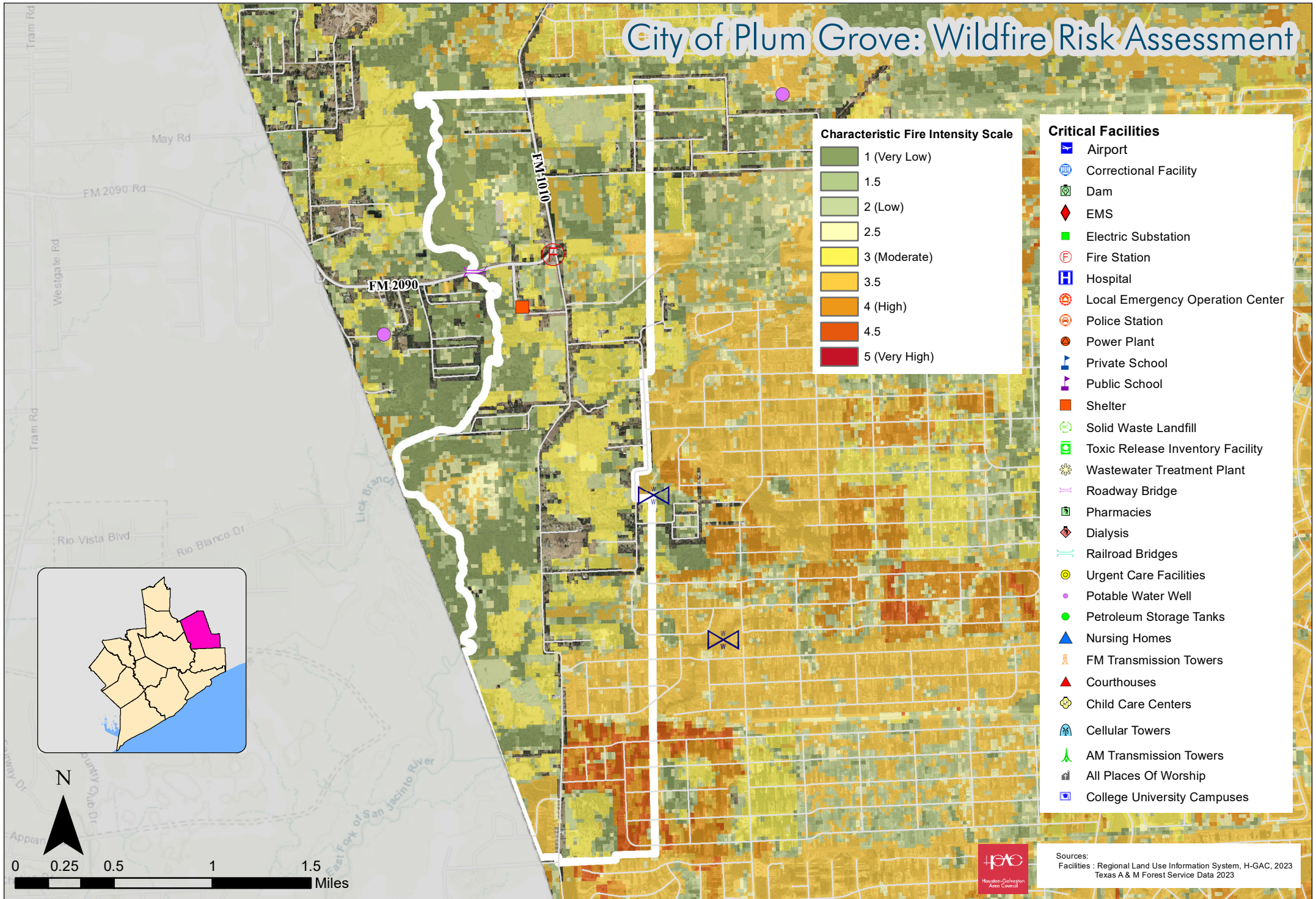
**Critical Facilities**

- Airport
- Correctional Facility
- Dam
- EMS
- Electric Substation
- Fire Station
- Hospital
- Local Emergency Operation Center
- Police Station
- Power Plant
- Private School
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- Cellular Towers
- AM Transmission Towers
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- College University Campuses

Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 FEMA NFHL 2020 Floodplain Data



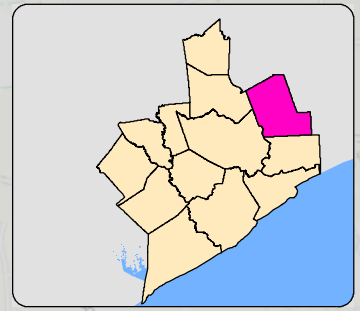
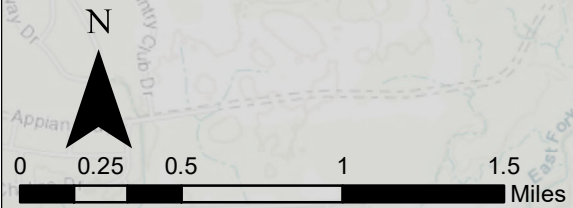
# City of Plum Grove: Wildfire Risk Assessment



- Critical Facilities**
- Airport
  - Correctional Facility
  - Dam
  - EMS
  - Electric Substation
  - Fire Station
  - Hospital
  - Local Emergency Operation Center
  - Police Station
  - Power Plant
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  - Cellular Towers
  - AM Transmission Towers
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Sources:  
 Facilities : Regional Land Use Information System, H-GAC, 2023  
 Texas A & M Forest Service Data 2023



# Appendix C

## CRITICAL FACILITIES

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Airport	Liberty Municipal	2265 Farm to Market 160 N, Liberty, TX 77575	Liberty	77575	30.0764	-94.6978
Airport	Cleveland Municipal Airport	17699 FM Rd 787 E, Cleveland, TX 77327	Cleveland	77327	30.35528	-95.0072
AM Tower	KTRH	--	--	--	29.9658	-94.9422
Cell Tower	GTE MOBILNET OF SOUTH TEXAS LIMITED PARTNERSHIP	(Cleveland) 1275 FM 1725	North Cleveland	--	30.342944	-95.1255
Cell Tower	VERIZON WIRELESS	(Devers site) 2978 Highway 61	Devers	--	29.971611	-94.597139
Cell Tower	GTE MOBILNET OF SOUTH TEXAS LIMITED PARTNERSHIP	(Moss Hill site) 11499 Hwy 146N	Liberty	--	30.168556	-94.741583
Cell Tower	VERIZON WIRELESS	(Plumgrove) RT. 321 WNW OF INTER OF RT.321 & 163	CLEVELAND	--	30.312167	-94.990472
Cell Tower	AT&T Mobility LLC	201 NORTH GATE STREET (56021)	DEVERS	--	30.030833	-94.591944
Cell Tower	AT&T Mobility LLC	32895 HIGHWAY 145 NORTH (56401)	Rye	--	30.472111	-94.774944
Cell Tower	AT&T Mobility LLC	6257 FARM MARKET 563 (56410)	AMES	--	29.963194	-94.718667
Cell Tower	AT&T Mobility LLC	960 COUNTY ROAD 2172 (83885)	Cleveland	--	30.414611	-94.909139
Cell Tower	VERIZON WIRELESS	FM 2854 1331 MONTGOMERY	CLEVELAND	--	30.343	-95.1255
Cell Tower	AT&T Mobility LLC	HIGHWAY 146 (56336)	MOSS HILL	--	30.320083	-94.749639
Cell Tower	VERIZON WIRELESS	HWY 90 & FM 2684	LIBERTY	--	30.021889	-94.792694
Childcare Facility	CALVARYS EARLY LEARNING CENTER	816 N BLAIR AVE	CLEVELAND	--	--	--
Childcare Facility	GINGERBREAD EARLY LEARNING CENTER	212 W HANSON ST	CLEVELAND	--	--	--
Childcare Facility	GREAT BEGINNINGS PRESCHOOL	1603 N TRAVIS ST	LIBERTY	--	--	--
Childcare Facility	KIDS ETC	12458 HWY 146 N	HARDIN	--	--	--
Childcare Facility	KREATIVE KIDS LEARNING CENTER	200 SEACAMP ST	DAYTON	--	--	--
Childcare Facility	LIBERTY CHURCH EARLY LEARNING CENTER	200 FM 2025 RD	CLEVELAND	--	--	--
Childcare Facility	LITTLE BIG KIDS CHILD CARE CENTER	1502 N TRAVIS ST	LIBERTY	--	--	--
Childcare Facility	MET EARLY HEAD START	301 SLEEPY HOLLOW DR, STE A	CLEVELAND	--	--	--

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Childcare Facility	MET HARDIN EARLY HEAD START	12195 B HIGHWAY 146 N	LIBERTY	--	--	--
Childcare Facility	MET HEAD START	1502 E HOUSTON ST	CLEVELAND	--	--	--
Childcare Facility	MET HEAD START OF LIBERTY COUNTY NUMBER 2	1022 TEXAS ST	LIBERTY	--	--	--
Childcare Facility	NENAS CHILD CARE	1001 N CLEVELAND ST	DAYTON	--	--	--
Childcare Facility	REPAIR THE BREACH EARLY LEARNING CENTER PRIMARY	103 E CROCKETT ST	CLEVELAND	--	--	--
Childcare Facility	SMT CHILDCARE II, LLC, DBA, HEARTS AND MINDS ELC DAYTON	106 S CLEVELAND ST	DAYTON	--	--	--
Childcare Facility	TARKINGTON LEARNING CENTER	2520 FM 163 RD	CLEVELAND	--	--	--
Childcare Facility	THE KIDZ CORNER	1904 N CLEVELAND ST	DAYTON	--	--	--
Courthouse	Liberty County Courthouse	1923 Sam Houston Street	Liberty	77575		
Correctional Facility	HENLEY STATE JAIL	7581 HWY 321	Dayton	77535	30.105283	-94.929684
Correctional Facility	L.V. HIGHTOWER UNIT	902 FM 686	Dayton	77535	30.104521	-94.933495
Correctional Facility	PLANE STATE JAIL	904 FM 686	Dayton	77535	30.109058	-94.932234
Correctional Facility	LIBERTY COUNTY JAIL	2400 BEAUMONT AVE	Liberty	77575	30.058642	-94.790655
Correctional Facility	CLEVELAND CORRECTIONAL CENTER	901 E 5TH ST	Cleveland	77327	30.365	-95.072807
Dam	Lovell Reservoir No 2 Levee	--	Daisetta	77564	30.159135	-94.702325
Dam	Enderli Reservoir Dam	--		77535	29.99448	-95.011901
Dam	Talley Lake Dam	--		77535	29.946641	-94.822102
Dam	Winter Valley Estates Dam	--	Kenefick	77535	30.123912	-94.879445
Dam	W Scott Frost Reservoir No 3 Levee	--		77535	29.992042	-94.999651
Dam	Alders Reservoir Dam	--		77535	29.925808	-94.793055
Dam	Jm Frost Iii Reservoir No 3 Levee	--		77535	29.894327	-94.948997
Dam	Dayton Canal Dam	--	Moss bluff	77535	29.96321	-94.882331
Dam	Ap Parker Dam	--	Kenefick	77535	30.107681	-94.859983
Dam	Knights Forest Lake Dam	--	Liberty	77575	30.214015	-94.784735

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Dam	Daniel Lake Dam	--	Liberty	77575	30.113596	-94.770181
Dam	Lovell Reservoir No 1 Levee	--	Daisetta	77575	30.146677	-94.692617
Dam	Lake Forest Dam	--	Liberty	77575	30.22167	-94.74667
Dam	Rusk No 1 Dam	--		77575	29.994375	-94.694452
Dam	George W Maxwell Levee	--	Anahuac	77582	30.001667	-94.646667
Dam	Pin Oak Reservoir Levee	--		77327	30.146667	-95.008332
Dam	Silver Bit Lake Dam	--		77327	30.289413	-94.911928
Dam	Cypress Lake Dam	--		77327	30.294817	-94.80342
Dam	One At Lake Dam	--	Romayor	77327	30.458372	-94.856552
Dam	6 Lakes Estates Lake No 5 Dam	--	Romayor	77327	30.49113	-94.818331
Dam	6 Lakes Estates Lake No 3 Dam	--	Romayor	77327	30.49182	-94.826777
Dam	Hoop and Holler Lake No 1 Dam	--		77369	30.457145	-94.732452
Dam	Timber Lake Dam	--		77535	29.944986	-94.815442
Dam	Jm Frost Reservoir No 2 Levee	--	Mont belvieu	77535	29.986697	-94.994792
Dam	Lake Bayou Reservoir Dam	--	Liberty	77575	30.106968	-94.804047
					<b>NOTES:</b>	
Dialysis Center	Davita Huntsville Dialysis	521 Ih 45 S	Cleveland	77327	Number of Dialysis Stations: 22	
Dialysis Center	Liberty Dialysis Huntsville	540 I-45 South	Dayton	77535	Number of Dialysis Stations: 12	
Elder Care	MAGNOLIA PLACE HEALTH CARE LLP	1620 MAGNOLIA	LIBERTY	77575	30.068628	-94.801446
Elder Care	CLEVELAND HEALTH CARE CENTER	903 E HOUSTON ST	CLEVELAND	77327	30.342	-95.078912
Elder Care	FAIRYS LANDING RESIDENTIAL PERSONAL CARE CENTER	4837 FM 770 N	HULL	77564	30.189394	-94.630445
Elder Care	DAYTON NURSING AND REHABILITATION	310 E. LAWRENCE ST	DAYTON	77535	30.060147	-94.892992
Elder Care	LIBERTY HEALTHCARE CENTER	1206 N TRAVIS ST	LIBERTY	77575	30.067798	-94.79719
Elder Care	BRIGHTER DAYS ASSISTED LIVING LLC	406 E. CLAYTON	DAYTON	77535	30.049823	-94.88635
Elder Care	COUNTRY MANOR ASSISTED LIVING	265 COUNTY ROAD 613	DAYTON	77535	30.041617	-95.030173

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Electric Substation	TAP303512	--	Hull	77564	30.161118	-94.643278
Electric Substation	TAP303667	--	Hull	77564	30.143441	-94.643086
Electric Substation	UNKNOWN304918	--	Hull	77564	30.142646	-94.635326
Electric Substation	UNKNOWN303357	--	Eastgate	77535	30.050571	-95.012917
Electric Substation	UNKNOWN304474	--	Dayton	77535	29.960807	-94.811124
Electric Substation	UNKNOWN304739	--	Plum grove	77535	30.23907	-94.971208
Electric Substation	UNKNOWN306231	--	Dayton	77535	30.104103	-94.99551
Electric Substation	UNKNOWN300673	--	Dayton	77535	30.035476	-94.890542
Electric Substation	DAYTON BULK	--	Dayton	77535	30.037093	-94.892751
Electric Substation	UNKNOWN305930	--	Dayton	77535	30.120035	-94.925365
Electric Substation	TAP310938	--	Hankamer	77575	29.910974	-94.679225
Electric Substation	UNKNOWN301740	--	Ames	77575	29.978076	-94.738394
Electric Substation	UNKNOWN303265	--	Hankamer	77575	29.907775	-94.679689
Electric Substation	UNKNOWN303937	--	Liberty	77575	30.171023	-94.719038
Electric Substation	TAP305134	--	Devers	77575	29.963781	-94.669799
Electric Substation	UNKNOWN301713	--	Liberty	77575	30.012406	-94.793352
Electric Substation	UNKNOWN302403	--	Liberty	77575	30.046073	-94.804596
Electric Substation	UNKNOWN306059	--	Liberty	77575	30.05934	-94.778789
Electric Substation	UNKNOWN304699	--	Nome	77538	30.01025	-94.48542
Electric Substation	UNKNOWN305395	--	Devers	77538	29.907718	-94.624157
Electric Substation	UNKNOWN305695	--	Devers	77538	29.905297	-94.586447
Electric Substation	UNKNOWN306323	--	Devers	77538	29.972788	-94.580088
Electric Substation	UNKNOWN306987	--	Devers	77538	30.013745	-94.567852
Electric Substation	UNKNOWN303022	--	Ames	77582	30.027438	-94.67283
Electric Substation	JACINTO	--	Cleveland	77327	30.370428	-95.063865
Electric Substation	UNKNOWN305588	--	Cleveland	77327	30.413163	-94.926873
Electric Substation	CLEVELAND	--	Cleveland	77327	30.329257	-95.086204
Electric Substation	UNKNOWN301286	--	Romayor	77369	30.452468	-94.76564
Electric Substation	UNKNOWN301761	--	Hull	77533	30.121398	-94.632951
Electric Substation	UNKNOWN303798	--	Daisetta	77533	30.105902	-94.645187

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
EMS	WESTLAKE COMMUNITY VOLUNTEER FIRE DEPARTMENT	8704 FARM TO MARKET 1409	Dayton	77535	29.945687	-94.843317
EMS	HIGHWAY 321 VOLUNTEER FIRE DEPARTMENT	9491 STATE HIGHWAY 321	Dayton	77535	30.1366	-94.928496
EMS	LIBERTY COUNTY EMERGENCY MEDICAL SERVICES	211 SEACAMP STREET	Dayton	77535	30.048534	-94.887997
EMS	KENEFICK VOLUNTEER FIRE AND RESCUE	3709 FARM TO MARKET 1008	Dayton	77535	30.106016	-94.859156
EMS	MOSS BLUFF VOLUNTEER FIRE DEPARTMENT STATION 1	49 COUNTY ROAD 133 SOUTH	Moss bluff	77575	29.942403	-94.708529
EMS	HARDIN VOLUNTEER FIRE DEPARTMENT	10741 STATE HIGHWAY 146 NORTH	Hardin	77575	30.15206	-94.739426
EMS	LIBERTY CITY VOLUNTEER FIRE DEPARTMENT	1912 LAKELAND DRIVE	Liberty	77575	30.071163	-94.782004
EMS	DEVERS VOLUNTEER FIRE DEPARTMENT	104 SOUTH GATES ROAD	Devers	77538	30.027108	-94.592113
EMS	CITY OF CLEVELAND EMERGENCY MEDICAL SERVICES	203 EAST BOOTHE STREET	Cleveland	77327	30.344537	-95.085553
EMS	WOODPECKER VOLUNTEER FIRE DEPARTMENT	300 MARGO	Rye	77369	30.466605	-94.739911
EMS	LIBERTY COUNTY EMERGENCY MEDICAL SERVICES INCORPORATED	114 NORTH MAIN STREET	Daisetta	77533	30.118085	-94.645761
EMS	HULL - DAISSETTA VOLUNTEER FIRE DEPARTMENT	110 NORTH MAIN STREET	Daisetta	77533	30.119555	-94.64619
Fire Station	Highway 321 Volunteer Fire Department	9491 State Highway 321	Dayton	77535	30.136606	-94.928503
Fire Station	Westlake Community Volunteer Fire Department	8704 Farm to Market Road 1409	Dayton	77535	29.945575	-94.843395
Fire Station	Dayton Fire Department	1001 Bill Moreau Drive	Dayton	77535	30.05758	-94.90016
Fire Station	Kenefick Volunteer Fire and Rescue	3709 Farm to Market Road 1008	Dayton	77535	30.106021	-94.859163
Fire Station	Moss Bluff Volunteer Fire Department Station 1	49 County Road 133 South	Moss bluff	77575	29.942404	-94.708538
Fire Station	Moss Bluff Volunteer Fire Department Station 2	Moss Bluff Road	Moss bluff	77575	29.95801	-94.750036

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Fire Station	Ames Community Volunteer Fire Department	Farm to Market Road 160	Ames	77575	30.054024	-94.743347
Fire Station	Hardin Volunteer Fire Department	10741 State Highway 146 North	Hardin	77575	30.15205	-94.739477
Fire Station	Liberty City Volunteer Fire Department	1912 Lakeland Drive	Liberty	77575	30.074443	-94.77876
Fire Station	Devers Volunteer Fire Department	104 South Gates Road	Devers	77538	30.027126	-94.59214
Fire Station	Raywood Volunteer Fire Department	139 County Road 120	Raywood	77582	30.039986	-94.67141
Fire Station	North Liberty County Fire Department	Farm to Market Road 787 West and Farm to Market Road 2610	Cleveland	77327	30.450034	-94.839019
Fire Station	Tarkington Volunteer Fire Department	22353 State Highway 321	Cleveland	77327	30.311985	-94.989861
Fire Station	Cleveland Volunteer Fire Department Station 2	105 West Hanson Street	Cleveland	77327	30.3419	-95.089532
Fire Station	Cleveland Volunteer Fire Department Station 1	205 East Boothe Street	Cleveland	77327	30.344444	-95.085148
Fire Station	Plum Grove Volunteer Fire Department	7830 Plum Grove Road	Cleveland	77327	30.215467	-95.095166
Fire Station	Woodpecker Volunteer Fire Department	County Road 2668	Rye	77369	30.466622	-94.74
Fire Station	Big Thicket Lake Estates Volunteer Fire Department	State Highway 146	Rye	77369	30.483467	-94.780091
Fire Station	Hull - Daisetta Volunteer Fire Department	110 North Main Street	Daisetta	77533	30.119561	-94.646197
Facility Type	Call Sign	Frequency	City		Latitude	Longitude
FM Tower	KORG-LP	105.3 MHz	Cleveland		30.3586	-95.0833
FM Tower	KGBV	90.7 MHz	Hardin		30.1564	-94.7387
FM Tower	KSBJ	89.3 Mhz	Humble		30.2072	-95.0911
FM Tower	KSHN	99.9 MHz	Liberty		30.0514	-94.5269
FM Tower	KTJM	98.5 MHz	Port Arthur		30.0169	-94.5464
FM Tower	KHJK	103.7 MHz	La Porte		29.9358	-94.5108
Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Hospital	LIBERTY DAYTON REGIONAL MEDICAL CENTER	1353 NORTH TRAVIS	Liberty	77575	30.068818	-94.798484
Hospital	CLEVELAND EMERGENCY HOSPITAL	1017 S TRAVIS	Cleveland	77327	30.328353	-95.093749
Hospital	TEXAS RURAL HOSPITALS	300 EAST CROCKETT	Cleveland	77327	30.341777	-95.0853

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Local Emergency Operation Center	DAYTON EMERGENCY OPERATIONS CENTER	111 NORTH CHURCH STREET	Dayton	77535	30.046655	-94.88731
	LIBERTY COUNTY EMERGENCY OPERATIONS CENTER	2400 BEAUMONT AVENUE	Liberty	77575	30.058785	-94.790782
Pharmacy	BROOKSHIRE BROTHERS - 16	603 EAST HOUSTON STREET	CLEVELAND	77327	30.342421	-95.082214
Pharmacy	WAL-MART SUPERCENTER - 249	831 HIGHWAY 59 SOUTH	CLEVELAND	77327	30.333676	-95.098071
Pharmacy	WALGREENS - 11814	101 SOUTH WASHINGTON AVENUE	CLEVELAND	77327	30.342476	-95.089575
Pharmacy	TRISTAR	112 SOUTH COLLEGE AVENUE	CLEVELAND	77327	30.341671	-95.087867
Pharmacy	CVS - 7279	108 NORTH WASHINGTON AVENUE	CLEVELAND	77327	30.343573	-95.089117
Pharmacy	LIBERTY MEDICINE CHEST	1909 GRAND AVENUE	LIBERTY	77575	30.063411	-94.796896
Pharmacy	RODGERS PHARMACY	201 NORTH WINFREE STREET	DAYTON	77535	30.047448	-94.886556
Pharmacy	BROOKSHIRE BROTHERS - 43	403 EAST HIGHWAY 90	DAYTON	77535	30.046209	-94.884671
Pharmacy	WALGREENS - 7878	209 WEST HIGHWAY 90	DAYTON	77535	30.043595	-94.889304
Pharmacy	BROOKSHIRE BROTHERS - 51	2325 NORTH MAIN STREET	LIBERTY	77575	30.074958	-94.784261
Pharmacy	CVS - 7441	2005 HIGHWAY 90	LIBERTY	77575	30.057019	-94.795056
Pharmacy	WAL-MART SUPERCENTER - 1186	2121 HIGHWAY 146 BYPASS	LIBERTY	77575	30.075645	-94.775258
Police Station	DAYTON POLICE DEPARTMENT	111 NORTH CHURCH ROAD	Dayton	77535	30.046623	-94.887327
Police Station	KENEFICK POLICE DEPARTMENT	3564 FARM TO MARKET 1008	Dayton	77535	30.104194	-94.857765
Police Station	LIBERTY COUNTY SHERIFF OFFICE / LIBERTY COUNTY JAIL	2400 BEAUMONT AVENUE	Liberty	77575	30.058785	-94.790782
Police Station	LIBERTY POLICE DEPARTMENT	1912 LAKELAND DRIVE	Liberty	77575	30.074273	-94.77933
Police Station	CLEVELAND POLICE DEPARTMENT	226 PEACH STREET	Cleveland	77327	30.34661	-95.078013
Police Station	CLEVELAND INDEPENDENT SCHOOL DISTRICT POLICE DEPARTMENT	316 EAST DALLAS STREET	Cleveland	77327	30.337896	-95.088518
Police Station	DAISETTA POLICE DEPARTMENT	101 EAST PINE STREET	Daisetta	77533	30.112964	-94.644964

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Private School	PRESCHOOL WEEKDAY MINISTRIES	202 E HOUSTON ST	Dayton	77535	30.044745	-94.886186
Private School	CLEVELAND CORRECTIONAL FACILITY	901 E 5TH ST	Cleveland	77327	30.365077	-95.073308
Public School	PREMIER H S OF DAYTON	1707 COUNTY RD 611	Dayton	77535	30.040807	-94.993379
Public School	HULL-DAISETTA EL	7243 FM 834E	Hull	77575	30.072336	-94.674093
Public School	HARDIN J H	395 FM 834 E	Hardin	77575	30.156904	-94.73617
Public School	HARDIN EL	11285 HWY 146N	Hardin	77575	30.176912	-94.74277
Public School	HARDIN H S	501 FM 834 E	Hardin	77575	30.15673	-94.734251
Public School	TARKINGTON MIDDLE	2770 FM 163	Cleveland	77327	30.313506	-94.959994
Public School	TARKINGTON H S	2770 FM 163	Cleveland	77327	30.314914	-94.963506
Public School	TARKINGTON PRI	<Null>	Cleveland	77327	30.310975	-94.960212
Public School	TARKINGTON INT	<Null>	Cleveland	77327	30.313532	-94.960175
Public School	HULL-DAISETTA H S	117 N MAIN HWY 770	Daisetta	77533	30.117176	-94.64444
Public School	HULL-DAISETTA J H	117 N MAIN HWY 770	Daisetta	77533	30.11717	-94.644607
Public School	WILSON J H	309 S HWY 146	Dayton	77535	30.038304	-94.891455
Public School	WILSON J H	309 S HWY 146	Dayton	77535	30.038304	-94.891455
Public School	DAYTON H S	3200 N CLEVELAND	Dayton	77535	30.064535	-94.905305
Public School	AUSTIN EL	14796 HWY 105 E	Dayton	77535	30.038195	-94.887277
Public School	RICHTER EL	90 CHERRY CREEK RD	Dayton	77535	30.061571	-94.897053
Public School	FREDDA NOTTINGHAM ALTERNATIVE EDUCATION CENTER	302 S CLEVELAND ST	Dayton	77535	30.041399	-94.888942
Public School	COLBERT EL	231 S COLBERT ST	Dayton	77535	30.046338	-94.880033
Public School	KIMMIE M BROWN EL	151 BROWN RD	Dayton	77535	30.03113	-94.87936
Public School	LIBERTY MIDDLE	2515 JEFFERSON	Liberty	77575	30.066052	-94.801937
Public School	SAN JACINTO EL	17601 FM 1314	Liberty	77575	30.06388	-94.800031
Public School	LIBERTY EL	1002 BOWIE ST	Liberty	77575	30.064793	-94.799786
Public School	LIBERTY H S	1954 RD 5714	Liberty	77575	30.074945	-94.787712
Public School	DEVERS AEP	201 S CHISM	Devers	77538	30.026689	-94.591057
Public School	DEVERS EL	201 S CHISM	Devers	77538	30.026668	-94.590912

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Public School	DEVERS JH	201 S CHISM	Devers	77538	30.026714	-94.591111
Public School	DISCIPLINARY ALTERNATIVE EDUCATION PROGRAM	900 SAMUEL WILEY DR	Cleveland	77327	30.356921	-95.083789
Public School	COTTONWOOD EL	1922 RD 3549	Cleveland	77327	30.338127	-95.087581
Public School	CLEVELAND H S	1600 E HOUSTON ST	Cleveland	77327	30.338113	-95.068381
Public School	EASTSIDE EL	1602 SHELL ST	Cleveland	77327	30.327761	-95.072693
Public School	FREDERICK A DOUGLASS LEARNING ACADEMY	900 SAMUEL WILEY DR	Cleveland	77327	30.353787	-95.079637
Public School	CLEVELAND MIDDLE	2000 E HOUSTON ST	Cleveland	77327	30.335721	-95.065472
Public School	NORTHSIDE EL	1001 RIDGECREST DR	Cleveland	77327	30.357158	-95.083338
Public School	SOUTHSIDE EL	5515 S LOOP E STE B	Cleveland	77327	30.337552	-95.088571
Public School	NEW MIDDLE	10611 MASON RD	Cleveland	77327	30.338184	-95.087773
Public School	NEW EL #106	<Null>	Cleveland	77327	30.338318	-95.087822
Public School	NEW EL #107	<Null>	Cleveland	77327	30.338131	-95.087547
Shelter	Old River Baptist	12948 FM 1409	Dayton	77535	29.888979	-94.814116
Shelter	FIRST BAPTIST CHURCH ROMAYOR	PO Box 233	Romayor	77535	30.15483	-94.817493
Shelter	Eagle Heights Fellowship - Mont Belvieu	14120 Hwy 146	Mont belvieu	77535	29.886709	-94.892844
Shelter	Kenefick Community Center	224 FM 2797	Dayton	77535	30.04461	-94.88503
Shelter	First Baptist Church	202 East Houston St	Dayton	77535	30.044553	-94.886125
Shelter	First United Methodist Church - Dayton	106 S Cleveland St	Dayton	77535	30.043047	-94.889804
Shelter	New Life Church	3056 FM 1008	Dayton	77535	30.119674	-94.870123
Shelter	Light House of Moss Hill	17283 Hwy 146 N	Liberty	77575	30.248265	-94.743043
Shelter	VFW POST 5621	1520 NORTH MAIN STREET	Liberty	77575	30.069329	-94.791174
Shelter	KNIGHTS OF COLUMBUS	1404 LAKELAND DRIVE	Liberty	77575	30.06495	-94.784753
Shelter	North Main Baptist Church	4709 NORTH MAIN	Liberty	77575	30.101181	-94.748583
Shelter	Liberty Church of Christ	3201 North Main, Liberty, TX	Liberty	77575	30.077519	-94.777221
Shelter	First Baptist Church	602 Main Street	Liberty	77575	30.061207	-94.795599
Shelter	First United Methodist Church	539 Main St	Liberty	77575	30.060538	-94.796454
Shelter	Immaculate Catholic Church	411 Milam St	Liberty	77575	30.059268	-94.798941
Shelter	First Baptist Church	602 Main St, Liberty	Liberty	77575	30.059268	-94.798941

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Shelter	First United Methodist Church - Liberty	539 North Main Street	Liberty	77575	30.060538	-94.796454
Shelter	Liberty Middle School	2515 Jefferson Dr	Liberty	77575	30.075242	-94.790223
Shelter	Jack Hartel Building (aka Liberty County shelter)	318 San Jacinto St	Liberty	77575	30.0584	-94.792535
Shelter	Richard A. Anderson VFW Post 8953	1511 FM 2610	Cleveland	77327	30.470934	-94.842466
Shelter	Hi-Way Tabernacle Assembly of God	108 County Road 2250	Cleveland	77327	30.312557	-94.98837
Shelter	St Mary Catholic Church	702 E Houston	Cleveland	77327	30.341077	-95.081691
Shelter	FIRST BAPTIST CHURCH - Cleveland	400 WEST HANSON STREET	Cleveland	77327	30.343344	-95.093284
Shelter	Warming Center - Cleveland Civic Center	210 Peach Ave	Cleveland	77327	30.344182	-95.078416
Shelter	Cornerstone Church-Cleveland	27453 Highway 105W	Cleveland	77327	30.334129	-95.124651
Shelter	St. Mary's Catholic Church	702 E Houston St	Cleveland	77327	30.340707	-95.080933
Shelter	Sanctuary Church of Cleveland	100 E Hanson St	Cleveland	77327	30.340333	-95.089235
Shelter	First Baptist Church Plum Grove	155 County Rd 345	Plum grove	77327	30.211659	-95.097933
Shelter	Hull Daisetta High School Gym	117 N Main	Daisetta	77533	30.117173	-94.644691
Toxic Release Inventory Facility	OLDCASTLE LAWN & GARDEN	2685 HWY 59 S	Cleveland	77328	30.29163	-95.1207
Toxic Release Inventory Facility	HULL TERMINAL	EAST OF HIGHWAY 834 END OF MOBIL ROAD	Hull	77564	30.139444	-94.624444
Toxic Release Inventory Facility	DAISETTA UNDERGROUND STORAGE FACILITY	E. OF HWY. 834 END OF BOBCAT LN.	Daisetta	77564	30.139444	-94.624444
Toxic Release Inventory Facility	INSTEEL WIRE PRODS.	500 KEMP RD.	Dayton	77535	30.0358	-94.90832
Toxic Release Inventory Facility	KLEMP	KLEMP RD & H-90 DAYTON IND PARK	Dayton	77535	30.033889	-94.908333
Toxic Release Inventory Facility	CHAMPION TECHNOLOGIES	HIGHWAY 321 1.5 MILE NORTH	Dayton	77535	30.07	-94.906667
Toxic Release Inventory Facility	CAMPBELL RMC DAYTON	310 WACO ST	Dayton	77535	30.041086	-94.898152
Toxic Release Inventory Facility	CENTRAL INTL CORP	FARM MARKET ROAD 1011	Liberty	77575	30.120428	-94.774569
Toxic Release Inventory Facility	ALLIED TUBE & CONDUIT CORPORATION	1100 FM 3361	Liberty	77575	30.047228	-94.796297

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Toxic Release Inventory Facility	BOOMERANG TBE, LLC	1100 FM 3361 RD	Liberty	77575	30.047228	-94.796297
Toxic Release Inventory Facility	LIBERTY FORGE	1507 FORT WORTH ST	Liberty	77575	30.057738	-94.814485
Toxic Release Inventory Facility	GLOBAL TUBING LLC COILED TUBING MANUFACTURING FACILITY IN DAYTON TEXAS	501 CR 493	Dayton	77535	30.023167	-94.904443
Toxic Release Inventory Facility	CHAMPIONX DAYTON	3182 HWY 146 SOUTH	Dayton	77535	29.99432	-94.903103
Toxic Release Inventory Facility	HUNTSMAN PETROCHEMICAL LLC	3892 US HIGHWAY 90 EAST	Dayton	77535	29.999444	-94.9525
Toxic Release Inventory Facility	DRAGON PRODUCTS LIBERTY FACILITY	205 FM 1909	Liberty	77575	30.052786	-94.719146
Toxic Release Inventory Facility	GEORGIA-PACIFIC WOOD PRODUCTS LLC CLEVELAND PLYWOOD & LUMBER	12936 FM-787	Cleveland	77327	30.401735	-94.943815
Toxic Release Inventory Facility	CAMPBELL RMC CLEVELAND	N TRAVIS ST	Cleveland	77327	30.347648	-95.084599
Urgent Care	QUALITY CARE PLUS	2718 NORTH MAIN STREET	LIBERTY	77575	30.076148	-94.778673
Urgent Care	DOCTOR D'S URGENT CARE	750 EAST HOUSTON STREET	CLEVELAND	77327	30.341414	-95.08088
Wastewater Treatment Plant	HULL FWSD WWTP	4980' SE OF INTX FM 770 N AND FM 834	Liberty county	77564	30.147389	-94.635389
Wastewater Treatment Plant	DAYTON SOUTHWEST WWTF	500 SUNSET HEIGHTS AVE	Dayton	77535	30.035708	-94.896241
Wastewater Treatment Plant	CITY OF HARDIN WWTP 1	5000 FT NW STHWY 146 AND CR 2005	Hardin	77575	30.161502	-94.739382
Wastewater Treatment Plant	CITY OF LIBERTY MAIN WWTP	400 FMR 3361	Liberty	77575	30.050174	-94.801609
Wastewater Treatment Plant	CITY OF DEVERS WWTP	1960' S INTX OF HWY 90 AND CHISM ST	Devers	77538	30.021583	-94.589917
Wastewater Treatment Plant	TARKINGTON ISD WWTP	2770 FM 163	Cleveland	77327	30.31016	-94.96186
Wastewater Treatment Plant	CLEVELAND EAST WWTP	APPROX 2.4 MI NE OF INTX ST HWY 321/105 & FMR 1010	Cleveland	77327	30.333694	-95.052306
Wastewater Treatment Plant	WEST WWTP	APPROX 0.5 MI W OF INTX OF ST HWY 105 & US HWY 59	Cleveland	77327	30.336	-95.095389
Wastewater Treatment Plant	CITY OF DAISSETTA WWTP	1000' E OF FM 834, 1500' N OF	Daisetta	77533	30.128528	-94.639083

<b>Facility Type</b>	<b>Name</b>	<b>Address</b>	<b>City</b>	<b>Zipcode</b>	<b>Latitude</b>	<b>Longitude</b>
Wastewater Treatment Plant	CITY OF DAISSETTA WWTP	1100 EAST PINE ST	Daisetta	77533	30.117111	-94.629528

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	PANTHERS 22	23128 HIGHWAY 321	CLEVELAND	77327	30.31959	-94.99681
Petroleum Storage Tank	GATOR STOP RAYWOOD	13652 HWY 90 E	RAYWOOD	77582	30.0413	-94.67163
Petroleum Storage Tank	SPIN IN MARKET 15	8733 FM 1409	DAYTON	77535	29.94542	-94.84229
Petroleum Storage Tank	EXXON 4 CLEVELAND	26509 HIGHWAY 321	CLEVELAND	77327	30.32718	-95.05183
Petroleum Storage Tank	BRONCOS FOOD & GAS	102 S MAIN ST	DAYTON	77535	30.04454	-94.88804
Petroleum Storage Tank	TEXAS EMERGENCY HOSPITAL	300 E CROCKETT ST	CLEVELAND	77327	30.34199	-95.08585
Petroleum Storage Tank	SUPER KWIK FOOD STORE	513 E HOUSTON ST	CLEVELAND	77327	30.34133	-95.08333
Petroleum Storage Tank	WILSON CHEVRON	3103 WILSON RD	HUMBLE	77396	29.961672	-95.247717
Petroleum Storage Tank	CANNONS FARM AND RANCH	17186 HIGHWAY 321	DAYTON	77535	30.24494	-94.9672
Petroleum Storage Tank	TIGER MART	1413 HIGHWAY 90	LIBERTY	77575	30.05693	-94.80262
Petroleum Storage Tank	SPIN N MARKET 7	308 N WINFREE ST	DAYTON	77535	29.94536	-94.84226
Petroleum Storage Tank	DAYTON CENTRAL OFFICE WL3258	202 N WINFREE ST	DAYTON	77535	30.04757	-94.88713
Petroleum Storage Tank	UDAY 10	14615 HIGHWAY 105	CLEVELAND	77327	30.32377	-94.96563
Petroleum Storage Tank	WHITENER ENTERPRISES	1016 E HOUSTON ST	CLEVELAND	77327	30.34037	-95.07679
Petroleum Storage Tank	JAYS CLEVELAND EXXON - 80016706	600 W SOUTHLINE ST	CLEVELAND	77328	30.3364	-95.10055
Petroleum Storage Tank	TRINITY MART	5069 FM 787 RD W STE A	CLEVELAND	77327	30.44868	-94.84117
Petroleum Storage Tank	PIT STOP	814 HIGHWAY 59 S	CLEVELAND	77327	30.33625	-95.09855
Petroleum Storage Tank	CIRCLE K STORE 2742394	445 W SOUTHLINE ST	CLEVELAND	77327	30.33555	-95.09862
Petroleum Storage Tank	SIMMONS GROCERY	3808 FM 1008	DAYTON	77535	30.10811	-94.85909
Petroleum Storage Tank	VZB-DAYTTX				30.06514	-94.97733

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	US 69 FOOD MART	2154 US HIGHWAY 59 S	CLEVELAND	77327	30.30241	-95.11356
Petroleum Storage Tank	HEB 257	100 TRULY PLZ	CLEVELAND	77327	30.33576	-95.09416
Petroleum Storage Tank	CROSSROAD 20	7612 HIGHWAY 321	DAYTON	77535	30.10856	-94.92287
Petroleum Storage Tank	BROOKSHIRE BROTHERS 16	603 E HOUSTON ST	CLEVELAND	77327	30.34144	-95.08249
Petroleum Storage Tank	BROOKSHIRE BROTHERS 43	403 E HIGHWAY 90	DAYTON	77535	30.04698	-94.88519
Petroleum Storage Tank	CLEVELAND 592 CENTRAL OFFICE WL3135	209 E CROCKETT ST	CLEVELAND	77327	30.34346	-95.08556
Petroleum Storage Tank	EAGLE MART	18374 HIGHWAY 105	CLEVELAND	77328	30.32983	-95.28366
Petroleum Storage Tank	FUEL DEPOT 12	608 NEVELL ST	CLEVELAND	77327	30.34589	-95.0822
Petroleum Storage Tank	RIDGEWOOD GROCERY	4310 N MAIN ST	LIBERTY	77575	30.08752	-94.76224
Petroleum Storage Tank	UDAY 20	18321 HIGHWAY 105	CLEVELAND	77328	30.33044	-95.28444
Petroleum Storage Tank	SAMS EXPRESS 3	11983 FM 1409	DAYTON	77535	29.89013	-94.81386
Petroleum Storage Tank	WAL-MART STORE 1186	2801 N MAIN ST	LIBERTY	77575	30.07803	-94.77915
Petroleum Storage Tank	SUPER 90				30.04155	-94.66978
Petroleum Storage Tank	RICKYS FOOD MART	899 MAIN ST	LIBERTY	77575	30.06395	-94.79628
Petroleum Storage Tank	MURPHY USA 6616	838 S WASHINGTON AVE	CLEVELAND	77327	30.33294	-95.0952
Petroleum Storage Tank	LOVES TRAVEL STOP 293	107 FM 2025 RD	CLEVELAND	77328	30.35399	-95.09059
Petroleum Storage Tank	LOVES TRAVEL STOP 293	107 FM 2025 RD	CLEVELAND	77328	30.35399	-95.09059
Petroleum Storage Tank	CROSSROAD 13	6650 HIGHWAY 321	DAYTON	77535	30.09801	-94.91845
Petroleum Storage Tank	COUNTRY CORNER GROCERY II	30644 HWY 146 N	RYE	77369	30.44011	-94.76597
Petroleum Storage Tank	TARKINGTON ISD				30.31364	-94.95913

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	WAL-MART SUPERCENTER 1186	2121 HIGHWAY 146 BYP	LIBERTY	77575	30.07514	-94.77269
Petroleum Storage Tank	DAISETTA FOOD MART	315 MAIN ST	DAISETTA	77533	30.11449	-94.64465
Petroleum Storage Tank	CROSSROAD 14	1520 HIGHWAY 90	LIBERTY	77575	30.05635	-94.80132
Petroleum Storage Tank	MURPHY USA 7334	2111 HIGHWAY 146 BYP	LIBERTY	77575	30.07503	-94.7727
Petroleum Storage Tank	CIRCLE K STORE 2740063	502 N CLEVELAND ST	DAYTON	77535	30.04681	-94.89232
Petroleum Storage Tank	COUNTRY MARKET	306 E HIGHWAY 90	DAYTON	77535	30.04716	-94.88586
Petroleum Storage Tank	COUNTRY FOOD MART	1924 HIGHWAY 90 STE AE	LIBERTY	77575	30.05624	-94.79605
Petroleum Storage Tank	CLEVELAND FOOD MART	610 E HOUSTON ST	CLEVELAND	77327	30.34078	-95.08234
Petroleum Storage Tank	SHOP N GO	905 N WASHINGTON AVE	CLEVELAND	77327	30.35089	-95.08593
Petroleum Storage Tank	JR GROCERY	1665 FM 1010 RD	CLEVELAND	77327	30.3024	-95.08522
Petroleum Storage Tank	LINNEY FOOD MART	1408 N CLEVELAND ST	DAYTON	77535	30.05336	-94.89659
Petroleum Storage Tank	CLEVELAND MARKET	1030 FM 2025 RD	CLEVELAND	77328	30.36575	-95.09364
Petroleum Storage Tank	RUSH 11	742 HIGHWAY 146	DAYTON	77535	30.03368	-94.89457
Petroleum Storage Tank	WAL-MART SUPERCENTER 249	831 HIGHWAY 59 S	CLEVELAND	77327	30.33316	-95.09847
Petroleum Storage Tank	BEAR CREEK FEED & GROCERY	21 A J MURRY RD	CLEVELAND	77328	30.45093	-95.21994
Petroleum Storage Tank	KROOZIN DEVERS	107 HIGHWAY 90 W	DEVERS	77538	30.0283	-94.59272
Petroleum Storage Tank	THRIF-TEE FOOD CENTER	1021 MAIN ST	LIBERTY	77575	30.06703	-94.79528
Petroleum Storage Tank	VZB-HULLTX				30.14279	-94.6435
Petroleum Storage Tank	HULL DRIVE IN	2304 FM 770	HULL	77564	30.15513	-94.6463
Petroleum Storage Tank	CROSSROAD 15	3776 HWY 90 E	RAYWOOD	77582	30.04194	-94.66938

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	KWIK MART	11592 FM 1409	DAYTON	77535	29.89595	-94.81454
Petroleum Storage Tank	HYLTONS GROCERY	8038 FM 563 RD	LIBERTY	77575	29.94194	-94.70821
Petroleum Storage Tank	KENEFICK GENERAL STORE	3682 FM 1008	DAYTON	77535	30.10595	-94.85848
Petroleum Storage Tank	SPIN N MARKET 16	1907 N MAIN ST	LIBERTY	77575	30.07167	-94.78801
Petroleum Storage Tank	WESTSIDE GROCERY	2242 FM 1960	DAYTON	77535	30.04651	-94.90573
Petroleum Storage Tank	LIBERTY CHEVRON	2770 HIGHWAY 90	LIBERTY	77575	30.05797	-94.78329
Petroleum Storage Tank	SUPER ONE STORE	2802 HIGHWAY 90	LIBERTY	77575	30.05818	-94.78208
Petroleum Storage Tank	HARDIN FOOD STORE	11064 HIGHWAY 146 N	LIBERTY	77575	30.15715	-94.73901
Petroleum Storage Tank	FUEL MAXX 5	9499 HIGHWAY 90	DAYTON	77535	29.987975	-94.964334
Petroleum Storage Tank	7-ELEVEN STORE 41014	811 W HIGHWAY 90	DAYTON	77535	30.041283	-94.894224
Petroleum Storage Tank	7-ELEVEN STORE 41015	2130 HIGHWAY 146 BYP	LIBERTY	77575	30.078532	-94.773481
Petroleum Storage Tank	FUEL MAXX 51	7556 FM 1960	DAYTON	77535	30.04631	-94.99389
Petroleum Storage Tank	CORNER MARKET TX0323	1109 E HOUSTON ST	CLEVELAND	77327	30.3416	-95.07477
Petroleum Storage Tank	SAMMYS	10310 FM 2025 RD	CLEVELAND	77328	30.42484	-95.11658
Petroleum Storage Tank	HILL BOYS	13102 HIGHWAY 146	DAYTON	77535	29.87179	-94.89291
Petroleum Storage Tank	RUBY FOOD MART 2	102 S WASHINGTON AVE	CLEVELAND	77327	30.34301	-95.09018
Petroleum Storage Tank	CHACHERE FEED STORE	3829 FM 1960	DAYTON	77535	30.04606	-94.93253
Petroleum Storage Tank	E & G GENERAL STORE	22945 HIGHWAY 146 N STE BN	CLEVELAND	77327	30.32997	-94.75138
Petroleum Storage Tank	7-ELEVEN STORE 41681	607 W HIGHWAY 90	DAYTON	77535	30.04236	-94.89207
Petroleum Storage Tank	BROOKSHIRE BROTHERS 51	2325 N MAIN ST	LIBERTY	77575	30.07418	-94.78395

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Petroleum Storage Tank	CLEVELAND MUNICIPAL AIRPORT	17699 FM 787 W	CLEVELAND	77327	30.35935	-95.00784
Petroleum Storage Tank	DAYTON CHEVRON	304 W LINNEY ST	DAYTON	77535	30.053856	-94.897044
Petroleum Storage Tank	ON THE WAY EXXON	2095 FM 1960	DAYTON	77535	30.046023	-94.904749

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Place of Worship	EAGLES FAITH TABERNACLE	635 COUNTY ROAD 332	CLEVELAND	77327	30.29878	-95.104841
Place of Worship	KINGDOM PATHWAY MINISTRIES	207 COUNTY ROAD 6401	DAYTON	77535	30.1011	-94.850141
Place of Worship	LIFELINE MINISTRIES OF VIRGINIA INCORPORATED	242 COUNTY ROAD 2184	CLEVELAND	77327	30.380301	-94.968414
Place of Worship	CATHOLIC DAUGHTERS OF THE AMERICAS	310 WESTLAKE RD	DAYTON	77535	29.945343	-94.836662
Place of Worship	TEMPLO PENTECOSTES JESUCRISTO EL SALVADOR	4781 COUNTY ROAD 602	DAYTON	77535	30.0151	-95.008141
Place of Worship	CHURCH OF THE LIVING GOD	2315 CHESTER ST	DAYTON	77535	30.062572	-94.892487
Place of Worship	BREAKTHROUGH MINISTRIES INC	12458 HWY 146 N	HARDIN	77561	30.154094	-94.739037
Place of Worship	ROCK OF CHRIST HEALING MINISTRIES	121 S FENNER AVE # 12	CLEVELAND	77327	30.33933	-95.082571
Place of Worship	CASA DE ORACION CRISTIANA	241 COUNTY ROAD 4881	DAYTON	77535	29.96131	-94.964351
Place of Worship	RIDING FOR JESUS MINISTRY	49 COUNTY ROAD 440	DAYTON	77535	29.94124	-94.841061
Place of Worship	VISIONARIES MINISTRIES INC	7755 FM 1010	CLEVELAND	77327	30.217468	-95.09528
Place of Worship	HOPE APOSTOLIC INC	240 COUNTY ROAD 2197	CLEVELAND	77327	30.38915	-94.971241
Place of Worship	INTERNATIONAL MISSION CENTER CHURCH INC	807 E HANSON ST	CLEVELAND	77327	30.33903	-95.079741
Place of Worship	SHILOH CENTRO CRISTIANO HISPANO	708 N HOLLY AVE	CLEVELAND	77327	30.34899	-95.080721
Place of Worship	IGLESIA CRISTIANA EBENEZER	25 COUNTY ROAD 4922	DAYTON	77535	29.96328	-94.907081
Place of Worship	FIRST BAPTIST CHURCH DAYTON	202 E HOUSTON ST	DAYTON	77535	30.04522	-94.886221
Place of Worship	GOOD SHEPHERD LUTHERAN CHURCH	901 PLUM GROVE RD	CLEVELAND	77327	30.32962	-95.084801
Place of Worship	LIBERTY CHURCH OF CHRIST	3201 N MAIN ST	LIBERTY	77575	30.079684	-94.773533
Place of Worship	CROSS CHURCH CLEVELAND	510 RIVER ST	CLEVELAND	77327	30.33831	-95.094841
Place of Worship	PENTECOSTAL TABERNACLE	192 COUNTY ROAD 2001	LIBERTY	77575	30.113581	-94.71428

Facility Type	Name	Address	City	Zipcode	Latitude	Longitude
Place of Worship	CHURCH OF GOD OF PROPHECY	1003 S FENNER AVE	CLEVELAND	77327	30.33282	-95.082441
Place of Worship	OLD RIVER ASSEMBLY OF GOD	40 COUNTY ROAD 401	DAYTON	77535	29.889555	-94.81338
Place of Worship	BETHEL BAPTIST CHURCH	24756 HIGHWAY 321	CLEVELAND	77327	30.320313	-95.025549
Place of Worship	LIBERTY CHRISTIAN FELLOWSHIP INCORPORATED	200 FM 2025 RD	CLEVELAND	77328	30.357498	-95.091119
Place of Worship	END TIME MADE SIMPLE MINISTRIES	501 AUSTIN ST	LIBERTY	77575	30.06011	-94.799851
Place of Worship	ROSE OF SHARRON-LILIES AMONG THORNS	998 COUNTY ROAD 6055	DAYTON	77535	30.03389	-94.948491
Place of Worship	CROSS CHURCH CLEVELAND SOUTH CAMPUS	510 RIVER ST	CLEVELAND	77327	30.33831	-95.094841
Place of Worship	BETHEL ASSEMBLY OF GOD	4606 FM 563 RD	LIBERTY	77575	29.98097	-94.740181
Place of Worship	GENERAL COUNCIL OF THE ASSEMBLIES OF GOD	2829 FM 1960	DAYTON	77535	30.04481	-94.915491
Place of Worship	HI WAY TABERNACLE ASSEMBLY OF GOD	108 COUNTY ROAD 2250	CLEVELAND	77327	30.31211	-94.987801
Place of Worship	IGLESIA DE DIOS SEPTIMO DIA EN CLEVELAND	302 ELIZABETH ST	CLEVELAND	77327	30.350283	-95.086892
Place of Worship	SIMMONS BOTTOM ASSEMBLY OF GOD	2126 COUNTY ROAD 2328	DAYTON	77535	30.166837	-94.869906
Place of Worship	CORNERSTONE CHURCH OF CLEVELAND INC	27453 HIGHWAY 105 W	CLEVELAND	77328	30.334752	-95.120785
Place of Worship	IGLESIA RIOS DE AGUA VIVA	808 N MASON AVE	CLEVELAND	77327	30.35015	-95.086351
Place of Worship	WILDERNESS CHURCH OF GOD INC	1238 COUNTY ROAD 158	LIBERTY	77575	30.074916	-94.728236
Place of Worship	CLEVELAND RIVER OF LIFE WLSTC	206 S FENNER AVE	CLEVELAND	77327	30.33794	-95.083031
Place of Worship	IGLESIA CRISTIANA RESTAURADORES DE MUROS	174 COUNTY ROAD 607	DAYTON	77535	30.04363	-94.918901
Place of Worship	AGLOW INTERNATIONAL	749 COUNTY ROAD 444	DAYTON	77535	29.948504	-94.831086
Place of Worship	HOPE APOSTOLIC INC	240 COUNTY ROAD 2197	CLEVELAND	77327	30.29878	-95.104841
Place of Worship	INTERNATIONAL MISSION CENTER CHURCH INC	807 E HANSON ST	CLEVELAND	77535	30.1011	-94.850141

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6064905	Henry Zarsky	Irrigation	30.0325	-95.013056	Withdrawal of Water
Well	6064606	Simmonswell #1		30.0825	-95.03	Oil or Gas
Well	6064910	Arco Oil & Gas	Industrial	30.000834	-95.028889	Withdrawal of Water
Well	6134111	Horseshoe Lake Est.	Unused	30.461112	-94.866389	Withdrawal of Water
Well	6134701	Kirkham Bros.	Domestic	30.412778	-94.838056	Withdrawal of Water
Well	6133913	LONE STAR IND	Commercial	30.404723	-94.886945	Withdrawal of Water
Well	6134108	C. & S. Farms	Unused	30.484722	-94.844445	Spring
Well	6134511	Jack Biggs	Stock	30.441667	-94.8175	Withdrawal of Water
Well	6134513	Chain-O-Lakes Resort	Institution	30.442222	-94.827222	Withdrawal of Water
Well	6142101	Bert Davis	Stock	30.355001	-94.868611	Withdrawal of Water
Well	6142901	Nealwell #1		30.275278	-94.771111	Oil or Gas
Well	6133901	Texas Construction & Materials Co.	Unused	30.406667	-94.886945	Withdrawal of Water
Well	6133903	Pearl Kirkham	Plugged or Destroyed	30.412223	-94.877778	Withdrawal of Water
Well	6133911	P. C. Kirkham	Domestic	30.412501	-94.883055	Withdrawal of Water
Well	6151802	James Gentz	Irrigation	30.146111	-94.694722	Withdrawal of Water
Well	6158706	Southampton Subd.	Public Supply	30.008889	-94.848334	Withdrawal of Water
Well	6134107	C. & S. Farms	Unused	30.483611	-94.845556	Spring
Well	6134509	Bill Daniels	Irrigation	30.428333	-94.816389	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6134109	Horse Shoe Lake Club	Irrigation	30.461945	-94.869444	Withdrawal of Water
Well	6142301	Henley	Domestic	30.365001	-94.7875	Withdrawal of Water
Well	6142402	A. G. Lesterjette	Plugged or Destroyed	30.3225	-94.833611	Withdrawal of Water
Well	6133902	Dolen School	Domestic	30.414167	-94.883889	Withdrawal of Water
Well	6134506	Bill Daviels	Stock	30.422778	-94.832778	Withdrawal of Water
Well	6142302	Hanley	Domestic	30.366389	-94.789167	Withdrawal of Water
Well	6160901	Sidney Hill, Jr.	Irrigation	30.040556	-94.522778	Withdrawal of Water
Well	6134702	HOPKINS AD	Domestic	30.408889	-94.861667	Withdrawal of Water
Well	6134802	Kirkham Bros.	Stock	30.412778	-94.826111	Withdrawal of Water
Well	6134114	Horseshoe Lake Est.	Unused	30.469167	-94.862223	Withdrawal of Water
Well	6134112	Horseshoe Lake Est.	Unused	30.461389	-94.865834	Withdrawal of Water
Well	6142603	Old Snake River Est. West	Public Supply	30.332222	-94.770278	Withdrawal of Water
Well	6142507	Sam Houston Lake Est.	Public Supply	30.324722	-94.821944	Withdrawal of Water
Well	6134307	Big Thicket Lake Estates #2	Public Supply	30.48	-94.773611	Withdrawal of Water
Well	6158614	City of Liberty	Unused	30.056389	-94.790556	Withdrawal of Water
Well	6158514	Southern Pacific Railroad	Plugged or Destroyed	30.056667	-94.795278	Withdrawal of Water
Well	6158703	Bullard & Wison well #5		30.004445	-94.839167	Oil or Gas

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6159313	Barngroverwell #38		30.098889	-94.648889	Oil or Gas
Well	6133907	G H Plander	Domestic	30.380833	-94.900556	Withdrawal of Water
Well	6134115	Horseshoe Lake Estates	Public Supply	30.461944	-94.852778	Withdrawal of Water
Well	6134403	W. D. Dunnan	Domestic	30.438056	-94.857501	Withdrawal of Water
Well	6134406	W. D. Dunnan	Stock	30.436945	-94.864167	Withdrawal of Water
Well	6134501	Texas Construction Material Co.	Domestic	30.446945	-94.830278	Withdrawal of Water
Well	6134508	J. L. Biggs	Domestic	30.439722	-94.824167	Withdrawal of Water
Well	6134805	C. F. Lauder	Public Supply	30.396945	-94.823889	Withdrawal of Water
Well	6134807	Texas Construction Material Co.	Unused	30.408056	-94.793056	Withdrawal of Water
Well	6134903	Liberty County School	Public Supply	30.416389	-94.770833	Spring
Well	6134801	Texas Construction Material Co.	Unused	30.408056	-94.792778	Withdrawal of Water
Well	6134804	C. F. Lauder	Public Supply	30.386389	-94.810001	Withdrawal of Water
Well	6141405	W. C. Crawley	Plugged or Destroyed	30.308056	-94.963612	Withdrawal of Water
Well	6142801	Cypress Lakes Water System	Public Supply	30.2825	-94.827222	Withdrawal of Water
Well	6142505	Wirt Davis Estate well #4		30.330833	-94.818333	Oil or Gas
Well	6142506	Wirt Davis Estate well #7		30.330833	-94.818055	Oil or Gas
Well	6133905	A. A. Richards	Domestic	30.38	-94.877778	Withdrawal of Water
Well	6133906	L. J. Smith	Domestic	30.393334	-94.911389	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6134116	Lake Livingston WSC Horseshoe Lake Estates	Public Supply	30.461112	-94.866667	Withdrawal of Water
Well	6134402	Frost Lumber Co.	Domestic	30.454723	-94.872222	Withdrawal of Water
Well	6142501	Sam Houston Lake Estates	Public Supply	30.324444	-94.823333	Withdrawal of Water
Well	6142503	Sam Houston Lake Estates	Unused	30.326667	-94.815556	Withdrawal of Water
Well	6157802	C. S. Brown	Unused	30.016389	-94.943889	Withdrawal of Water
Well	6157804	Gere Delaney	Domestic	30.002501	-94.947778	Withdrawal of Water
Well	6159308	Gulf Oil Co.	Unused	30.121944	-94.656389	Withdrawal of Water
Well	6048505	City of Cleveland Well #5	Public Supply	30.330278	-95.0525	Withdrawal of Water
Well	6401301	Indian Springs Water System (Well #1)	Public Supply	29.964723	-94.907223	Withdrawal of Water
Well	6151703	Mrs. Mike Splane & Mrs. Hardie Jane	Unused	30.125833	-94.730833	Withdrawal of Water
Well	6150801	Jaames R. Mowery	Unused	30.165556	-94.796111	Withdrawal of Water
Well	6048701	Zoe B. McDonald		30.262778	-95.103056	Oil or Gas
Well	6048402			30.296111	-95.115556	Withdrawal of Water
Well	6403803	R. S. Sterling well #11		29.888334	-94.670278	Oil or Gas
Well	6404802	E. B. Pickettwell #1		29.893334	-94.564167	Oil or Gas
Well	6150302	Knights Forest Subdivision	Public Supply	30.212778	-94.783055	Withdrawal of Water
Well	6158505	City of Liberty well #1	Unused	30.056945	-94.793334	Withdrawal of Water
Well	6158901	Cliff Teviswell #1		30.010001	-94.779444	Oil or Gas

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6158306	Synergy Fluids, Inc.	Industrial	30.119444	-94.774722	Withdrawal of Water
Well	6158705	J. C. Baldwin well #4		30.007778	-94.850278	Oil or Gas
Well	6161401	M. E. Pickett		30.050278	-94.489167	Oil or Gas
Well	6403101	Liberty County	Unused	29.996667	-94.748889	Withdrawal of Water
Well	6404103	Autry Kelleywell #1		29.9775	-94.624722	Oil or Gas
Well	6404706	Boytwell #28		29.897222	-94.5975	Oil or Gas
Well	6404708	B. Hankamerwell #1		29.891389	-94.586111	Oil or Gas
Well	6048501	C. W. Dove	Unused	30.321944	-95.045278	Withdrawal of Water
Well	6158512	Macom & Harrison	Plugged or Destroyed	30.051389	-94.797222	Withdrawal of Water
Well	6158516	Layl Sandwich Shop	Plugged or Destroyed	30.056389	-94.793889	Withdrawal of Water
Well	6158702	Texas Pipeline Co.	Plugged or Destroyed	30.031667	-94.852501	Withdrawal of Water
Well	6158507	Mecom & Harrison	Stock	30.048056	-94.792222	Withdrawal of Water
Well	6158802	Florance Fisher		30.028333	-94.797778	Oil or Gas
Well	6150605	Humble Oil & Refining Co.	Unused	30.181667	-94.782222	Withdrawal of Water
Well	6158502	City of Liberty well #1	Plugged or Destroyed	30.050834	-94.795	Withdrawal of Water
Well	6158803	E. F. Simmswell #1		30.027222	-94.828333	Oil or Gas
Well	6158805	M. Van Deventer well #1		30.007223	-94.796111	Oil or Gas
Well	6151604	Bill Yarbrough	Irrigation	30.176667	-94.644167	Withdrawal of Water
Well	6158506	John Mecom	Domestic	30.043889	-94.798611	Withdrawal of Water
Well	6133603	A. M. Smith	Plugged or Destroyed	30.435556	-94.888056	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6133904	Irving Ellington	Plugged or Destroyed	30.385	-94.903612	Withdrawal of Water
Well	6158511	Mecom & Harrison	Plugged or Destroyed	30.051112	-94.798334	Withdrawal of Water
Well	6134604	Racki Lumber Co.	Plugged or Destroyed	30.441945	-94.766944	Withdrawal of Water
Well	6142510	Cypress Lakes Water System (Adelaide #3)	Public Supply	30.300001	-94.815834	Withdrawal of Water
Well	6159304	Houston Production Oil Co.well #2	Plugged or Destroyed	30.113056	-94.656945	Withdrawal of Water
Well	6159301	Hamill & Smith	Irrigation	30.094722	-94.647222	Withdrawal of Water
Well	6159206	W. L. Binglewell #5		30.123889	-94.669722	Oil or Gas
Well	6158401	Ed Pruitt	Plugged or Destroyed	30.046667	-94.873889	Withdrawal of Water
Well	6158804	A. Deussen Fee "A"		30.000834	-94.803612	Oil or Gas
Well	6159314	Phoenixwell #11-A		30.098889	-94.637778	Oil or Gas
Well	6160502	The Texas Co.	Unused	30.067778	-94.546111	Withdrawal of Water
Well	6157803	Cecil Hobdy	Domestic	30.016112	-94.949722	Withdrawal of Water
Well	6159307	The Texas Co.	Plugged or Destroyed	30.123889	-94.653334	Withdrawal of Water
Well	6402101	Sidney A. Smith well #1		29.985	-94.834722	Oil or Gas
Well	6403901	Robertson-McDonald Lumber Co.		29.907223	-94.657223	Oil or Gas
Well	6404710	Pennzoil Corp.	Unused	29.906945	-94.592778	Withdrawal of Water
Well	6402202	Loftis Brothers	Plugged or Destroyed	29.983611	-94.823333	Withdrawal of Water
Well	6404101	J. D. Sellers	Domestic	29.990278	-94.596667	Withdrawal of Water
Well	6402605	Moss Bluff Fire Dept.	Public Supply	29.939722	-94.762778	Withdrawal of Water

Facility Type	State Well ID #	Owner Name	Primary Use	Latitude	Longitude	Well Type
Well	6401603	Moore's Bluff well #D-1		29.943334	-94.893334	Oil or Gas
Well	6404707	Stinglerwell #2		29.895556	-94.601667	Oil or Gas
Well	6402604	Robert D. Jones	Public Supply	29.933055	-94.759723	Withdrawal of Water
Well	6404702	Gulf Oil Co.	Unused	29.898333	-94.601944	Withdrawal of Water
Well	6142508	PINE SPRINGS UD	Public Supply	30.323889	-94.828611	Withdrawal of Water
Well	6150803	City of Dayton Lakes	Public Supply	30.144445	-94.821944	Withdrawal of Water
Well	6150201	KNIGHTS FOREST	Public Supply	30.215001	-94.794167	Withdrawal of Water
Well	6158304	CHEMICAL CENTRAL	Industrial	30.125	-94.775833	Withdrawal of Water
Well	6157404	F. M. and Garden Graves		30.051667	-94.968055	Withdrawal of Water
Well	6134806	CAUTHORN BILL	Domestic	30.412501	-94.806112	Withdrawal of Water
Well	6404705	Boytwell #27		29.904167	-94.594445	Oil or Gas
Well	6402603	Lacy Armourwell #1		29.946111	-94.776667	Oil or Gas
Well	6403702	Kylewell #3		29.898889	-94.716389	Oil or Gas
Well	6402606	Moss Spring		29.925278	-94.775278	Spring
Well	6402601	Devers Canal Co.	Domestic	29.940278	-94.776389	Withdrawal of Water
Well	6404704	Dan J. Harrison, Jr.		29.912778	-94.589167	Oil or Gas
Well	6403305	DEVERS CANAL CO	Irrigation	29.984445	-94.647222	Withdrawal of Water

# Appendix D

## MEETING DOCUMENTATION



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Kickoff Meeting 3/27/2023 NOTES

## A G E N D A

**8:45 AM**                      **Registration & Sign-in**

**9:00 AM**                      **Welcome & Introductions**

**9:10 AM**                      **Overview of Hazard Mitigation Plans & Procedures**

H-GAC staff will provide an overview of hazard mitigation plans, benefits, meeting objectives, activities, H-GAC's planning process, roles & responsibilities, and project timelines.

**Hazard Mitigation Committee Management**

**9:30 AM**                      **Next Steps**

**9:45 AM**                      **Hazard Identification & Risk Assessment Exercise**

**11:00 AM**                    **Adjourn**



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Kickoff Meeting 3/27/2023 NOTES

## ATTENDANCE

Name	Organization	Title
Amanda Ashcroft	Planner, Community & Environmental Planning	H-GAC
Bill Hergemueller	Emergency Management Coordinator, Fire Marshall	Liberty County
Brian Hurst	Fire Chief	City of Liberty
Cheryl Mergo	Senior Manager, Community & Environmental Planning	H-GAC
Damon Jones	Public Works	City of Liberty
Danielle Andrews	Office Manager	Liberty County
Elanie Rosser	Safety & Security	Liberty ISD
Eric McDaniel	Asst. Fire Chief	City of Liberty
Erskine N. Holcomb	Liberty County	Asst. Fire Marshall
James Autrey	Emergency Management Coordinator, Asst. Fire Chief	City of Plum Grove
James Poitevent	General Manager	WCID #5
Madison Gonzalez	Asst. Emergency Management Coordinator	Liberty County
Shane Burleigh	Emergency Management Coordinator	City of Dayton
Tom Warner	City Manager	City of Liberty

## MEETING NOTES

### Welcome and Introductions

Amanda Ashcroft began the meeting by welcoming attendees and explained the reasons behind hazard mitigation planning. The hazard mitigation planning committee members introduced their name, title, the organization they represented, and how a hazard has affected them.

### Overview of Hazard Mitigation Plans & Procedures

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

Roles and responsibilities of the Hazard Mitigation Planning Committee were outlined. A commitment letter of jurisdictional participation was discussed as a committee to be signed and returned by a point of contact for each participating jurisdiction. Roles and responsibilities agreed to in the letter of commitment will include items outlined in the presentation included:



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Kickoff Meeting

## 3/27/2023 NOTES

- 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 Monday, April 24<sup>h</sup> from 9:00 AM – 11:00 AM. The committee agreed keeping the same date/time and hosting a hybrid event (utilizing Microsoft 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 so they can be included in future updates regarding the plan. Committee members should also sign and return commitment letters as soon as possible. The next meeting was scheduled for Monday, April 24<sup>h</sup> from 9:00 AM – 11:00 AM in Liberty, TX. 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 continue and expand on.

### **Hazard identification and Risk Assessment**

Amanda passed out a risk assessment handout and the committee reviewed hazards from the 2018 Liberty County Multi-Jurisdictional Hazard Mitigation and Texas State Hazard Mitigation plans. 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. She outlined updates the hazard mitigation planning committee may want to make to certain hazard titles or regroupings, new additions, and gave examples of what 2023 plans were doing similarly for the committee to consider.

The hazard mitigation committee began working on the hazard identification and risk assessment handout for the remainder of the meeting as a group, assigning probability and severity scores to each hazard they identified. Results for the hazard identification and risk assessment exercise are below.

It was discussed that any participating jurisdictions that were not present at the kickoff meeting for this exercise would be sent a fillable PDF to complete before next meeting. Results will then be averaged and presented to the committee.

**Meeting adjourned at 10:20 AM.**



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Kickoff Meeting

## 3/27/2023 NOTES

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

**PROBABILITY:** A measure of how likely an event will occur

**SEVERITY:** How much a hazard affects the functionality of society and natural environment

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

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

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

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Kickoff Meeting

## 3/27/2023 NOTES

**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
Flooding	4	8	32	1
Wildfire	3	2	6	3
Severe Thunderstorms	4	4	16	2
Hail	2	1	2	3
Tornado	2	2	4	3
Windstorms	3	2	6	3
Severe Winter Storms	2	4	8	3
Hurricanes, Tropical Storms, & Depressions	4	8	32	1
Drought & Expansive Soils	3	2	6	3
Heat Events	4	4	16	2
Dam/Levee Failure	2	8	16	2
Erosion	2	1	2	3
HazMat Spill	3	4	12	2
Cyber Attacks	2	8	16	2
Terroristic Threats	1	8	8	3

**Commented [AA1]:** Combined lightning and thunderstorms to this new hazard title

**Commented [AA2]:** New hazard added

**Commented [AA3]:** Added depressions to the end of this title

**Commented [AA4]:** New hazard added

**Commented [AA5]:** New hazard added

**Commented [AA6]:** New hazard added

**Commented [AA7]:** New hazard added

# 2023 Multi-jurisdictional Hazard Mitigation Plan Update

Meeting #1: Kickoff

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## 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

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## Introductions

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

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## 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

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## 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

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## 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.

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## 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.**



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## 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



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## Participating Jurisdictions

- Liberty County
- City of Liberty
- City of Cleveland
- City of North Cleveland
- City of Ames
- City of Hardin
- City of Dayton Lake Estates
- City of Kenefick
- City of Plum Grove
- City of Daisetta
- City of Dayton
- City of Devers

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## Participation Requirements

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

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## 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

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## 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?

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## Tentative Project Timeline

- **March 27**, 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

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## Project Objectives

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

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# Hazard Identification

## 2018 Hazards

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

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# 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?

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## 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.



## Next Steps

- Provide any additional stakeholder contacts
- Sign & return commitment letter
  - Hazard Mitigation Committee members
- Determine meeting #2 date for hazard identification & risk assessment
  - All
- Run HAZUS
  - H-GAC Staff



## Contact Information

**Amanda Ashcroft, AICP**

*Planner, Community & Environmental*

Houston-Galveston Area Council

Amanda.Ashcroft@h-gac.com

713-993-4545



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# Liberty County Multijurisdictional Hazard Mitigation Plan Update Meeting Notes

## 4/24/2023

### A G E N D A

9:00 AM

**Welcome & Sign-in**

9:05 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**

9:45 AM

**Capability Assessment Exercise**

11:00 AM

**Adjourn**



# Liberty County Multijurisdictional Hazard Mitigation Plan Update Meeting Notes

## 4/24/2023

### ATTENDANCE

Name	Organization	Title
Amanda Ashcroft	Houston-Galveston Area Council	Planner, Community & Environmental Planning
April Davenport	City of Dayton	Public Works Administrator
Blake Jackson	Liberty/Dayton Regional Medical Center	EM
Brian Hurst	City of Liberty	Fire Chief
Cheryl Mergo	Houston-Galveston Area Council	Senior Manager, Community & Environmental Planning
Damon Jones	City of Liberty	Public Works
Danielle Andrews	Liberty County	Office Manager
Elanie Rosser	Liberty ISD	Safety & Security
Eric McDaniel	City of Liberty	Asst. Fire Chief
James Autrey	City of Plum Grove	Emergency Management Coordinator, Asst. Fire Chief
James Poitevent	WCID #5	General Manager
Justin Smith	Red Cross	
Larry Macneil	Liberty/Dayton Regional Medical Center	PIO/ Senior Liaison
Madison Gonzalez	Liberty County	Asst. Emergency Management Coordinator
Misty Dulaney	Liberty Fire Department	Office Manager/ EMT
Shane Burleigh	City of Dayton	Emergency Management Coordinator
Tom Warner	City of Liberty	City Manager

### MEETING NOTES

#### **Welcome and Introductions**

Amanda Ashcroft welcomed participants and had all 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.

Amanda reviewed questions from last meeting and provided some clarity regarding incorporating cyber security and other man-made hazard projects into the Hazard Mitigation Plan. Amanda presented a new project timeline. The Hazard Mitigation Committee will not meet in May to allow for H-GAC staff to draft pieces of the plan and prepare materials for public outreach events.

#### **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.



# Liberty County Multijurisdictional Hazard Mitigation Plan Update Meeting Notes

## 4/24/2023

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**

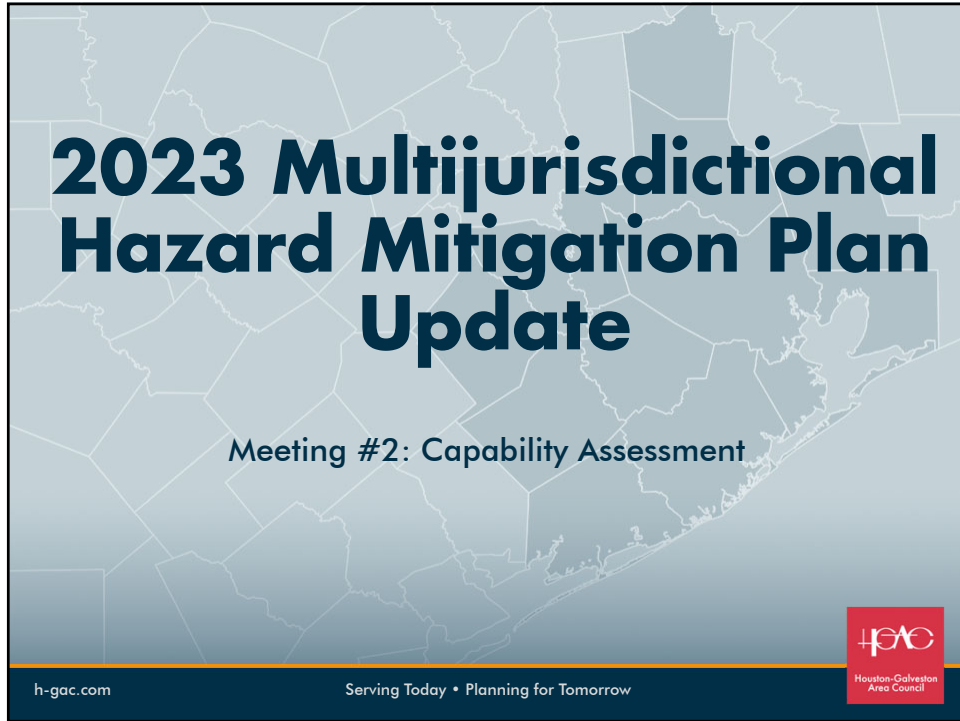
Amanda discussed the development of an online survey component for the plan update. H-GAC staff are working on building and making the survey live for public input soon. When the survey is live a link will be sent out to the Hazard Mitigation Committee to share.

### **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 Amanda when they are complete. There will be no meeting in May 2023


After the presentation, the Hazard Mitigation Planning Committee asked questions relating to the Capability Assessment worksheet and the meeting adjourned.

**Meeting adjourned at 10:05 AM.**



# 2023 Multijurisdictional Hazard Mitigation Plan Update


Meeting #2: Capability Assessment

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## 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

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## March Meeting Recap: 2018 Hazards Ranked by Risk

### Hazards Ranked by Risk

Each identified hazard poses a risk to Liberty 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	Tornado
Moderate	4	Drought
	5	Lightning
	6	Heat Events
	7	Wildfire
Low	8	Expansive Soils
	9	Hail



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## March Meeting Recap: 2023 Hazards Ranked by Risk

Risk Rating	Ranking	Hazard Name
High	1	Flooding
	2	Hurricanes, Tropical Storms, & Depressions
	3	Severe Thunderstorms
Moderate	4	Heat Events
	5	Dam/Levee Failure
	6	Cyber Attacks
	7	HazMat Spill
Low	8	Severe Winter Storms
	9	Terroristic Threats
	10	Wildfire
	11	Windstorms
	12	Drought & Expansive Soils
	13	Tornado
	14	Hail
	15	Erosion



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## 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

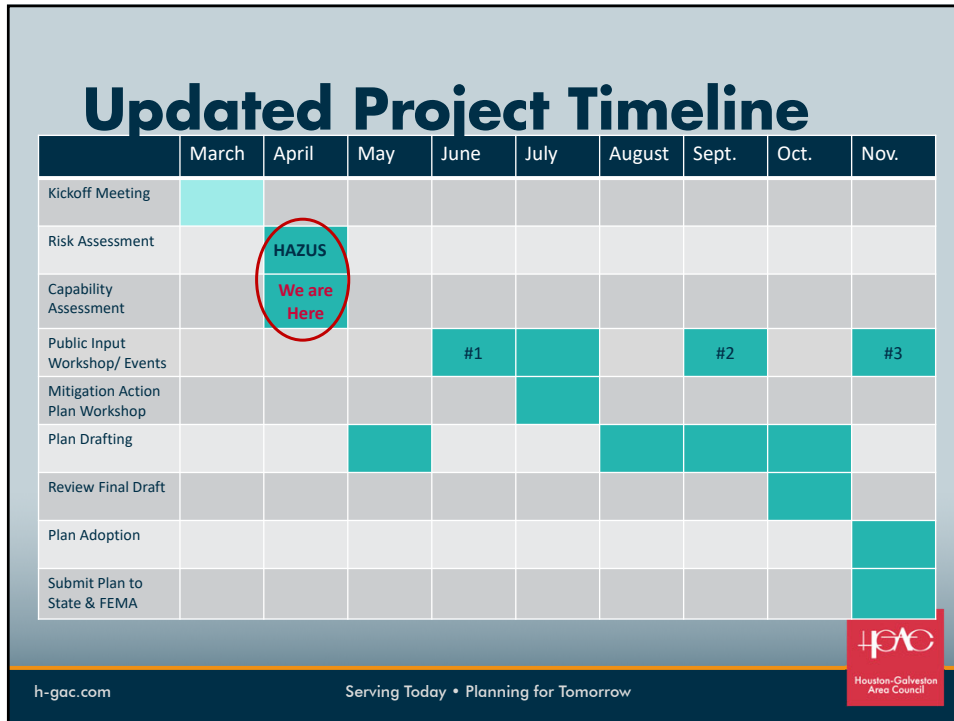
Source: [https://www.fema.gov/sites/default/files/documents/fema\\_bric-fma-cybersecurity-information-activities\\_112022.pdf](https://www.fema.gov/sites/default/files/documents/fema_bric-fma-cybersecurity-information-activities_112022.pdf)

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## Tentative Project Timeline

- **March 27**, Meeting 1: Kickoff
- **April 24**, 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

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## 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.

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## 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.

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## 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

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**Hazard Mitigation Plan Worksheet  
Capability Assessment**

Building Code, Permitting, and Inspections	Yes/ No	1. Are codes adequately enforced?
Building Code	<input type="checkbox"/>	Version/Year:
Building Code Effectiveness Grading Schedule (BCEGS)	No <input type="checkbox"/>	Score:
Fire department ISO rating	No <input type="checkbox"/>	Rating:
Site plan review requirements	No <input type="checkbox"/>	
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)	<input type="checkbox"/>	
Comprehensive Plan	<input type="checkbox"/>	
Continuity of Operations Plan	<input type="checkbox"/>	
Disaster Recovery Plan	<input type="checkbox"/>	

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## 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

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## Administrative and Technical Capability

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

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## Financial Capability

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

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## 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

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## 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)

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## 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

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## Public & Stakeholder Online Survey

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

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## Contact Information

**Amanda Ashcroft, AICP**

*Planner, Community & Environmental*

Houston-Galveston Area Council

Amanda.Ashcroft@h-gac.com

713-993-4545





# Liberty County Hazard Mitigation Plan Committee Meeting

April 24, 2023

Name	Title	Organization	Email
Larry McNeil	PIO / Senior Liaison	Liberty Dayton RMC	larrym@libertydaytonrmc.com
Misty Dulaany	Deputy Manager / EMA	Liberty Fire Dept	mdulaany@cityofliberty.org
Eric McDaniel	Asst. Chief	Liberty Fire Dept	emcdaniel@cityofliberty.org
Brian Hurst	Fire Chief	Liberty Fire Dept.	bhurst@cityofliberty.org
James Anthony	EOC	City of Plungrove	jaantony@plungrove.wfdo.org
James Poitavent	EM	KEWILD 25	poitavent@off.net
Shane Burleigh	Captain / EMC	Dayton PD	shurleigh@dayton.tx.org
April Davenport	PIO / Admin	City of Dayton	adavenport@clayfontx.org
Cheryl Mero	SR Manager	H-6 AC	cheryleromero@h-galv.com
Elaine Driscoll	Safety & Security	WIPRNY ISD	elndriscoll@wiprnyisd.net
Justin Smith	Deputy Program Mgr	Hampton Red Cross	justin.smith3@redcross.org
Amanda Ascherati	Planner	H-GAL	
Tom Lukasec	City Manager	City of Liberty	tlukasec@cityofliberty.org
Damon Jones	City of Liberty Public Works Dir.	City of Liberty	D.Jones@cityofliberty.org
Blake Suelgen	EM	LDPRC	Blake.Suelgen@libertydaytonrmc.com
Madison Gonzalez	Liberty County	EMC (Prouty)	Madison.gonzalez@co.liberty.tx.us
Danielle Andrews	Office Manager	Liberty County	danielle.andrews@co.liberty.tx.us



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Kickoff Meeting

March 27, 2023

Name	Title	Organization	Email
Elaine Rosser	Safety & Security	Liberty ISD	ebrusser@libertyisd.net
James Autrey	OEM	City of Plum Grove	jaautrey@plumgroveutd.org
FRISKIE N. HOLCOMB	LCFMO	LIBERTY CO.	NAT.HOLCOMB@CO.LIBERTY.TX.US
Shane Burleigh	capt./EMC	City of Dayton	sburleigh@dayton.tx.org
Bill Hergenmueller	LCFMO/OEM	Liberty Co.	bill.hergenmueller@co.Liberty.TX.US
Madison Gonzalez	Deputy EMC	Liberty Co.	Madison.Gonzalez@co.Liberty.TX.US
Danielle Andrews	Office manager	Liberty Co.	danielle.andrews@co.liberty.tx.us
Tom Warner	CITY MANAGER	CITY OF LIBERTY	twarner@cityofliberty.org
James Poitevent	<del>LCFMO</del> Board member	LC WCID 5	poitevent@2H.net
Brian Hurst	Fire Chief	LFD	bhurst@cityofliberty.org
Eric McDaniel	Asst. Fire Chief	LFD	emcdaniel@cityofliberty.org
Damon Jones	Public Works Dir	City of Liberty	D.Jones@cityofliberty.org
Cheryl Mergo	H-GAC	Sr Manager	Cheryl.mergo@h-gac.com
Amanda Ashcraft	H-GAC	Planner	



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: James Autrey  
Title and Employer: EMC / The City of Plum Grove  
Date: 3/27/2023  
Contact email: jaautrey@plumgroveva.org  
Amount of time worked on this document: 1 hr.

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

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

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

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

Flooding ✓	Hurricanes & Tropical Storms ✓ <i>Depressions</i>
Wildfire ✓	Drought ✓
Lightning ✓	Heat Events ✓
Hail ✓	Expansive Soils ✓
Tornado ✓	
<i>Add?</i> → Windstorms	→ Extreme Temp Events
Dam/Levee Failure	
Severe Thunderstorms	
<del>Erosion</del>	
Severe Winter Storms	



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: Danielle Andrews

Title and Employer: Office Manager / Liberty County

Date: 03/27/23

Contact email: danielle.andrews@co.liberty.tx.us

Amount of time worked on this document: 1 hr.

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: Robert Snyder  
Title and Employer: County Liaison Officer - TDEM  
Date: 03/27/2023  
Contact email: ~~Rsnayder~~ Robert.Snyder@TDEM.Texas.gov  
Amount of time worked on this document: 1-hour

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



Houston-Galveston  
Area Council

# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name:

Brian Hurst

Title and Employer:

Fire Chief / EME City of Liberty

Date:

3-27-2023

Contact email:

bhurst@cityofliberty.org

Amount of time

worked on this document:

1 hr.

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: Eric McDaniel  
Title and Employer: Asst. Fire Chief / Asst EMC City of Liberty  
Date: 3-27-2023  
Contact email: emcdaniel@cityofliberty.org  
Amount of time worked on this document: 1 hr.

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

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

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

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

<b>Flooding</b>	<b>Hurricanes &amp; Tropical Storms</b>
<b>Wildfire</b>	<b>Drought</b>
<b>Lightning</b>	<b>Heat Events</b>
<b>Hail</b>	<b>Expansive Soils</b>
<b>Tornado</b>	
<i>Train Derail</i>	
<b>Windstorms</b>	
<b>Dam/Levee Failure</b>	
<b>Severe Thunderstorms</b>	
<b>Erosion</b>	
<b>Severe Winter Storms</b>	





# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: TOM INAROSE

Title and Employer: CITY MANAGER, CITY OF LIBERTY

Date: MARCH 27, 2023

Contact email: twarner@cityofliberty.org

Amount of time worked on this document: 1 Hour

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

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3. Think about changing conditions in your community, and how the nature of some threats could change over time. This could include the increased frequency of extreme events due to climate change, to changes in vulnerable populations, or the anticipated construction of a new ammonia facility that creates the possibility of chemical exposure.

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

<input checked="" type="checkbox"/> Flooding	<input checked="" type="checkbox"/> Hurricanes & Tropical Storms
<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Drought
<input checked="" type="checkbox"/> Lightning	<input checked="" type="checkbox"/> Heat Events
<input checked="" type="checkbox"/> Hail	<input checked="" type="checkbox"/> Expansive Soils
<input checked="" type="checkbox"/> Tornado	
	TRANSPORTATION EVENT
Windstorms	TECHNOLOGICAL
<input checked="" type="checkbox"/> Dam/Levee Failure	PAVEMENTS
Severe Thunderstorms	
Erosion	
Severe Winter Storms	

Terrorist Activities



Houston-Galveston  
Area Council

# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: Elanie Rosser

Title and Employer: Safety & Security Coordinator, Liberty ISD

Date: 3/27/23

Contact email: ebrosser@libertyisd.net

Amount of time worked on this document: 1 hr.

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

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

<b>Flooding</b>	①	①	<b>Hurricanes &amp; Tropical Storms</b>
<b>Wildfire</b>	③	②	<b>Drought</b>
<b>Lightning</b>	①	①	<b>Heat Events</b>
<b>Hail</b>	①	②	<b>Expansive Soils</b>
<b>Tornado</b>	①		Trains/Transportation
<b>Windstorms</b>			Cyber attacks
<b>Dam/Levee Failure</b>			Terroristic
<b>Severe Thunderstorms</b>			
<b>Erosion</b>			
<b>Severe Winter Storms</b>			



Houston-Galveston  
Area Council

# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: Madison Gonzalez

Title and Employer: Deputy EMC / Liberty County

Date: 3/27/2023

Contact email: Madison.Gonzalez@Co.Liberty.TX.us

Amount of time  
worked on this document: 1 hour

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

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

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3. Think about changing conditions in your community, and how the nature of some threats could change over time. This could include the increased frequency of extreme events due to climate change, to changes in vulnerable populations, or the anticipated construction of a new anhydrous ammonia facility that creates the possibility of chemical exposure.

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<b>Flooding</b>	<b>Hurricanes &amp; Tropical Storms</b>
<b>Wildfire</b>	<b>Drought</b>
<b>Lightning</b>	<b>Heat Events</b>
<b>Hail</b>	<b>Expansive Soils</b>
<b>Tornado</b>	
<b>Windstorms</b>	<i>Severe Winter Storms</i>
<b>Dam/Levee Failure</b>	
<b>Severe Thunderstorms</b>	
<b>Erosion</b>	
<b>Severe Winter Storms</b>	



Houston-Galveston  
Area Council

# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: DAMON JONES

Title and Employer: Public Works Director

Date: 3/27/2023

Contact email: D Jones @ city of liberty . org

Amount of time worked on this document: ~~1 hr~~ 1 hr

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



Houston-Galveston  
Area Council

# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: ERSKINE N. HOLCOMB

Title and Employer: ASST FIRE MARSHAL

Date: 3-27-2023

Contact email: CELL 832-472-7141 NAT.HOLCOMB@CO.LIBERTY.TX.US

Amount of time worked on this document: 1 HR

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



Houston-Galveston  
Area Council

# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name:

Shane Burleigh

Title and Employer:

Captain/EMC Dayton PD/City of Dayton

Date:

3/27/2023

Contact email:

sburleigh@daytontx.org

Amount of time

worked on this document:

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan Update, Risk Assessment

Name: Bill Hergemuller

Title and Employer: Liberty County Fire Marshal / OEM

Date: 3-27-2023

Contact email: b.h.hergemuller@Co.Liberty.TX.US

Amount of time worked on this document: \_\_\_\_\_

Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

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



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet Capability Assessment

Name: \_\_\_\_\_

Title and Employer: \_\_\_\_\_

Jurisdiction represented: \_\_\_\_\_

Date: \_\_\_\_\_

Amount of time worked  
on this document: \_\_\_\_\_

**Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto: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))*



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

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

<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Yes/ No</b>	<b>1. Is the plan/ordinance an effective measure for reducing hazard impacts? 2. Is the ordinance adequately administered and enforced?</b>
Capital Improvements Plan (Regulates infrastructure in hazard areas)		
Comprehensive Plan		
Continuity of Operations Plan		
Disaster Recovery Plan		
Economic Development Plan		
Emergency Operations Plan		
Floodplain Management Plan		
Hazard Mitigation Plan		
Radiological Emergency Plan		
Regional Planning		
SARA Title III Emergency Response Plan		
Stormwater Management Plan		
Transportation Plan		
Zoning Ordinance		



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Yes/ No</b>	<b>1. Is the plan/ordinance an effective measure for reducing hazard impacts?</b> <b>2. Is the ordinance adequately administered and enforced?</b>
Subdivision Regulation/Ordinance		
Flood Damage Prevention Ordinance		
Floodplain Ordinance		
Natural hazard specific ordinance (Stormwater, wildfire, etc.)		
National Flood Insurance Program		
Flood insurance rate maps		
Community Rating System		
Acquisition of land for open space and public recreation uses		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



# Hazard Mitigation Plan Worksheet Capability Assessment

## 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		
Planning Committee		
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)		
Mutual aid agreement(s)		

Staff	Yes/ No FT/ PT <sup>1</sup>	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	
Civil Engineer	Yes No FT PT	
Community Planner	Yes No FT PT	
Emergency Management	Yes No FT PT	
Floodplain Administrator	Yes No FT PT	
GIS Coordinator	Yes No FT PT	

<sup>1</sup> Full-time (FT) or part-time (PT) position



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

Staff	Yes/ No FT/ PT <sup>1</sup>	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	
Local Staff who can assess community's vulnerability to hazards	Yes No FT PT	
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)		
Hazard data and information		
Grant writing		
HAZUS Analysis		
Other (if any)		

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

<sup>1</sup> Full-time (FT) or part-time (PT) position



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet Capability Assessment

## 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)		
Capital Improvement Plan/ 1- & 5-Year plan		
Capital improvements project funding		
Community Development Block Grant		
Applied for grants in the past		
Awarded a grant in the past		
Gas/Electric Service Fees		
Stormwater Service Fees		
Water/Sewer Service Fees		
Development Impact Fees		
Incur debt through General Obligation Revenue or Special Tax Bonds		
Incur debt through private activities		
Other federal funding programs		
State funding programs		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



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 it 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)		
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)		
Natural Disaster or Safety related school programs		
Storm Ready Certification		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

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?
Firewise Communities Certification		
Tree City USA		
Public-private partnership initiatives addressing disaster-related issues		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		

<b>Overall Capability</b>	<b>Limited/Moderate/High</b>
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?	
<b>How can these overall capabilities be expanded and improved to reduce risk?</b>	



Houston-Galveston Area Council

# 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.

<b>Political Capability</b>	<b>1. List any examples of local political capability</b> <b>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)</b>

## 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.

<b>Jurisdiction Represented:</b>	<b>Building Code, Permitting, and Inspections</b>	<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Administrative &amp; Technical Capability</b>	<b>Financial Capability</b>	<b>Education and Outreach Capability</b>	<b>Political Capability</b>	<b>Overall Capability</b>

**What are some barriers to implementing proposed mitigation strategies?**

**What mechanisms could enhance or further implementation of proposed mitigation strategies?**



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet Capability Assessment

Name: \_\_\_\_\_

Title and Employer: \_\_\_\_\_

Jurisdiction represented: \_\_\_\_\_

Date: \_\_\_\_\_

Amount of time worked  
on this document: \_\_\_\_\_

**Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto: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))*



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

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

<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Yes/ No</b>	<b>1. Is the plan/ordinance an effective measure for reducing hazard impacts? 2. Is the ordinance adequately administered and enforced?</b>
Capital Improvements Plan (Regulates infrastructure in hazard areas)		
Comprehensive Plan		
Continuity of Operations Plan		
Disaster Recovery Plan		
Economic Development Plan		
Emergency Operations Plan		
Floodplain Management Plan		
Hazard Mitigation Plan		
Radiological Emergency Plan		
Regional Planning		
SARA Title III Emergency Response Plan		
Stormwater Management Plan		
Transportation Plan		
Zoning Ordinance		



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Yes/ No</b>	<b>1. Is the plan/ordinance an effective measure for reducing hazard impacts?</b> <b>2. Is the ordinance adequately administered and enforced?</b>
Subdivision Regulation/Ordinance		
Flood Damage Prevention Ordinance		
Floodplain Ordinance		
Natural hazard specific ordinance (Stormwater, wildfire, etc.)		
National Flood Insurance Program		
Flood insurance rate maps		
Community Rating System		
Acquisition of land for open space and public recreation uses		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



# Hazard Mitigation Plan Worksheet Capability Assessment

## 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		
Planning Committee		
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)		
Mutual aid agreement(s)		

Staff	Yes/ No FT/ PT <sup>1</sup>	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	
Civil Engineer	Yes No FT PT	
Community Planner	Yes No FT PT	
Emergency Management	Yes No FT PT	
Floodplain Administrator	Yes No FT PT	
GIS Coordinator	Yes No FT PT	

<sup>1</sup> Full-time (FT) or part-time (PT) position



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

Staff	Yes/ No FT/ PT <sup>1</sup>	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	
Local Staff who can assess community's vulnerability to hazards	Yes No FT PT	
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)		
Hazard data and information		
Grant writing		
HAZUS Analysis		
Other (if any)		

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

<sup>1</sup> Full-time (FT) or part-time (PT) position



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet Capability Assessment

## 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)		
Capital Improvement Plan/ 1- & 5-Year plan		
Capital improvements project funding		
Community Development Block Grant		
Applied for grants in the past		
Awarded a grant in the past		
Gas/Electric Service Fees		
Stormwater Service Fees		
Water/Sewer Service Fees		
Development Impact Fees		
Incur debt through General Obligation Revenue or Special Tax Bonds		
Incur debt through private activities		
Other federal funding programs		
State funding programs		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



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 it 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)		
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)		
Natural Disaster or Safety related school programs		
Storm Ready Certification		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

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?
Firewise Communities Certification		
Tree City USA		
Public-private partnership initiatives addressing disaster-related issues		
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		

<b>Overall Capability</b>	<b>Limited/Moderate/High</b>
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?	
<b>How can these overall capabilities be expanded and improved to reduce risk?</b>	



Houston-Galveston Area Council

# 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.

<b>Political Capability</b>	<b>1. List any examples of local political capability</b> <b>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)</b>

## 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.

<b>Jurisdiction Represented:</b>	<b>Building Code, Permitting, and Inspections</b>	<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Administrative &amp; Technical Capability</b>	<b>Financial Capability</b>	<b>Education and Outreach Capability</b>	<b>Political Capability</b>	<b>Overall Capability</b>
<b>What are some barriers to implementing proposed mitigation strategies?</b>							
<b>What mechanisms could enhance or further implementation of proposed mitigation strategies?</b>							



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet Capability Assessment

Name: Tom Warner

Title and Employer: City Manager, City of Liberty

Jurisdiction represented: City of Liberty

Date: 5/31/2023

Amount of time worked  
on this document: \_\_\_\_\_

**Please return your filled worksheet to [Amanda.Ashcroft@h-gac.com](mailto: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))*



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

<b>Building Code, Permitting, and Inspections</b>	<b>Yes/ No</b>	<b>1. Are codes adequately enforced?</b>
Building Code	Yes	Version/Year: ICS 2018
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Score:
Fire department ISO rating	Yes	Rating: 2
Site plan review requirements	Yes	
Other (if any)		

<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Yes/ No</b>	<b>1. Is the plan/ordinance an effective measure for reducing hazard impacts? 2. Is the ordinance adequately administered and enforced?</b>
Capital Improvements Plan (Regulates infrastructure in hazard areas)	Yes	1. Yes 2. Yes
Comprehensive Plan	Yes	1. Yes 2. Yes
Continuity of Operations Plan	Yes	1. Yes 2. Yes
Disaster Recovery Plan	Yes	1. Yes 2. Yes
Economic Development Plan	Yes	1. Yes 2. Yes
Emergency Operations Plan	Yes	1. Yes 2. Yes
Floodplain Management Plan	Yes	1. Yes 2. Yes
Hazard Mitigation Plan	Yes	1. Yes 2. Yes
Radiological Emergency Plan	Yes	1. Yes 2. Yes
Regional Planning	Yes	1. Yes 2. Yes
SARA Title III Emergency Response Plan	No	
Stormwater Management Plan	Yes	1. Yes 2. Yes
Transportation Plan	Yes	1. Yes 2. Yes
Zoning Ordinance	No	1. Yes 2. Yes



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet

## Capability Assessment

<b>Planning, Ordinances, &amp; Regulatory Capability</b>	<b>Yes/ No</b>	<b>1. Is the plan/ordinance an effective measure for reducing hazard impacts? 2. Is the ordinance adequately administered and enforced?</b>
Subdivision Regulation/Ordinance	Yes	1. Yes 2. Yes
Flood Damage Prevention Ordinance	Yes	1. Yes 2. Yes
Floodplain Ordinance	Yes	1. Yes 2. Yes
Natural hazard specific ordinance (Stormwater, wildfire, etc.)	Yes	1. Yes 2. Yes
National Flood Insurance Program	Yes	1. Yes 2. Yes
Flood insurance rate maps	Yes	1. Yes 2. Yes
Community Rating System	No	
Acquisition of land for open space and public recreation uses	No	
Other (if any)		
<p><b>How can these capabilities be expanded and improved to reduce risk?</b></p> <p>Increase educational outreach to developers, home builders, contractors and homeowners to reinforce the importance of the various development (flood prevention) and building codes to reduce risk.</p>		



Houston-Galveston  
Area Council

# Hazard Mitigation Plan Worksheet Capability Assessment

## 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	1. Yes 2. Yes
Planning Committee	No	
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	1. Yes 2. Yes
Mutual aid agreement(s)	Yes	1. Yes 2. Yes

Staff	Yes/ No FT/ PT <sup>1</sup>	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 <input checked="" type="radio"/> No <input type="radio"/> FT <input type="radio"/> PT <input checked="" type="radio"/>	1. Yes 2. Yes 3. Yes
Civil Engineer	Yes <input checked="" type="radio"/> No <input type="radio"/> FT <input checked="" type="radio"/> PT <input type="radio"/>	1. Yes 2. Yes 3. Yes
Community Planner	Yes <input checked="" type="radio"/> No <input type="radio"/> FT <input checked="" type="radio"/> PT <input type="radio"/>	1. Yes 2. Yes 3. Yes
Emergency Management	Yes <input checked="" type="radio"/> No <input type="radio"/> FT <input checked="" type="radio"/> PT <input type="radio"/>	1. Yes 2. Yes 3. Yes
Floodplain Administrator	Yes <input checked="" type="radio"/> No <input type="radio"/> FT <input type="radio"/> PT <input checked="" type="radio"/>	1. Yes 2. Yes 3. Yes
GIS Coordinator	Yes <input checked="" type="radio"/> No <input type="radio"/> FT <input type="radio"/> PT <input checked="" type="radio"/>	1. Yes 2. Yes 3. Yes

<sup>1</sup> Full-time (FT) or part-time (PT) position



Houston-Galveston Area Council

# Hazard Mitigation Plan Worksheet Capability Assessment

Staff	Yes/ No FT/ PT <sup>1</sup>	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 <input checked="" type="radio"/> No <input type="radio"/> FT <input type="radio"/> PT <input checked="" type="radio"/>	1. Yes 2. Yes 3. Yes
Local Staff who can assess community's vulnerability to hazards	Yes <input checked="" type="radio"/> No <input type="radio"/> FT <input checked="" type="radio"/> PT <input type="radio"/>	1. Yes 2. Yes 3. Yes
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	
Hazard data and information	No	
Grant writing	Yes	City retains a third party to assist in grant writing process. Yes.
HAZUS Analysis	Yes	HGAC is currently being updating the 2018 analysis for the City.
Other (if any)		

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

<sup>1</sup> Full-time (FT) or part-time (PT) position

# Hazard Mitigation Plan Worksheet Capability Assessment

## 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)	Yes	1. Yes 2. Yes
Capital Improvement Plan/ 1- & 5-Year plan	Yes	1. Yes 2. Yes
Capital improvements project funding	Yes	1. Yes 2. Yes
Community Development Block Grant	Yes	1. Yes 2. Yes
Applied for grants in the past	Yes	1. Yes 2. Yes
Awarded a grant in the past	Yes	1. Yes 2. Yes
Gas/Electric Service Fees	Yes	1. Yes 2. Yes
Stormwater Service Fees	No	Note: The City lies within the boundaries of WCID#5 - a taxing entity
Water/Sewer Service Fees	Yes	1. Yes 2. Yes
Development Impact Fees	No	
Incur debt through General Obligation Revenue or Special Tax Bonds	Yes	<b>1. Yes 2. Yes</b>
Incur debt through private activities	No	
Other federal funding programs	Yes	1. Yes 2. Yes
State funding programs	Yes	1. Yes 2. Yes
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



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 it 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	Baptist Men, UN Army, Red Cross  These organizations assist with disaster with disaster recovery, community assistance and short term/medium term sheltering of our citizens.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Fire prevention is currently discussed in the schools and day care facilities in our area. A community hurricane preparedness meeting with the County is held in June that citizens can attend and discuss hurricane preparedness.
Natural Disaster or Safety related school programs	No	
Storm Ready Certification	No	
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		
Increase educational outreach to developers, home builders, contractors and homeowners to reinforce the importance of the various development (flood prevention) and building codes 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 disaster resilience and mitigation. 2. 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	No	
Other (if any)		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		

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



Houston-Galveston Area Council

# 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.

<b>Political Capability</b>	<p><b>1. List any examples of local political capability</b> 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)</p>
<p>City Council has been receptive to approving regulations that minimize or eliminate damages from man-made and/or natural disasters.</p>	

## 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 Represented:	Building Code, Permitting, and Inspections	Planning, Ordinances, & Regulatory Capability	Administrative & Technical Capability	Financial Capability	Education and Outreach Capability	Political Capability	Overall Capability
	High	High	High	Limited	Moderat	Moderat	Moderat
<b>What are some barriers to implementing proposed mitigation strategies?</b>							
One of the barriers is lack of citizen involvement and input. Although many people are willing to give their opinions very few are willing to serve on boards or committees that address these issues. Another barrier is the lack of consistent - low cost - financial assistance from state and federal agencies.							
<b>What mechanisms could enhance or further implementation of proposed mitigation strategies?</b>							
Low cost state and federal funding.							



Houston-Galveston  
Area Council

# Liberty County Multi-Jurisdictional Hazard Mitigation Plan, Meeting Notes

8/9/2023

## AGENDA

**6:00 PM**

**Welcome**

**Introductions**

**Timeline**

H-GAC staff will discuss project timeline and next steps

**Public Input Activities**

**H-GAC Website Updates**

**8:00 PM**

**Adjourn**

## ATTENDANCE

Name	Title	Organization
Amanda Ashcroft	H-GAC	Planner, Community & Environmental
Elanie Rosser	Safety & Security	Liberty ISD
James Leonard	WCID #5	President
Carolyn Horn	WCID #5	
Steve Horelica	City of Devers	Mayor
James Poitevent	WCID #5	General Manager
Madison Gonzalez	Liberty County	Asst. Emergency Management Coordinator
Shane Burleigh	City of Dayton	Emergency Management Coordinator
Cheryl Mergo	H-GAC	Senior Manager, Community & Environmental
Bill Hergemueller	Liberty County	Emergency Management Coordinator, Fire Marshall
Sean Anderson	City of Cleveland	Emergency Management Coordinator
Joan Caruthers	City of Daisetta	City Secretary
Kimberly Judge	City of Dayton	City Manager
April Davenport	City of Dayton	Public Works Administrator



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan, Meeting Notes

8/9/2023

## MEETING NOTES

### Online Survey Results Recap

H-GAC staff summarized and presented survey responses from the public hazard mitigation survey available online. There were 7 responses from Liberty County residents. The survey will remain open to gather more responses and another push to residents will go out. The survey will close on October 1.

### Timeline

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

### Public Engagement Event Planning

The hazard mitigation committee picked a date, time, and location for two (2) public meetings to be held in the north and south portions of the County. At the public meetings stakeholders will be introduced to the hazard mitigation plan, the update process, and engaged in activities meant to gather public input on the plan.

Public Meeting #1:

**September 6th, 2023, from 6-8 PM at the Cleveland Civic Center**  
210 Peach Ave., Cleveland, TX, 77327

Public Meeting #2:

**September 7th, 2023, from 6-8 PM at the Dayton Community Center**  
801 S Cleveland St., Dayton, TX, 77535

Additionally, committee members reminded all that October 13th-21st is the Trinity Valley Exposition, and Liberty County Trade Days occurs every 3<sup>rd</sup> weekend- both events garner a lot of participation from the community and would be great to “drop-in” for feedback. H-GAC staff will inquire as to participating at these events if schedules allow.

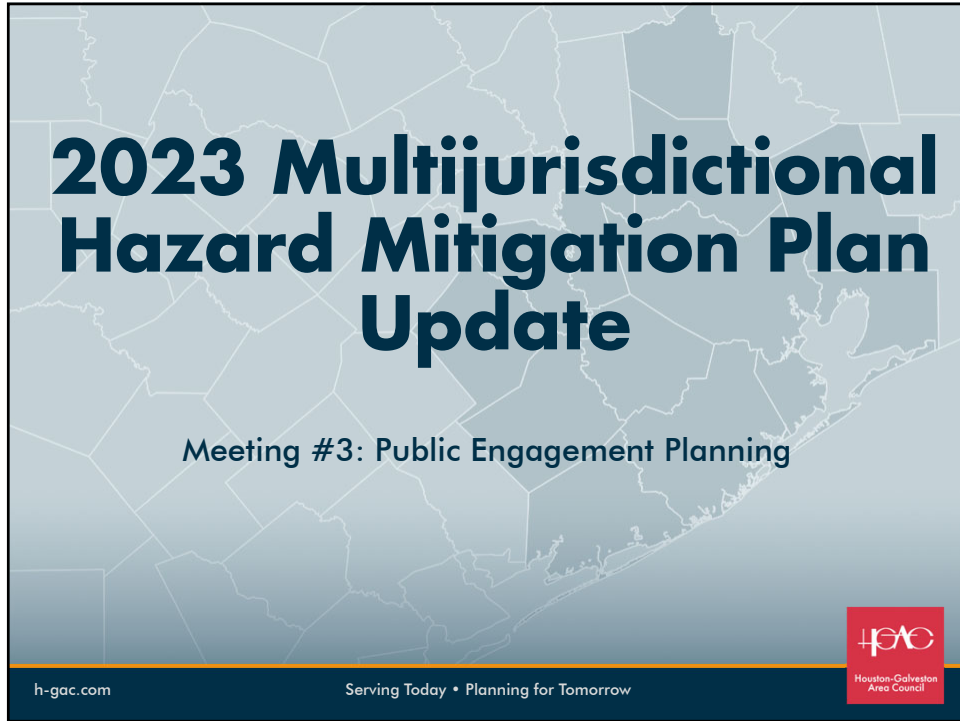
### H-GAC Website Updates

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

### Next Steps

Next steps were assigned to members of the local planning team. H-GAC staff will create public meeting flyers to be sent out to the committee and shared with stakeholders on different platforms (City websites, Facebook pages, printing copies to post to city hall or common areas, etc.).


**Meeting adjourned at 11:05 AM.**



# 2023 Multijurisdictional Hazard Mitigation Plan Update

Meeting #3: Public Engagement Planning

h-gac.com      Serving Today • Planning for Tomorrow



1

## Meeting Agenda

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

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2

# Online Survey Results

- 7 responses
  - Share! Share! Share!
  
- Survey is still open
  - Please share with your communities!
  - When do we want to close the survey to new responses?

-SURVEY RESPONSE REVIEW-



3

# Updated Project Timeline

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



4

# Public Engagement Event

- Location
  - ?
- Date
  - ? Dependent on availability of location
- Time
  - ?
- Format
  - 2-hour Public Meeting/Hearing?
    - Presentation, activities for engagement, after normal work hours, opportunities for questions/input/discussion
  - ½ or all-day pop-in event?
    - Engagement activities in one space available all day for stakeholders

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# H-GAC Website Updates

## Hazard Mitigation Planning

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

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

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

### Hazard Mitigation Plans

Austin County 1	▼
Brazoria County 1	▼
Chambers County 1	▼
City of Angleton	▼

### Hazard Mitigation Planning

#### Contact Information

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

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



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# Contact Information

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



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LIBERTY COUNTY

# Multijurisdictional Hazard Mitigation Plan Update



## Public Meeting

TWO DATES | TWO LOCATIONS



**2 Hour Event**

**Learn about  
the Hazard  
Mitigation Plan  
Update and  
provide  
feedback.**

**Date:**

**Wednesday**

September 6, 2023

**Location:**

**Cleveland Civic Center**

210 Peach Ave.,  
Cleveland, TX 77327

**Time:**

6:00– 8:00 PM

**Thursday**

September 7, 2023

**Dayton Community Center**

801 S Cleveland St.,  
Dayton, TX 77535

6:00– 8:00 PM

**For More Information: [www.h-gac.com/regional-hazard-mitigation-planning](http://www.h-gac.com/regional-hazard-mitigation-planning)**

H-GAC, in partnership with Liberty County, City of Ames, City of Cleveland, City of Daisetta, City of Dayton, City of Dayton Lakes, City of Devers, City of Hardin, City of Kenefick, City of Liberty, City of North Cleveland, and City of Plum Grove will be hosting a public meeting on September 6<sup>th</sup> and 7<sup>th</sup> from 6:00- 8:00 PM to gather input from Liberty County stakeholders to be used in updating the Liberty County Multijurisdictional Hazard Mitigation Plan.

The purpose of this public meeting is to provide a project overview from H-GAC staff, solicit feedback and information from stakeholders, and answer any questions. Public input will help the project team to analyze potential hazards affecting Liberty County residents and recommend possible actions to reduce their impact.

**Public Meeting #1:**

**September 6th, 2023, from 6-8 PM** at the [Cleveland Civic Center](#)  
210 Peach Ave., Cleveland, TX, 77327

**Public Meeting #2:**

**September 7th, 2023, from 6-8 PM** at the [Dayton Community Center](#)  
801 S Cleveland St., Dayton, TX, 77535

The goal of the Hazard Mitigation Plan is to reduce or eliminate long-term risk to life and property from natural hazard events by identifying and implementing cost-effective mitigation actions. Mitigation is defined by the Federal Emergency Management Agency (FEMA) as sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects. **Your input is critical in helping to ensure we know your concerns and build a plan that helps address them.**

A public participation survey is available online at: <https://form.jotform.com/231164320416040> or by scanning the QR code below.



Questions regarding the Liberty County Multijurisdictional Hazard Mitigation Plan Update can be sent to Amanda Ashcroft, [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

Liberty County Public Meeting, Sign-in Sheets  
9/6/2023  
6-8 PM

Cleveland Civic Center  
210 Peach Ave.  
Cleveland, Texas 77327







Help us fund hazard mitigation projects and tell us which projects should be prioritized.

**Instructions**  
Take three (3) dollars.

Put a label on each dollar that says which hazard mitigation project it should be spent on.

Place the money in the blue box.



Dayton Community Center



Are you aware of any specific vulnerable problem areas in your community/city/county? List street names or location identifiers.  
(For example: flood-prone areas or properties, critical facilities that lack a backup power source)

Flood prone  
threats at Washington  
- 2nd Ave  
N. Travis  
5th St  
4th St  
Elk

(City of Cleveland)

CR 319 @ S Travis  
North 70 @ Hanson  
James  
Triumph @ Lyfearns  
Shell

(City of Cleveland)

ELM  
Glen  
Hanson @ William  
Barnett  
S. Roosevelt  
Wells St.

(City of Cleveland)

Finley

- Bayou "hoose" +  
Tarkington Bayou

- Washington +  
321/7x 105 Trill  
Improvements

CR 332 Gladys  
between FM 1010  
and 59th

CR 331 Gulf Rd  
CR 370 Eastman Cr.  
CR 373

What actions would help to reduce damages of future hazard events in your community or the county as a whole?

Clearing out water  
ways for drainage.

- Tarkington Bayou  
Lucy Bayou

Clear Gutters, down trees  
from San Jacinto (East Fork)

(City of Cleveland)

Better Power Grid  
Around Cleveland Area

Assistance from TxDOT  
to help eliminate flooding  
@ <sup>South</sup> East side of Cleveland.

Flood Prone  
Houston st @ Washington  
- 2nd Ave  
N. Travis

5th ST  
4th ST

Elk (City of Cleveland)

ELM Drainage  
Lum

Hanson @ William  
Barnett  
B. Roosevelt  
Wells ST.

(City of Cleveland)

Flooding

- Bayou Reese" +  
Tarkington Bayou

- Washington +  
321/TX. 105 Traffic  
Improvements

CR 319 @ S. Travis  
Mandry 7 @ Hanson  
Tanner

Truman @ Lytle was  
shell

(City of Cleveland)

CR 3990  
3991  
3992  
3993  
3994  
3995  
3996  
3997

CR 332 Gladstell  
between FM 1010  
and 59N.

CR 331 Gulf Rd  
CR 370 East River St.  
CR 373

Liberty County Public Meeting, Sign-in Sheets  
9/7/2023  
6-8 PM

Dayton Community Center  
801 S Cleveland St,  
Dayton, TX 77535





# HAZARD MITIGATION 2023 WE NEED YOUR INPUT

The Hazard Mitigation Area District (HAC) is working in partnership with the City of Arlington, as well as Austin, Liberty, and North Carroll, Cities of Emergency Management, to develop a Hazard Mitigation Plan to reduce or eliminate long-term risk to life and property from natural hazards events. The plan will analyze and identify natural and human-caused hazards to the county and prioritize actions that are susceptible to and identify actions that can be implemented to reduce a probability and/or range of potential impacts.

**Instructions:** We need your input to help identify hazards you think we should prepare for and rank them in order of priority. Please use the TOP THREE (3) hazards you are MOST CONCERNED about below.

## CLIMATE CHANGE

(OTHER THAN SEA LEVEL RISE)

## CYBER THREATS

## DAM/LEVEE FAILURE

## DROUGHT & EXPANSIVE SOILS

## EARTHQUAKE

## EROSION

## EXTREME HEAT

## FLOODS/FLOODING

## GEOLOGIC

## HAZMAT/BIOLOGICAL SPILL

## HURRICANE

## INVASIVE SPECIES

## PANDEMIC

## SEVERE WEATHER

## SEVERE WINTER WEATHER

## SEA LEVEL RISE

## TORNADO

## WATER QUALITY AND QUANTITY

## WILDFIRE

## WINDSTORM

## OTHER

## UNLATE SPECIFIC

Instructions: Use Markers, sticky notes, Post-its, etc. to mark the Rank (1-3) hazard of concern.



# HAZARD MITIGATION 2023

## WE NEED YOUR INPUT

The Houston-Galveston Area Council (H-GAC) is leading the update of Hazard Mitigation Plans (HMPs) in partnership with the City of Angleton, as well as Austin, Liberty, and Walker Counties' Offices of Emergency Management. **The goal of the Hazard Mitigation Plan is to reduce or eliminate long-term risk to life and property from natural hazard events.** The plan will analyze and identify natural and human-caused hazards the county and participating jurisdictions within them are susceptible to, and identify actions that can be implemented to reduce vulnerability and damage from these hazards.

**Instructions:** We need your input to help identify hazards you think we should prepare for, and how! Place a sticker next to the **TOP THREE (3)** hazards you are **MOST CONCERNED** about below.

### CLIMATE CHANGE

(OTHER THAN SEA LEVEL RISE)

### CYBER THREATS



### DAM/LEEVE FAILURE



### DROUGHT & EXPANSIVE SOILS



### EARTHQUAKE

### EROSION

### EXTREME HEAT



### FLOODS/FLOODING



### GEOLOGIC

(LANDSLIDE, SINKHOLES, SUBSIDENCE)

### HAZMAT/BIOLOGICAL SPILL

### HURRICANE:

TROPICAL STORM, OR TROPICAL DEPRESSION



### INVASIVE SPECIES

### PANDEMIC

(EMERGING INFECTIOUS DISEASES)

### SEVERE WEATHER

(THUNDERSTORM, HAILSTORM, LIGHTNING)



### SEVERE WINTER WEATHER

(BLIZZARD, HEAVY SNOW, ICE)



### SEA LEVEL RISE

### TORNADO



### WATER QUALITY AND QUANTITY



### WILDFIRE



### WINDSTORM

### OTHER

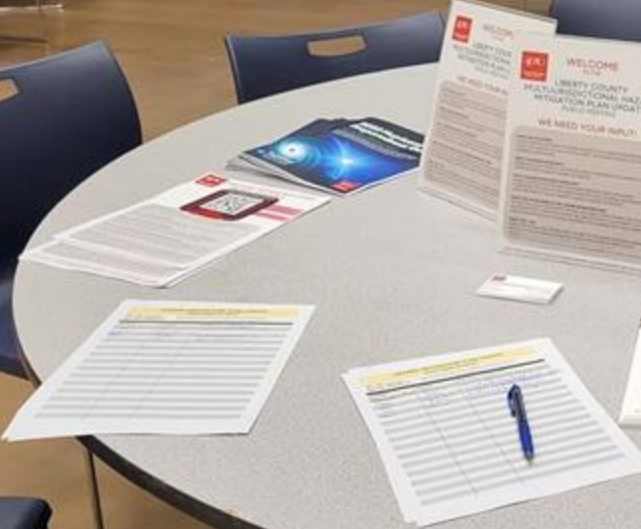
(PLEASE SPECIFY)

QUESTIONS? Contact Amanda Ashcroft at [Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)



## Overview- Why are we here?

- Why are we here?
- What are we doing?
- How are we doing it?
- What are the goals?
- What are the challenges?
- What are the opportunities?
- What are the risks?
- What are the next steps?
- How do we measure success?
- How do we communicate?
- How do we engage the community?
- How do we build trust?
- How do we ensure transparency?
- How do we ensure accountability?
- How do we ensure inclusivity?
- How do we ensure equity?
- How do we ensure sustainability?
- How do we ensure resilience?
- How do we ensure adaptability?
- How do we ensure innovation?
- How do we ensure collaboration?
- How do we ensure partnership?
- How do we ensure leadership?
- How do we ensure vision?
- How do we ensure mission?
- How do we ensure values?
- How do we ensure culture?
- How do we ensure identity?
- How do we ensure reputation?
- How do we ensure brand?
- How do we ensure messaging?
- How do we ensure consistency?
- How do we ensure clarity?
- How do we ensure simplicity?
- How do we ensure focus?
- How do we ensure execution?
- How do we ensure results?
- How do we ensure impact?
- How do we ensure legacy?



How can the county or city help you become better prepared for hazards?

Communication

- Networking, Council
- L.E. working together w/ F.D.

- Better communication
- improve public service

Communication  
&  
Resources

How do you receive your information concerning hazards?

None  
Social Media:  
FB  
Twitter  
Emails

Text  
Web sites

Text  
Fire Dept

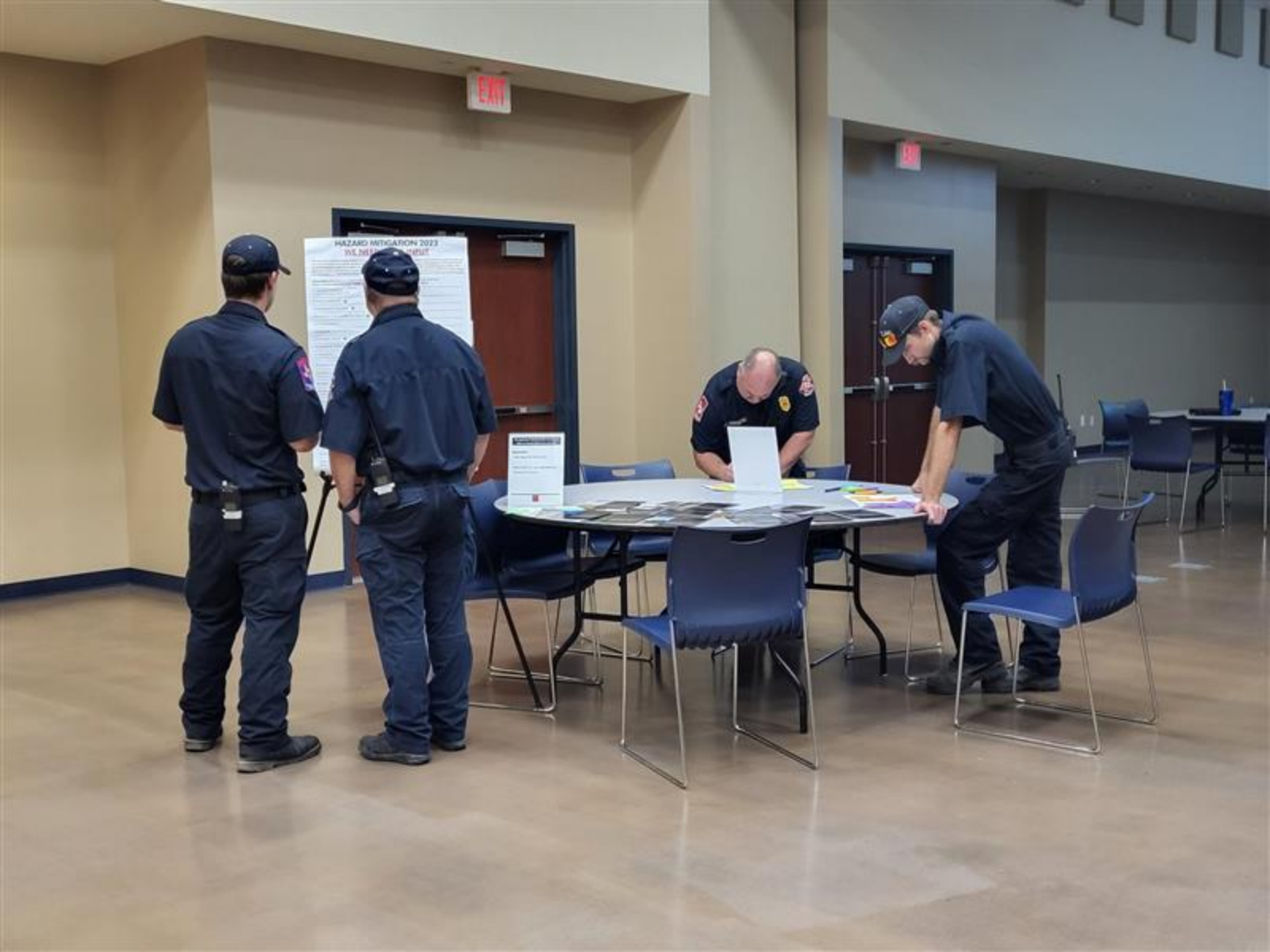
Do you have any other comments regarding hazard mitigation in the City of Angleton, Austin County, Liberty County, or Walker County?

Fix Damage and  
the Road for  
Huffman/Cleveland  
Road in the Pleasant  
 Grove area.

Road is still  
washed out  
from Harvey

- Rec Info through  
E.O.M.

- Continue to work on  
Traffic Flow in  
Growing Community -  
mobility



HAZARD MITIGATION 2023  
WILMINGTON POLICE

AGENDA





# Liberty County Multi-Jurisdictional Hazard Mitigation Plan, Meeting Notes

## 11/13/2023

### A G E N D A (10/4/2023)

**10:00 AM**                      **Welcome, Introductions, and Sign-in**

**10:10 AM**                      **Survey, Data, and Mapping Updates**

**Plan Goals Discussion**

**Plan Maintenance Procedures**

**Mitigation Action Plans**

H-GAC staff will discuss the components of the mitigation action plan, project categories, ideas, plan goals, and plan maintenance procedures.

**Next Steps**

H-GAC staff will discuss the project timeline and next steps.

**Q&A**

**12:00 PM**                      **Adjourn**

### A T T E N D A N C E

Name	Organization	Title
Amanda Ashcroft	Planner, Community & Environmental	H-GAC
Cheryl Mergo	Senior Manager, Community & Environmental	H-GAC
Barbara L. Domain	City of Ames	Mayor
Shane Burleigh	City of Dayton	Emergency Management Coordinator
Joan Caruthers	City of Daisetta	City Secretary
Eric Thaxton	City of Daisetta	Mayor
Brian Hurst	City of Liberty	Fire Chief
Damon Jones	City of Liberty	Public Works
Eric McDaniel	City of Liberty	Asst. Fire Chief
Bill Hergemueller	Liberty County	Bill Hergemueller
Danielle Andrews	Liberty County	Danielle Andrews
Madison Gonzalez	Liberty County	Madison Gonzalez
James Canfield	Liberty County WCID #1	James Canfield
Linda Trichell	Liberty County WCID #1	Secretary/Treasurer
James Leonard	Liberty County WCID #5	President
Carolyn Horn	Liberty County WCID #5	
James Poitevent	Liberty County WCID #5	General Manager
David Papillion	Liberty County WCID #5	



# Liberty County Multi-Jurisdictional Hazard Mitigation Plan, Meeting Notes

## 11/13/2023

## MEETING NOTES

### Survey, Data, and Mapping Updates

H-GAC staff and hazard mitigation committee members discussed a closing date for the online survey. The survey has been open for responses beginning May 2023 and was heavily advertised at outreach events and through county and city websites. Liberty County had a total of 65 responses. H-GAC staff presented 8 maps developed for the Hazard Mitigation Plan. Map changes requested by the committee were notated, corrected maps will be presented at the next meeting. A PDF of all maps and survey data will also be added to the Liberty County external HMP SharePoint

### Plan Goals Discussion & Plan Maintenance Procedures

The hazard mitigation committee discussed plan goals and maintenance procedure from the 2017 plan. H-GAC staff introduced plan goals from some of the more recent hazard mitigation plan within the region, highlighted language used, and gave suggestions about how goals from the 2017 plan could be expanded or updated.

Plan goals included:

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

The hazard mitigation committee and H-GAC staff then discussed plan maintenance procedures and noted updates for 2023/2024.

### Mitigation Action Plans

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



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# Liberty County Multi-Jurisdictional Hazard Mitigation Plan, Meeting Notes 11/13/2023

## **Next Steps**

H-GAC staff highlighted resources and discussed the benefit cost analysis tool through FEMA, including when it would be required for use. H-GAC staff and the hazard mitigation committee then discussed next steps which included the online form for action item submittal- changes to be made to the form, and individual meetings for further assistance. The committee then discussed the possibility of an online format to share project ideas or quotes to make the action item submittal process easier all.

**Meeting adjourned at 11:35 AM.**

# 2023 Multijurisdictional Hazard Mitigation Plan Update

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

# Meeting Agenda

**Welcome, Introductions, and Sign-in**

**Survey, Data, and Mapping Updates**

**Plan Goals Discussion**

**Plan Maintenance Procedures**

**Mitigation Action Plans**

**Next Steps**

**Q&A**

# Visualizing Risk

- Survey: Closed on 10/31/2023
  - Open for 5 months
  - 65 responses
- Today: Reviewing maps
  - Floodplain
  - Population Distribution
  - Wildfire Risk
  - Vulnerable Population (and Social Vulnerability Index)
- What changes do you want to see?
- Are there any corrections that need to be made?

# Mitigation Strategy

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

# Plan Goals

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

# Our Plan Goals (2017)

## Mission Statement

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

## Mitigation Goals

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

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

# Plan Goals Update (ideas)

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

# Plan Goals- Discussion

# Plan Maintenance

- D1. Is there discussion of how each community will continue public participation in the plan maintenance process?
  - (Requirement 44 CFR § 201.6(c)(4)(iii))
- D1-a. The plan must describe how the participant(s) will continue to seek public participation after the plan has been approved and during the plan's implementation, monitoring, and evaluation.
- D2-a. The plan must identify how, when and by whom the plan will be tracked for implementation over its five-year cycle (monitoring).

# Plan Maintenance- Discussion

# Mitigation Actions

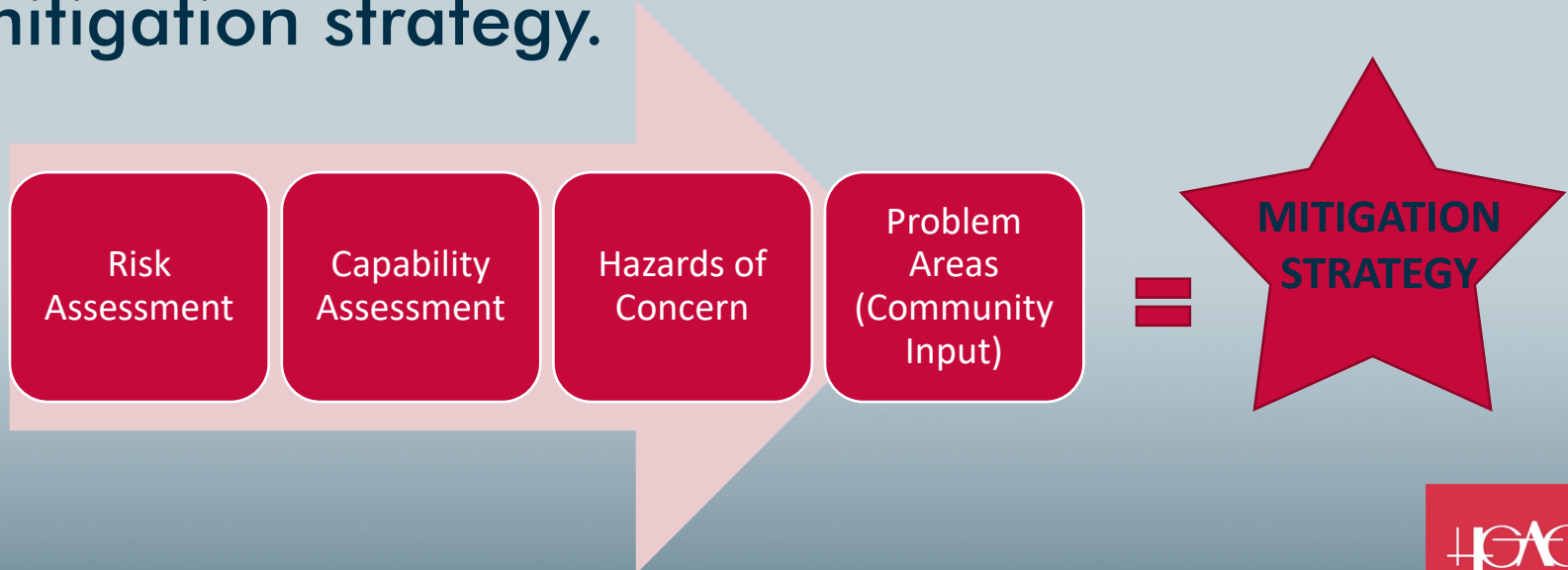
- 4 Main categories
  - Local Planning and Regulations
  - Structure and Infrastructure (Studies and Projects)
  - Natural Systems Protection (Studies and Projects)
  - Education and Awareness Programs

# How Do I Draft Actions?

- Start with reviewing actions from the last plan
  - Include actions that will be carried over
- Identify problems
  - Review stakeholder input from surveys and events
  - Review risk and capability assessments
  - Review vulnerable areas
    - RL/SRL properties
    - Stormwater/urban flooding areas
    - Critical facilities and lifelines located in hazard areas
- Ask for help
  - We are here as a resource!

# Mitigation Actions Cont.

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



# Updates

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

# How Do I Draft Actions?

- Start with reviewing actions from the last plan
  - Include actions that will be carried over
- Identify problems
  - Review stakeholder input from surveys and events
  - Review risk and capability assessments
  - Review vulnerable areas
    - RL/SRL properties
    - Stormwater/urban flooding areas
    - Critical facilities and lifelines located in hazard areas
- Ask for help
  - We are here as a resource!

# Action Item Submittal

<https://form.jotform.com/233158172236959>

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

# Resources

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

# Benefit Cost Analysis

- RESOURCES:
  - [FEMA Benefit-Cost Analysis](#)
  - [FEMA Streamlined Benefit-Cost Analysis](#)

# Next Steps

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

# Contact Information

**Amanda Ashcroft, AICP**

*Planner, Community & Environmental*

Houston-Galveston Area Council

[Amanda.Ashcroft@h-gac.com](mailto:Amanda.Ashcroft@h-gac.com)

713-993-4545



# Liberty County Hazard Mitigation Plan Committee Meeting 3/7/2024

## A G E N D A

**9:30 AM**                      **Welcome & Roll Call**

**9:45 AM**                      **Draft Plan Review**

The draft of the Liberty County Hazard Mitigation Plan Update will be emailed to you before the meeting. Please review the plan and bring your comments, questions, or any changes you'd like to see to the meeting.

### **Items Needed**

We will discuss items I need from the Hazard Mitigation Committee members to finish certain sections of the plan.

### **Action Item Check-in**

We will review a [short video](#) regarding the [BCA Excel plug-in](#) and discuss action item submittals.

### **Next Steps**

H-GAC staff will discuss the project timeline and next steps.

**11:30 AM**                      **Adjourn**

## **Resources to Remember:**

[Mitigation Ideas](#)

[Mitigation Best Practices](#)

[Mitigation Funding Resource Guide](#)

[Local Mitigation Planning Handbook](#)

[Building Community Resilience with Nature-Based Solutions](#)

[Hazard Mitigation Assistance- Mitigation Action Portfolio \(2023\)](#)

[Hazard Mitigation Assistance- Mitigation Action Portfolio \(2020\)](#)



# Liberty County Hazard Mitigation Plan Committee Meeting 3/7/2024

## ATTENDANCE

Name	Organization	Title
Paola Palacio	Bridge Haven Children's Advocacy Center	Operations Director
Shane Burleigh	City of Dayton	Emergency Management Coordinator
Brian Hurst	City of Liberty	Fire Chief
Eric McDaniel	City of Liberty	Asst. Fire Chief
Tom Warner	City of Liberty	City Manager
Amanda Ashcroft	Houston-Galveston Area Council	Planner, Community & Environmental Planning
Danielle Andrews	Liberty County	Office Manager
Madison Gonzalez	Liberty County	Asst. Emergency Management Coordinator
Elanie Rosser	Liberty ISD	Safety & Security
Larry Macneil	Liberty/Dayton Regional Medical Center	PIO/ Senior Liason
Merryl Holmes	TDEM	Regional Hazard Mitigation-Region 4
James Leonard	Liberty County WCID #5	President
David Papillion	Liberty County WCID #5	
Joan Caruthers	City of Daisetta	City Secretary
Sean Anderson	City of Cleveland	Emergency Management Coordinator
Barbara L. Domain	City of Ames	Mayor
Rory Handley	City of Kenefick	Alderman
Patricia Johnson	City of Hardin	City Secretary

## MEETING NOTES

### **Draft Plan Review- Open Discussion:**

H-GAC staff and hazard mitigation committee members reviewed and discussed the draft plan sections 1-6, 6.1, and 6.5. This was an open discussion among the committee to note any changes needed, confirm language used in certain sections and address any concerns.

### **Items Needed**

H-GAC staff and hazard mitigation committee members discussed items needed to complete certain draft sections of the plan- mainly limitations or expansion opportunities with individual jurisdictions within the capability assessment. H-GAC noted that a risk assessment and capability assessment document was still needed from the City of Kenefick and City of Hardin.

### **Action Item Check-in- Mitigation Action Plans**

H-GAC staff had a quick action item check-in with the hazard mitigation committee to see where everyone was at as far as submitting action items for the plan update. H-GAC agreed to send individual emails to all plan participants that would include their action items, tables to fill out regarding if they were being removed or kept in the plan, and a table to fill out if new action items were being added and how all items would be prioritized by the participating jurisdiction. The committee reviewed the BCA analysis toolkit and how to fill it out.



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# Liberty County Hazard Mitigation Plan Committee Meeting 3/7/2024

## **Next Steps**

Next steps for the committee were discussed and included submitting action items/responding to the individual emails, drafting the remaining hazard profiles and plan sections, and scheduling a virtual meeting to review all remaining plan sections when action items are in from all participants. The committee set a date of 3/29 (end of March) to have all action items and other items requested returned to H-GAC staff.

**Meeting adjourned at 11:15 AM.**



# Liberty County Hazard Mitigation Plan Committee Meeting

4/4/2024 (Virtual, via Teams)

## A G E N D A

**10:00 AM**

### **Welcome & Roll Call**

#### **Draft Plan Review**

The draft of the Liberty County Hazard Mitigation Plan Update will be emailed to you before the meeting. Please review the plan and bring your comments, questions, or any changes you'd like to see to the meeting.

#### **All Jurisdiction Action Items**

We will discuss keeping or removing action items that reference "All Participating Jurisdictions" in the plan.

#### **Items Needed**

We will discuss any outstanding items needed from the Hazard Mitigation Committee member.

#### **Public Input Survey**

H-GAC staff will discuss the public input survey for comments on the draft plan. All participating jurisdictions should share the survey flyer or link.

#### **TDEM Submittal**

H-GAC staff will discuss/share the TDEM Submittal project review checklist.

#### **Plan Approval**

HMC members and H-GAC staff will discuss the plan approval process, public notice periods, resolution wording, and plans for when city council/boards may place the plan on their agenda for approval.

**11:30 AM**

### **Adjourn**



# Liberty County Hazard Mitigation Plan Committee Meeting

4/4/2024 (Virtual, via Teams)

## ATTENDANCE

Name	Organization	Title
Paola Palacio	Bridge Haven Children's Advocacy Center	Operations Director
Darrel Broussard	City of Cleveland	Chief of Police
Shane Burleigh	City of Dayton	Emergency Management Coordinator
Brian Hurst	City of Liberty	Fire Chief
Tom Warner	City of Liberty	City Manager
Amanda Ashcroft	Houston-Galveston Area Council	Planner, Community & Environmental Planning
Cheryl Mergo	Houston-Galveston Area Council	Senior Manager, Community & Environmental Planning
Madison Gonzalez	Liberty County	Asst. Emergency Management Coordinator
Elanie Rosser	Liberty ISD	Safety & Security
Larry Macneil	Liberty/Dayton Regional Medical Center	PIO/ Senior Liaison
Merryl Holmes	TDEM	Regional Hazard Mitigation- Region 4
James Poitevent	Liberty County WCID #5	General Manager

## MEETING NOTES

### Draft Plan Review- Open Discussion:

H-GAC staff and hazard mitigation committee members gave an update on the draft plan. H-GAC staff emphasized the need for participation and getting action item questionnaires/tables that were sent out to each participating jurisdiction last week returned to get a final draft of the plan in for review and approval by TDEM and FEMA.

### All Jurisdiction Action Items

H-GAC staff and hazard mitigation committee members discussed the action items that referenced all participating jurisdictions. Discussions were held to determine if the action item was still applicable for this plan update, if the item needed to be edited in any way (cost estimate, partners, wording, etc.), or if the item should be removed with a justification for removal. These will be updated accordingly and reviewed at the next meeting.

### Items Needed

H-GAC staff and hazard mitigation committee members discussed items needed to complete the draft plan-action item review for the 2017 plan and the addition of new items (if applicable) for participating jurisdictions. H-GAC staff outlined jurisdictions that had not yet responded to the individual emails that went out after the last meeting regarding these items. H-GAC staff and Liberty County OEM will be following up individually. **These items are needed to finalize the HMP draft!** Staff will include a link to book a meeting should anyone need further assistance with action item review, drafting, or FEMA BCA scores.



# Liberty County Hazard Mitigation Plan Committee Meeting

4/4/2024 (Virtual, via Teams)

## **Public Input Survey**

H-GAC staff highlighted the remaining steps for plan approval, which included a public input survey so residents and interested parties can provide comments on the draft plan when it is completed. H-GAC staff showed the hazard mitigation committee members what the survey would look like via JotForm, and why certain information (such as name and affiliation) was left optional should anyone want to leave an anonymous comment.

## **TDEM Submittal & Plan Approval**

The next steps for the draft plan, AFTER all action items and requested information from participating jurisdictions are received, were outlined by H-GAC staff and the TDEM liaison. When the plan draft is completed, it will be sent to the TDEM liaison with the plan approval checklist. After the liaison reviews the plan, it will be sent to TDEM HQ for review, and from there it will go to FEMA for review/approval. While the plan is moving through this review and approval process all jurisdictions will be expected to push the public survey, post flyers that link to the plan and survey in city hall and other public spaces, and host public hearings or informational events for citizens. When FEMA approves the plan all jurisdictions will begin the process of adopting the plan via resolution. H-GAC staff highlighted they have templates for resolutions, public hearing notices, information flyers, etc. ready to go when the draft is completed and submitted for review.

The topic of removing participating jurisdictions that have not attended a meeting or responded to Liberty County OEM or H-GAC staff was also brought up. Staff will reach out to these non-participants one final time, if there is no response, they will be removed from this HMP update.

**Meeting adjourned at 10:55 AM.**

# Appendix E

## SURVEY RESULTS

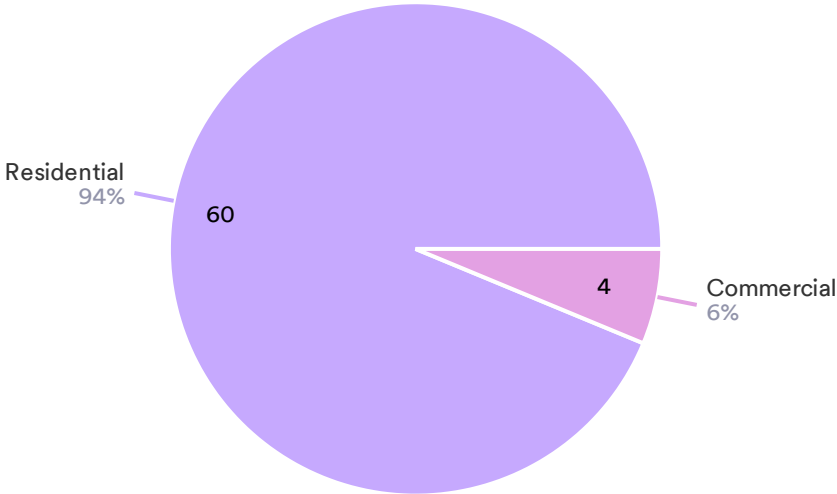
# Liberty County

2023 HMP Public Survey Results (to date)

# Hazard Mitigation Plan Survey

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

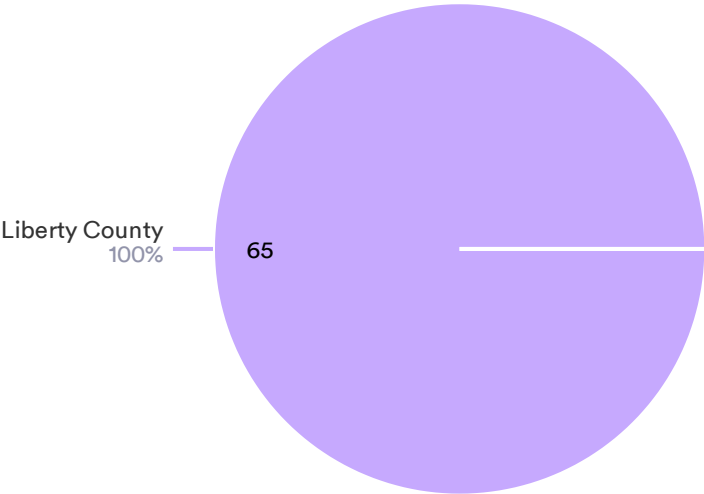
64 Responses



● Residential ● Commercial

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

65 Responses



● Liberty County

# Hazard Mitigation Plan Survey

## In what city is the property located?

63 Responses

Data	Responses
Daisetta	22
Devers	20
Cleveland	9
Liberty	5
Hull	3
Raywood	1
Hardin	1
Old river	1
Tarkington	1

## What is the zip code for the property?

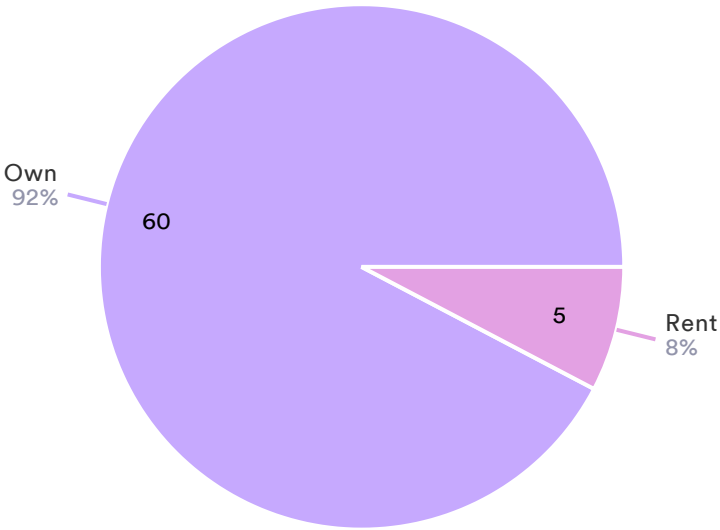
65 Responses

Data	Responses
77533	22
77538	19
77327	10
77575	8
77564	3
77535	1
77328	1
77548	1

# Hazard Mitigation Plan Survey

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

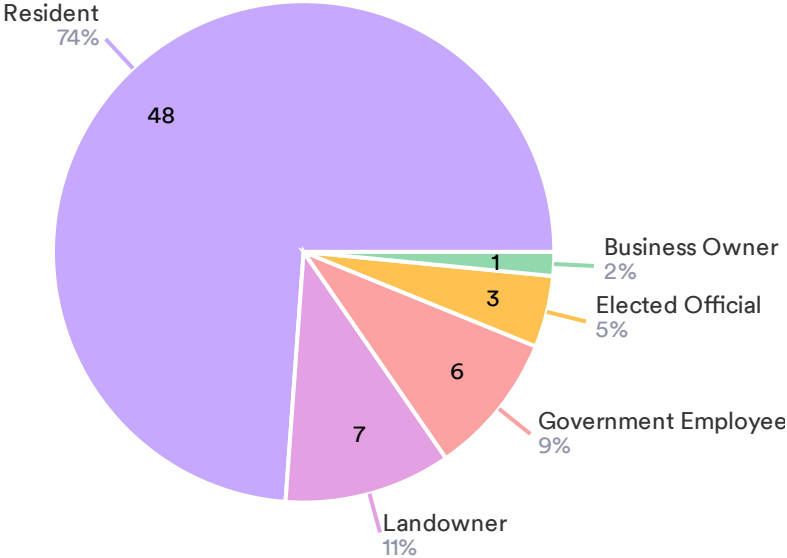
65 Responses



● Own ● Rent

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

65 Responses

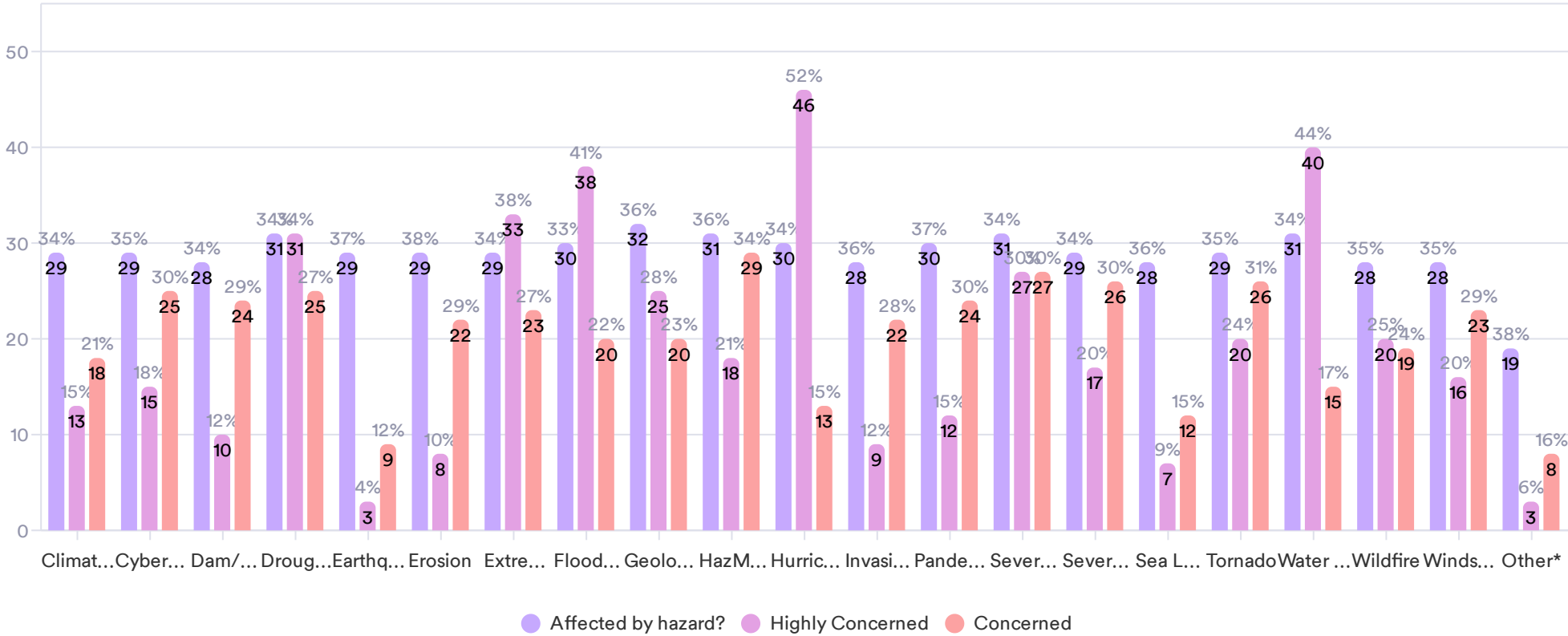


● Resident ● Landowner ● Government Employee ● Elected Official ● Business Owner

# 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?

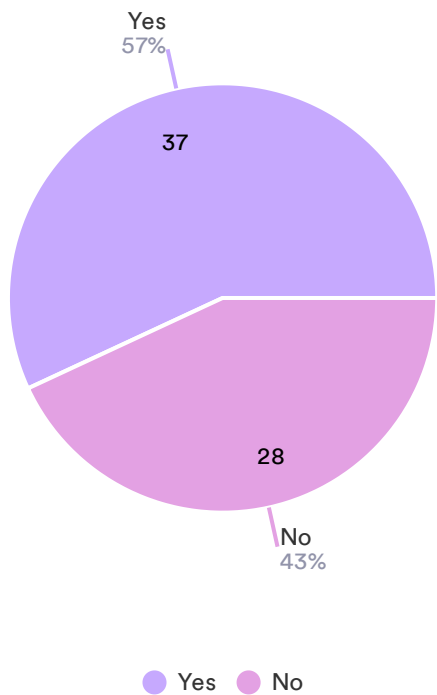
65 Responses



# 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.)

65 Responses



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

35 Responses

Data	Responses
Winter 2022-23; one frozen pipe located in attic space above porte cochere; one day; no lasting effect.	1
Busted pipes from freeze in 2021.	1
2019, my house flooded. Electricity went out during the bad freeze.	1
Water pipes busted under the house. Around Christmas time when we had the freeze.	1
Frozen pipes Hurricane damage	1
Total loss of a green house and several trees	1
2022 winter pipes freezing	1
5/2019: tornado damaged roof of house 2/2020: freeze burst all the pipes in the house, it took 2 weeks for me to have them replaced. 8/2022: surge broke on community water supply	1

# Hazard Mitigation Plan Survey

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

35 Responses

Flooded during hurricane harvey	1
Ice storm 2021 left us with no water for weeks.	1
During the winter storm,i had pipes freeze	1
Frozen pipes 2021	1
Frozen pipes in the winter of 2022.	1
Tornado hit property in 2018 building and fence effected. Flooding that cause large oak trees to fall and damage fences and pool Drought which effects grass for livestock 2023	1
Pipes burst during freeze. Our old home was affected by hurricanes over and over and we weren't able to get help to fix it. It started literally falling around us and we had to get a new house.	1
Feb 2021 pipes in the attic. But we were able to thaw with a hair dryer.	1
Hurricane Imelda - Building Flooding Winter Storm Yuri - Frozen Pipes	1
Frozen pipes during the freeze in 2021	1
House flooded Harvey 14" House flooded Imelda 28"	1
Hurricane Harvey-flooding entire house and property Hurricane Imelda-flooding entire house and property	1
Home Flooded during Hurricane Imelda in 2019.	1
Pipes froze during extreme cold	1
Wind damage to roof	1
2019 Tropical Storm Imelda 2 days flooding Home garage shop out building-garage Home flooded due to highway elevation Had also	1

# Hazard Mitigation Plan Survey

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

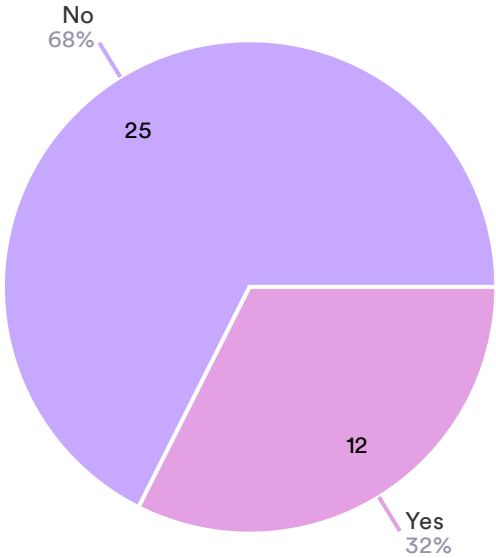
35 Responses

Frozen pipes during the freeze in 2021	1
House flooded Harvey 14" House flooded Imelda 28"	1
Hurricane Harvey-flooding entire house and property Hurricane Imelda-flooding entire house and property	1
Home Flooded during Hurricane Imelda in 2019.	1
Pipes froze during extreme cold	1
Wind damage to roof	1
2019 Tropical Storm Imelda 2 days flooding Home, garage, shop, out building-garage Home flooded due to highway elevation Had also flooded in 2017-Hurricane Harvey	1
Power outage and frozen pipes	1
Flooded from Harvey and Alicia.	1
Hurricane damage and some flood damage	1
Freezing and broken pipes, excessive wind and water damage from storms on roof and whole house	1
hurricanes	1
Municipal property, hurricanes, tropical storms, thunderstorms, flooding, drainage, ground shifting, fires, etc.	1
flooding area,	1
Hail damaged my vehicle	1

# Hazard Mitigation Plan Survey

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

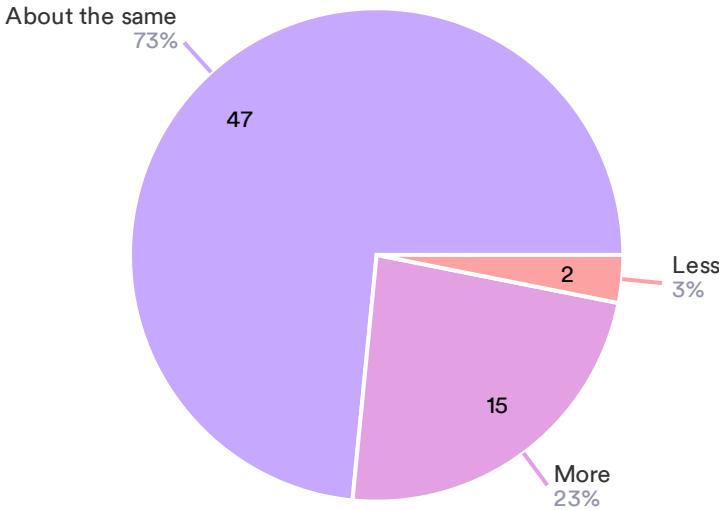
37 Responses



● No ● Yes

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

64 Responses

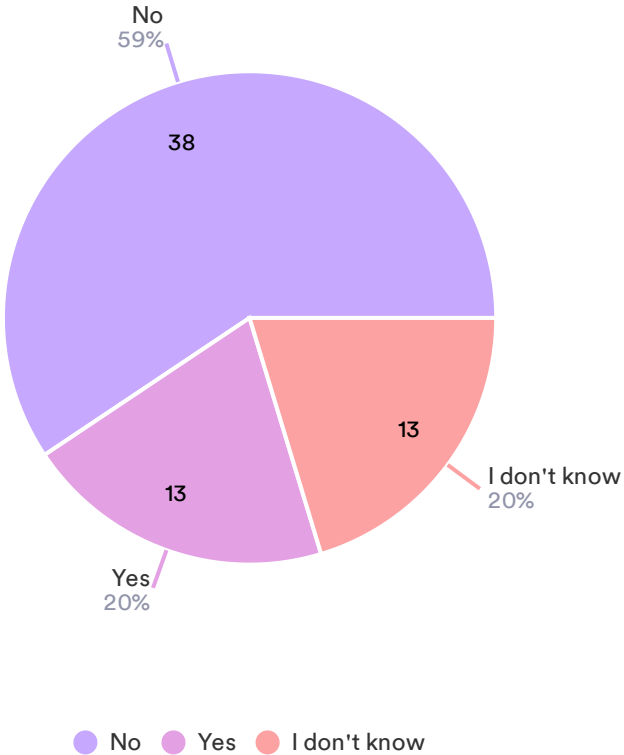


● About the same ● More ● Less

# Hazard Mitigation Plan Survey

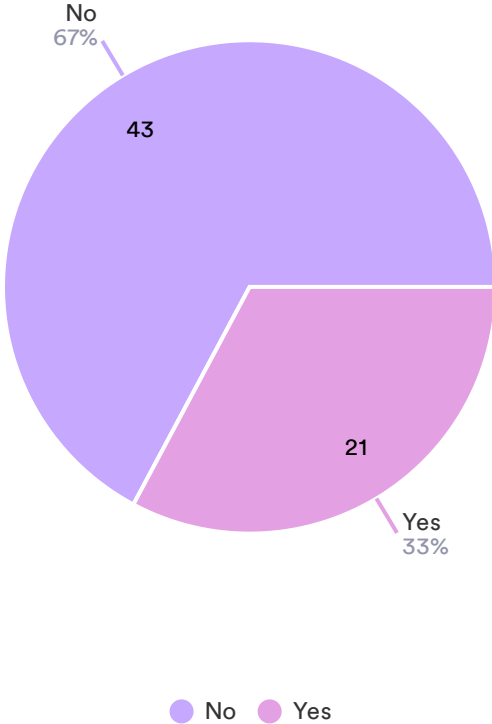
To the best of your knowledge, is your property located in a designated floodplain or special flood hazard area?

64 Responses



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

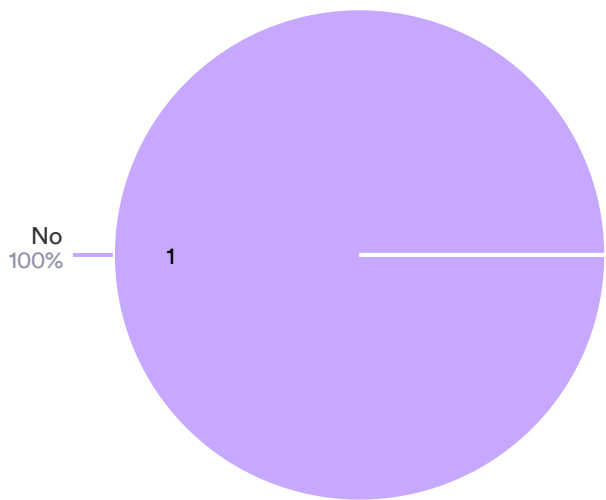
64 Responses



# Hazard Mitigation Plan Survey

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

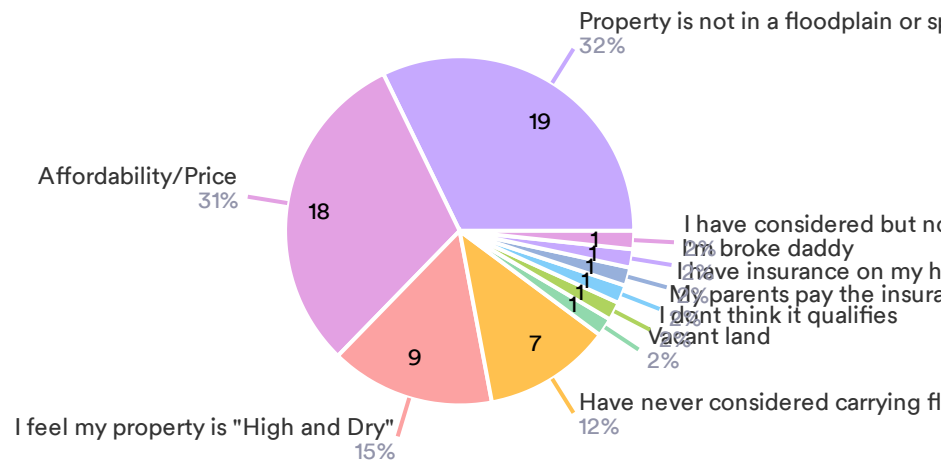
1 Response



● No

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

59 Responses

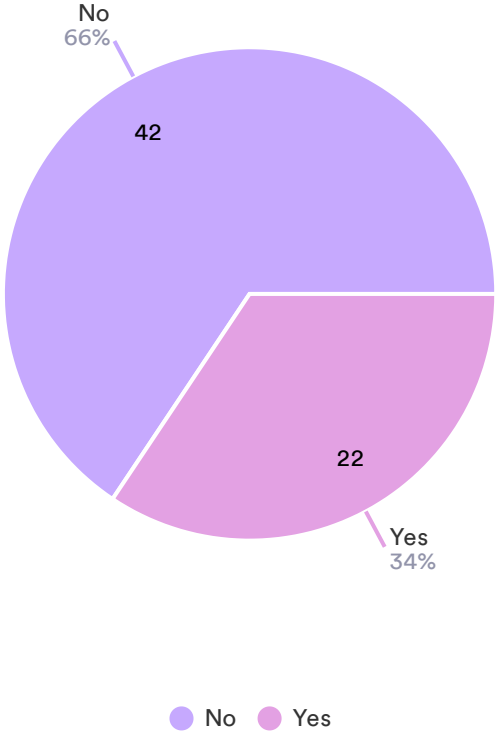


- Property is not in a floodplain or special flood hazard area
- Affordability/Price
- I feel my property is "High and Dry"
- Have never considered carrying flood insurance
- Vacant land
- I dont think it qualifies
- My parents pay the insurance. I pay other bills. I don't know what coverage they have.
- I have insurance on my home through my mortgage
- I'm broke daddy
- I have considered but not priced and not sure where to go to get it.

# Hazard Mitigation Plan Survey

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

64 Responses



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

16 Responses

Data	Responses
I have installed french drain to drain excess water off of my property, however, it has no bearing on the drainage system or lack there of in our neighborhood. The road and ditches flood.	1
I work in emergency management	1
Buried our water lines.	1
Wrapped water pipes	1
I have pled with everyone I could reach for someone to claim responsibility for maintaining local drainage.....everyone's excuse is "we must start at the bottom and work out way up." Put it off on Chambers and Jefferson counties. My neighbors suffer while I reside on the highest land in the area.	1
Bought house on cinder blocks	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.

29 Responses

Data	Responses
flood prone streets- Utah, Idaho, Willow, Virginia, E. Oak	1
My property is south of the Holtmar Land project. My biggest concern is flooding.	1
On FM 1410 Road the electricity is always going out. When we bought the property we wer not in a flood zone. Property never flooded before 2017.	1
Shell ave see property that is vacant and over grown	1
Critical facilities that lack backup source : City Hall, Hull Daisetta School District and Sewer system. Flood Prone areas: Bobcat Lane, East Pine, East Oak, Idaho Street, FM 834 within Daisetta city limits, and West Oak.	1
Most all street coverts are stopped up. All over town so drainage not good.	1

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

390 Responses

Data	Responses
1: Human - Loss of Life/injuries	44
3: Infrastructure - Damage or loss of bridges, utilities, schools, etc.	32
5: Environmental - Damage or loss of forests, wetlands, waterways, etc.	29
6: Cultural/Historic - Damage or loss of libraries, museums, fairgrounds, etc.	28
2: Economic - Business closures/job losses	25
6: Governance - Ability to maintain order/provide public amenities and services	24

# 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.

29 Responses

Trees on Florida Street are ready to fall and will damage power lines. Water well for Daisetta is needed as we buy from neighboring Hull, which has old equipment. Sinkholes are a large concern in Daisetta. HWY 770 is one lane. We are trapped if water rises. Emergency vehicles can't get through safely.	1
Sinkhole near my home!	1
Sinkholes Flooding / poor drainage/ faulty ditches Back up generators for lift stations and city building	1
Flooding is horrible. I drive smaller vehicles and I used to be able to park at the high school or the police department because it floods too bad on our road (the end of Willow) but now it floods there, too. I usually take my car out of town if I know there's going to be a lot of rain because my car did get flooded at the school	1
City of Liberty 1. Flood prone area - Oak's Subdivision 2. Critical Facilities - Pump Stations do not have sufficient pumping capacity during heavy rainfalls.	1
Culverts on 401 are too high to allow drainage...from 1409 to Lillard lane...around "s" curve down to gully...ie first section of road	1
CR 381 floods severely and we are left stuck in our neighborhood	1
County Road 1901 Devers, TX Railroad trestle not big enough opening to allow all of the water to get out. Does not go under highway at trestle. Water has to turn left and go back east before going under highway 90.	1
Sawmill Rd and Carr Rd	1
Ditch vegetation growth and ditch drainage due to elevation and design. Sawmill in Devers drains down into one low point where it intersects with Carr Road. Then the water travels alongside Carr Road to a culvert that can't handle the flow. From the culvert it flows off into the woods to connect with White Bayou, this portion of the ditch really needs dug out.	1
Home never flooded during hurricanes or tropical storms prior to state highway being built up in elevation. Now home sits below that level. Ditches are not cleaned out on regular basis which also hinders drainage. There is a drainage issue.	1
The drainage ditches on highway FM 1410 should be cleaned regularly, to prevent backups.	1
Devers is in a flood plain and we have fought against chemical wastes being brought into our area and disposed of and now they want to put a Carbon cleaning plant just down county road 105 which is the road we live on. Liberty county has one of the highest cancer rates in Texas and I feel that these types of companies will only add to the problem.	1
We are a rural area so not a lot of homes and if we have power outages it seems to take longer. Never had much flooding issues until Harvey and then after that we had Imelda and changed the water table. Seems to hold water more.	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.

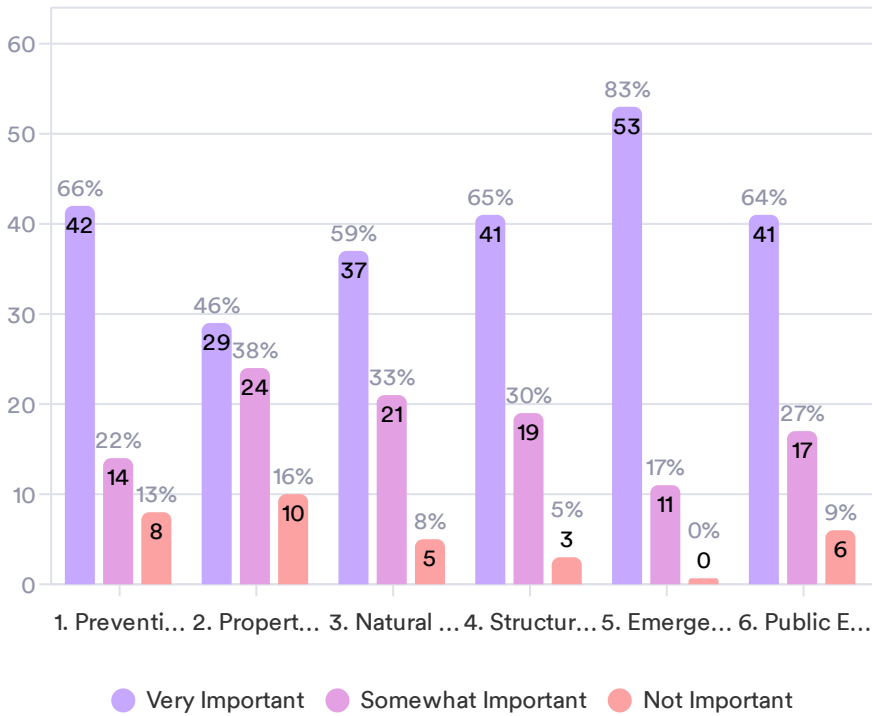
29 Responses

City of Liberty 1. Flood prone area - Oak's Subdivision 2. Critical Facilities - Pump Stations do not have sufficient pumping capacity during heavy rainfalls.	1
Culverts on 401 are too high to allow drainage...from 1409 to Lillard lane...around "s" curve down to gully...ie first section of road	1
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Sawmill Rd and Carr Rd	1
Ditch vegetation growth and ditch drainage due to elevation and design. Sawmill in Devers drains down into one low point where it intersects with Carr Road. Then the water travels alongside Carr Road to a culvert that can't handle the flow. From the culvert it flows off into the woods to connect with White Bayou, this portion of the ditch really needs dug out.	1
Home never flooded during hurricanes or tropical storms prior to state highway being built up in elevation. Now home sits below that level. Ditches are not cleaned out on regular basis which also hinders drainage. There is a drainage issue.	1
The drainage ditches on highway FM 1410 should be cleaned regularly, to prevent backups.	1
Devers is in a flood plain and we have fought against chemical wastes being brought into our area and disposed of and now they want to put a Carbon cleaning plant just down county road 105 which is the road we live on. Liberty county has one of the highest cancer rates in Texas and I feel that these types of companies will only add to the problem.	1
We are a rural area so not a lot of homes and if we have power outages it seems to take longer. Never had much flooding issues until Harvey and then after that we had Imelda and changed the water table. Seems to hold water more.	1
City water not available at 2064 county road 105 Devers, TX 77538	1
Flooding due to Trinity river overflow and drainage issues when severe rain events	1
Citywide throughout Cleveland	1
Houston avenue, Washington St, Truman St, Southline, Williams, Shell, Jefferson, Hanson	1

# Hazard Mitigation Plan Survey

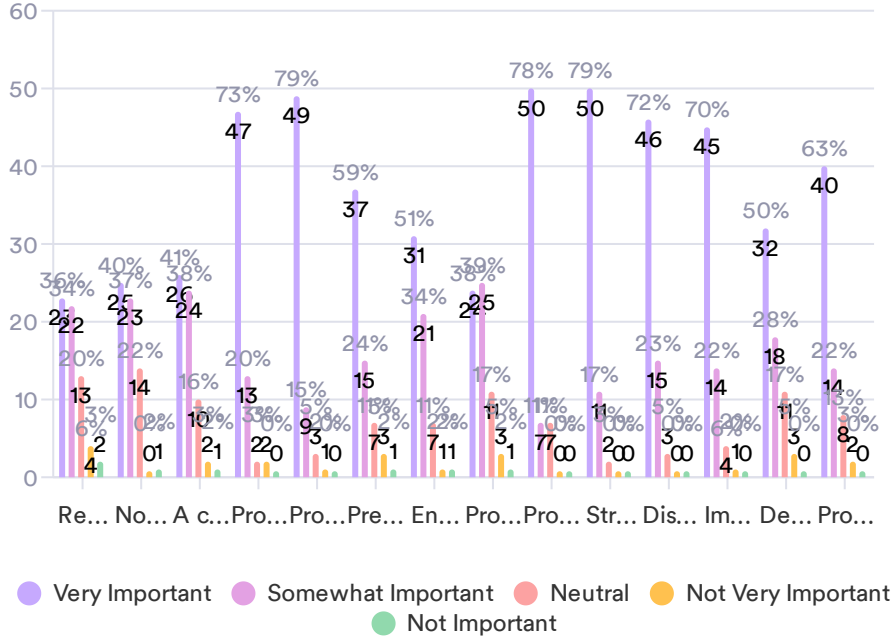
Several community-wide activities can reduce our risk from hazards. In general, these activities fall into one of six broad categories. Please tell us how important you think each category below is for your community.

64 Responses



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.

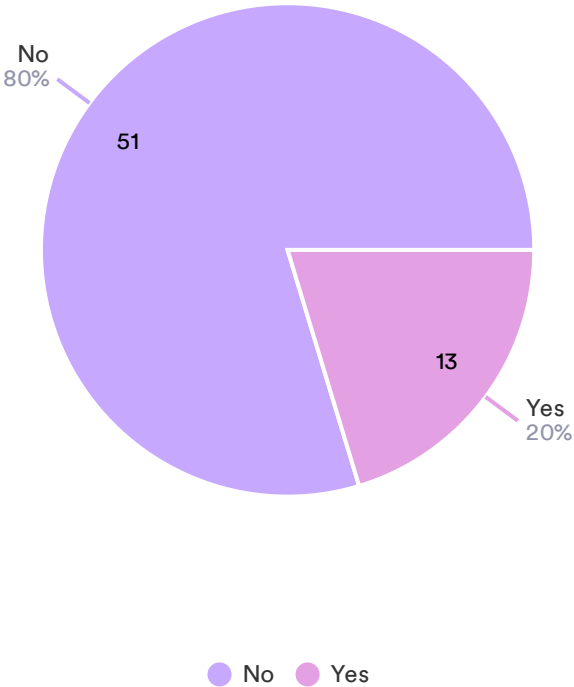
64 Responses



# Hazard Mitigation Plan Survey

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

64 Responses



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

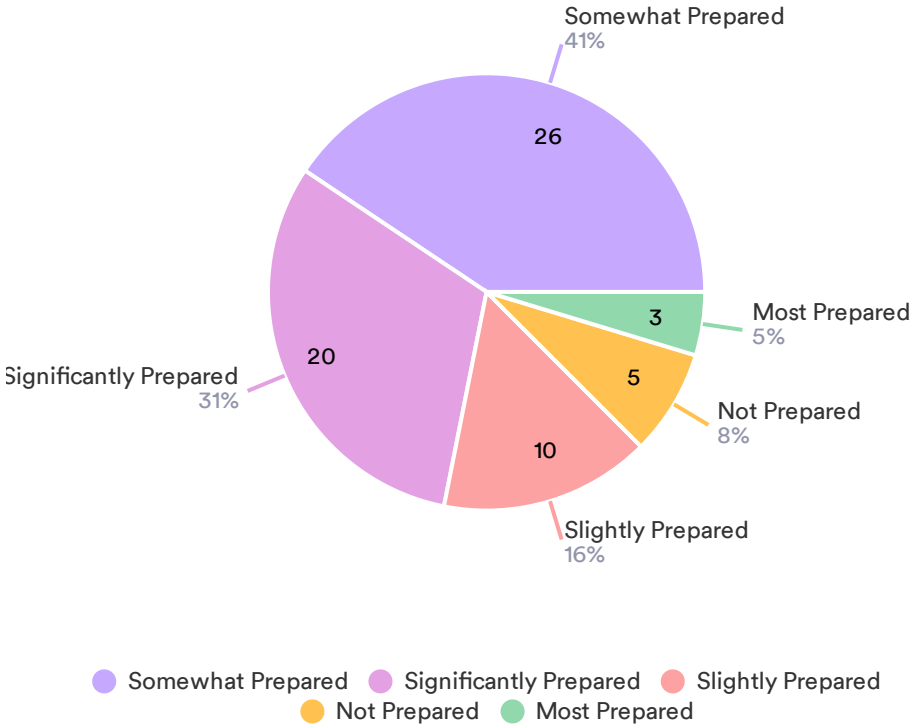
10 Responses

Data	Responses
Maintaining water way flows, natural or man-made, should be a priority; such as ditches, culverts, run-offs, etc, as well as enhancing canals and streams. Flooding is the biggest threat in our area. 2nd are infrastructures that can be impacted by flooding.	1
Ditches, creeks, bayous, and culverts need to be cleaned, cleared, and dug out so natural water flow is not inhibited. Daisetta needs its own water source and new plumbing for community to lessen the reliance and resource of the neighboring towns water source, eradicate the issues of brown water due to old pipe system, and ability to supply town with water or help neighboring towns if their water supply is inoperable. Bridges need to be temporarily fixed and reopened until the state has the ability to work on them and complete repairs within a reasonable time instead of working on them a little at a time extending the requirements for the barriers, lights, and one lane.	1
Drainage of our residential roads needs to be addressed	1
Improving the capacity of the pump stations	1

# Hazard Mitigation Plan Survey

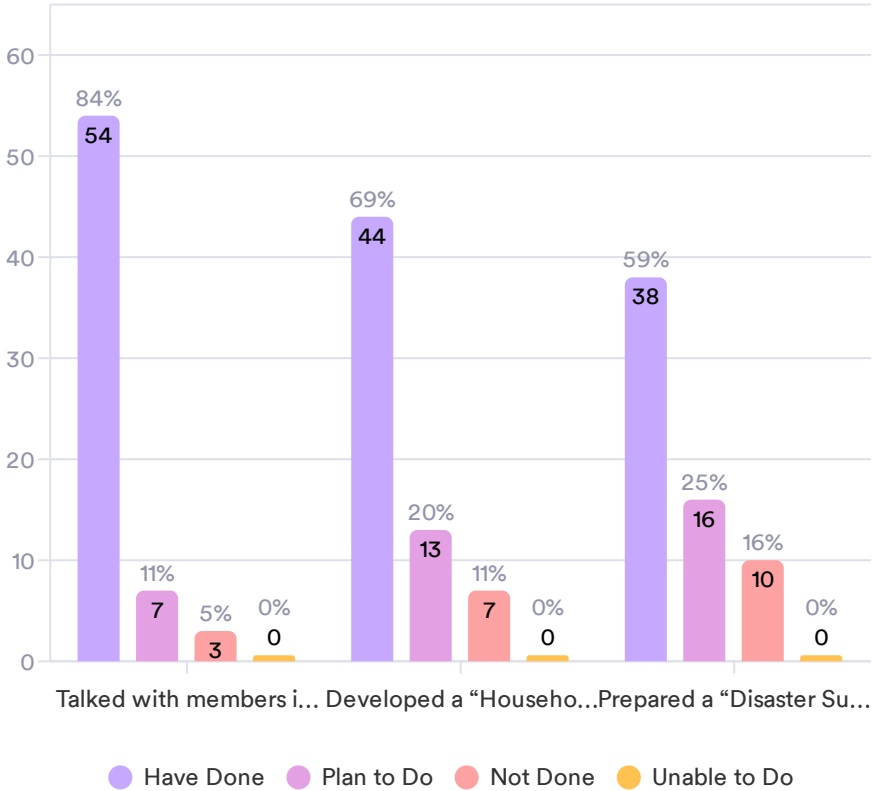
How prepared do you feel your household is to endure the impacts of natural hazard events likely to occur within your community?

64 Responses



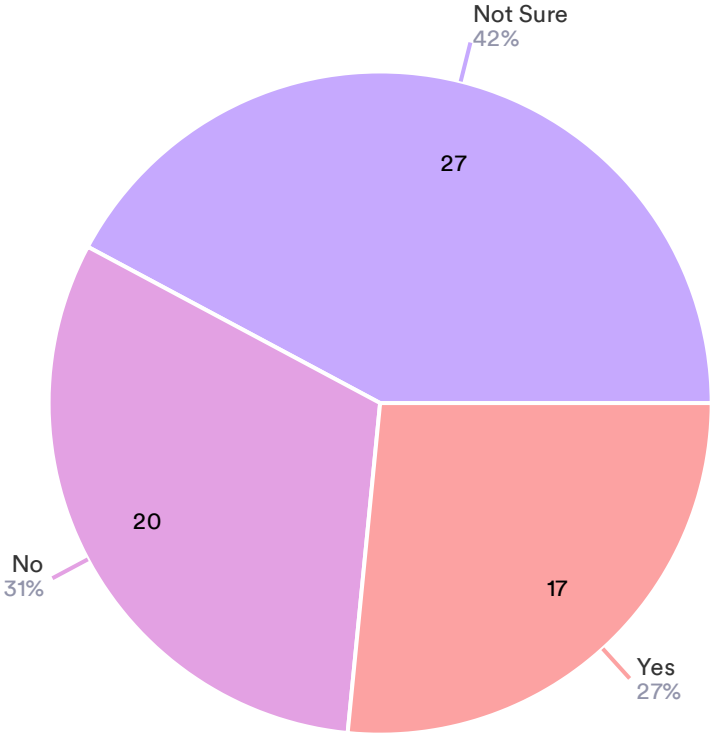
In your household, have you or another member done any of the following:

64 Responses



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

64 Responses



● Not Sure ● No ● Yes

# Hazard Mitigation Plan Survey

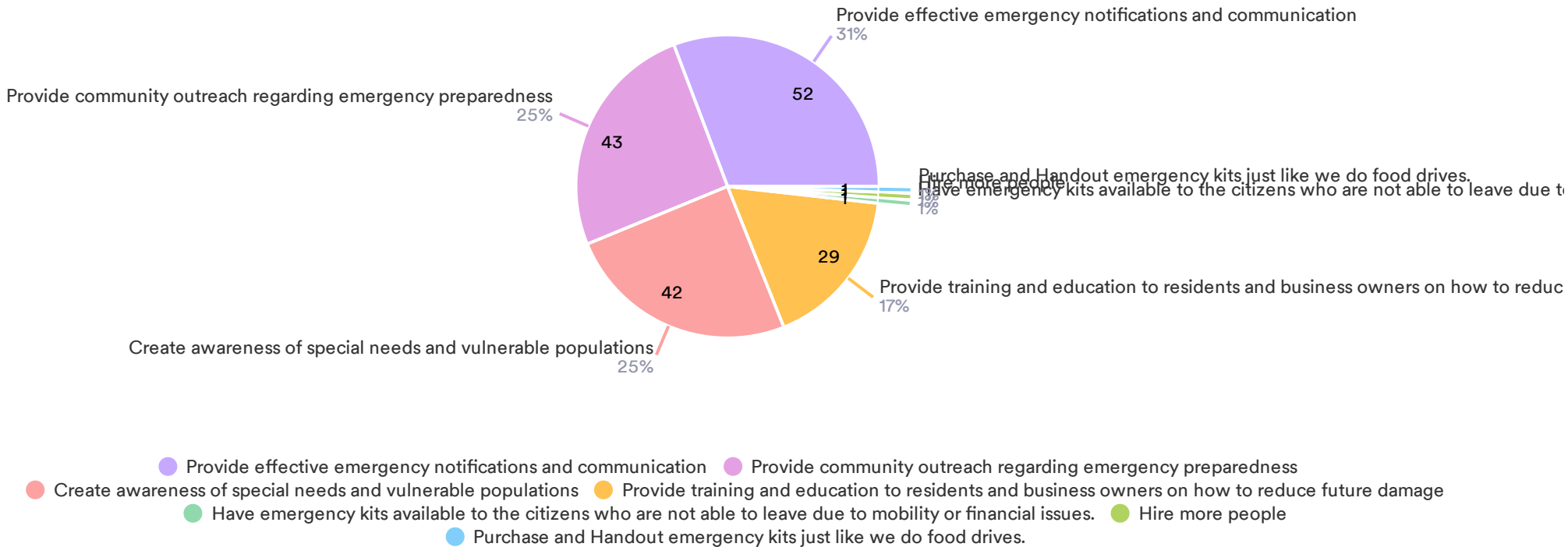
Briefly explain why you feel emergency services (fire, ambulance, police, hospital, etc.) are not adequately prepared to deal with a natural disaster in your community/city/county.

14 Responses

Data	Responses
Just have sneaking suspicion they are not all as well-trained and ready to roll as we would like/need them to be.	1
Daisetta fire department runs on volunteers who are not prepared to deal with a community wide issue. The police take 20+ mins to get here because they have to come from Liberty, and they are already stretched wide over the county and undermanned. The ambulance service is the same as the police. The local hospital is a band aid station, the closest hospitals able to deal with significant injuries are 45+ mins away.	1

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

169 Responses

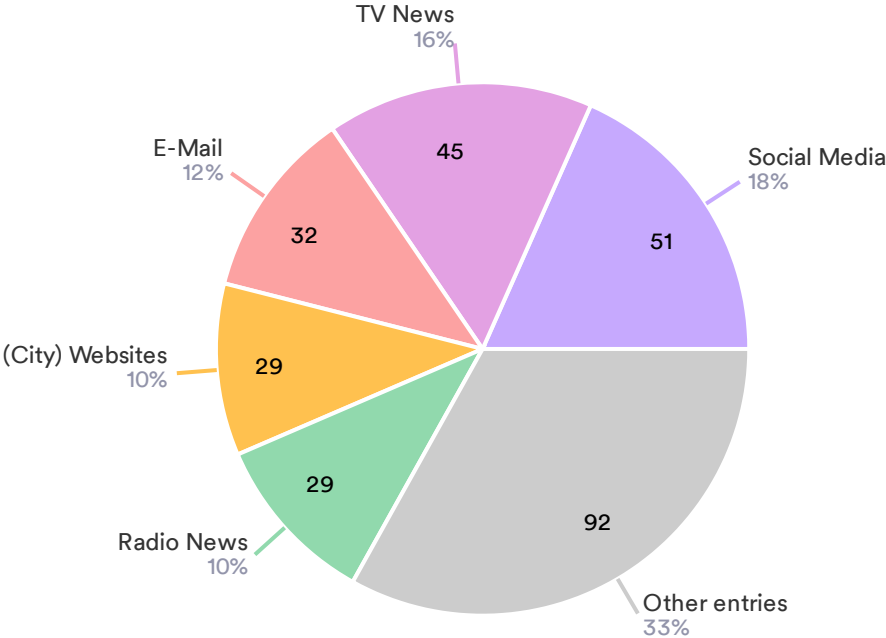


- Provide effective emergency notifications and communication
- Provide community outreach regarding emergency preparedness
- Create awareness of special needs and vulnerable populations
- Provide training and education to residents and business owners on how to reduce future damage
- Have emergency kits available to the citizens who are not able to leave due to mobility or financial issues.
- Hire more people
- Purchase and Handout emergency kits just like we do food drives.

# Hazard Mitigation Plan Survey

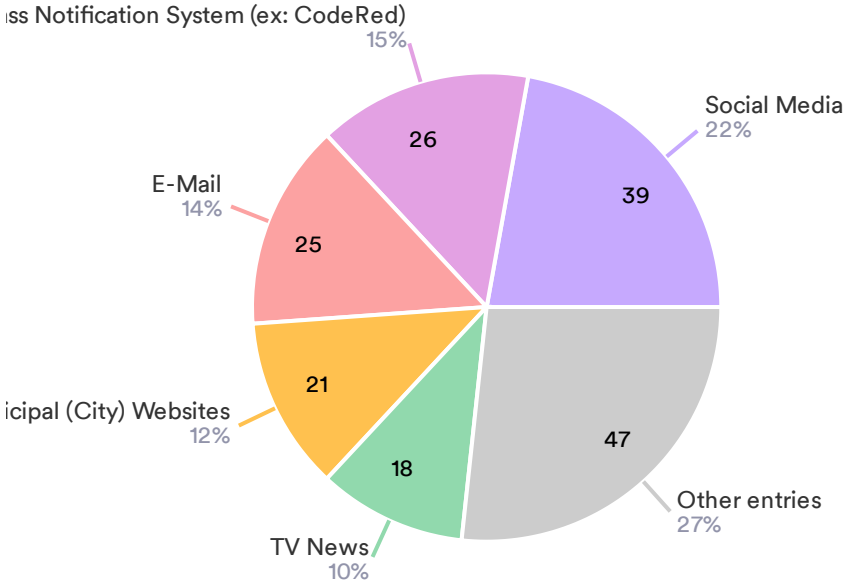
How do you receive your information concerning a disaster?  
(Check all that apply)

278 Responses



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)

176 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?

8 Responses

Data	Responses
<p>Not sure why Liberty County felt it wise to combine two position in one when the previous Emergency Administrator decided to resign. "Emergencies" will only continue to multiply and intensify as our county receives more and more illegal aliens causing a population explosion, continues to experience unnatural weather extremes, and are staffed by an unsupported, not well-trained police/fire/emergency response staff.</p>	<p>1</p>
<p>We need sirens in the area to notify emergency like tornadoes</p>	<p>1</p>
<p>No</p>	<p>1</p>
<p>If a property owner is the one responsible for making the flooding worse for a street due to filling ditches and natural drainage areas how does that issue get addressed? His property is at the end of the road and since he has been digging, dumping debris, and whatever else since buying the property mine and my neighbors properties have had worse flooding and terrible drainage whenever we get heavy and frequent rains.</p>	<p>1</p>
<p>We have learned our flooding issues were caused by land development above us. We also know of a bridge that washed out has never been replaced. Our local government should do their due diligence on development projects &amp; follow through on infrastructure repairs &amp; maintenance.</p>	<p>1</p>
<p>how are taxpayers suppose to fund the mass influx of illegal migration into our small communities? check out Colonia in liberty co. We are about to be screwed and our expense while others come here for free with no tax liability. bunch a horseshit!!!! we have to make rules for our City to curb this nonsense so we do not turn into Plum Grove..... to be continued</p>	<p>1</p>
<p>The county really needs to work on drainage issues as well as the city. Nothing has been done to address the problems in our city and I feel like we will continue to flood. I actually hardly ever see the county in our city unless it's to mow every 6 months.</p>	<p>1</p>

**Thank You!**

Hazard Mitigation Plan Survey

# Appendix F

## PLAN ADOPTION



# Liberty County Water Control Improvement District #5

2722 Beaumont Avenue  
Liberty, Texas 77575  
936-336-7878

RESOLUTION NO. 2025-01

## A RESOLUTION OF LIBERTY COUNTY WCID #5 ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE

**WHEREAS** the LIBERTY COUNTY WCID #5 recognizes the threat that natural hazards pose to people and property within LIBERTY COUNTY WCID #5; and

**WHEREAS** LIBERTY COUNTY WCID #5 has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in LIBERTY COUNTY WCID #5 from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the LIBERTY COUNTY WCID #5 demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

### NOW THEREFORE, BE IT RESOLVED BY THE LIBERTY COUNTY WCID #5, TEXAS, THAT:

Section 1. In accordance with the Texas Water Code, the LIBERTY COUNTY WCID #5 adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the LIBERTY COUNTY WCID #5 may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the LIBERTY COUNTY WCID #5 to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 15 day of July, 2025.

By: [Signature] (print name) James K. Leonard

ATTEST: By: [Signature] (print name) Cami Jones

APPROVED AS TO FORM: By: \_\_\_\_\_ (print name)



**The City of Liberty**

City Council  
1829 Sam Houston  
Liberty, TX 77575

Meeting: 7/22/2025 5:30 PM

Department: Administration  
Category: Resolution

**Resolution 2025-51**

**A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF LIBERTY, TEXAS, A HOME RULE MUNICIPALITY EXISTING UNDER THE LAWS OF THE STATE OF TEXAS, ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE.**

**WHEREAS** the City of Liberty City Council recognizes the threat that natural hazards pose to people and property within the City of Liberty; and

**WHEREAS** the City of Liberty has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Liberty from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the City of Liberty City Council demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

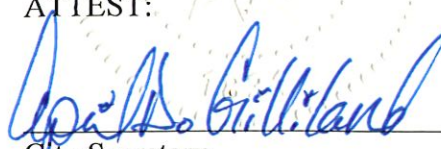
**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LIBERTY, TEXAS, THAT:**

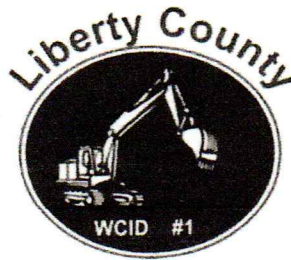
Section 1. In accordance with the City of Liberty Home Rule Charter, the City of Liberty City Council adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the City of Liberty may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Liberty to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 22<sup>nd</sup> day of July 2025.

  
\_\_\_\_\_  
Mayor  
City of Liberty, Texas

ATTEST:

  
\_\_\_\_\_  
City Secretary  
City of Liberty, Texas



**LIBERTY COUNTY WATER CONTROL & IMPROVEMENT DISTRICT #1**  
**5837 COUNTY ROAD 602**  
**DAYTON, TEXAS 77535**  
[www.lcwcid1.com](http://www.lcwcid1.com)

**A RESOLUTION OF LIBERTY COUNTY WATER CONTROL & IMPROVEMENT DISTRICT #1**  
**ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the Liberty County Water Control & Improvement District #1 (LCWCID#1) recognizes the threat that natural hazards pose to people and property within Liberty County, Texas; and

**WHEREAS** Liberty County has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Liberty County from the impacts of future hazards and disasters; and

**WHEREAS** adoption by LCWCID#1 demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

**NOW THEREFORE, BE IT RESOLVED BY THE LCWCID#1, DAYTON, TEXAS, THAT:**

Section 1. In accordance with District rules, the LCWCID#1 Board of Directors adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the LCWCID#1 may require revisions to meet the plan approval requirements, changes occurring after adoption will not require LCWCID#1 to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 5 day of August 2025.

By: Leonard Lee Vgoral (print name) LEONARD LEE VGORAL

ATTEST: By: Lynda Hohn (print name) Lynda Hohn

APPROVED AS TO FORM: By: Linda Trichell (print name) Linda Trichell

**CITY OF AMES, TEXAS  
RESOLUTION NO. 2025-021**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMES,  
TEXAS ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION  
PLAN 2025 UPDATE.**

WHEREAS the City Council of Ames recognizes the threat that natural hazards pose to people and property within the City of Ames, and

WHEREAS the City of Ames, a Type A general-law municipality, has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and


WHEREAS the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Ames from the impacts of future hazards and disasters; and

WHEREAS adoption by the City Council of Ames demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

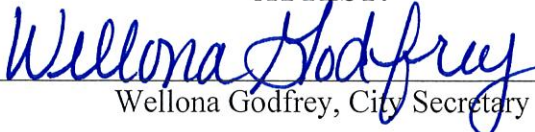
**NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF AMES, TEXAS, THAT:**

**SECTION 1.** In accordance with state laws governing Type A general law municipalities, the City Council of Ames adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the City of Ames may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Ames to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

**PASSED AND APPROVED** by the City Council of the City of Ames, Texas, on this the 11<sup>th</sup> day of August 2025.

  
**CITY OF AMES:**  
\_\_\_\_\_

Barbara Domain, Mayor

**ATTEST:**  
  
\_\_\_\_\_

Wellona Godfrey, City Secretary

**HARRY JOHNSON**  
Mayor  
**CHRISTIAN GOODWIN**  
Mayor Pro Tem #1  
**BRETT CLARK**  
Councilmember #2



**TOMMY SMALL**  
Councilmember #3  
**ELAINE TIDWELL**  
Councilmember #4  
**HARVEY FINLEY**  
Councilmember #5

## **CITY OF HARDIN**

*P O Box 324*  
*Hardin, Texas 77561*  
*(936) 298-2117 fax (936) 298-3732*  
*cityofhardin@hardintexas.com*

### **RESOLUTION NO. 2025-08-11**

#### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HARDIN, TEXAS ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the City of Hardin, Texas ("City") recognizes the threat that natural hazards pose to people and property within the City of Hardin; and

**WHEREAS** the City has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and


**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Hardin from the impacts of future hazards and disasters; and


**WHEREAS** adoption by the City Council of the City of Hardin, Texas, demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HARDIN, TEXAS THAT:**

The City Council of the City of Hardin, Texas adopts the Liberty County Hazard Mitigation Plan 2025 Update.

ADOPTED by a vote of 3 in favor and 2 against, and \_\_\_ abstaining, this 11th day of August, 2025.

Signed by:   
Harry Johnson, Mayor

Attest:   
Patricia Johnson, City Secretary





# Office of Emergency Management

5345 Hwy 146 N, Liberty, TX 77575  
Phone: 936-334-3219 Fax: 936-253-8219

## RESOLUTION NO. 2025-08

### A RESOLUTION OF LIBERTY COUNTY ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE

**WHEREAS** the County recognizes the threat that natural hazards pose to people and property within Liberty County; and

**WHEREAS** Liberty County has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Liberty County from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the County demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

#### NOW THEREFORE, BE IT RESOLVED BY THE LIBERTY COUNTY, TEXAS, THAT:

Section 1. In accordance with local government rules, the County adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the County may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the County to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 4 in favor and 0 against, and 1 abstaining,

This 12<sup>th</sup> day of August, 2025.

By: [Signature]  
Jay H. Knight / Liberty County Judge

ATTEST: By: [Signature]  
Lee H. Chambers / Liberty County Clerk



APPROVED AS TO FORM: By: \_\_\_\_\_ (print name)



410B Main Street, P. O. Box 549, Daisetta, Texas 77533  
Phone: 936-536-6761 Fax: 936-536-6031

MAYOR *CHANCIE BAILEY*

CITY SECRETARY  
*JOAN CARUTHERS*  
secretary@cityofdaisetta.com

COUNCIL MEMBERS  
*CINDY BURCHFIELD*  
*RYAN TAYLOR*  
*LORI TIDWELL*  
*KELSEY NORRIS*  
*ANDREW McCLUSKY*

Website: cityofdaisetta.com

RESOLUTION NO. 81225

**A RESOLUTION OF THE CITY OF DAISSETTA ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the City of Daisetta Mayor and Council recognizes the threat that natural hazards pose to people and property within the City of Daisetta; and

**WHEREAS** City of Daisetta has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

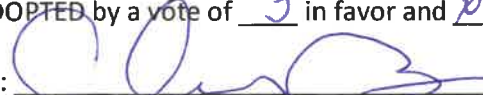
**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Daisetta from the impacts of future hazards and disasters; and


**WHEREAS** adoption by the City of Daisetta Mayor and Council demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DAISSETTA, LIBERTY COUNTY, TEXAS, THAT:**

the City Council of the City of Daisetta adopts the Liberty County Hazard Mitigation Plan 2025 Update.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, this 12<sup>th</sup> day of August, 2025.

By:  Chancie Bailey, Mayor

ATTEST: By:  Joan Caruthers, City Secretary

APPROVED AS TO FORM: By: \_\_\_\_\_

RESOLUTION NO. 2025 - 342

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DEVERS, TEXAS  
ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025  
UPDATE**

**WHEREAS** the City of Devers recognizes the threat that natural hazards pose to people and property within the City of Devers; and

**WHEREAS** the City of Devers has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Devers from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the City of Devers demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.


**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DEVERS, TEXAS,  
THAT:**

Section 1. In accordance with local rules for adopting resolutions, the City of Council of the City of Devers adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the City of Devers may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Devers to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 12th day of August, 2025.

  
Steve Horelica, Mayor

ATTEST:

  
Kristi Ayers, City Secretary

**RESOLUTION NO. 2025-0812R**

**A RESOLUTION OF CITY OF PLUM GROVE ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the City of Plum Grove recognizes the threat that natural hazards pose to people and property within the City of Plum Grove and

**WHEREAS** Liberty County has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Plum Grove from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the City of Plum Grove demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY OF PLUM GROVE, TEXAS, THAT:**

Section 1. In accordance with Sec 51.001 of Texas Local Government Code, the City of Plum Grove adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the City of Plum Grove may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, this 12<sup>th</sup> day of August, 2025.

By: Mary Arrendell Mary Arrendell, Mayor

ATTEST: By: Melissa Pouncey Melissa Pouncey, Secretary

RESOLUTION NO. 2025-01-0812

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NORTH CLEVELAND, TEXAS, ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the City of North Cleveland, Texas ("City") recognizes the threat that natural hazards pose to people and property within the City; and

**WHEREAS** the City has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the City Council of the City of North Cleveland, Texas, demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTH CLEVELAND, TEXAS THAT:**

The City Council of the City of North Cleveland, Texas adopts the Liberty County Hazard Mitigation Plan 2025 Update.

ADOPTED by a vote of 4 in favor and 0 against, and 0 abstaining, this 12th day of August, 2025.

By: Mayor Bob Bartlett (print name) Mayor Bob Bartlett

ATTEST: By: Vicki Bartlett (print name)  
Vicki Bartlett

APPROVED AS TO FORM: By: Jaimie Crawford Bartlett (print name)

Jaimie Crawford Bartlett

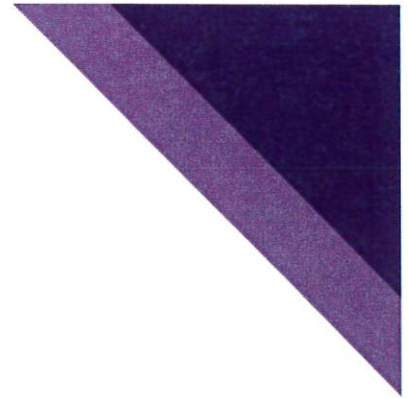
Sue Chapman - Sue Chapman

Robert B. Bartlett - Robert B. Bartlett

Joseph B. Bartlett - Joseph B. Bartlett



City of Dayton  
117 Cook St.  
Dayton, Tx 77535  
936.258.2642



RESOLUTION NO. R2025-48

**A RESOLUTION OF THE CITY OF DAYTON ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the City of Dayton recognizes the threat that natural hazards pose to people and property within the City of Dayton; and

**WHEREAS** City of Dayton has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and


**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Dayton from the impacts of future hazards and disasters; and

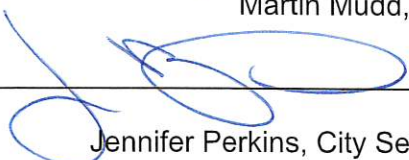
**WHEREAS** adoption by the City of Dayton demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

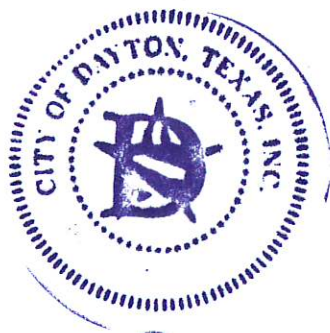
**NOW THEREFORE, BE IT RESOLVED BY THE CITY OF DAYTON, TEXAS, THAT:**

Section 1. In accordance with the City of Dayton Charter, the City of Dayton adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the City of Dayton may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Dayton to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 18th day of August, 2025.

By:   
\_\_\_\_\_  
Martin Mudd, Mayor

ATTEST: By:   
\_\_\_\_\_  
Jennifer Perkins, City Secretary





RESOLUTION NO. 2025-08-19-03

**A RESOLUTION OF City of Cleveland ADOPTING THE LIBERTY COUNTY  
HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the City of Cleveland recognizes the threat that natural hazards pose to people and property within the City of Cleveland; and

**WHEREAS** the City of Cleveland has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

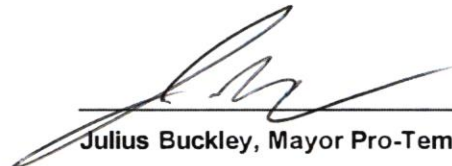
**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Cleveland from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the City of Cleveland demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CLEVELAND,  
TEXAS, THAT:**

Section 1. In accordance with the authority vested in City Council under the City Charter, Constitution and laws of the State of Texas, the City Council of the City of Cleveland adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the City of Cleveland may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Cleveland to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

PASSED, APPROVED, AND ADOPTED this the 19th day of August 2025.

  
Julius Buckley, Mayor Pro-Tem

ATTEST:

  
Juanita Limon, City Secretary

RESOLUTION NO. 2025-03

**A RESOLUTION OF CITY OF KENEFICK ADOPTING THE LIBERTY COUNTY HAZARD MITIGATION PLAN 2025 UPDATE**

**WHEREAS** the City of Kenefick recognizes the threat that natural hazards pose to people and property within City of Kenefick and

**WHEREAS** City of Kenefick has prepared a multi-hazard mitigation plan, hereby known as the Liberty County Hazard Mitigation Plan 2025 Update, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS** the Liberty County Hazard Mitigation Plan 2025 Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in City of Kenefick from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the City of Kenefick demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Liberty County Hazard Mitigation Plan 2025 Update.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY OF KENEFICK, TEXAS THAT:**

Section 1. In accordance with Resolution 2025-03 the City of Kenefick adopts the Liberty County Hazard Mitigation Plan 2025 Update. While content related to the City of Kenefick may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Kenefick to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 6 in favor and 0 against, and 0 abstaining, this 25 day of AUGUST, 2025.

By: Rory Handley Jr (print name)

ATTEST: By: Jessica Fingleman (print name)

APPROVED AS TO FORM: By: \_\_\_\_\_ (print name)