

Appendix A: HAZUS Analysis



Hazus: Flood Global Risk Report

Region Name: Galveston County Water Control District #1

Flood Scenario: 100-yr Flood

Print Date: Thursday, May 9, 2024

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 5 square miles and contains 456 census blocks. The region contains over 9 thousand households and has a total population of 25,086 people. The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 8,530 buildings in the region with a total building replacement value (excluding contents) of 2,817 million dollars. Approximately 91.57% of the buildings (and 72.08% of the building value) are associated with residential housing.





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Building Inventory

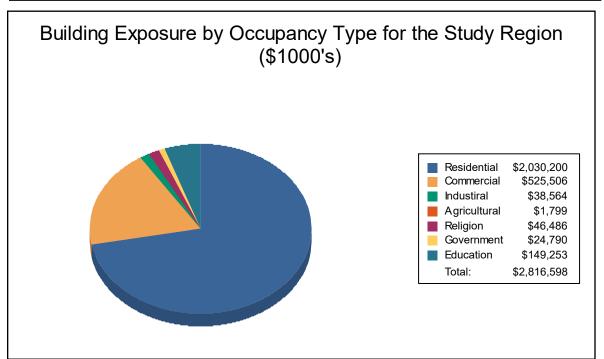
General Building Stock

Hazus estimates that there are 8,530 buildings in the region which have an aggregate total replacement value of 2,817 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	2,030,200	72.1%		
Commercial	525,506	18.7%		
Industrial	38,564	1.4%		
Agricultural	1,799	0.1%		
Religion	46,486	1.7%		
Government	24,790	0.9%		
Education	149,253	5.3%		
Total	2,816,598	100%		





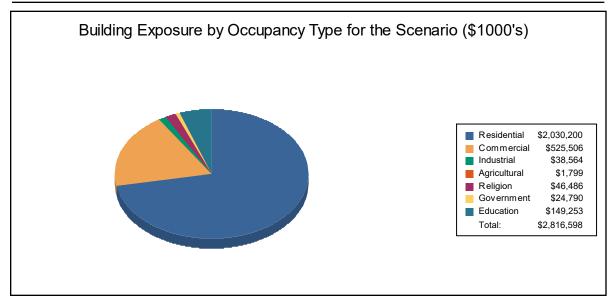


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Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure (\$1000)	Percent of Total
Residential	2,030,200	72.1%
Commercial	525,506	18.7%
Industrial	38,564	1.4%
Agricultural	1,799	0.1%
Religion	46,486	1.7%
Government	24,790	0.9%
Education	149,253	5.3%
Total	2,816,598	100%



Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of no beds. There are 20 schools, 3 fire stations, 2 police stations and no emergency operation centers.





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Flood Scenario Parameters

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

Study Region Name: Galveston County Water Control District #1

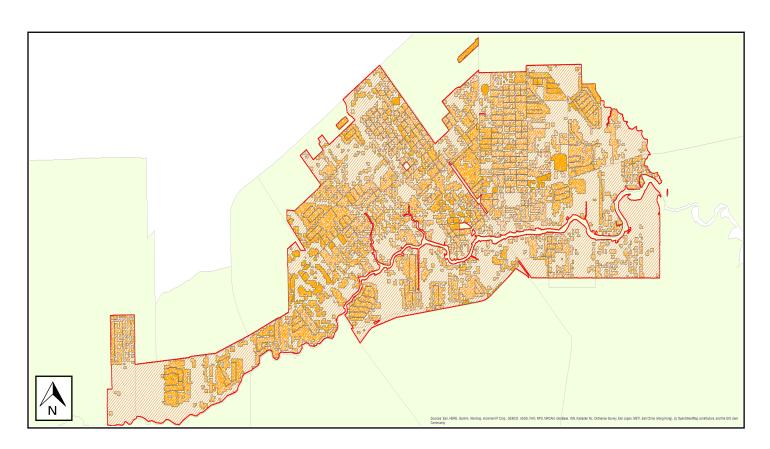
Scenario Name: 100-yr Flood

Return Period Analyzed: 100

Analysis Options Analyzed: No What-Ifs

Study Region Overview Map

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







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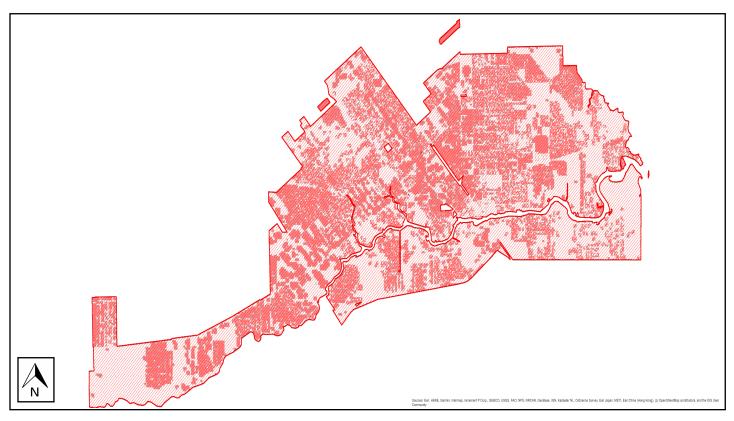


Building Damage

General Building Stock Damage

Hazus estimates that about 6,420 buildings will be at least moderately damaged. This is over 61% of the total number of buildings in the scenario. There are an estimated 330 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





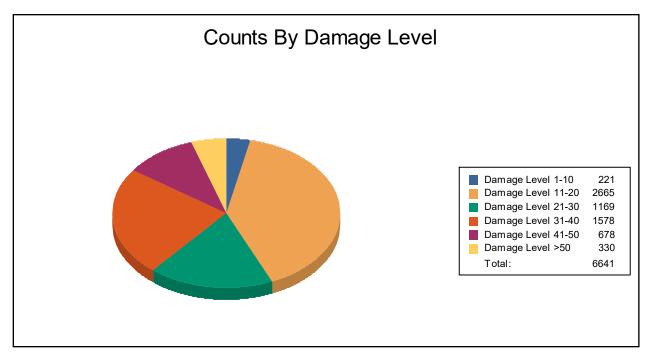


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Table 3: Expected Building Damage by Occupancy

	1-	10	11	-20	21	-30	31	-40	41	-50	>5	0
Occupancy	Count	(%)										
Agriculture	0	0	1	100	0	0	0	0	0	0	0	0
Commercial	0	0	159	45	195	55	0	0	0	0	0	0
Education	4	100	0	0	0	0	0	0	0	0	0	0
Government	0	0	5	100	0	0	0	0	0	0	0	0
Industrial	0	0	5	29	0	0	9	53	3	18	0	0
Religion	0	0	15	100	0	0	0	0	0	0	0	0
Residential	217	3	2,480	40	974	16	1,569	25	675	11	330	5
Total	221		2,665		1,169		1,578		678		330	







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Table 4: Expected Building Damage by Building Type

Building	1-10		11-	11-20 21-30		30	31-40		41-50		>50	
Туре	Count (%)	Count ((%)	Count ((%)	Count	(%)	Count (%)	Count	(%)
Concrete	0	0	19	66	10	34	0	0	0	0	0	0
ManufHousing	0	0	109	21	60	11	0	0	27	5	330	63
Masonry	30	4	296	42	181	26	146	21	49	7	0	0
Steel	0	0	51	48	53	50	2	2	1	1	0	0
Wood	194	4	2,183	42	855	16	1,427	27	600	11	0	0





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Essential Facility Damage

Before the flood analyzed in this scenario, the region had 0 hospital beds available for use. On the day of the scenario flood event, the model estimates that 0 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

Facilities

Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Emergency Operation Centers	0	0	0	0
Fire Stations	3	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	20	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.



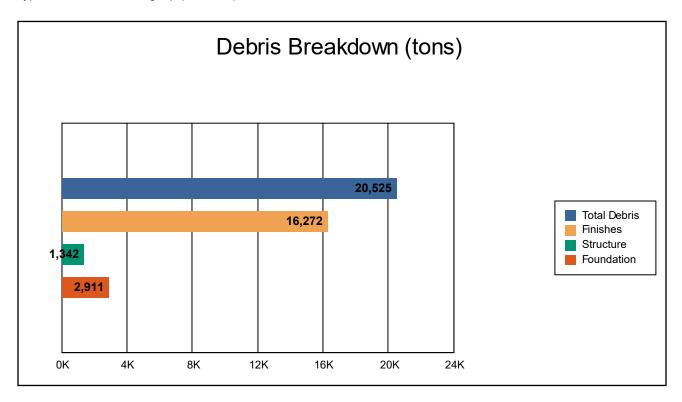




Induced Flood Damage

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 20,525 tons of debris will be generated. Of the total amount, Finishes comprises 79% of the total, Structure comprises 7% of the total, and Foundation comprises 14%. If the debris tonnage is converted into an estimated number of truckloads, it will require 821 truckloads (@25 tons/truck) to remove the debris generated by the flood.





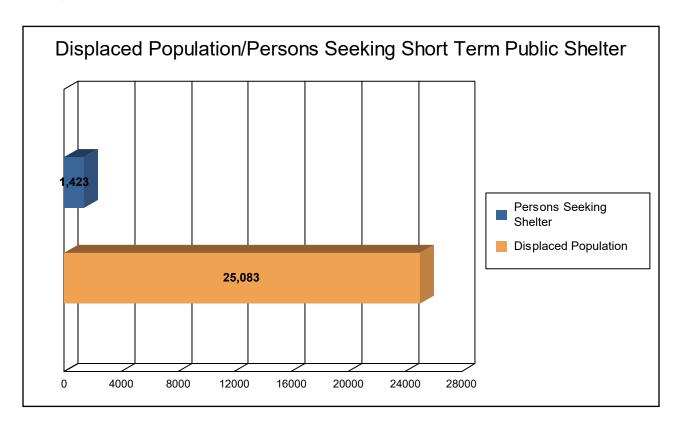
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Social Impact

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 8,361 households (or 25,083 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 1,423 people (out of a total population of 25,086) will seek temporary shelter in public shelters.







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Economic Loss

The total economic loss estimated for the flood is 2,657.85 million dollars, which represents 94.36 % 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 1,440.72 million dollars. 46% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 40.83% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.





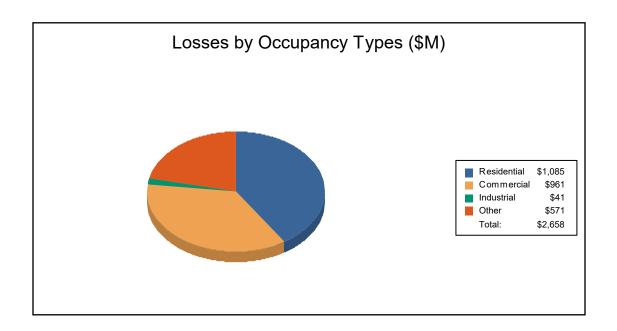
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Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Lo	<u>ss</u>					
	Building	535.06	93.83	10.14	22.03	661.06
	Content	300.09	271.80	22.66	141.27	735.82
	Inventory	0.00	37.67	4.89	1.28	43.84
	Subtotal	835.16	403.30	37.69	164.58	1,440.72
Business Ir	nterruption_					
	Income	5.00	235.00	0.80	56.53	297.33
	Relocation	161.79	65.93	0.81	33.74	262.26
	Rental Income	71.45	47.74	0.20	3.26	122.64
	Wage	11.78	209.01	1.42	312.68	534.90
	Subtotal	250.02	557.68	3.23	406.21	1,217.13
ALL	Total	1,085.18	960.98	40.91	570.79	2,657.85







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Appendix A: County Listing for the Region

Texas

- Galveston







Appendix B: Regional Population and Building Value Data

Building Value (thousands of dollars)

	Population	Residential	Non-Residential	Total		
Texas	1					
Galveston	25,086	2,030,200	786,398	2,816,598		
Total	25,086	2,030,200	786,398	2,816,598		
Total Study Region	25,086	2,030,200	786,398	2,816,598		





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Hazus: Flood Global Risk Report

Region Name: Galveston County Water Control District #1

Flood Scenario: 500-yr Flood

Print Date: Thursday, May 9, 2024

Disclaimer:

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

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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 5 square miles and contains 456 census blocks. The region contains over 9 thousand households and has a total population of 25,086 people. The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 8,530 buildings in the region with a total building replacement value (excluding contents) of 2,817 million dollars. Approximately 91.57% of the buildings (and 72.08% of the building value) are associated with residential housing.





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Building Inventory

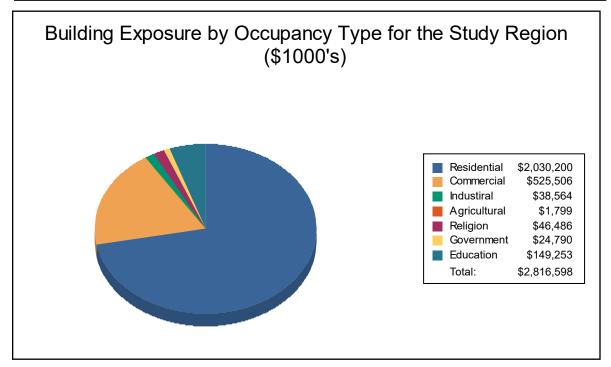
General Building Stock

Hazus estimates that there are 8,530 buildings in the region which have an aggregate total replacement value of 2,817 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	2,030,200	72.1%		
Commercial	525,506	18.7%		
Industrial	38,564	1.4%		
Agricultural	1,799	0.1%		
Religion	46,486	1.7%		
Government	24,790	0.9%		
Education	149,253	5.3%		
Total	2,816,598	100%		





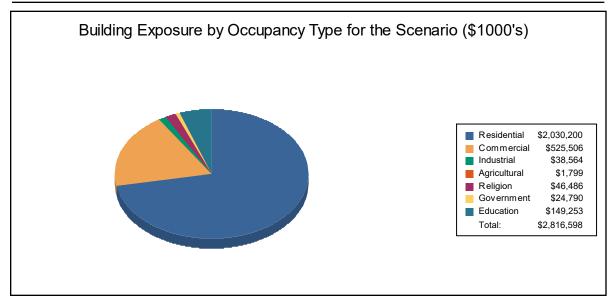


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Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure (\$1000)	Percent of Total
Residential	2,030,200	72.1%
Commercial	525,506	18.7%
Industrial	38,564	1.4%
Agricultural	1,799	0.1%
Religion	46,486	1.7%
Government	24,790	0.9%
Education	149,253	5.3%
Total	2,816,598	100%



Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of no beds. There are 20 schools, 3 fire stations, 2 police stations and no emergency operation centers.





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Flood Scenario Parameters

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

Study Region Name: Galveston County Water Control District #1

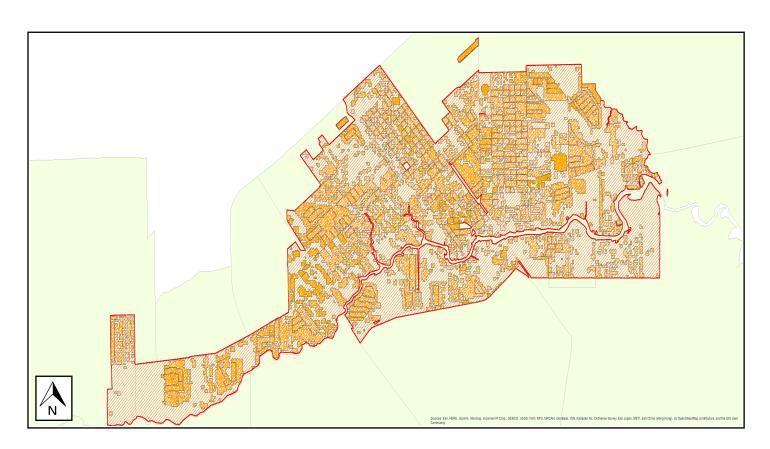
Scenario Name: 500-yr Flood

Return Period Analyzed: 500

Analysis Options Analyzed: No What-Ifs

Study Region Overview Map

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







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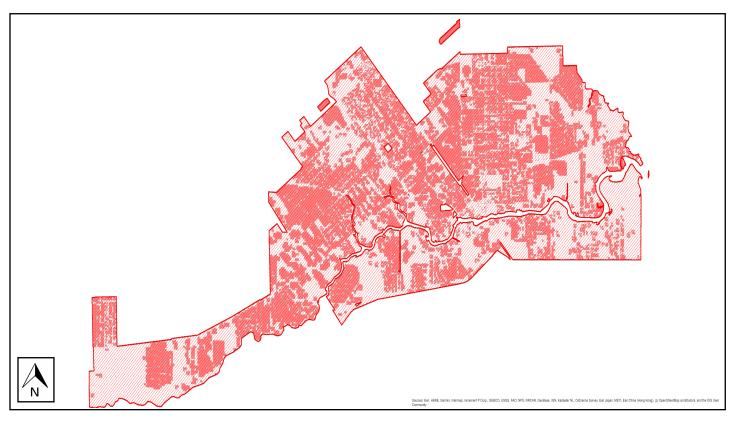


Building Damage

General Building Stock Damage

Hazus estimates that about 6,552 buildings will be at least moderately damaged. This is over 42% of the total number of buildings in the scenario. There are an estimated 1,095 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





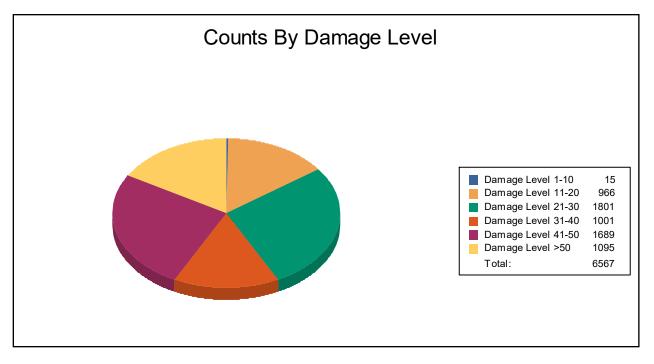


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Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21	21-30		31-40		41-50		>50	
Occupancy	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	
Agriculture	0	0	1	100	0	0	0	0	0	0	0	0	
Commercial	0	0	146	41	39	11	171	48	0	0	0	0	
Education	2	100	0	0	0	0	0	0	0	0	0	0	
Government	0	0	6	100	0	0	0	0	0	0	0	0	
Industrial	0	0	3	17	3	17	0	0	12	67	0	0	
Religion	0	0	15	100	0	0	0	0	0	0	0	0	
Residential	13	0	795	13	1,759	29	830	13	1,677	27	1,095	18	
Total	15		966		1,801		1,001		1,689		1,095		







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Table 4: Expected Building Damage by Building Type

Building	1-10		11-20		21-30		31-40		41-50		>50	
Туре	Count (%)	Count	(%)	Count ((%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	18	60	3	10	9	30	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	18	3	527	97
Masonry	5	1	144	21	222	32	119	17	150	22	46	7
Steel	0	0	46	43	11	10	48	44	3	3	0	0
Wood	12	0	749	14	1,563	30	810	16	1,515	29	522	10





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Essential Facility Damage

Before the flood analyzed in this scenario, the region had 0 hospital beds available for use. On the day of the scenario flood event, the model estimates that 0 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

Facilities

Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Emergency Operation Centers	0	0	0	0
Fire Stations	3	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	20	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.



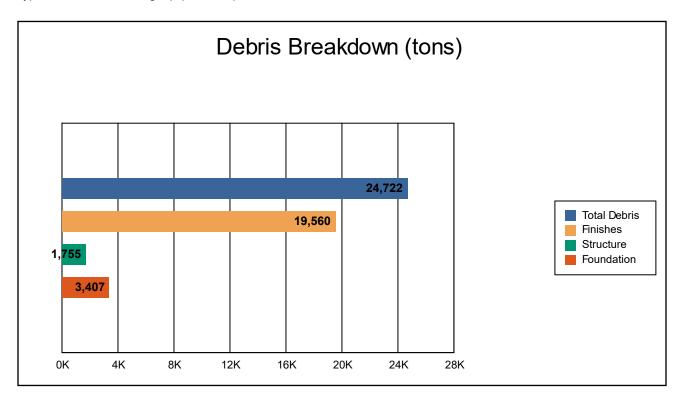




Induced Flood Damage

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 24,722 tons of debris will be generated. Of the total amount, Finishes comprises 79% of the total, Structure comprises 7% of the total, and Foundation comprises 14%. If the debris tonnage is converted into an estimated number of truckloads, it will require 989 truckloads (@25 tons/truck) to remove the debris generated by the flood.





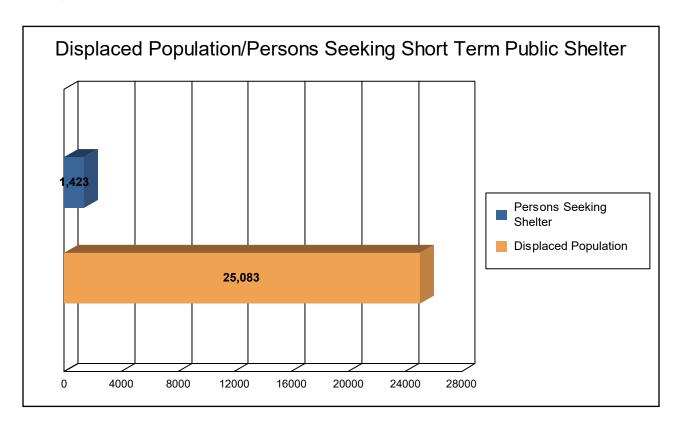
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Social Impact

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 8,361 households (or 25,083 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 1,423 people (out of a total population of 25,086) will seek temporary shelter in public shelters.







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Economic Loss

The total economic loss estimated for the flood is 3,035.48 million dollars, which represents 107.77 % 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 1,812.36 million dollars. 40% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 43.95% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.





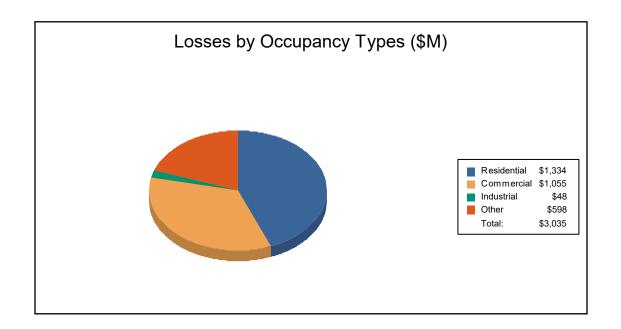
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Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Duilding Lo						
Building Lo	<u>88</u>					
	Building	686.52	121.25	12.06	23.87	843.70
	Content	394.14	327.14	27.10	166.27	914.65
	Inventory	0.00	46.70	5.62	1.69	54.01
	Subtotal	1,080.66	495.09	44.78	191.83	1,812.36
Business In	terruption_					
	Income	5.04	236.22	0.81	56.53	298.60
	Relocation	164.20	66.29	0.81	33.75	265.05
	Rental Income	72.43	48.02	0.20	3.26	123.91
	Wage	11.87	209.59	1.43	312.68	535.57
	Subtotal	253.54	560.12	3.25	406.22	1,223.13
ALL	Total	1,334.20	1,055.21	48.02	598.05	3,035.48







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Appendix A: County Listing for the Region

Texas

- Galveston







Appendix B: Regional Population and Building Value Data

Building Value (thousands of dollars)

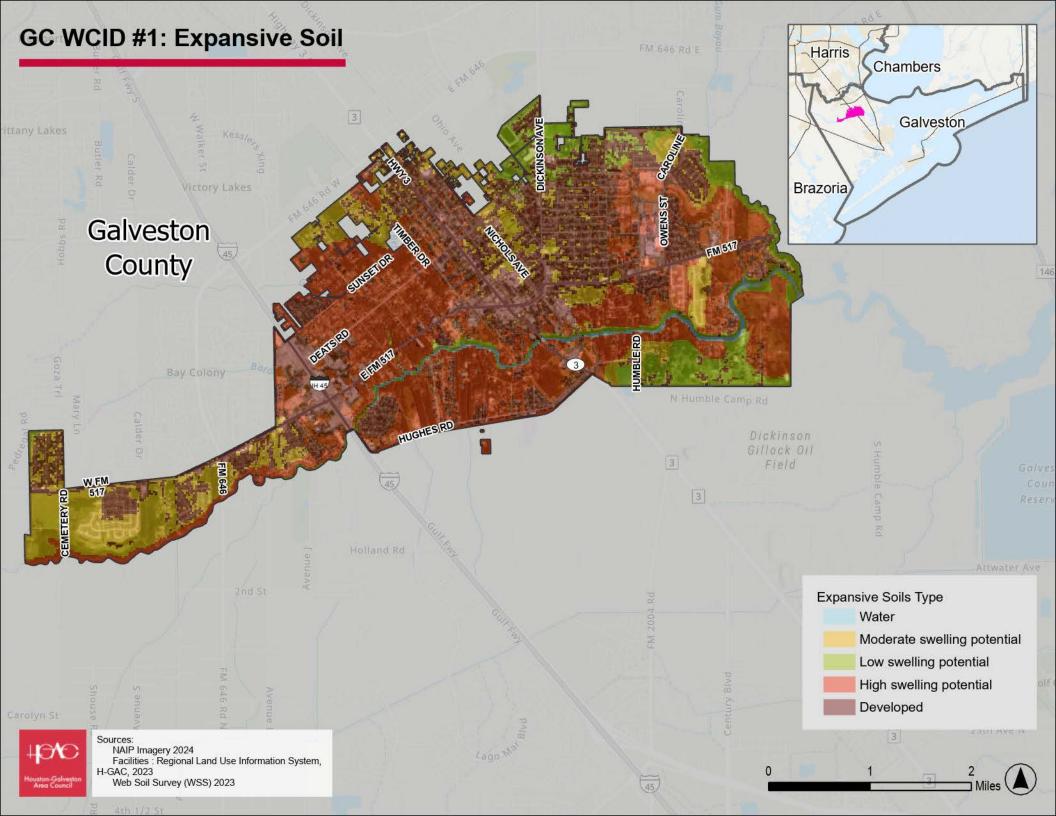
	Population	Residential	Non-Residential	Total
Texas	_			
Galveston	25,086	2,030,200	786,398	2,816,598
Total	25,086	2,030,200	786,398	2,816,598
Total Study Region	25,086	2,030,200	786,398	2,816,598

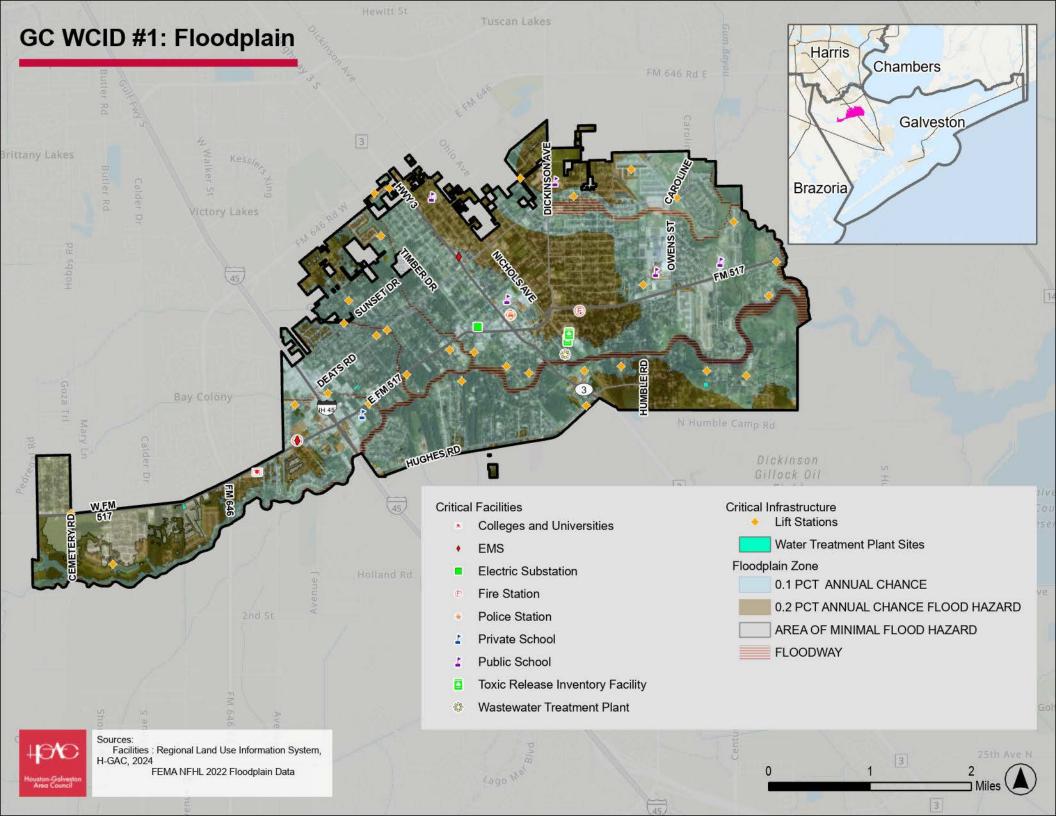


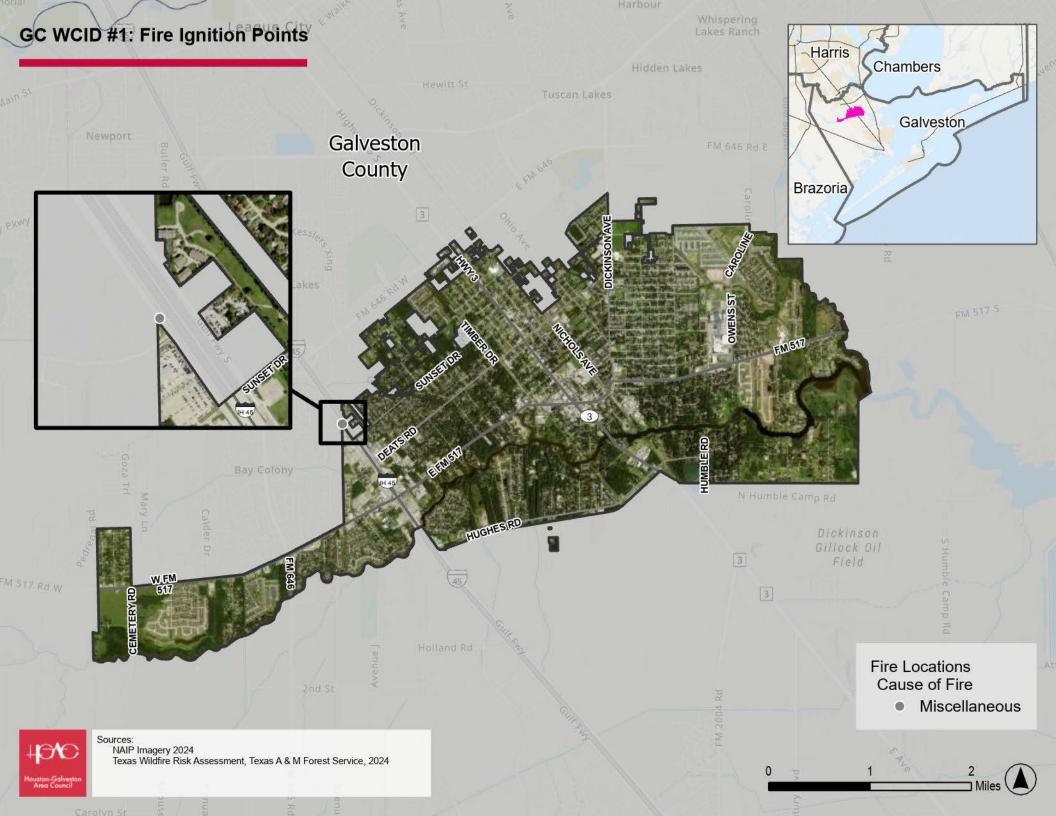


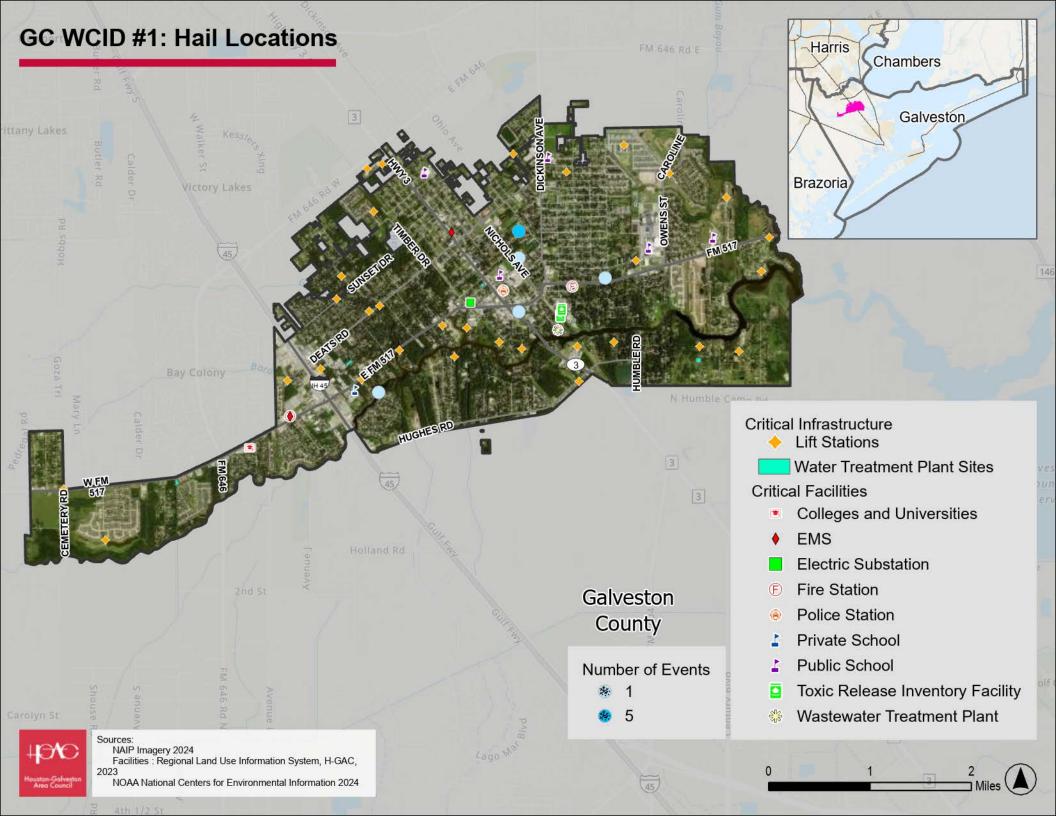
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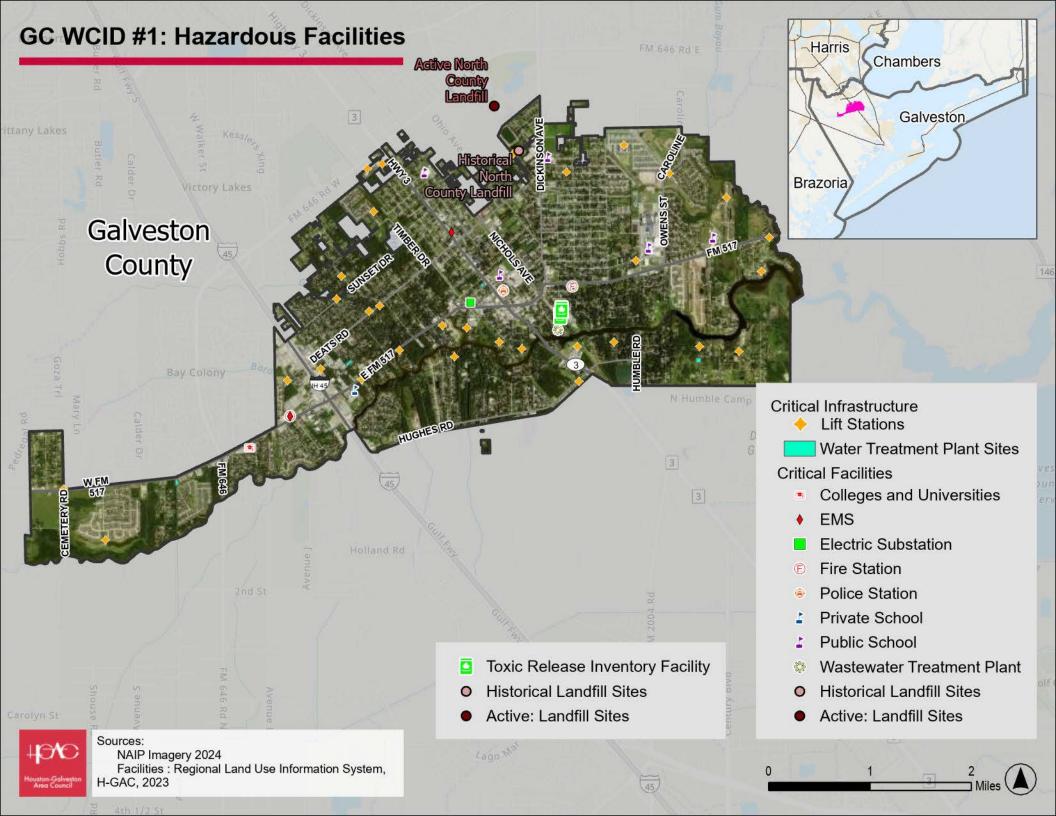
Appendix B: Maps

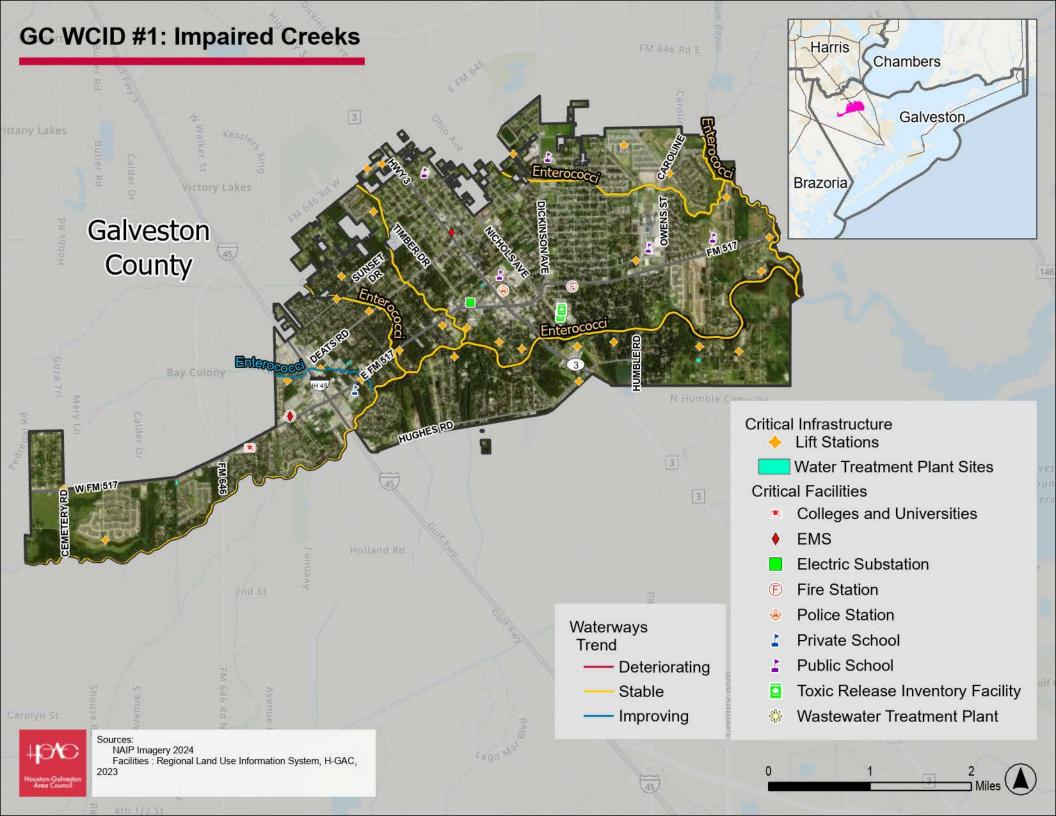


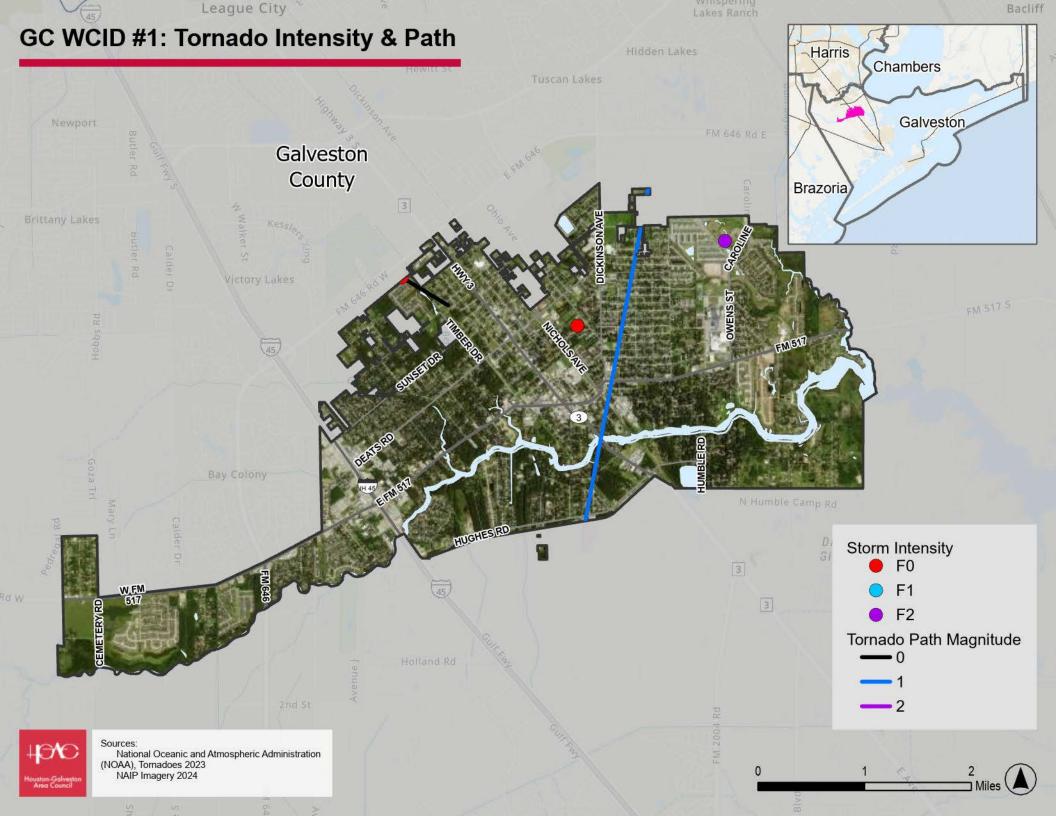


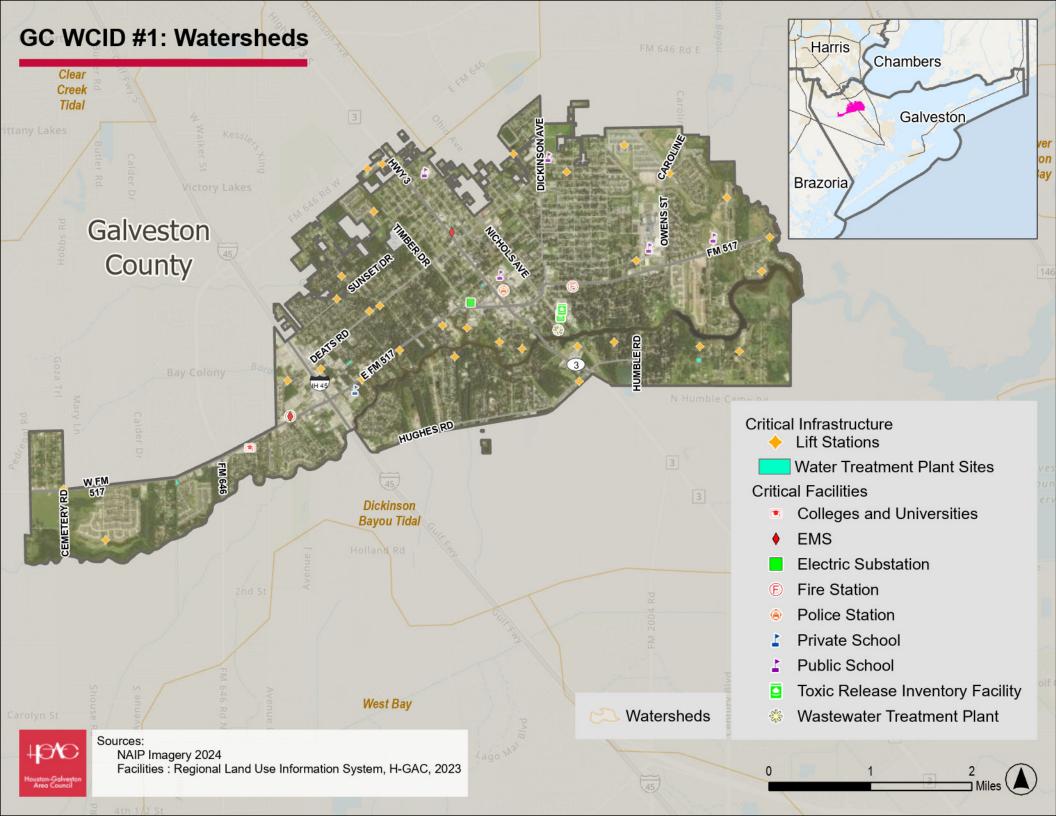


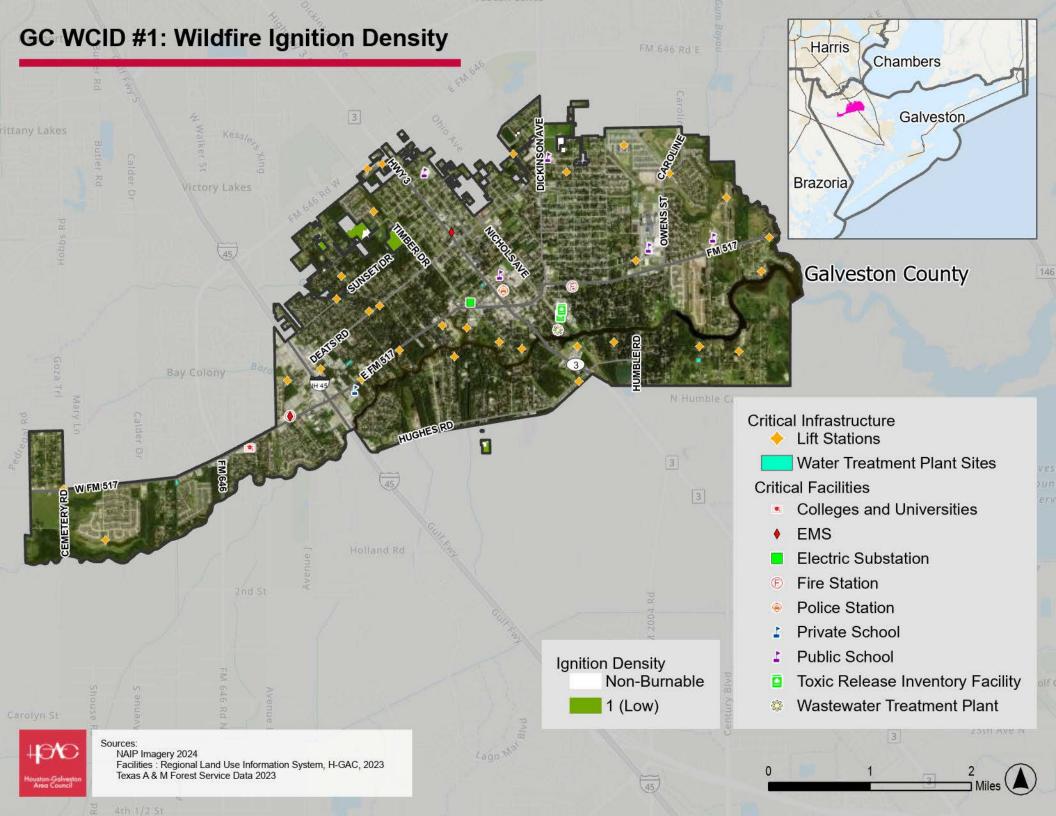


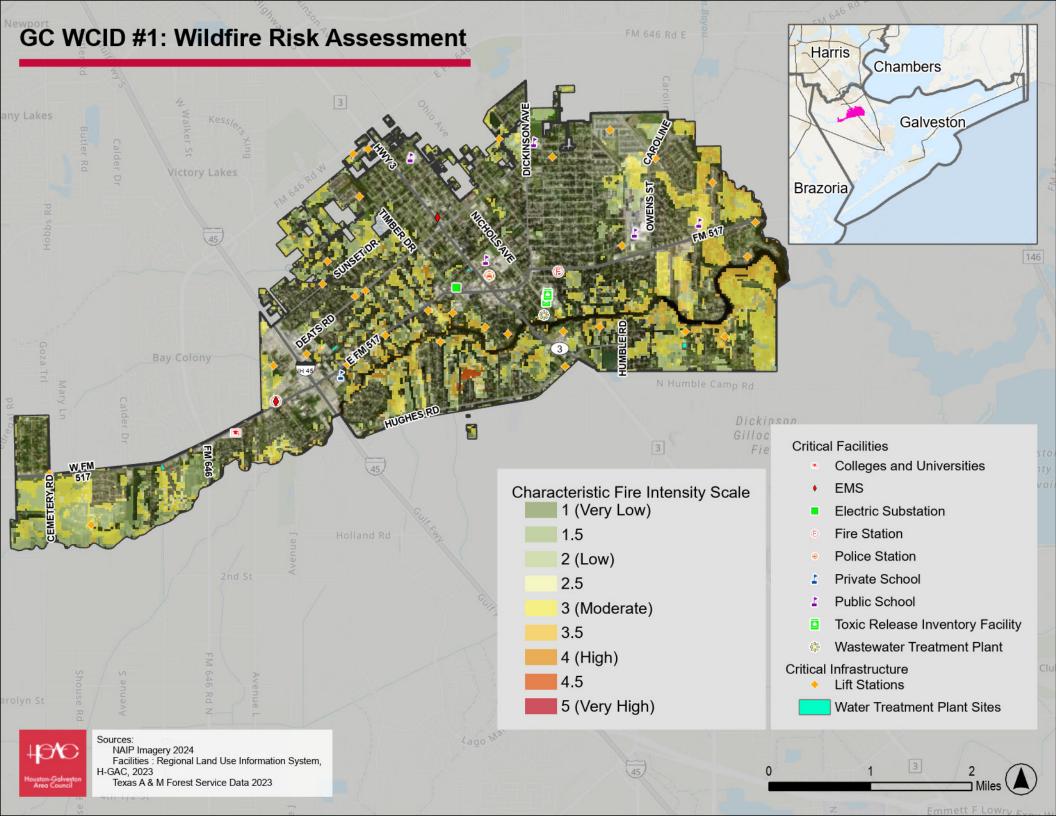


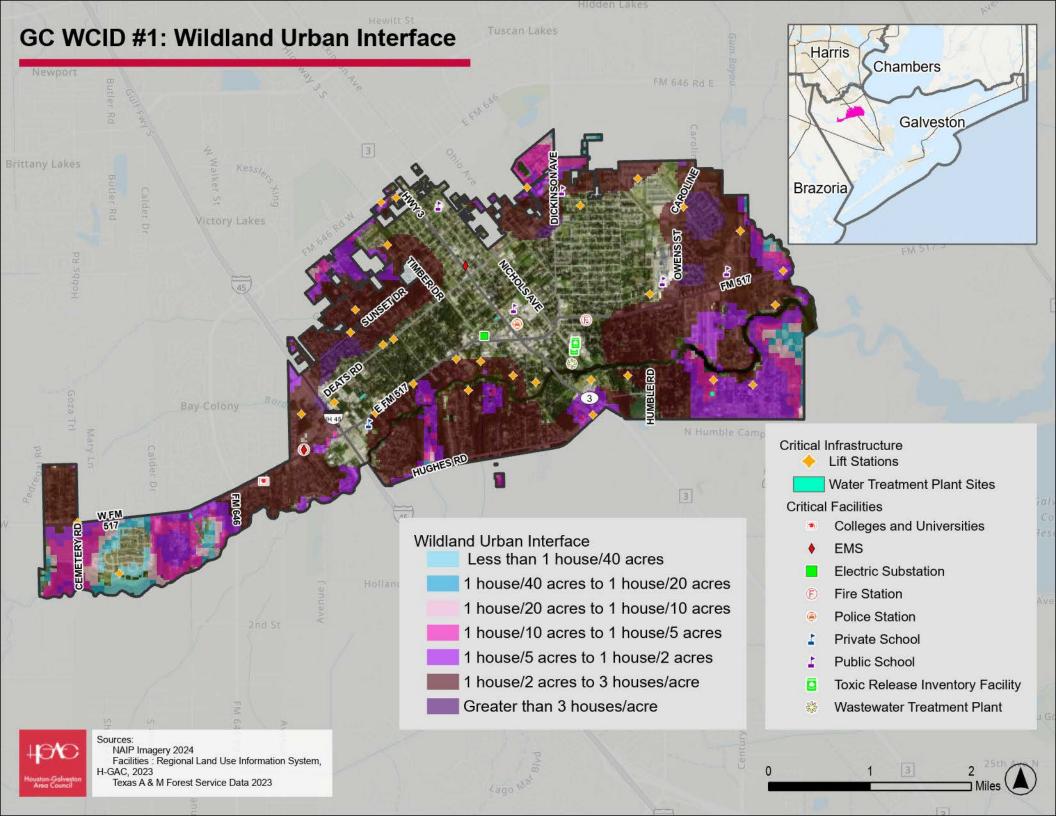












Appendix C: Reference Documents

DISASTER DECLARATIONS

femaDeclarationString	DeclarationType	declarationDate	fyDeclared	incidentType	DeclarationTitle
DR-398-TX	Major Disaster Declaration	7/11/1973	1973	Flood	
DR-595-TX	Major Disaster Declaration	7/28/1979	1979	Flood	
DR-603-TX	Major Disaster Declaration	9/25/1979	1979	Flood	
DR-689-TX	Major Disaster Declaration	8/19/1983	1983	Hurricane	
DR-1041-TX	Major Disaster Declaration	10/18/1994	1995	Flood	Severe Thunderstorms And Flooding
DR-1239-TX	Major Disaster Declaration	8/26/1998	1998	Severe Storm	Tropical Storm Charley
DR-1245-TX	Major Disaster Declaration	9/23/1998	1998	Severe Storm	Hurricane Georges - Texas
DR-1257-TX	Major Disaster Declaration	10/21/1998	1999	Flood	Tx-Flooding 10/18/98
EM-3142-TX	Emergency Declaration	9/1/1999	1999	Fire	Extreme Fire Hazards
DR-1379-TX	Major Disaster Declaration	6/9/2001	2001	Coastal Storm	2001
DR-1434-TX	Major Disaster Declaration	9/26/2002	2002	Coastal Storm	Tropical Storm Fay
DR-1479-TX	Major Disaster Declaration	7/17/2003	2003	Hurricane	Hurricane Claudette
EM-3216-TX	Emergency Declaration	9/2/2005	2005	Hurricane	Hurricane Katrina Evacuation
EM-3261-TX	Emergency Declaration	9/21/2005	2005	Hurricane	Hurricane Rita
DR-1606-TX	Major Disaster Declaration	9/24/2005	2005	Hurricane	Hurricane Rita
DR-1624-TX	Major Disaster Declaration	1/11/2006	2006	Fire	Extreme Wildfire Threat
EM-3277-TX	Emergency Declaration	8/18/2007	2007	Hurricane	Hurricane Dean
EM-3284-TX	Emergency Declaration	3/14/2008	2008	Fire	Wildfires
EM-3290-TX	Emergency Declaration	8/29/2008	2008	Hurricane	Hurricane Gustav
EM-3294-TX	Emergency Declaration	9/10/2008	2008	Hurricane	Hurricane Ike
DR-1791-TX	Major Disaster Declaration	9/13/2008	2008	Hurricane	Hurricane Ike
					Severe Storms, Tornadoes, Straight-
DR-4245-TX	Major Disaster Declaration	11/25/2015		Severe Storm	Line Winds, And Flooding
DR-4332-TX	Major Disaster Declaration	8/25/2017	2017	Hurricane	Hurricane Harvey
EM-3458-TX	Emergency Declaration	3/13/2020	2020	Biological	Covid-19
DR-4485-TX	Major Disaster Declaration	3/25/2020	2020	Biological	Covid-19 Pandemic
EM-3530-TX	Emergency Declaration	7/26/2020	2020	Hurricane	Hurricane Hanna
EM-3540-TX	Emergency Declaration	8/24/2020	2020	Hurricane	Tropical Storms Marco And Laura
DR-4572-TX	Major Disaster Declaration	12/9/2020	2021	Hurricane	Hurricane Laura
EM-3554-TX	Emergency Declaration	2/14/2021	2021	Severe Ice Storm	Severe Winter Storm
DR-4586-TX	Major Disaster Declaration	2/19/2021		Severe Ice Storm	Severe Winter Storms
DR-4798-TX	Major Disaster Declaration	7/9/2024	2024	Hurricane	Hurricane Beryl

				GAL	/ESTON C	COUNTY. NCEI:	STORM EVENTS (2000-2025)	
EVENT ID CZ NAME STR	BEGIN LOCATION	BEGIN DATIEVENT TYPE	MAGNITUDE TOR E SCAL			•	DAMAGE_CROPS_NUM EVENT_NARRATIVE	EPISODE NARRATIVE
5143369 GALVESTON CO.	LEAGUE CITY	4/2/2000 Thunderstorm Wind	PIAGNITUDE TOK_I_SCAE	O O	0	\$10,000	\$0 Large tree limbs down on FM 270.	LF130DL_NARRATIVE
5143372 GALVESTON CO.	GALVESTON	4/2/2000 Hail	0.75	0	0		\$0	
5143374 GALVESTON CO.	HIGH IS	4/3/2000 Thunderstorm Wind		0	0	\$15,000	\$0 Power pole snapped and transmission line down.	
							Numerous power lines, street signs, and large tree limbs blown down mainly in the	
5148881 GALVESTON CO.	LEAGUE CITY	5/2/2000 Thunderstorm Wind		0	1	\$50,000	\$0 Newport, Brittany Bay, and Landing subdivisions.	
							Several small airplanes overturned with severe damage to NOAA P-3 research aircraft.	
							Constitution and the constitut	
							A strong storm system produced widespread severe thunderstorms over southeast Texas	
							from late evening on May 1st through early morning on May 2nd. Widespread wind damag	
							impacted Harris, Ft. Bend, Wharton, Brazoria, and Galveston counties. Storm surveys	
							revealed most of the wind damage to be due to downburst winds, with only one F0 tornado	
							reported in Rosharon. Severe damage occurred at Clover Field in Pearland where several	
							planes were overturned and two airplane hangars were destroyed, and at Scholes Field in	
							Galveston where several small planes were overturned and the NOAA P-3 research aircraf	t
							was damaged. A massive hailstorm with golfball to baseball sized hail struck the Conroe	
							area producing over \$10 million in damage to automobiles, carports, and several	
							businesses. Wind and hail caused destruction of crops in Burleson County and in souther	n
							Austin and Ft. Bend counties. Total damage for the event in southeast Texas was	
5148889 GALVESTON CO.	GALVESTON SCHOLES FLE	5/2/2000 Thunderstorm Wind		0	0	\$1,000,000	\$0 estimated to be near \$25 million.	
							Excessive heat impacted southeast Texas for much of the month of July. High	
							temperatures ranged from 98 to 105 degrees on a daily basis over all but the immediate	
							coast during a 2 week period. College Station recorded 12 consecutive days with	
							temperatures of 100 degrees or higher. Highest temperatures for the month included 103	
							degrees at Houston Intercontinental Airport and 105 degrees at College Station. Only	
E170247 CALVESTON (70NE)		7/6/2000 Heat			0	\$0	traces of rainfall were observed during this period. Of the 19 heat related deaths reported	
5176247 GALVESTON (ZONE) 5164032 GALVESTON CO.	SAN LEON	7/23/2000 Heat 7/23/2000 Thunderstorm Wind		0	0	\$15,000	\$0 during this period, 17 were in Harris County and 2 were in Galveston County. \$0 Power lines down.	
5164031 GALVESTON CO.	SANTA FE	7/23/2000 Thunderstorm Wind		0	0	\$15,000	\$0 Trees down.	
5164328 GALVESTON CO.	HITCHCOCK	7/23/2000 Thunderstorm Wind		0	0	\$50,000	\$0 Railroad crossbars blown down and touching power lines at FM 2004 and SH 6.	
5164329 GALVESTON CO.	GALVESTON	7/23/2000 Thunderstorm Wind		0	0	\$15,000	\$0 Power lines down.	
5164417 GALVESTON CO.	JAMAICA BEACH	7/30/2000 Waterspout		0	0	\$0	\$0 Waterspout reported near west end of Galveston Island.	
5164419 GALVESTON CO.	GALVESTON SCHOLES FLD	7/31/2000 Waterspout		0	0	\$0	\$0 Waterspout over Galveston Bay between Scholes Field and Tiki Island.	
							Severe drought continued across southeast Texas through the month of August. Rainfall	
							for the month of August averaged only 30 to 50 percent of normal across southeast Texas.	
							Several cities were placed under water rationing with large crop losses were noted across	
5457440 041 / 5070 1 / 7015		0.4.70000				40	the area. Wildfires became increasingly common, especially toward the end of the month	
5157142 GALVESTON (ZONE)		8/1/2000 Drought		0	0	\$0	\$0 Drought losses in dollars will be computed at the end of the summer growing season.	
							Excessive heat occurred over southeast Texas during the last 3 days of August. High	
							temperatures reached well over 100 degrees over inland areas, with Galveston reaching	
							100 degrees on the 31st. The high temperature of 107 degrees at Houston Intercontinenta	ı
							on the 31st tied the all-time record high temperature observed in Houston up to that date.	
							College Station recorded a high temperature of 109 degrees on the 31st. All 3 heat related	
5171641 GALVESTON (ZONE)		8/29/2000 Heat		0	0	\$0	\$0 deaths were in Harris County.	
,					-	***		
							A record setting heat wave continued over southeast Texas through the first week of	
							September 2000. The temperature at Houston Intercontinental soared to 109 degrees on	
							the 4th and 108 degrees on the 5th, setting new records for the all-time highest	
							temperatures recorded in Houston. The temperature in College Station peaked at 112	
							degrees on the 4th and 111 degrees on the 5th, both the highest temperatures ever	
							recorded in College Station. In Galveston, the all-time record high temperature of 101	
							degrees was tied on the 4th, then broken the next day when the temperature rose to 104	
							degrees. Temperatures over southeast Texas began to cool on the 6th. In all, Houston	
							recorded 6 consecutive days with temperatures of 104 degrees or higher and College	
							Station recorded 6 consecutive days of 107 degrees or higher. Galveston reached 100	
							degrees or higher for the first time since 1939, and for the first time on record had more	
							than one day in a season with 100-degree temperatures. A heat wave with temperatures of	T
		0.4.7000			_		this duration and magnitude is unprecendented for southeast Texas. All 5 heat related	
5173943 GALVESTON (ZONE)	1	9/1/2000 Heat		0	0	\$0	\$0 deaths occurred in Harris County.	

							Course draught continued covers couth cost Taylor through Contember 2000. The	
							Severe drought continued across southeast Texas through September 2000. The	
							combination of excessive heat and dryness caused many wildfires to burn during the first	
							week of the month including a 4500 acre fire in Liberty County on the 4th and a 1965 acre	
							fire in Trinity County on the 2nd. Water rationing continued during the first half of the	
							month in several small communities and was briefly instigated in the city of Houston.	
							Water line breaks and small grass fires were a common problem across southeast Texas,	
							especially at the beginning of the month. By the end of September, damage estimates for	
							the season to cotton, wheat, and forage crops and increased irrigation reached \$102.3	
5175141 GALVESTON (ZONE)		9/1/2000 Drought		0	0	\$0	\$102,300,000 million for southeast Texas.	
							Foot of standing water on streets in League City with cars flooded and stalled. Street	
							flooding in Galveston with flooding on Broadway. Several cars submerged in water and	
							several streets barricaded in Texas City including Palmer Highway. Over 7 inches of rainfall	
5174435 GALVESTON CO.	COUNTYWIDE	9/13/2000 Flash Flood		0	0	\$100,000	\$0 in League City.	
5174440 GALVESTON CO.	BACLIFF	9/14/2000 Funnel Cloud		0	0	\$0	\$0	
5238705 GALVESTON CO.	FRIENDSWOOD	3/14/2001 Hail	0.88	0	0	\$10,000	\$0	
5238707 GALVESTON CO.	SANTA FE	3/14/2001 Thunderstorm Wind		0	0	\$40,000	\$0 Numerous fences and trees down in Bay Colony.	
5238706 GALVESTON CO.	DICKINSON	3/14/2001 Thunderstorm Wind	54	0	0 \$-		\$0	
5238710 GALVESTON CO.	TEXAS CITY	3/14/2001 Thunderstorm Wind	57	0	0	\$0	\$0	
5238713 GALVESTON CO.	GALVESTON	3/14/2001 Funnel Cloud		0	0	\$0	\$0	
5238711 GALVESTON CO.	GALVESTON	3/14/2001 Thunderstorm Wind		0	0	\$20,000	\$0 Utility poles and power lines down; broken windows at a car dealership.	
5238717 GALVESTON CO.	HITCHCOCK	3/27/2001 Hail	0.75	0	0	\$5,000	\$0	
5245171 GALVESTON CO.	GALVESTON	5/13/2001 Funnel Cloud		0	0	\$0	\$0	
	1					Ψ.	early afternoon of June 5th, 80 miles south of Galves	ston Allison moved
							northward, making landfall on the west end of Galves	
							midnight and 1am on the 6th, less than 12 hours afte	•
							moved inland it caused two to three foot tides, which	
							the area. On the evening of the 5th a tornado briefly the area.	
							Brazoria county causing damage to one home in the	Manvel area. Over the
							next five days Allison produced record rainfall that le	ed to devastating
							flooding across Southeast Texas, killing 22 people ar	nd damaging over
							48,000 homes, 70,000 automobiles and nearly 2000	
							The first significant flooding occurred while Allison w	was still offshore A
							large spiral band with very heavy rainfall moved inlan	
							the Houston area, and by mid evening 8 to 12 inch to	
							from northern Galveston county into southern Harris	
							continued over inland portions of Southeast Texas or	vernight with 3 to 5
							inch totals common, as Allison moved inland and we	eakened.
							On the morning of June 6th, Allison was downgraded	I to a tropical
							depression. Allison moved north until it was near Lut	ıfkin, then made a
							clockwise loop and began drifting to the southwest.	Before sunrise on June
							7th, the center was near Huntsville, and a band of he	
							Liberty county producing 5 to 10 inches of rain, causi	*
							water on Highway 90. Around the same time another	-
5050050 0411/507011/70115		0/5/0004				404 740 000	thunderstorms developed over the Sugar Land - Staff	
5256250 GALVESTON (ZONE)		6/5/2001 Tropical Storm		0	0	\$31,740,000	\$0 and Harris counties, producing another 8 to 12 inche	25 of rain and causing
5255995 GALVESTON CO.	COUNTYWIDE	6/5/2001 Flash Flood		0	0	\$0	\$0 Flooding from T.S. Allison. Damage included in previous report.	
					_		A building under construction sustained a damaged roof, twisted rafters and a collapsed	
5256169 GALVESTON CO.	SANTA FE	6/8/2001 Thunderstorm Wind		0	0	\$30,000	\$0 frame. Numerous trees and fences were blown down.	
5256082 GALVESTON CO.	CENTRAL PORTION	6/8/2001 Flash Flood		0	0	\$0	\$0 Flooding from the remnants of T.S. Allison. Damage included in previous report.	
5256093 GALVESTON CO.	NORTH PORTION	6/9/2001 Flash Flood		0	0	\$0	\$0 Flooding from the remnants of T.S. Allison. Damage included in previous report.	
5256168 GALVESTON CO.	NORTH PORTION	6/9/2001 Flash Flood		0	0	\$0	\$0 Flooding from the remnants of T.S. Allison. Damage included in previous report.	
5259897 GALVESTON CO.	TEXAS CITY	7/7/2001 Funnel Cloud		0	0	\$0	\$0	
5263459 GALVESTON CO.	TEXAS CITY	8/19/2001 Funnel Cloud		0	0	\$0	\$0	
5263460 GALVESTON CO.	TEXAS CITY	8/25/2001 Funnel Cloud		0	0	\$0	\$0	
5263465 GALVESTON CO.	TEXAS CITY	8/28/2001 Flash Flood		0	0	\$30,000	\$0 Flooding on Amburn Road and on Ninth Avenue; high water at College of the Mainland.	
								Л
							A series of upper level disturbances produced heavy	
							weather across the southern portions of southeast To	exas. Rainfall rates of
							one inch per hour for up to 6 hours at a time were rec	corded in Jackson,
							Matagorda, and Wharton counties. This led to wides	pread street flooding
							with some roads being washed out. Heavy rainfall in	
							Fort Bend, and southeastern Harris counties also led	
							well as water in some homes. The storms also produ	-
5263470 GALVESTON CO.	TEXAS CITY	8/30/2001 Flash Flood		_		\$80,000	\$0 Homes flooded on Edwards Street; high water on Palmer Highway. causing minor damage and no injuries.	accu tines tomauos
JZUJ47 U JJALVESTUN CU.	LI LYVYO OLL I	0/30/2001 Fta311 Ft000		1 0	ı "	φου,υυυ	40 Hornes Hooded on Edwards Street, right water on Faurier Fighway. Edusing Hillion damage and no riffurnes.	

								A series of upper level disturbances produced heavy rain and some severe weather across the southern portions of southeast Texas. Rainfall rates of one inch per hour for up to 6 hours at a time were recorded in Jackson,
								Matagorda, and Wharton counties. This led to widespread street flooding with some roads being washed out. Heavy rainfall in Galveston, Brazoria,
								Fort Bend, and southeastern Harris counties also led to street flooding, as well as water in some homes. The storms also produced three tornadoes
5263475 GALVESTON CO.	PORT BOLIVAR	8/31/2001 Thunderstorm Wind			0	0	\$25,000	\$0 Newspaper reported damage to a bait camp at Sievers Cove. causing minor damage and no injuries.
5267742 GALVESTON CO.	PORT BOLIVAR	9/1/2001 Flash Flood			0	0	\$10,000	\$0 Flooding along Highway 87 on Bolivar Peninsula.
5267735 GALVESTON CO.	TEXAS CITY	9/2/2001 Funnel Cloud			0	0	\$0	\$0
5267638 GALVESTON CO.	LEAGUE CITY	9/19/2001 Thunderstorm Wind			0	0	\$45,000	\$0 Numerous trees down and damage to some homes and businesses. League City Police reported fences blown down near the Houston Gulf Airport at Highway
5281068 GALVESTON CO.	LEAGUE CITY	2/21/2002 Thunderstorm Wind			ا	0	\$5,000	\$0 96.
5281067 GALVESTON CO.	LEAGUE CITY	2/21/2002 Thunderstorm Wind			0	0	\$5,000	\$0 League City Police reported power lines down at Lawrence Road and FM 2094.
5290830 GALVESTON CO.	FRIENDSWOOD	3/30/2002 Hail	1.75		0	0	\$30,000	\$0
5290831 GALVESTON CO.	LEAGUE CITY	3/30/2002 Thunderstorm Wind	60		0	0	\$20,000	\$0 A large tree was blown down by strong winds at East Walker and Eden.
						_		Nickel sized Hail occurred in the Countryside subdivision at FM 518 and Bay Area
5290832 GALVESTON CO.	LEAGUE CITY	3/30/2002 Hail	0.88		0	0	\$10,000	\$0 Boulevard.
5290833 GALVESTON CO.	LEAGUE CITY	3/30/2002 Hail	2		- 0	U	\$30,000	\$0 Two inch Hail occurred at the League City Police Department. On FM 518 in Friendswood, wind damage occurred to an auto repair shop, with loss of the
5293282 GALVESTON CO.	FRIENDSWOOD	4/8/2002 Thunderstorm Wind			ا	0	\$25,000	\$0 sheet metal awning, and power lines were down.
5293365 GALVESTON CO.	SAN LUIS PASS	4/8/2002 Hail	1.75		0	0	\$10,000	\$0
						-	, ,,,,,,	
5293370 GALVESTON CO.	GALVESTON	4/8/2002 Thunderstorm Wind			0	0	\$20,000	\$0 There was an extensive number of power lines down along FM 3005 on Galveston Island.
5293371 GALVESTON CO.	JAMAICA BEACH	4/8/2002 Hail	0.75		0	0	\$5,000	\$0
5293367 GALVESTON CO.	LEAGUE CITY	4/8/2002 Flash Flood			0	0	\$5,000	\$0 Street flooding was reported in League City and Friendswood.
								Wind damage to homes on the west end of Galveston Island, most extensive at Terramar
5293372 GALVESTON CO.	SAN LUIS PASS	4/8/2002 Thunderstorm Wind					\$50,000	and Bay Harbor subdivisions, with 4 houses missing up to half their roofs, and a couple \$0 dozen homes with missing shingles and blown out windows.
5295572 GALVESTON CO.	SAN LUIS PASS	4/8/2002 Illuliderstoriii Willid				U	\$50,000	Police and Emergency Management reported that 200 to 300 homes had received hail
5293373 GALVESTON CO.	SAN LUIS PASS	4/8/2002 Hail	1		0	0	\$300,000	\$0 damage on the west end of Galveston Island.
5299873 GALVESTON CO.	TEXAS CITY	5/17/2002 Flash Flood	_		0	0	\$150,000	\$0 Streets flooded with 2-3 feet of water, 50 homes and businesses flooded.
5299875 GALVESTON CO.	GALVESTON	5/17/2002 Flash Flood			0	0	\$2,000	\$0 Street flooding.
5299874 GALVESTON CO.	LEAGUE CITY	5/17/2002 Flash Flood			0	0	\$2,000	\$0 Street flooding.
5299882 GALVESTON CO.	GALVESTON	5/30/2002 Hail	0.88		0	0	\$3,000	\$0
5299883 GALVESTON CO. 5315237 GALVESTON CO.	TEXAS CITY	5/30/2002 Hail 8/15/2002 Thunderstorm Wind	1.75		0	0	\$15,000	\$0 Poof blown off house and newer lines down
5315237 GALVESTON CO.	CRYSTAL BEACH	8/15/2002 Infunderstorm Wind			- 0	U	\$25,000	\$0 Roof blown off house and power lines down. Water entering businesses on Broadway by 4:00 AM CST. Six inches of rain at Galveston's
								Scholes Field through 4:44 AM CST. Widespread street flooding by 5:45 AM CST (up to 3
								feet deep at some locations).
5315236 GALVESTON CO.	SOUTH PORTION	8/15/2002 Flash Flood			0	0	\$75,000	\$0 More than 11 inches of rain falls at Scholes Field by the end of the day.
								Major flooding across the county. Water in cars and businesses, streets closed. Island
5313769 GALVESTON CO.	COUNTYWIDE	8/15/2002 Flash Flood			0	0	\$100,000	\$0 received more than 11 inches of rain.
5313780 GALVESTON CO.	CRYSTAL BEACH	8/27/2002 Thunderstorm Wind			0	0	\$20,000	\$0 Wind damage.
5316743 GALVESTON (ZONE) 5315379 GALVESTON CO.	JAMAICA BEACH	9/5/2002 Tropical Storm 9/10/2002 Flash Flood			0	0	\$0 \$45,000	\$0 \$0 \$0 Flooding in Jamaica Beach and Pirates Beach.
5315382 GALVESTON CO.	LEAGUE CITY	9/19/2002 Flash Flood			0	0	\$25,000	\$0 High water in and around League City.
OGIOGOZ GALVEGION GO.	LEAGUE OITT	3/13/2002 143/111004			\dashv		Ψ20,000	Waterspout moved onshore and did F0 damage on the east end of Galveston Island.
								Damage included fences down, a carport damaged, and part of an apartment brick facade
5319688 GALVESTON CO.	(GLS)SCHOLES FLD GAL	10/8/2002 Tornado		F0	0	0	\$100,000	\$0 down.
								Roads flooded and impassable on Galveston Island (KGLS almost 3.50 inches of rain in 2
5319690 GALVESTON CO.	EAST PORTION	10/8/2002 Flash Flood			0	0	\$15,000	\$0 1/2 hours).
5319696 GALVESTON CO.	NORTH PORTION	######## Flash Flood			0	0	\$75,000 \$55,000	\$0 Roads near I-45 across northern Galveston County flooded.
5322662 GALVESTON CO.	COUNTYWIDE	11/5/2002 Flash Flood			- 0	U	\$55,000	\$0 Numerous roads closed due to high water on extremely saturated grounds.
5326702 GALVESTON CO.	CENTRAL PORTION	12/4/2002 Flash Flood			0	0	\$20,000	\$0 Flooding from League City to Dickinson with numerous roads underwater and impassable.
5326954 GALVESTON CO.	TEXAS CITY	######## Tornado		F1	0	0	\$75,000	Exactly one week after the December 23rd outbreak, Southeast Texas received another round of severe weather as the next storm system moved out of the southwestern U.S. toward Texas. This event only lasted three hours (compared to eighteen hours on the 23rd). This event only had three tornadoes were damaged at the initial touchdown. The tornado moved east northeast and eventually crossed the Texas City dike where numerous power poles were knocked down. \$0 The tornado continued past the dike and moved into Galveston Bay as a waterspout.
552000- 07.2720101400.	1.270.0 0111			·- I		٧١	Ψ70,000	To the contained past the disc and moved me outrosten buy do a nuterapout.

										Exactly one week after the December 23rd outbreak, Southeast Texas received another round of severe weather as the next storm system moved out of the southwestern U.S. toward Texas. This event only lasted three hours (compared to eighteen hours on the 23rd). This event only had three tornadoes (compared to ten on the 23rd). However, damage from two of these three tornadoes was significant due to the fact that it occurred over heavily populated areas. This event had no injuries, and the total damage
5326955 GALVESTON CO.	GALVESTON	######## Thunderstorm Wind	65		0		\$30,000	\$0.	140 feet of roof ripped off the Shops at the Balinese on the Galveston seawall.	cost was just under \$450,000.
5326950 GALVESTON CO.	GALVESTON	####### Thunderstorm Wind	56		0	0	\$0			
5352795 GALVESTON CO.	LEAGUE CITY	4/7/2003 Hail	1.75		0	0	\$5,000	\$0		20.0
5352796 GALVESTON CO.	GALVESTON	4/7/2003 Hail	0.75		0	0	\$2,000			
5352914 GALVESTON CO.	JAMAICA BEACH	4/29/2003 Hail	0.75		0	0	\$2,000	\$0		
5355121 GALVESTON CO.	JAMAICA BEACH	6/4/2003 Funnel Cloud			0	0	\$0		Observed off the coast near Jamaica Beach.	
5355237 GALVESTON CO.	(GLS)SCHOLES FLD GAL	6/17/2003 Tornado	F	0	0	0	\$0	\$0	Tornado was between Scholes Field and the Causway; no damage.	
5355238 GALVESTON CO.	HITCHCOCK	6/17/2003 Funnel Cloud			0	0	\$0	· ·		
5355525 GALVESTON CO.	TEXAS CITY	6/17/2003 Funnel Cloud			0	0	\$0	· · · · · · · · · · · · · · · · · · ·		
5373842 GALVESTON CO.	BACLIFF	7/14/2003 Funnel Cloud			0	0	\$0	\$0		•
										O'Connor around 10:30 AM CDT on Tuesday, July 15, 2003. Claudette was the first hurricane to strike the Port O'Connor and Matagorda Bay area since Hurricane Fern on September 10, 1971. Historical records dating back to 1851 indicate Claudette is the first July hurricane to make landfall in this area. Claudette developed from a tropical wave over the central Caribbean Sea on July 8th. The storm moved westward until July 10th, when it turned northwestward over the northwestern Caribbean Sea. This motion brought the center over the northeastern Yucatan peninsula of Mexico on July 11th. Claudette briefly became a hurricane on July 10th and was a 60 mph tropical storm at landfall in Yucatan. Claudette moved northwestward into the Gulf of Mexico on July 12th, then meandered over the central Gulf of Mexico on July 13th. A general north-northwestward motion followed on July 14th and Claudette slowly intensified during this time. Claudette reached hurricane strength on July 15th as it turned west-northwestward. This motion brought the center to the Texas coast at Port O'Connor that morning as a 90 mph Category 1 hurricane on the Saffir-Simpson Hurricane Scale. Claudette turned westward after landfall, moving across portions of southern Texas and northern Mexico. The cyclone turned west-northwestward across northwestern Mexico and the Texas Big Bend area before dissipating on July 17th.
5373829 GALVESTON (ZONE)	7/14/2003 Hurricane (Typhoon)			0	0	\$8,300,000	\$0		Damage was observed across most Southeastern Texas coastal counties. Major beach erosion was observed from High Island to Freeport. Large geo-
3073023 ONLVESTON (ZUNE		77472000 Humbane (Typhooli)					φ υ, υυυυυυ	\$0		landfall between Port O'Connor and Freeport on August 31st. Grace was the second tropical cyclone to affect this portion of the Texas coast in less than two months (Hurricane Claudette moved through the Port O'Connor area on July 15th). Grace ended up being a heavy rain producer for portions of the Upper Texas Coast where some flooding was observed. There was no damage due to Grace's winds.
										Grace developed from a tropical wave that moved across the Yucatan Peninsula and into the southeastern Gulf of Mexico late on August 29th. Development was inhibited by strong vertical wind shear. On August 30th, the shear lessened and a tropical depression formed about 335 miles east southeast of Corpus Christi. Reports from a ship and a reconnaissance aircraft indicated that the cyclone had strengthened into Tropical Storm Grace later that day. Grace moved in a general northwestward direction and remained poorly organized until it made landfall along the Texas coast between Port O'Connor and Freeport on August 31st. The system continued to move inland and quickly weakened to a depression. Outer rain bands containing heavy rainfall continued to develop near the coast well after Grace had weakened and produced additional heavy rainfall that lead to some flooding.
5378855 GALVESTON (ZONE		8/30/2003 Tropical Storm			0	0	\$7,000	\$0		Heavy rainfall between 6 and 12 inches was observed from extreme eastern Galveston County to across the Bolivar Peninsula and northward into Chambers and portions of Liberty Counties. Some roads were flooded in these areas.

5378763 GALVESTON CO.	LEAGUE CITY	8/31/2003 Flash Flood		n	n	\$3,000	\$0 Street flooding.	
5378761 GALVESTON CO.	GILCHRIST	8/31/2003 Flash Flood		0	0		\$0 Portions of Highway 87 on the Bolivar Peninsula impassable.	
SOFOFOI GALVESTON CC.	OLEOTINIO	6/61/2000 1/43/11/1000		<u> </u>		φο,σσο	40 Tortions of riighway 07 on the bothart climisata impassable.	
								This flash flood event was from the remnants of Tropical Storm Grace.
								Grace's broad and poorly defined center moved inland between Port
								O'Connor and Freeport on the last day of August. Heavy rains before and
								after landfall resulted in flash flooding across mainly upper Texas coastal
								areas. These heavy rains continued into the first two days of September as
								remnant feeder bands continued to develop and move across portions of
								Southeast Texas.
								Heavy rainfall between 6 and 15 inches was observed from extreme
								eastern Galveston County to across the Bolivar Peninsula and northward
								into Chambers and portions of Liberty Counties. Some roads were flooded
								in these areas. A secondary area of very heavy rainfall was over southern
								Matagorda County where an estimated 6 to 12 inches was observed. The
								majority of this rain fell in the early morning hours of September 1st. The
								Corps of Engineers at the Matagorda River Locks (Matagorda, Matagorda
								County) reported 9 inches of rain between 1 AM and 7 AM CST on that day.
								This heavy rainfall flooded roads and a few homes.
								This heavy familian hooded roads and a few homes.
								Beinfell totale from the date and Ondine had all 40 in the sin Ochus tan
								Rainfall totals from the 1st and 2nd included 1.42 inches in Galveston,
								2.92 inches at Jamaica Beach, 4.75 inches in Freeport, and 9.50 inches in
				_	_	4		Matagorda. Much of the rain that occurred these two days fell on extremely
5370953 GALVESTON (ZONE)		9/1/2003 Tropical Storm		0	0	\$7,000	\$0	saturated grounds which lead to the flash flooding.
				_	_	4	High water across Hwy 87 on the Bolivar Peninsula. Street flooding around FM 518 and I-	
5370959 GALVESTON CO.	COUNTYWIDE	9/1/2003 Flash Flood		0	0	\$4,000	\$0 45.	
5370961 GALVESTON CO.	LEAGUE CITY	9/2/2003 Funnel Cloud		0	0	\$0	\$0 Funnel cloud reported between Egret Bay and League City.	
5337374 GALVESTON CO.	CRYSTAL BEACH	9/10/2003 Lightning		1	1	\$0	\$0 Two men struck by lightning, one fatality.	
								A total of 24 tornadoes touched down during this 15 hour period of severe
								weather in southeastern Texas on November 17, 2003. In addition to these
								tornadoes, a major flood developed over Harris and surrounding counties
								during the middle of this tornadic outbreak. Over 300 homes, along with
								hundreds of vehicles, were flooded.
								These tornadic storms developed over parts of Wharton and Matagorda
								counties shortly after sunrise with the first confirmed tornado occurring
								just east of El Campo around 9:00 am. Strong 500mb upper level troughing
								over the western U.S. moved from west to east across the Southern Plains.
								The polar jet stream associated with this 500 millibar trough surged into
								west Texas and then curved sharply northeastward into the Central Plains.
								The sub-tropical jet stream was oriented west to east across deep
								southern Texas. This jet stream pattern was the impetus to strong lower
								level convergence due to the enhanced upper level divergence. Low level
								moisture had substantially increased and was about 200 percent of
								normal by 6 AM. Vertical wind profiles also showed a great deal of low level
								wind shear with the greatest shear occurring in the lowest 2000 feet. In
								addition, these veering wind speeds rapidly increased with height. A focus
								for the thunderstorm development was provided by a weak low level
								boundary which was aligned southwest to northeast, or generally along the
5331990 GALVESTON CO.	SANTA FE	####### Tornado	F0	0	0	\$100,000	\$0 Tornado touched down in Santa Fe along 4th Street and FM 1764.	U.S. Highway 59 corridor. This feature was nearly-stationary and

										A total of 24 tornadoes touched down during this 15 hour period of severe
										weather in southeastern Texas on November 17, 2003. In addition to these
										tornadoes, a major flood developed over Harris and surrounding counties
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										normal by 6 AM. Vertical wind profiles also showed a great deal of low level
										wind shear with the greatest shear occurring in the lowest 2000 feet. In
										addition, these veering wind speeds rapidly increased with height. A focus
										for the thunderstorm development was provided by a weak low level
			1				4		Tornado damaged local car dealership's sign and rearranged a few cars in lot with tree	boundary which was aligned southwest to northeast, or generally along the
5331468	GALVESTON CO.	DICKINSON	########	Tornado	F0	0 0	\$30,000	\$0	damage along I-45.	U.S. Highway 59 corridor. This feature was nearly-stationary and
										A total of 24 tornadoes touched down during this 15 hour period of severe
										weather in southeastern Texas on November 17, 2003. In addition to these
										tornadoes, a major flood developed over Harris and surrounding counties
										during the middle of this tornadic outbreak. Over 300 homes, along with
										hundreds of vehicles, were flooded.
										These tornadic storms developed over parts of Wharton and Matagorda
										counties shortly after sunrise with the first confirmed tornado occurring
										just east of El Campo around 9:00 am. Strong 500mb upper level troughing
										over the western U.S. moved from west to east across the Southern Plains.
										The polar jet stream associated with this 500 millibar trough surged into
										west Texas and then curved sharply northeastward into the Central Plains.
										The sub-tropical jet stream was oriented west to east across deep
										southern Texas. This jet stream pattern was the impetus to strong lower
										level convergence due to the enhanced upper level divergence. Low level
										moisture had substantially increased and was about 200 percent of
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										wind shear with the greatest shear occurring in the lowest 2000 feet. In
										addition, these veering wind speeds rapidly increased with height. A focus
										for the thunderstorm development was provided by a weak low level
										boundary which was aligned southwest to northeast, or generally along the
5331894	GALVESTON CO.	FRIENDSWOOD	########	Tornado	F0	0 0	\$5,000	\$0	mile into Harris County.	U.S. Highway 59 corridor. This feature was nearly-stationary and

										A total of 24 tornadoes touched down during this 15 hour period of severe
										weather in southeastern Texas on November 17, 2003. In addition to these
										tornadoes, a major flood developed over Harris and surrounding counties
										during the middle of this tornadic outbreak. Over 300 homes, along with
										hundreds of vehicles, were flooded.
										numereds of vehicles, were moded.
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										counties shortly after sunrise with the first confirmed tornado occurring
										just east of El Campo around 9:00 am. Strong 500mb upper level troughing
										over the western U.S. moved from west to east across the Southern Plains.
										The polar jet stream associated with this 500 millibar trough surged into
										west Texas and then curved sharply northeastward into the Central Plains.
										The sub-tropical jet stream was oriented west to east across deep
										southern Texas. This jet stream pattern was the impetus to strong lower
										level convergence due to the enhanced upper level divergence. Low level
										moisture had substantially increased and was about 200 percent of
										normal by 6 AM. Vertical wind profiles also showed a great deal of low level
										wind shear with the greatest shear occurring in the lowest 2000 feet. In
										addition, these veering wind speeds rapidly increased with height. A focus
										for the thunderstorm development was provided by a weak low level
			1	L .					Tornado struck a Friendswood church on FM 2351. Church's sanctuary received damage,	boundary which was aligned southwest to northeast, or generally along the
5331895	GALVESTON CO.	FRIENDSWOOD	########	Tornado	F1	0 0	\$200,000	\$0	church's bell tower completely torn off.	U.S. Highway 59 corridor. This feature was nearly-stationary and
										A total of 24 tornadoes touched down during this 15 hour period of severe
										weather in southeastern Texas on November 17, 2003. In addition to these
										tornadoes, a major flood developed over Harris and surrounding counties
										during the middle of this tornadic outbreak. Over 300 homes, along with
										hundreds of vehicles, were flooded.
										These tornadic storms developed over parts of Wharton and Matagorda
										counties shortly after sunrise with the first confirmed tornado occurring
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										over the western U.S. moved from west to east across the Southern Plains.
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										moisture had substantially increased and was about 200 percent of
										normal by 6 AM. Vertical wind profiles also showed a great deal of low level
										wind shear with the greatest shear occurring in the lowest 2000 feet. In
										addition, these veering wind speeds rapidly increased with height. A focus
										for the thunderstorm development was provided by a weak low level
									Tornado hit a Friendswood home subdivision. Numerous homes received roof damage,	boundary which was aligned southwest to northeast, or generally along the
5331896	GALVESTON CO.	FRIENDSWOOD	########	Tornado	F1	0 0	\$275,000	\$0	garage door damage, and tree damage.	U.S. Highway 59 corridor. This feature was nearly-stationary and

						A total of 24 tornadoes touched down during this 15 hour period of severe weather in southeastern Texas on November 17, 2003. In addition to these tornadoes, a major flood developed over Harris and surrounding counties during the middle of this tornadic outbreak. Over 300 homes, along with hundreds of vehicles, were flooded. These tornadic storms developed over parts of Wharton and Matagorda counties shortly after sunrise with the first confirmed tornado occurring just east of El Campo around 9:00 am. Strong 500mb upper level troughing over the western U.S. moved from west to east across the Southern Plains. The polar jet stream associated with this 500 millibar trough surged into
5331899 GALVESTON CO.	FRIENDSWOOD	######## Flash Flood		0	0 \$5,000	west Texas and then curved sharply northeastward into the Central Plains. The sub-tropical jet stream was oriented west to east across deep southern Texas. This jet stream pattern was the impetus to strong lower level convergence due to the enhanced upper level divergence. Low level moisture had substantially increased and was about 200 percent of normal by 6 AM. Vertical wind profiles also showed a great deal of low level wind shear with the greatest shear occurring in the lowest 2000 feet. In addition, these veering wind speeds rapidly increased with height. A focus for the thunderstorm development was provided by a weak low level boundary which was aligned southwest to northeast, or generally along the U.S. Highway 59 corridor. This feature was nearly-stationary and
5411823 GALVESTON CO.	SANTA FE	6/23/2004 Flash Flood		0	0 \$3,000	\$0 Intersection of FM 1764 and Avenue F impassable due to street flooding.
5413460 GALVESTON CO.	FRIENDSWOOD	7/25/2004 Thunderstorm Wind	50	0	0 \$3,000	\$0 Tree down in the Forest of Friendswood subdivision.
						Brief touchdown on North Galveston Island along Old Port Industrial Road just north of 61st
5418599 GALVESTON CO.	GALVESTON	8/28/2004 Tornado	F0	0	0 \$6	\$0 Street. No reported damage.
						18 wheeler overturned at intersection of FM 518 and FM 2351. Trees snapped and
						numerous fences damaged with widespread power outages in and around city. 16 foot
5427155 GALVESTON CO.	FRIENDSWOOD	10/4/2004 Tornado	F0	0	0 \$40,000	\$0 boat flipped over in residential yard.
5427210 GALVESTON CO.	FRIENDSWOOD	10/4/2004 Hail	1 75	0	0 \$150,000	\$0 Quarter-size hail in Coward Creek subdivision.
5427211 GALVESTON CO.	FRIENDSWOOD	10/4/2004 Hail	1.75	0	0 \$150,000	\$0 Golfball-size hail at Friendswood Police Station on FM 518.
						Widespread tree and fence damage along with minor residential roof and home damage at
5427212 GALVESTON CO.	LEAGUE CITY	10/4/2004 Thunderstorm Wind	56	0	0 \$75,000	FM 518 and Bay Area Blvd near Hall Elementary School in the Countyside South \$0 subdivision.
5427213 GALVESTON CO.	FRIENDSWOOD	10/4/2004 Hail	1.75	0	0 \$150,000	\$0 Roof damage to numerous homes 2 miles SW of the intersection of FM 518 and FM 528.
5425319 GALVESTON CO.	LEAGUE CITY	11/2/2004 Flash Flood		0	0 \$3,000	\$0 Widespread street flooding in and around League City.
						Windows blown out of residential homes, roof damage, trees, and fences blown down.
5425498 GALVESTON CO.	LEAGUE CITY	####### Thunderstorm Wind	60	0	0 \$75,000	\$0 Power lines and signs also down.
5425600 GALVESTON CO.	GALVESTON SCHOLES FL	######## Thunderstorm Wind	52	0	0 \$	\$0 -94.85 29.26667
						Christmas morning across Southeast Texas. For the first time in recorded history, some areas experienced their first white Christmas. The northernmost edge of the snow ran from a Cotulla to Cuero to Sugar Land to Winnie line. Snowfall totals ranged from about an inch (in Pasadena) to around 12 inches (in Brazoria) across the region. An arctic cold front had pushed across Southeast Texas on Wednesday (December 22nd) dropping temperatures below freezing, so plenty of cold air was in place Christmas Eve when the snow began. What made this event unusual was not just the cold air being in place, but the depth of the cold air that was in place over the area. Before the heavy snow began on the night of Christmas Eve, the entire depth of the atmosphere over Southeast Texas was below freezing. Normally when winter weather events occur in Southeast Texas, the depth of the cold air is much shallower, resulting in ice (freezing rain or sleet) being a lot more common than snow. The morning of Christmas Eve, a strong upper level low was evident on satellite across northern Mexico. Ahead of this system, some snow began across Southeast Texas, but the dry atmosphere kept the snowfall light during the day resulting in poly trace, amounts or a light dusting though
5430489 GALVESTON (ZONE		######## Heavy Snow		0	0 \$	during the day, resulting in only trace amounts or a light dusting through late afternoon. Eventually, the atmosphere moistened up by late in the day as the upper level low approached from the west. The upper low moved across South Texas during the nighttime hours
					· · · · · · · · · · · · · · · · · · ·	,

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5445583 GALVESTON CO.	GALVESTON SCHOLES FL		51		0	0 \$0	94.88	5 29.26667
5450893 GALVESTON CO.	TEXAS CITY	5/8/2005 Hail	1.75		0 (0 \$16,000	\$0	
5450894 GALVESTON CO.	LEAGUE CITY	5/8/2005 Thunderstorm Wind	53		0 (0 \$10,000	\$0 Trees down.	
5450895 GALVESTON CO. 5450896 GALVESTON CO.	TEXAS CITY CRYSTAL BEACH	5/8/2005 Hail 5/8/2005 Hail	0.75		0	0 \$15,000 0 \$5,000	\$0 Quarter size hail. \$0 3/4 inch hail.	
5450896 GALVESTON CO.	SANTA FE	5/8/2005 Thunderstorm Wind	57		0	0 \$5,000	\$0 3/4 ITCH Halt. \$0 70 foot tall oak tree down.	
5450898 GALVESTON CO.	DICKINSON	5/8/2005 Thunderstorm Wind	52		0	0 \$11,000	\$0 Gas station canopy damaged and trees down.	
5450899 GALVESTON CO.	HITCHCOCK	5/8/2005 Hail	0.88		0	0 \$5,000	\$0	
5450964 GALVESTON CO.	TEXAS CITY	5/8/2005 Thunderstorm Wind	61		0	0 \$35,000	\$0 Numerous trees down and a light pole down on a parked SUV.	
3430904 OALVESTON CO.	ILAAS CITT	3/8/2003 Munderstofff Wind	01		,	ψ33,000	Building damage along the Port of Galveston, vehicle blown off the road and trees down.	
							One house shifted about ten feet into another house next door dislodging it from its piers	
5450965 GALVESTON CO.	GALVESTON	5/8/2005 Thunderstorm Wind	61		0	1 \$175,000	\$0 (both homes were Galveston 1900 Storm survivors).	
0.00000 07.27201011.001	0/12/201011	97972000 managratami 11ma				4270,000	Large cedar tree down on a home (one injury). Power pole down on FM 2351 with	
							numerous tree limbs down in and around Clear Brook High School. The school had a tennis	
							fence blown down. A nearby carport was damaged and a billboard sign was also blown	
5451175 GALVESTON CO.	FRIENDSWOOD	5/29/2005 Thunderstorm Wind	54		0	\$90,000	\$0 down.	
5451176 GALVESTON CO.	LEAGUE CITY	5/29/2005 Thunderstorm Wind	52		0	0 \$14,000	\$0 Power lines down on FM 2094 east of Clear Creek High School.	
							Lightning strike victim was near a circuit breaker box when the strike occurred. Twenty-nine	
5458959 GALVESTON CO.	SAN LEON	7/14/2005 Lightning			0	1 \$10,000	\$0 others in the home were not injured.	
								between Sabine Pass and Johnson's Bayou In Cameron Parish with a
								minimum central pressure of 937 mb and maximum sustained winds of
								120 mph. Rita was a Category 3 hurricane at landfall.
								120 mpm. Titta was a satisfiery o namoune at tananat.
								Two and a half weeks after Hurricane Katrina made her final and
					1			devastating landfall along the northern Gulf coast, all eyes turned to
					1			Tropical Storm Rita as she moved westward through the central Bahamas.
								On Tuesday, September 20th, Rita rapidly intensified while moving west
								through the Florida Straits into the Gulf of Mexico. Rita reached Category 2
								intensity as the center passed about 50 miles south of Key West and
								significantly impacted the Florida Keys.
								After entering the Gulf of Mexico, Rita intensified at an astounding rate
								going from Category 2 to Category 5 intensity in 24 hours. Following this
								rapid intensification period, sustained winds reached 165 mph on the
								afternoon of Wednesday, September 21st. Since early Monday, Rita had
								been consistently forecast to make landfall along the upper southeast
								Texas coast, when the 120 hour forecast from the National Hurricane
								Center depicted a landfall near San Luis Pass. Emergency management
								officials, members of the media, and residents of southeast Texas had
								been watching Rita closely and planning their course of action on Monday
								and Tuesday. Therefore, even though the hurricane was still 620 miles
								southeast of Galveston, everyone had the images of Hurricane Katrina's
								impact on the central Gulf of Mexico coast still fresh in mind, and an
5478432 GALVESTON (ZONE)		9/23/2005 Hurricane (Typhoon)			. ا	\$15,000,000	\$0	unprecedented, largely voluntary evacuation began on Wednesday across
5502164 GALVESTON CO.	DICKINSON	4/21/2006 Thunderstorm Wind	55		0	0 \$20,000	\$0 Numerous trees and fences down.	angle second contact of total control of the contro
5502166 GALVESTON CO.	LEAGUE CITY	4/21/2006 Thunderstorm Wind	55		0	0 \$20,000	\$0 Trees down on West Walker Street near Victory Lakes Subdivision.	
	DICKINSON	4/21/2006 Hail	1		0	0 \$7,000	\$0 Quarter size hail.	
	DICKINSON	4/21/2006 Thunderstorm Wind	50		0	0 \$5,000	\$0 Tree limbs down.	
	SANTA FE	4/21/2006 Hail	1.75		0	0 \$25,000	\$0 Golfball size hail.	
	SANTA FE	4/21/2006 Hail	1.75		0	0 \$8,000	\$0 Golfball size hail.	
	SANTA FE	4/21/2006 Thunderstorm Wind	50		0	0 \$7,000	\$0 Tree limbs down.	
5509553 GALVESTON CO.	LEAGUE CITY	5/6/2006 Hail	1		0	0 \$10,000	\$0 Quarter size hail.	
5509554 GALVESTON CO.	JAMAICA BEACH	5/6/2006 Hail	0.88		0	0 \$3,000	\$0 Nickel size hail.	
5509654 GALVESTON CO.	SANTA FE	5/14/2006 Hail	0.75		0	0 \$3,000	\$0 Penny size hait.	
5509752 GALVESTON CO.	SANTA FE	5/22/2006 Tornado		F0	0	0 \$7,000	\$0 Tornado damaged a home porch.	
	1				1	Ţ.,300	Semi-tractor trailer overturned onto another vehicle on Interstate 45 at FM 646. Winds also	
							blew down a few large concrete wall structures at a construction site at the same	
							intersection. Numerous fences and store signs were also blown down in and around	
5513900 GALVESTON CO.	LEAGUE CITY	6/13/2006 Thunderstorm Wind	60		0	\$35,000	\$0 League City and Dickinson.	
5523460 GALVESTON CO.	DICKINSON	7/18/2006 Thunderstorm Wind	50		0	0 \$2,000	\$0 Tree down near the intersection of Deats Road and Highway 3.	
	GALVESTON	8/6/2006 Funnel Cloud			0	0 \$0	\$0 Sighted over Galveston Bay.	
	GALVESTON	8/19/2006 Flash Flood			0	0 \$10,000	\$0 Flooding across the east end of Galveston Island and in The Strand area.	
—	GALVESTON	8/23/2006 Lightning			1	0 \$70,000	\$0 86 year old man killed in a house fire started by a lightning strike.	
	JAMAICA BEACH	9/18/2006 Thunderstorm Wind	51		0	0 \$2,000	\$0 Utility pole and power lines downed.	
						+=,000	Alternative State of	A large region of disturbed weather ahead of a central Texas cold front
681 GALVESTON CO.	JAMAICA BEACH	######## Thunderstorm Wind	52		0	\$0	\$0 Thunderstorm moved over west Galveston Island.	spawned severe thunderstorms across southeast Texas.
713 GALVESTON CO.	JAMAICA BEACH	######## Hail	0.75		0	0 \$0	\$0 Penny-sized hail.	Severe thunderstorms developed ahead of a cold frontal passage.
817 GALVESTON CO.		######## Funnel Cloud			0	0 \$0	· · · · · · · · · · · · · · · · · · ·	Severe thunderstorms developed ahead of a cold frontal passage.
					•	,	• 1	

833 GALVESTON CO.	(GLS)SCHOLES FLD GAL	########	• Tornado	FO	0	0	\$4,000	The combination of very deep tropical moisture with a slow-moving warm front and the approach of a strong upper level trough resulted in excessive rainfall across Harris and various surrounding counties. The ground became saturated on the 15th due to scattered convection before the more organized thunderstorms moved into the area shortly after midnight. These storms produced heavy rainfall due to their training nature. A brief break occurred during mid-day which allowed area creeks and bayous to recede before the onset of additional afternoon rainfall. There were four directly related drowning fatalities during this episode. Two deaths were in Harris County, one in Fort Bend County and the one in Liberty County.
836 GALVESTON (ZONE)		***********	Coastal Flood		0	0	\$75,000	The combination of very deep tropical moisture with a slow-moving warm front and the approach of a strong upper level trough resulted in excessive rainfall across Harris and various surrounding counties. The ground became saturated on the 15th due to scattered convection before the more organized thunderstorms moved into the area shortly after midnight. These storms produced heavy rainfall due to their training nature. A brief break occurred during mid-day which allowed area creeks and bayous to foot deep on the bottom floor of some homes. High water also occurred in Jamaica Beach as significant bay side flooding closed many roads. The combination of very deep tropical moisture with a slow-moving warm front and the approach of a strong upper level trough resulted in excessive rainfall across Harris and various surrounding counties. The ground became saturated on the 15th due to scattered convection before the more organized thunderstorms moved into the area shortly after midnight. These storms produced heavy rainfall due to their training nature. A brief break occurred during mid-day which allowed area creeks and bayous to recede before the onset of additional afternoon rainfall. There were four directly related drowning fatalities during this episode. Two deaths were in Harris County, one in Fort Bend County and the one in Liberty County.
831 GALVESTON CO.	нітснєоск	#######	⊧ Tornado	FO	0	1	\$22,000	The combination of very deep tropical moisture with a slow-moving warm front and the approach of a strong upper level trough resulted in excessive rainfall across Harris and various surrounding counties. The ground became saturated on the 15th due to scattered convection before the more organized thunderstorms moved into the area shortly after midnight. These storms produced heavy rainfall due to their training nature. A brief break occurred during mid-day which allowed area creeks and bayous to recede before the onset of additional afternoon rainfall. There were four another one. There was one minor injury in one of the mobile homes. Trees were also uprooted and one tree fell on a vehicle. Harris County, one in Fort Bend County and the one in Liberty County.
899 GALVESTON CO.	GALVESTON	#######	Flash Flood		0	0	\$35,000	The combination of very deep tropical moisture with a slow-moving warm front and the approach of a strong upper level trough resulted in excessive rainfall across Harris and various surrounding counties. The ground became saturated on the 15th due to scattered convection before the more organized thunderstorms moved into the area shortly after midnight. These storms produced heavy rainfall due to their training nature. A brief break occurred during mid-day which allowed area creeks and bayous to recede before the onset of additional afternoon rainfall. There were four directly related drowning fatalities during this episode. Two deaths were in \$0 Numerous roads under water across Galveston Island due to heavy rain.
901 GALVESTON CO.	FRIENDSWOOD	********	Flash Flood		0	0	\$250,000	The combination of very deep tropical moisture with a slow-moving warm front and the approach of a strong upper level trough resulted in excessive rainfall across Harris and various surrounding counties. The ground became saturated on the 15th due to scattered convection before the more organized thunderstorms moved into the area shortly after midnight. These storms produced heavy rainfall due to their training nature. A brief break occurred during mid-day which allowed area creeks and bayous to recede before the onset of additional afternoon rainfall. There were four directly related drowning fatalities during this episode. Two deaths were in Harris County, one in Fort Bend County and the one in Liberty County.

	T						
	CRYSTAL BEACH	######## Tornado		60 0	0 \$5,000	An EF-0 tornado lifted up and spun a sheriff's patrol vehicle. There was also damage to a boat storage unit.	The combination of very deep tropical moisture with a slow-moving warm front and the approach of a strong upper level trough resulted in excessive rainfall across Harris and various surrounding counties. The ground became saturated on the 15th due to scattered convection before the more organized thunderstorms moved into the area shortly after midnight. These storms produced heavy rainfall due to their training nature. A brief break occurred during mid-day which allowed area creeks and bayous to recede before the onset of additional afternoon rainfall. There were four directly related drowning fatalities during this episode. Two deaths were in Harris County, one in Fort Bend County and the one in Liberty County. A strong cold front moved through Southeast Texas in the morning. A tight surface pressure gradient behind the front produced winds at wind
2960 GALVESTON (ZONE)		######## High Wind	55	0	0 \$0	\$0 Observed at Bacliff.	advisory levels with some higher gusts.
11249 GALVESTON CO.	LEAGUE CITY S S ARPT	3/14/2007 Hail	0.75		0 \$8,000	\$0 Penny size hail.	A nearly-stationary upper-level low positioned over western Texas created an environment conducive to three distinct severe weather episodes over eastern Texas. Monday morning's (3/12) fast-moving squall line was initiated from a shortwave rounding the base of the upper low. Tuesday's (3/13) scattered convection was a second shortwave riding up from the west southwest around the still quasi-stationary upper low. Wednesday's (3/14) events stemmed from the upper-low moving eastward over the region into Louisiana.
TIZ43 GALVESTON CO.	LLAUUL OITT 3 3 ANTT	0/14/200/ Hall	0.75		\$8,000	φυ μ enny size naic	rogion into Louisiana.
11254 GALVESTON CO.	LEAGUE CITY	3/14/2007 Thunderstorm Wind	52	0	0 \$30,000	Tree down on one home with numerous downed tree limbs. National Weather Service in \$0 League City estimated wind gusts between 50 and 60 mph during the height of the storm.	A nearly-stationary upper-level low positioned over western Texas created an environment conducive to three distinct severe weather episodes over eastern Texas. Monday morning's (3/12) fast-moving squall line was initiated from a shortwave rounding the base of the upper low. Tuesday's (3/13) scattered convection was a second shortwave riding up from the west southwest around the still quasi-stationary upper low. Wednesday's (3/14) events stemmed from the upper-low moving eastward over the region into Louisiana.
11255 GALVESTON CO.	DICKINSON	3/14/2007 Thunderstorm Wind	52	0	0 \$12,000	\$0 Wind gust estimated in southeast Dickinson.	A nearly-stationary upper-level low positioned over western Texas created an environment conducive to three distinct severe weather episodes over eastern Texas. Monday morning's (3/12) fast-moving squall line was initiated from a shortwave rounding the base of the upper low. Tuesday's (3/13) scattered convection was a second shortwave riding up from the west southwest around the still quasi-stationary upper low. Wednesday's (3/14) events stemmed from the upper-low moving eastward over the region into Louisiana.
20468 GALVESTON CO.	TEXAS CITY	3/31/2007 Lightning		0	0 \$30,000	\$0 Lightning strike started a fire that caused moderate damage to a home.	A pre-frontal trough well ahead of a central Texas cold front slowed as it approached the coastal counties. This boundary became the focus for severe thunderstorms along the coast and neighboring inland counties. The environment was conducive to the formation of late morning funnel
32205 GALVESTON CO.	DICKINSON	5/11/2007 Funnel Cloud		0	0 \$0	\$0 Funnel cloud was sighted to the east of the National Weather Service forecast office.	clouds. A shortwave disturbance passed over southeastern Texas. With the
							combination of ample heating and high moisture levels, numerous
32385 GALVESTON CO.	SANTA FE	5/14/2007 Hail	0.88	0	0 \$0	\$0	afternoon and early evening thunderstorms developed.
							A shortwave disturbance passed over southeastern Texas. With the
32388 GALVESTON CO.	SANTA FE	5/14/2007 Thunderstorm Wind	50	0	0 \$3,000	\$0 Trees blown down.	combination of ample heating and high moisture levels, numerous afternoon and early evening thunderstorms developed. A shortwave disturbance passed over southeastern Texas. With the
22202 041/52704 00	CANTA FF	F /4 4/0007 Fung -1 011				to Tue funnal aloudo wave eighted County D 1100	combination of ample heating and high moisture levels, numerous
32392 GALVESTON CO.	SANTA FE	5/14/2007 Funnel Cloud		0	0 \$0	\$0 Two funnel clouds were sighted on County Road 168.	afternoon and early evening thunderstorms developed.
32403 GALVESTON CO.	GALVESTON	5/22/2007 Thunderstorm Wind	53	0	0 \$0	\$0 Tree downed in the Gulf Village subdivision near Stewart Road.	Isolated severe storms fired up along the southeast Texas's Gulf Coast.
32611 GALVESTON CO.	DICKINSON	5/29/2007 Funnel Cloud		0	0 \$0	\$0	A continuation of the disturbed weather at the end of May.
36236 GALVESTON CO.	LEAGUE CITY	6/13/2007 Thunderstorm Wind	60	0	0 \$10,000	\$0 Tree down on a house and power line near Highway 96 and Interstate 45.	Scattered thunderstorms formed upon a southern-moving north central Texas boundary as it neared the Gulf of Mexico. Morning marine environment was conducive for the formation of funnel
38063 GALVESTON CO.	TEXAS CITY	6/16/2007 Funnel Cloud		0	0 \$0	\$0 Funnel cloud reported over Texas City.	clouds. Scattered storms affected coastal communities during the morning hours that produced funnel clouds, very localized street flooding, and frequent lightning strikes.

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51765 GALVESTON CO.	VIRGINIA PT	7/5/2007	Tornado		EF0	0	0	\$30,000	\$	Tornado spotted on the island side of the Causeway Bridge, near Interstate 45 and Teichman Point, moving east to southeast. Damage included a few uprooted trees, various of fences, and minor structural damage to a car dealership and motel.	Residual thunderstorm boundaries from previous day storms allowed a focus for various northern storms to form upon and slowly travel. Upper level low, combined with abundant moisture, produced numerous showers and thunderstorms through the 4th of July.
											An upper level low, combined with abundant moisture, produced numerous showers and thunderstorms throughout the coastal
51812 GALVESTON CO.	TEXAS CITY	7/6/2007	Flash Flood			0	0	\$0	\$	Numerous reports of flooding through the towns of Texas City and La Marque.	communities in and around Galveston, Texas.
											An upper level low, combined with abundant moisture, produced
											numerous showers and thunderstorms throughout the coastal
51815 GALVESTON CO.	PORT BOLIVAR	7/6/2007	Flash Flood			0	0	\$0	\$	One to two feet of water over Highway 87 causing road closure.	communities in and around Galveston, Texas.
											An upper level low, combined with abundant moisture, produced
											numerous showers and thunderstorms throughout the coastal
51868 GALVESTON CO.	НІТСНСОСК	7/6/2007	Funnel Cloud			0	0	\$0	\$	0 A funnel cloud was sighted off of FM 2004 heading east towards Hitchcock.	communities in and around Galveston, Texas.
											An upper level low, combined with abundant moisture, produced
								4		An EF-0 tornado produced minor damage to a small home and garage. There was also	numerous showers and thunderstorms throughout the coastal
51874 GALVESTON CO.	SANTA FE	7/6/2007	Tornado		EF0	0	0	\$15,000	\$	0 minor shingle damage to a residence across the street.	communities in and around Galveston, Texas.
											Afternoon thunderstorms produced gusty winds and lightning that caused
57984 GALVESTON CO.	CLEAR LAKE SHORES	8/1/2007	Thunderstorm Wind	50		0	0	\$8,000	\$	0 Large tree downed on a car in Clear Lake Shores.	some damage.
											Afternoon thunderstorms produced gusty winds and lightning that caused
57977 GALVESTON CO.	KEMAH	8/1/2007	Lightning			0	0	\$10,000	\$	0 Lightning struck a transformer and downed some power lines.	some damage.
60861 GALVESTON (ZONE)	PODL POLIVAD		Hurricane (Typhoon)			0	0	\$2,500,000		Hurricane Humberto affected 170 homes. Five single family homes were completely destroyed, twenty-two received major damage, and forty-nine only minor damage. Several High Island homes had roof and shingle damage, a gas station awning collapsed, and a local motel received moderate roof damage. High Island High School received light pole and sign damage. There were widespread uprooted trees and snapped limbs. Within town, larger trees were snapped off at the trunk. Numerous power poles were either completely blown down, or pushed over, along Highway 87 towards Canal City and 0 Gilchrist.	Humberto was a Category 1 hurricane when it made landfall just to the east of High Island early in the morning on September 13th. Wind damage which occurred late on the 12th and early on the 13th was confined to the High Island area of Galveston County and far eastern Chambers County. Humberto is notable for its exceptional rapid intensification off the Texas coast from a tropical depression into a hurricane within nineteen hours. Maximum rainfall totals from Humberto ranged from around two inches to over fourteen inches mainly along and east of a line from Freeport to the Hitchcock and Texas City area to around Winnie. The majority of the damage from Humberto was due to high winds and fresh water flooding that caused minor structural damage along with knocking down trees and power lines. There were no injuries or deaths from Humberto in the Houston-Galveston area.
60172 GALVESTON CO.	PORT BOLIVAR	9/19/2007	Funnel Cloud			0	0	\$0	\$	0 Funnel cloud sighted on the bay side of the Bolivar Peninsula.	in the Galveston Bay area. Scattered thunderstorms became better organized and formed a coastal
79488 GALVESTON CO.	ALTA LOMA	2/16/2008	Thunderstorm Wind	52		0	0	\$4,000	\$	0 Reports of residential home damage.	county squall line.
											Scattered thunderstorms became better organized and formed a coastal
79485 GALVESTON CO.	LA MARQUE	2/16/2008	Tornado		EF0	0	0	\$0	\$	0 Tornado was spotted from 1700 Main Street in La Marque.	county squall line.
											An upper level disturbance passing over southeast Texas produced severe
90819 GALVESTON CO.	TEXAS CITY	3/10/2008	Funnel Cloud			0	0	\$0	\$	0 A funnel cloud was sighted in Texas City.	weather.
											An upper level disturbance passing over southeast Texas produced severe
90818 GALVESTON CO.	SANTA FE	3/10/2008	Hail	0.88		0	0	\$0	\$	0 Nickel size hail was reported in the town of Santa Fe.	weather.
										Rip currents claimed the life of a twenty year old male on the northeast corner of the jetty	Rip currents were blamed for a drowning fatality at the Galveston Island
117638 GALVESTON (ZONE)		6/14/2008	Rip Current			1	0	\$0	\$	0 at 17th street and Seawall Boulevard off Galveston Island.	jetties.
											A strong line of southwestern-moving thunderstorms created severe
118231 GALVESTON CO.	LEAGUE CITY S S ARPT	6/21/2008	Funnel Cloud			0	0	\$0	\$	0 A funnel cloud was sighted near FM 518 in Friendswood.	weather across the region.
								4.0			A strong line of southwestern-moving thunderstorms created severe
118233 GALVESTON CO.	LEAGUE CITY	6/21/2008	Funnel Cloud	-	-	0	0	\$0	\$	0 A funnel cloud was sighted near the intersection of FM 518 and Interstate 45.	weather across the region.
440400 0411/50701100	LEACUE OIT	0/04/0000						**			Southern-based thunderstorms produced a funnel cloud and a far inland
118183 GALVESTON CO.	LEAGUE CITY	6/24/2008	Funnel Cloud			0	0	\$0	\$	0 A funnel cloud was sighted at the intersection of FM 518 and Interstate 45.	lightning strike.
118198 GALVESTON CO.	BACLIFF	6/30/2008	Lail	0.75				\$0	¢	0 Penny size hail was observed at the intersection of FM 517 and SH 146.	Brazoria and Galveston County thunderstorms became severe and produced strong winds with small hail.
110190 GALVESTON CO.	DACLIFF	6/30/2008	Hall	0.75		0	0	Φυ	Φ	o Fermiy size man was observed at the intersection of FM 517 and 5H 146.	produced strong winds with small halt.
132884 GALVESTON (ZONE)		8/5/2008	Storm Surge/Tide			0	0	\$95,000	\$	Storm tide damage on the Bolivar Peninsula was confined to the Gilchrist area. Ten single family homes experienced flooding up to eighteen inches deep inside the home. Fifteen single family homes and two mobile homes experienced flooding up to six inches deep 0 inside the home.	Tropical Storm Edouard moved ashore along the upper Texas coast between High Island and Sabine Pass in the McFaddin National Wildlife Refuge and produced minimal damage totalling \$100,000. Damage from Edouard included minor storm tide flooding along portions of the Bolivar Peninsula (\$95,000) and brief flash flooding along portions of Interstate 10 in Chambers County (\$5,000). Storm tide damage on the Bolivar Peninsula was confined to the Gilchrist area. Ten single family homes experienced flooding up to eighteen inches deep inside the home. Fifteen single family homes and two mobile homes experienced flooding up to six inches deep inside the home. Interstate 10 was closed in central Chambers County near State Highway 61 due to Edouard's heavy rainfall estimated to be between 3 and 5 inches.

INTERNATIONAL TOTAL CONTROL TO A CONTROL TO	_										
STOCK ON MITCHINGS TEACHY CLUI APPT DANCED I puring O 1 1 10 10 10 10 10 10 10 10 10 10 10 10		132181	GALVESTON (ZONE)		8/5/2008 Tropical Storm	0	0	\$	and Sabine P totaling \$100 portions of tr Interstate 10 was confined eighteen incl experienced central Chan	Pass in the McFaddin National Wildlife Refuge and produced minimal damage 0,000. Damage from Edouard included minor storm tide flooding along he Bolivar Peninsula (\$95,000) and brief flash flooding along portions of 0 in Chambers County (\$5,000). Storm tide damage on the Bolivar Peninsula d to the Gilchrist area. Ten single family homes experienced flooding up to thes deep inside the home. Fifteen single family homes and two mobile homes I flooding up to six inches deep inside the home. I Interstate 10 was closed in mbers County near State Highway 61 due to Edouard's heavy rainfall estimated en 3 and 5 inches.	
Common and model for the last an entire private of Contract Contra		132129	GALVESTON CO.	TEXAS CITY GULF ARPT	8/26/2008 Lightning	0	1	\$	lightning. The	e victim was taken to a local hospital and later released having suffered only	A lightning strike from early afternoon showers and thunderstorms injur a man working outside.
measured at Galveston Pleasure Pier, and a maximum exist surge of 17 feet over portions of Chamblers County and the Pennisula. Maximum sustained winds at landrall were estin Notis (110 mph) with gust of 105 knote as the eye came through, was a Category 2 hurrison on the Sath Tize? mph). A ship is speed, but due to to its large are size, had a storm surge more typi category 3 or 4. The height of the storm tide ranged from 4 of 4 height of the storm of the ranged from 4 of 4 height of the storm tide ranged from 4 of 4 height of the Solver Pennisula and Category 3 or 4. The height of th						0	0		Ike produced Bolivar Penir sea level wer medical con	d damage due to high storm surge and high winds along Galveston Island, the nsula, and along the Galveston Bay. Storm tides of 10 to 15 feet above mean re observed in these areas. Several indirect fatalities due to preexisting	Galveston. At landfall, Ike had a central pressure of 951.6 mb, as measured at Galveston Pleasure Pier, and a maximum estimated storm surge of 17 feet over portions of Chambers County and the Bolivar Peninsula. Maximum sustained winds at landfall were estimated at 95 knots (110 mph) with gusts to 110 knots (127 mph). A ship near the coarecorded a wind gust of 105 knots as the eye came through. At landfall, was a Category 2 hurricane on the Saffir-Simpson scale based on wind speed, but due to its large size, had a storm surge more typical of a category 3 or 4. The height of the storm tide ranged from 4 to 6 feet in Matagorda county, 6 to 9 feet in Brazoria county, 10 to 13 feet along mo of Galveston Island and Galveston Bay, to as high as 17 feet over portion of the Bolivar Peninsula and Chambers County. The majority of property damage at the coast was a result of storm tide. Collectively, damage amounts are estimated to be near 14 billion dollars over the counties of Harris, Chambers, Galveston, Liberty, Polk, Matagorda, Brazoria, Fort Bend, San Jacinto, and Montgomery with an estimated 8 billion of that to storm surge in coastal Galveston, Harris and Chambers Counties. Fr water flooding also occurred near the city of Houston where up to 14 inches of rain fell over a two day period, first from Ike, then from a line of thunderstorms associated with a cold front moving through the followir day. The number of fatalities directly related to Ike was 12 in the aforementioned counties with 11 of those occurring in Galveston Coun from drowning due to the storm surge. In addition, there were at least 2 fatalities indirectly related to Ike, either due to carbon monoxide poisor from generators, accidents while clearing debris, or house fires from
		136422	GALVESTON (ZONE)		9/12/2008 Storm Surge/Tide	12	0	\$4,000,000,00	Lake and ass higher surge fatalities occ by surge incl	sociated tributaries which caused major flooding of coastal areas. Some levels up to 17 feet were indicated on the Bolivar Peninsula. At least 10 direct curred in Galveston County. Number of injuries unknown. Some towns hit hard lude Galveston, San Leon, Kemah, and all towns on Galveston Island and the	Galveston. At landfall, Ike had a central pressure of 951.6 mb, as measured at Galveston Pleasure Pier, and a maximum estimated storm surge of 17 feet over portions of Chambers County and the Bolivar Peninsula. Maximum sustained winds at landfall were estimated at 95 knots (110 mph) with gusts to 110 knots (127 mph). A ship near the coarecorded a wind gust of 105 knots as the eye came through. At landfall, was a Category 2 hurricane on the Saffir-Simpson scale based on wind speed, but due to its large size, had a storm surge more typical of a category 3 or 4. The height of the storm tide ranged from 4 to 6 feet in Matagorda county, 6 to 9 feet in Brazoria county, 10 to 13 feet along mo of Galveston Island and Galveston Bay, to as high as 17 feet over portion of the Bolivar Peninsula and Chambers County. The majority of property damage at the coast was a result of storm tide. Collectively, damage amounts are estimated to be near 14 billion dollars over the counties of Harris, Chambers, Galveston, Liberty, Polk, Matagorda, Brazoria, Fort Bend, San Jacinto, and Montgomery with an estimated 8 billion of that to storm surge in coastal Galveston, Harris and Chambers Counties. Fr water flooding also occurred near the city of Houston where up to 14 inches of rain fell over a two day period, first from Ike, then from a line of thunderstorms associated with a cold front moving through the following. The number of fatalities directly related to Ike was 12 in the aforementioned counties with 11 of those occurring in Galveston Coun from drowning due to the storm surge. In addition, there were at least 2 fatalities indirectly related to Ike, either due to carbon monoxide poisor from generators, accidents while clearing debris, or house fires from

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									Galveston. At landfall, Ike had a central pressure of 951.6 mb, as
									measured at Galveston Pleasure Pier, and a maximum estimated storm
									surge of 17 feet over portions of Chambers County and the Bolivar
									Peninsula. Maximum sustained winds at landfall were estimated at 95
									knots (110 mph) with gusts to 110 knots (127 mph). A ship near the coast
									recorded a wind gust of 105 knots as the eye came through. At landfall, lke
									was a Category 2 hurricane on the Saffir-Simpson scale based on wind
									speed, but due to its large size, had a storm surge more typical of a
									category 3 or 4. The height of the storm tide ranged from 4 to 6 feet in
									Matagorda county, 6 to 9 feet in Brazoria county, 10 to 13 feet along most
									of Galveston Island and Galveston Bay, to as high as 17 feet over portions
									of the Bolivar Peninsula and Chambers County. The majority of property
									damage at the coast was a result of storm tide. Collectively, damage
									amounts are estimated to be near 14 billion dollars over the counties of
									Harris, Chambers, Galveston, Liberty, Polk, Matagorda, Brazoria, Fort
									Bend, San Jacinto, and Montgomery with an estimated 8 billion of that due
									to storm surge in coastal Galveston, Harris and Chambers Counties. Fresh
									water flooding also occurred near the city of Houston where up to 14
									inches of rain fell over a two day period, first from Ike, then from a line of
									thunderstorms associated with a cold front moving through the following
									day. The number of fatalities directly related to lke was 12 in the
									aforementioned counties with 11 of those occurring in Galveston County
									from drowning due to the storm surge. In addition, there were at least 25
									fatalities indirectly related to Ike, either due to carbon monoxide poisoning
137024	GALVESTON CO.	LEAGUE CITY S S ARPT	9/14/2008 Flash Flood			0	0	\$0	\$0 Heavy rains led to flooding of Brittany Bay Boulevard and service road near interstate 45. from generators, accidents while clearing debris, or house fires from
107024	CALVEOTOR CO.	ELMOSE ON TOOMAT	5/1-#/2000 tushi tusu					Ψ	Severe thunderstorms developed in an unstable airmass ahead of a cold
143873	GALVESTON CO.	LEAGUE CITY S S ARPT	2/1/2009 Hail	0.75		0	0	\$0	\$0 A severe thunderstorm produced penny size hail.
				• • • • • • • • • • • • • • • • • • • •				**	Severe thunderstorms developed in an unstable airmass ahead of a cold
143875	GALVESTON CO.	DICKINSON	2/1/2009 Hail	1		0	0	\$2,000	\$0 A severe thunderstorm produced quarter size hail. front and produced hail.
									Heavy rainfall from thunderstorms moving across the county produced road closeures and
									widespread flooding of homes, with high water rescues being required in Dickinson. A rain
									gauge at FM 528 and Clear Creek in League City recorded a 1 hour rainfall total of 6.02 On April 18th there were flash floods and severe thunderstorms over
166446	GALVESTON CO.	LEAGUE CITY S S ARPT	4/18/2009 Flash Flood			0	0	\$4,000,000	\$0 inches. League City reported 300 homes sustaining flood damage from this event. Galveston and southern Harris counties.
									On April 18th there were flash floods and severe thunderstorms over
165132	GALVESTON CO.	CLEAR LAKE SHORES	4/18/2009 Thunderstorm Wind	55		0	0	\$3,000	\$0 Large trees were downed in the Clear Lake Forest subdivision. Galveston and southern Harris counties.
									The tornado touched down in a marshy area a few miles south southeast of Hitchcock as
									reported by several witnesses and captured on video. The damage path extended into the
									Harborwalk community with damage to several homes. Six garage doors were damaged or
									destroyed. A large wood and steel observing platform was destroyed. There was also some
									damage to shingles. The tornado was estimated to be a high end EF-0 with winds reaching On April 18th there were flash floods and severe thunderstorms over
165135	GALVESTON CO.	HIGHLAND BAYOU	4/18/2009 Tornado		EF0	0	0	\$50,000	\$0 80 mph. Galveston and southern Harris counties.
									A series of thunderstorms produced heavy rainfall and strong winds across
									portions of Harris, Galveston, and Chambers counties leaving motorists
									stranded along several flooded area highways. Additional severe
									Numerous roads in and around Friendswood were impassable due to high water caused by thunderstorms produced hail and flash flooding across the northern
166483	GALVESTON CO.	LEAGUE CITY S S ARPT	4/24/2009 Flash Flood			0	0	\$5,000	\$0 heavy rainfall. Several high water rescues were required due to the flooding. counties of Southeast Texas.
									A series of thunderstorms produced heavy rainfall and strong winds across
									portions of Harris, Galveston, and Chambers counties leaving motorists
									stranded along several flooded area highways. Additional severe
									thunderstorms produced hail and flash flooding across the northern
165154	GALVESTON CO.	SAN LEON	4/24/2009 Thunderstorm Wind	51		0	0	\$0	\$0 Severe wind gust measured at Eagle Point PORTS buoy. counties of Southeast Texas.
									Showers and thunderstorms developed along old outflow boundaries from
163736	GALVESTON CO.	BACLIFF	6/3/2009 Thunderstorm Wind	52		0	0	\$1,000	\$0 Damage in Bacliff. earlier thunderstorms over central Texas.
,									A male jogger was found dead on Crystal Beach. The victim was found with burns on his Showers and thunderstorms developed along old outflow boundaries from
163731	GALVESTON CO.	CRYSTAL BEACH	6/3/2009 Lightning		1	1	0	\$0	\$0 torso. earlier thunderstorms over central Texas.
									An upper level ridge built over the area, corresponding to a period of hot
400007	0.41.1/507.011./7.01151		0/04/0000					40	and humid conditions. A number of indirect fatalities were attributed to the
182397	GALVESTON (ZONE)		6/24/2009 Heat		 	0	0	\$0	\$0 Hot, humid conditions led to heat indices above 105 degrees for several days in late June. Available sensors indicated a heat index of 108 over interior portions of Galveston County A hot humid air mass reestablished itself over the area, with afternoon
191318	GALVESTON (ZONE)		7/9/2009 Heat			0	0	\$0	\$0 during the afternoon of July 9th.
	, ,								
		1							The tornado began as a waterspout moved onto the beach near 29th Street and Seawall
							ı	ı	101 1 4 12 2 1 12 2 1 11 1 1 1 1 1 1 1 1 1
									Blvd. A police cruiser had its windows blown out and the roof of a souvenir shop at 29th and
									Seawall was blown off. Further inland, a house on stilts was blown over and the roof of a Several strong thunderstorms formed late in the evening near Galveston
									Seawall was blown off. Further inland, a house on stilts was blown over and the roof of a mobile home was peeled back. A two-story home at the intersection of 31st Street and Island along a nearly stationary surface front. A waterspout developed off
	GALVESTON CO.	GALVESTON	8/30/2009 Tornado		EF1			\$500,000	Seawall was blown off. Further inland, a house on stilts was blown over and the roof of a Several strong thunderstorms formed late in the evening near Galveston

			T T			T T		Ta
								Several strong thunderstorms formed late in the evening near Galveston
								Island along a nearly stationary surface front. A waterspout developed off
1050C5 CALVESTON CO	(CLC)CCHOLECELD CAL	0/20/2000	Thundaratarm Wind	1		.	O Wind gust use meeting of Columbia Cabalas Field	the coast near Galveston Island before moving inland and doing damage as
185965 GALVESTON CO.	(GLS)SCHOLES FLD GAL	8/30/2009	Thunderstorm Wind	1	0 0	\$0	\$0 Wind gust was measured at Galveston Scholes Field.	a tornado. Showers and thunderstorms developed during the afternoon in and around
							Repeated thunderstorm development and associated training across the far northern	the League City area of northern Galveston County. Activity continued to
							portions of Galveston County around the League City area produce flash flooding.	develop and train across the same areas for several hours resulting in flash
192009 GALVESTON CO.	LEAGUE CITY	10/1/2009	Flash Flood			\$5,000	\$0 Numerous roads were under water and several automobiles were flooded and abandoned.	flooding.
132003 CAEVESTON CO.	LEAGUE OITT	10/1/2003	T tusii i toou			ψ3,000	40 Numerous rougs were under water and several automobiles were nooded and abandoned.	A line of thunderstorms associated with a slow moving cold front trained
							Several roads closed in Friendswood due to high water including 528 near near Interstate	over a line from Friendswood to Pasadena to Baytown producing some
199662 GALVESTON CO.	LEAGUE CITY S S ARPT	#########	Flash Flood		0 0	\$0	\$0 45, the 17200 block of Blackhawk Road AT 528 and the 500 block of FM 518.	localized flash flooding.
						, ,		3
								A combination of raised water levels from a persistent northeast wind, and
								high surf from swell generated by distant Hurricane Ida, led to moderate
							Water over portions of Route 87 on the Bolivar Peninsula around time of high tide in the	coastal flooding and beach erosion. This occurred around the time of high
203114 GALVESTON (ZONE)		11/8/2009	Coastal Flood		0 0	\$0	\$0 evenings of both November 8th and 9th. Road was closed in places.	tide during the evenings of November 9th and November 10th.
							The eastbound lane of Highway 87 on the Bolivar Peninsula was under water, from just east	
							of Gilchrist to the Highway 124 intersection south of High Island. There was another	
							section of Highway 87, between the former Dirty Pelican Pier and former Meacoms Pier,	A moderate easterly fetch across the northern Gulf of Mexico created
205132 GALVESTON (ZONE)		12/1/2009	Coastal Flood		0 0	\$0	\$0 that had water over both lanes.	minor coastal flooding along the Bolivar Peninsula.
								A low pressure system combined with a gravity wave disturbance to
							Wind gust of 69 mph measured at Galveston Scholes Airport. Roofs on some homes	produce a period of strong winds mainly along the coast. The winds did
227596 GALVESTON (ZONE)		4/24/2010	High Wind 6	0	0 0	\$20,000	\$0 damaged on West End of Galveston Island.	damage to some homes.
						4.0		Scattered thunderstorms over southeast Texas produced flooding over
234590 GALVESTON CO.	(GLS)SCHOLES FLD GAL	5/14/2010	Flash Flood		0 0	\$0	\$0 Heavy rainfall led to inundation of Steward Road on Galveston Island.	portions of the area.
							Fight anostments were demograd by fire due to a lightning strike in Columbia. The	A series of showers and thunderstorms maying analysis from the Culf of
238520 GALVESTON CO.	(GLS)SCHOLES FLD GAL	7/00/0010	Lightning			\$250,000	Eight apartments were damaged by fire due to a lightning strike in Galveston. The \$0 apartment complex had been abandoned since Hurricane Ike in 2008.	A series of showers and thunderstorms moving onshore from the Gulf of
238520 GALVESTON CO.	(GLS)SCHOLES FLD GAL	7/26/2010	Lighthing			\$250,000	\$0 apartment complex had been abandoned since numbrane ike in 2008.	Mexico produced several structural fires due to lightning strikes.
							Lightning caused a small attic fire in a home on the west end of Galveston Island. Damage	A series of showers and thunderstorms moving onshore from the Gulf of
238521 GALVESTON CO.	JAMAICA BEACH	7/26/2010	Lightning			\$15,000	\$0 to the home was minimal.	Mexico produced several structural fires due to lightning strikes.
238321 GALVESTON CO.	JAMAICA BEACTI	772072010	Lighthing			\$13,000	φο το the nome was minimat.	Mexico produced several structural files due to tightning strikes.
							Lightning struck a house in the 7000 block of Avenue R. The strike produced minor damage	A series of showers and thunderstorms moving onshore from the Gulf of
238522 GALVESTON CO.	ALTA LOMA	7/26/2010	I ightning			\$5,000	\$0 to the brick exterior of the home but no fire was reported.	Mexico produced several structural fires due to lightning strikes.
						73,733	Gale force easterly winds caused minor coastal flooding over portions of the Bolivar	A coastal low and associated squall line moved across the southern
							Peninsula and along Galveston Bay. Water reached the boardwalk in Kemah and covered	counties and the coastal waters and produced strong wind gusts and some
281464 GALVESTON (ZONE)		1/9/2011	Coastal Flood		0 0	\$5,000	\$0 some roads on the Bolivar Peninsula.	elevated tides.
								A very cold air mass was in place in early February with overnight lows in
								the teens and 20s. low pressure system moved from west to east across
							A period of freezing rain and freezing drizzle led to icy roads, especially bridges and	northern Texas on February 3rd and 4th drawing Gulf moisture into the area
							overpasses, and numerous accidents. Between one and two tenths of an inch of ice	in the form of freezing rain and drizzle with some snow also occurring well
285516 GALVESTON (ZONE)		2/3/2011	Ice Storm		0 0	\$0	\$0 accumulated.	north and northwest of Houston.
						4.0	A man drowned when he was taken under by a rip current off of Galveston. A woman	
303904 GALVESTON (ZONE)			Rip Current		1 1	\$0	\$0 swimming with the man was thrown onto a jetty and was injured but survived.	A swimmer drowned when captured by a rip current off Galveston Island.
297402 GALVESTON CO.	TEXAS CITY	6///2011	Funnel Cloud		0 0	\$0	\$0 A funnel cloud was sighted over Texas City.	A funnel cloud was sighted over Texas City. High offshore winds associated with Tropical Storm Lee knocked a beach
							Man on float was blown off well offshore and drowned. High winds and surf were believed	goer off a flotation device. The man was unable to get back to shore and
331019 GALVESTON (ZONE)		9/2/2011	High Surf			\$0	\$0 to contribute to the accident according to beach patrol.	drowned.
331013 GALVESTON (ZONE)		3/3/2011	i ngii Juli		1 1	φυ	A tornado touched down at a industrial plant. It knocked over 10 empty trailers and did	Thunderstorms moved across Southeast Texas producing areas of damage
354348 GALVESTON CO.	TEXAS CITY GULF ARPT	11/8/2011	Tornado	EF0		\$50,000	\$0 minor damage to plant.	and at least two tornadoes.
33.3.3 57.2720101400.	. Dutie di la control del Alli I	12,0,2011		1	 	Ψ00,000	40 Imma damaga ta kranti	Severe thunderstorms developed across southeast Texas and produced
361896 GALVESTON CO.	ALTA LOMA	1/9/2012	Funnel Cloud		0 0	\$0	\$0 A funnel cloud was sighted in Santa Fe by law enforcement officials.	hail, wind damage, flash flooding and tornadoes.
							, , , , , , , , , , , , , , , , , , ,	Severe thunderstorms developed across southeast Texas and produced
361897 GALVESTON CO.	ARCADIA	1/9/2012	Thunderstorm Wind	0	0 0	\$0	\$2,000 A severe thunderstorm downed a tree along Cemetery Road in Santa Fe.	hail, wind damage, flash flooding and tornadoes.
							A severe thunderstorm produced straight line wind damage in the Westwood Circle area of	
							La Marque. The winds downed some fences and uprooted a few trees. This storm	Severe thunderstorms developed across southeast Texas and produced
361898 GALVESTON CO.	HITCHCOCK VOLK ARPT	1/9/2012	Thunderstorm Wind	2	0 0	\$6,000	\$0 produced a tornado in the Mall of the Mainland area just a few minutes later.	hail, wind damage, flash flooding and tornadoes.
							This EF-0 tornado was observed by a police officer to touch down in the Mall of the	
							Mainland parking lot. Tree limbs were downed and some shallow rooted trees were	
							knocked over. A combination of tornadic winds and heavy rainfall likely contributed to	
							some Mall roof damage. Another witness in an adjacent subdivision just to the east of the	
							Mall observed swirling debris approaching the area, and the tornado threw a neighbor's	Severe thunderstorms developed across southeast Texas and produced
361900 GALVESTON CO.	HITCHCOCK VOLK ARPT	1/9/2012	Tornado	EF0	0 0	\$50,000	\$0 shed back toward the left before lifting.	hail, wind damage, flash flooding and tornadoes.
			<u> </u>				A lightning strike started a fire in the attic of a house. Damage was mostly contained to the	
362827 GALVESTON CO.	LEAGUE CTY SPCLND AR	3/20/2012	Lightning		0 0	\$15,000	\$0 attic and part of the second floor of the home.	wind damage.

	1		T I	1		T T		A shelled source to sound as a few section that development of
								A stalled surface boundary served as a focus for the development of
377702 GALVESTON CO.	LEAGUE CITY S S ARPT	4/4/2012	Hail	,		\$2,000	\$0 Quarter sized hail reported near the intersection of FM 518 and FM 528.	several well organized and severe thunderstorms that produced large hail across areas south and southwest of Houston.
377702 GALVESTON CO.	LEAGUE CITT 3 3 ANPT	4/4/2012	nait	1	0 0	\$2,000	Quarter sized flatt reported flear the intersection of FM 518 and FM 528.	across areas south and southwest of Houston.
							Quarter sized hail reported along Highway 6 from the intersection with FM 2004 east to the	A series of strong thunderstorms moved across the southern half of
378059 GALVESTON CO.	нітснсоск	4/20/2012	Hail	1	0	\$2,000	\$0 fire and police stations in Hitchcock.	southeast Texas producing widespread reports of hail and wind damage.
						7-,333		, , , , , , , , , , , , , , , , , , ,
								A series of strong thunderstorms moved across the southern half of
378060 GALVESTON CO.	LA MARQUE	4/20/2012	Hail 1.7	5	0 0	\$3,000	\$0 Golfball sized hail reported at the public works department building.	southeast Texas producing widespread reports of hail and wind damage.
								A series of strong thunderstorms moved across the southern half of
378066 GALVESTON CO.	(GLS)SCHOLES FLD GAL	4/20/2012	Thunderstorm Wind 6	3	0 (\$0	\$0 A wind gust of 78 mph was recorded at Moody Gardens.	southeast Texas producing widespread reports of hail and wind damage.
								A series of strong thunderstorms moved across the southern half of
378065 GALVESTON CO.	LA MARQUE	4/20/2012	Thunderstorm Wind 6	1	0 (\$5,000	\$0 Windshields damaged and power outages caused in La Marque.	southeast Texas producing widespread reports of hail and wind damage.
								A strong squall line with a large bowing line segment moved across the
								coastal counties and nearshore waters of southeast Texas during the early
							Numerous power lines downed on the island from communities on the West End eastward	
385728 GALVESTON CO.	JAMAICA BEACH	5/11/2012	Thunderstorm Wind 6	1	0 0	\$25,000	\$0 into downtown Galveston.	damage along its path.
							Rainfall totals of between five to ten inches produced widespread flooding. Street flooding	
							was severe enough to force numerous road closures from northwestern Fort Bend County	
							,	
							eastward into northern Galveston County. Homes and businesses flooded along Keegans	
							Bayou from below Wilcrest Road to above Beltway 8. Thirteen to fifteen businesses flooded	
							on the western bank of Keegans Bayou along West Bellfort Road between US 59 and	
							Wilcrest. This flooding was a direct result of the bayou over-topping its banks by 2 to 3 feet.	
							Based on high water marks left on the Wilcrest bridge at least 1 foot of water was flowing	An upper level trough, coupled with deep moisture and a slow-moving
							over the top of the bridge deck. 1 house flooded along Keegans Bayou between Beltway 8	lower level boundary, allowed for the focus of numerous thunderstorms
386986 GALVESTON CO.	LEAGUE CITY	5/12/2012	Flash Flood		ر ا	\$5,000	\$0 and US 59 from local run-off then from the bayou when it rose above bank full.	that produced flooding rainfall.
555555 57127257574 55.	ELITOGE OITT	0/12/2012	T tushi i toda			φο,σσσ	There was wind damage to commercial building windows and minor roof damage to the fire	·
440004 0417/50701100	LAMAROUE	14/4/0040	The consideration and Market			\$40.000	station. One residence was damaged by a vehicle that was pivoted around and struck the	A severe thunderstorm developed near a cold frontal boundary that was
412091 GALVESTON CO.	LA MARQUE	11/4/2012	Thunderstorm Wind 6	/	0 (\$10,000	\$0 home.	pushing to the coast in the morning.
							A covere thunderstorms produced baseball to settball sized bail in Hitchesek. The control	
							A severe thunderstorms produced baseball to softball sized hail in Hitchcock. The central	
							and western parts of the town received extreme damage to vehicles and home roofs and	An upper level disturbance initiated a few strong to severe thunderstorms.
							windows. There was also significant damage to the Midway Church, a fire station, and in	The storms produced large hail, up to softball size, across portions of the
447821 GALVESTON CO.	HITCHCOCK	4/2/2013	Hail 4.	5	0 (\$1,100,000	\$0 two trailer parks. Seven Hitchcock police cars were severely damaged by the large hail.	Southeast Texas Coast.
								An upper level disturbance initiated a few strong to severe thunderstorms.
								The storms produced large hail, up to softball size, across portions of the
447822 GALVESTON CO.	ALTA LOMA	4/2/2013	Hail	1	0 (\$0	\$0 A severe thunderstorm produced quarter sized hail.	Southeast Texas Coast.
								An upper level disturbance initiated a few strong to severe thunderstorms.
								The storms produced large hail, up to softball size, across portions of the
447823 GALVESTON CO.	ALTA LOMA	4/2/2013	Hail 2.	5	0 0	\$750,000	\$0 A severe thunderstorm produced ping pong to tennis ball sized hail near Sante Fe.	Southeast Texas Coast.
							A severe thunderstorm produced golf ball sized hail that damaged vehicles near Jamaica	Clusters and lines of storms produced hail and flooding. In addition several
449025 GALVESTON CO.	JAMAICA BEACH	5/10/2013	Hail 1.7	5	ol d	\$45,000	\$0 Beach.	homes and one individual were struck by lightning.
469990 GALVESTON CO.	SANTA FE		Funnel Cloud		0 (\$0	\$0	A funnel cloud was sighted in the Santa Fe area.
469992 GALVESTON CO.	DICKINSON		Funnel Cloud		0 (\$0	\$0	A funnel cloud was sighted near an outlet mall in Texas City.
								A moist tropical air mass moving onshore produced Galveston Bay area
462578 GALVESTON CO.	GALVESTON	8/21/2013	Funnel Cloud		0	\$0	\$0 Three funnel clouds were sighted over Galveston Bay near the Texas City Dike.	funnel clouds.
12212 2120.00.					- '	***	J	
							Heavy rain caused road closures due to flooding in and around the towns of League City,	A slow moving storm system and associated frontal boundary generated
							Hitchcock, Dickinson, La Margue, and San Leon, as well as high water around Tiki Island,	heavy rainfall that led to flooding across portions of southeast Texas,
480899 GALVESTON CO.	FRIENDSWOOD	########	Flash Flood		ر ا	\$10,000	\$0 and the Bolivar Peninsula.	especially in and around the Houston and Galveston areas.
GALVESTON CO.	TAILINDSWOOD	"""""""	i tasii i toou		<u> </u>	φ10,000	φο _γ ατια απο μοαναι τ στιπτομα.	A shortwave disturbance produced slow moving clusters of thunderstorms
								,
E01446 041 VEGTON 00	CALVECTON	F /07 /001 :	Thunderstore Missel	_			Course thundered you winds blank a sufficient and the sufficient and t	that tracked north and east from the Gulf Coast the afternoon of May 26th
521446 GALVESTON CO.	GALVESTON	5/2//2014	Thunderstorm Wind 6	1	U (\$0	\$0 Severe thunderstorm winds blew down a utility pole and power lines in Galveston.	and 27th.
								The mostitime discussed areas of the state o
504.476	(0) 0) 00: 12: 22 =: 2 :	F 16 + 15 - 1	- -				AD	The maritime air mass over Galveston Island was unstable and moist
521476 GALVESTON CO.	(GLS)SCHOLES FLD GAL	5/31/2014	Funnel Cloud		U (0 \$0	\$0 Funnel clouds were reported over Galveston Island.	enough to produce morning nearshore waterspouts and funnel clouds.
							A funnel cloud was sighted over Galveston Island near the intersection of Seawall Blvd and	
528925 GALVESTON CO.	(GLS)SCHOLES FLD GAL	6/25/2014	Funnel Cloud		0 (\$0	\$0 49th Street.	Conditions were favorable for funnel cloud formation across the area.
							A funnel cloud was sighted over Galveston Island near the intersection of the Seawall and	
528927 GALVESTON CO.	(GLS)SCHOLES FLD GAL	6/25/2014	Funnel Cloud		0 0	0 \$0	\$0 91st Street.	Conditions were favorable for funnel cloud formation across the area.
528926 GALVESTON CO.	PORT BOLIVAR ARPT	6/25/2014	Funnel Cloud		0 0	\$0	\$0 A funnel cloud was sighted over Galveston Island near the mouth of Galveston Bay.	Conditions were favorable for funnel cloud formation across the area.
							A tornado destroyed a storage trailer and knocked down a fence near the intersection of	Conditions were favorable during the day for funnel cloud and water spout
528936 GALVESTON CO.	HIGHLAND BAYOU	6/26/2014	Tornado	EF0	0 1	1 \$0	\$0 Highland Bayou Drive and Mallard Street. There was one injury.	formation across the area, and a couple of tornadoes were sighted.

	T						
							Conditions were favorable during the day for funnel cloud and water spout
528931 GALVESTON CO.	TEXAS CITY	6/26/2014 Funnel Cloud		0	0 \$0	\$0 A funnel cloud was sighted south of Texas City.	formation across the area, and a couple of tornadoes were sighted.
							A funnel cloud developed early in the morning, then isolated severe
533066 GALVESTON CO.	PORT BOLIVAR	7/7/2014 Funnel Cloud		0	0 \$0	\$0 A funnel cloud was sighted over Galveston Bay.	thunderstorms formed in the early evening hours.
						A funnel cloud was sighted on Galveston Island near the intersection of Seawall Blvd and	A moist and unstable tropical air mass residing over coastal southeastern
533030 GALVESTON CO.	GALVESTON	7/18/2014 Funnel Cloud	+ +	0	0 \$0	\$0 39th Street.	Texas was conducive to the formation of morning funnel clouds.
							Isolated to widely scattered thunderstorms formed within a humid and
			-	.		An EFO tornado briefly touched down at an oil refinery. There was minimal damage to one	·
533032 GALVESTON CO.	NADEAU HGTS	7/21/2014 Tornado	<u> </u>	FO 0	0 \$15,000	\$0 of the buildings, and one vehicle's window was shattered.	City that caused minimal damage.
						A	A very moist and unstable late morning near coastal air mass generated
533488 GALVESTON CO.	LA MARQUE	9/5/2014 Funnel Cloud	+ +	0	0 \$0	\$0 A funnel cloud was sighted near the intersection of FM 1765 and Highway 3.	scattered thunderstorms that produced funnel clouds.
	l						A very moist and unstable late morning near coastal air mass generated
533489 GALVESTON CO.	VIRGINIA PT	9/5/2014 Funnel Cloud	+ +	0	0 \$0	\$0 A funnel cloud was sighted near the intersection of Interstate 45 and Highway 6.	scattered thunderstorms that produced funnel clouds.
						40	A very moist and unstable late morning near coastal air mass generated
533490 GALVESTON CO.	TEXAS CITY	9/5/2014 Funnel Cloud	+ +	0	0 \$0	\$0 A funnel cloud was sighted near Blocker Middle School.	scattered thunderstorms that produced funnel clouds.
							Daytime heating within a moist and unstable air mass allowed for the
							isolated development of near coastal storms. The strongest of these
533486 GALVESTON CO.	LEAGUE CITY S S ARPT	9/7/2014 Hail	0.75	0	0 \$0	\$0 Dime sized hail was observed in the Westover Park subdivision of League City.	storms produced three quarter inch in diameter hail.
							A moist and conditionally unstable late morning air mass was conducive
533485 GALVESTON CO.	SAN LEON ELLIS ARPT	9/9/2014 Funnel Cloud	1	0	0 \$0	\$0 A funnel cloud moved northward across the north side of San Leon.	for the formation of a funnel cloud along Galveston Bay's western shore.
							Higher Gulf of Mexico moisture being brought onshore by an easterly wave
							initiated areas of thunderstorms. Isolated storms displayed weak rotation
533484 GALVESTON CO.	LEAGUE CTY SPCLND AR	9/12/2014 Funnel Cloud		0	0 \$0	\$0 A funnel cloud was sighted near the intersection of FM 96 and Egret Bay Boulevard.	and produced funnel clouds.
							A vicinity western shortwave disturbance provided enough lift within a very
							moist and unstable late morning through afternoon air mass to produce
							clustering thunderstorms. Weak steering flow allowed for the slow
							movement of storm clusters that ultimately generated regional flash
543200 GALVESTON CO.	LEAGUE CITY S S ARPT	9/18/2014 Flash Flood		0	0 \$0	\$0 Several League City area roads were flooded with water as deep as 5 to 8 inches.	flooding.
							Slow moving thunderstorms along a cold front led to heavy rainfall and
						Heavy rains (up to four inches) and some street flooding was reported in and around the L	
568016 GALVESTON CO.	LA MARQUE	3/21/2015 Heavy Rain		0	0 \$0	\$0 Marque area.	inches of rain fell from Brazoria County to Chambers County.
						A nearly stationary thunderstorm produced flash flooding in and around the Texas City	An early evening and slow moving thunderstorm produced flash flooding in
572611 GALVESTON CO.	TEXAS CITY GULF ARPT	4/12/2015 Flash Flood		0	0 \$0	\$0 area.	Texas City.
							An approaching broad upper low east of the Four Corners region placed
							eastern Texas in a favorable upper air pattern conducive to sustaining
							either a mesoscale storm complex or an organized linear storm system.
							Daytime heating, within a highly moist environment and a passing
							shortwave disturbance, allowed a south central Texas originating derecho
							to pass through within the southwest flow and cause severe weather
573368 GALVESTON CO.	LEAGUE CITY S S ARPT	4/17/2015 Flash Flood		0	0 \$2,000	\$0 Flooded roadways due to high rainfall around Friendswood High School.	damage across the Houston, Texas area.
							A
			1				An approaching broad upper low east of the Four Corners region placed
			1				eastern Texas in a favorable upper air pattern conducive to sustaining
			1				either a mesoscale storm complex or an organized linear storm system.
			1				Daytime heating, within a highly moist environment and a passing
			1				shortwave disturbance, allowed a south central Texas originating derecho
			1				to pass through within the southwest flow and cause severe weather
569546 GALVESTON CO.	JAMAICA BEACH	4/17/2015 Thunderstorm Wind	70	0	0 \$20,000	\$0 Thunderstorm winds blew a roof off a home.	damage across the Houston, Texas area.
			1				Severe storms developed across central and southern portions of
			1			Golf ball sized hail was reported close to the intersection of Heards Lane and 68th Street	Southeast Texas as a strong upper level disturbance moved across the
572347 GALVESTON CO.	(GLS)SCHOLES FLD GAL	4/25/2015 Hail	1.75	0	0 \$1,000	\$0 on Galveston Island.	area.
			1				Slow moving thunderstorms produced copious amounts of rain that led to
			1			Water covered roads in San Leon. Water several inches deep in many yards. Radar	flash flooding for some locations. Communities of Webster, San Leon and
583543 GALVESTON CO.	SAN LEON ELLIS ARPT	5/12/2015 Flash Flood		0	0 \$20,000	\$0 estimates over 8 inches of rain fell from slow moving storm over San Leon.	Angleton were hardest hit.
			1				Slow moving thunderstorms produced copious amounts of rain that led to
			1			There was widespread flooding around League City. Several roads were impassable due to	flash flooding for some locations. Communities of Webster, San Leon and
578941 GALVESTON CO.	LEAGUE CITY	5/12/2015 Flash Flood		0	0 \$0	\$0 high water.	Angleton were hardest hit.
			1				
			1			Strong thunderstorms produced heavy rainfall that flooded the southbound feeder road of	A weak tropical wave interacted with a highly moist air mass and produced
589592 GALVESTON CO.	LEAGUE CTY SPCLND AR	6/13/2015 Flash Flood		0	0 \$0	\$0 Interstate 45 at Highway 96. Rainfall totals ranged from 5 to 7 inches.	periods of high rainfall.

								June 16th. Strong winds and minor coastal flooding occurred near
								Matagorda Bay in Jackson and Matagorda Counties and along the coast of
								Brazoria and Galveston Counties. Heavy rainfall of over 13 inches caused
								significant inland flooding in and around the towns of Lolita, Edna, and
								Ganado. The maximum sustained wind reported in Matagorda Bay was 45
								knots (52 mph). The maximum wind gust of 54 knots (62 mph) was
								reported on the Bolivar Peninsula at Crab Lake. There were no reported
								tornadoes associated with Tropical Storm Bill. Storm surge heights
								ranged from 2.1 feet in Chambers County to 3.2 feet in Galveston County.
								Roads were flooded and closed around Sargent in Matagorda County.
								Flood waters rose around homes in the city of Matagorda but no damage
								was reported. In Brazoria County, surge produced minor coastal flooding
								near Surfside beaches, the Treasure Island subdivision and San Luis Pass
								Park but with little or no damage. In the village of Surfside Beach, Seashell,
								Surf and Beach Roads were closed due to high water form storm surge. All
								countywide beach access roads were closed. Heavy rain caused the
								flooding of Chocolate and Halls Bayous. There were four trees that were
								downed by wind. There was minor coastal flooding on the Bolivar
								Peninsula in Galveston County with some debris removal required off of
								State Highway 87. High surf caused erosion of Galveston Island beaches.
								There was minor coastal flooding on the Bolivar peninsula with some debris removal Sand and debris washed up on the streets of various West End island
								required off of State Highway 87. High surf caused erosion of Galveston Island beaches. communities. There was minor flooding damage to downstairs garages in
								Sand and debris washed up on the streets of various west end island communities. There Jamaica Beach with two temporarily closed roads. in Harris County, there
							_	was minor flooding damage to downstairs garages in Jamaica Beach with two temporarily was minor storm surge flooding in Shoreacres, Clear Lake Shores, and
	GALVESTON (ZONE)	ALTA LONA	6/15/2015 Tropical Storm		0	0	\$ 1	\$0 closed roads. along Toddville Road in Seabrook. Two feet of water impacted Shoreacres
588068	GALVESTON CO.	ALTA LOMA	8/17/2015 Funnel Cloud		0	U	*	\$0 An early afternoon funnel cloud was sighted near Santa Fe. An early afternoon funnel cloud was sighted near Santa Fe.
								Early morning showers and thunderstorms developed and moved very little
								for several hours resulting in flash flooding across parts of Galveston and
								Brazoria counties. Rainfall totals of 5 to 7 inches were common, and
588750	GALVESTON CO.	PATTON	8/20/2015 Lightning		0	0	\$50.00	
000700	0,12,120,10,11,00,1		5,25,2515 E.g. Killing				400,00	vo legition and the action of
								Street flooding and road closures were reported across portions of central Galveston Early morning showers and thunderstorms developed and moved very little
								County including areas around Bayou Vista, La Marque, Hitchcock, Freddieville, as well as for several hours resulting in flash flooding across parts of Galveston and
								near the intersection of Highway 3, Highway 6 and Interstate 45. More street flooding and Brazoria counties. Rainfall totals of 5 to 7 inches were common, and
592653	GALVESTON CO.	ALTA LOMA	8/20/2015 Flash Flood		0	0	\$	\$0 road closures were found on Galveston Island along Harborside Drive. isolated totals did reach 10 inches in the Bayou Vista area.
								Flash flooding on Galveston Island included several roads under water and impassable, Showers and thunderstorms moved northward toward the upper Texas
								including 48th Street and Broadway, service roads to Interstate 45, and 51st Street and coast. Activity trained in and around the Galveston Island area and
596455	GALVESTON CO.	GALVESTON	9/1/2015 Flash Flood		0	0	\$10,00	\$0 Harborside Drive where vehicles stalled out. There was also flooding on the TAMU campus. produced flash flooding.
								A strong upper level storm system, combined with high moisture levels to
								produce a bands of excessive rainfall that caused flash flooding across
								Fort Bend, Harris and Liberty Counties. Thunderstorms rapidly developed
								shortly after midnight on the 31st over Matagorda and Fort Bend Counties
								and moved into Harris County around 1:00 a.m. The thunderstorms trained
								or moved over the same areas between 1:00 a.m. and 4:00 a.m. with
								significant rainfall occurring over the southwest and south-central portions
								of Harris County into the east-central part of the county. After a brief break
								between 5:00 a.m. and 8:00 a.m. an additional round of thunderstorms
								slowly moved across Harris County from west to east producing additional
								heavy rainfall and worsening ongoing flooding conditions. Saturated
								grounds from previous heavy rainfall the week before coupled with intense
								Gulf water inundated Highway 87 approximately two miles from the Highway 124 short term rainfall rates resulted in widespread flooding. There was one
604977	GALVESTON (ZONE)		######## Coastal Flood		ام	n	\$	
334377	27.2.2.2.3.3.4 (20142)						4	+5 Interested of the possible result and one possible
								The EF-2 tornado touched down just east of Clover Field Airport (Brazoria County) and
								continued on a narrow northeast track into Galveston County. This tornado expanded in
								size and weakened in intensity as it approached FM 518 over the last half of its track. There
								was extensive tree damage along the entire track. Homes sustained partial roof loss and
								tree damage consistent with an EF-1 rating from east of the airport through Sunset Drive in
								Friendswood (Galveston County). Low-end EF-2 damage occurred on Chester Drive in
								Friendswood where there was complete loss of a residential home's roof. Estimated peak Tornadoes formed along a near coastal county warm frontal boundary that
609210	GALVESTON CO.	LEAGUE CITY S S ARPT	####### Tornado	 EF2	0	0	\$1,000,00	\$0 wind was 115 mph. was downstream of a central Texas cold front.
						<u> </u>		Coastal flooding inundated portions of Highway 87 near the Highway 24 intersection on the A long southeasterly wind fetch across the western Gulf of Mexico drove up
612649	GALVESTON (ZONE)		######## Coastal Flood		0	0	\$	\$0 eastern beaches of the Bolivar Peninsula. a swell that inundated sections of the Bolivar Peninsula.
	<u>-</u>			 				

							A strong upper level storm system moved across the area that aided in the
608048 GALVESTON CO.	HITCHCOCK VOLK ARPT	1/8/2016 Hail	0.75	0	0 \$	\$0 Penny sized hail occurred to the northwest of La Marque.	generation of regional thunderstorms. The stronger thunderstorms produced large hail.
							Early morning pre-dawn thunderstorms strengthened to severe as they moved eastward across southeastern Texas. These storms produced wind
628073 GALVESTON CO.	LEAGUE CITY S S ARPT	4/13/2016 Hail	1	0	0 \$	\$0 The quarter size hail was reported in Friendswood.	damage and hail along with damaging lightning strikes.
628077 GALVESTON CO.	LEAGUE CTY SPCLND AR	4/13/2016 Hail	0.75	0	0 \$	\$0 The dime size hail was reported in League City.	Early morning pre-dawn thunderstorms strengthened to severe as they moved eastward across southeastern Texas. These storms produced wind damage and hail along with damaging lightning strikes.
							A slow moving upper low over the Southwestern U.S. combined with near record level moisture aided in producing extremely heavy rainfall and devastating flooding over portions of Harris, Waller and Fort Bend Counties. Northwest to southeast orientated bands of precipitation commenced during the early evening hours of April 17th across extreme southwestern and western Harris County as well as north and west into Grimes, Waller, Fort Bend, Austin and Colorado Counties. Between 8:00 p.m. and 9:00 p.m. thunderstorms began to greatly intensify and slow their northward movement over Waller County and, by late evening, had stalled and began shifting eastward into western Harris County. Excessive rainfall spread across northwestern Harris County during the late evening hours of April 17th and into the early morning hours of April 18th. Slow thunderstorm movement and rain rates over 4 inches per hour resulted in a large portion of northwest Harris and Waller Counties receiving between 10 and 20 inches of rainfall over mainly a 12 hour period. A few CoCoRaHS gauges in Waller County measured over 20 inches. The flooding resulted in 8 direct fatalities over the region, all drownings in vehicles. Six of these were in Harris County with 1 in Waller County and another in Austin County. An estimated 40000 cars and trucks were flooded. Several bayous
						Numerous flooded roadways in League City. Flood waters were inundating numerous	and creeks were flooded. The Addicks Barker Reservoir was severely
629839 GALVESTON CO.	LEAGUE CITY S S ARPT	4/18/2016 Flash Flood		0	0 \$	\$0 roads within the city of Galveston.	impacted. At least 10,000 homes were flooded. Damage was estimated from Damage Survey Reports to be near \$60 million.
						An EF-0 tornado produced intermittent damage that began southwest of a Cabelas parking lot then continued east across Interstate 45 and then on toward the NE across a Candlewood Suites hotel and an assisted living center. The tornado continued northnortheast through the Victory Lakes subdivision then to near Lynn Nursery along Pecan Orchard Road where they was some minor tree damage. Vehicles were damaged by swirling winds and debris around the Cabelas and the Candlewood Suites sustained roof damage. In area neighborhoods, damage was mostly minor with numerous fences down and loose objects like basketball goals and trampolines knocked over. One storage shed	
623246 GALVESTON CO.	LEAGUE CITY S S ARPT	4/24/2016 Tornado	EF0	0	0 \$100,00	\$0 in Victory Lakes was picked up and thrown approximately 300 yards.	An early evening EF-0 tornado caused minor damage in League City.
635553 GALVESTON CO.	(GLS)SCHOLES FLD GAL	5/2/2016 Hail	1	0	0 \$	\$0 Quarter size hail was reported near the intersection of 67th Street and Heards Lane.	Late night isolated severe thunderstorms developed across parts of Southeast Texas and produced large hail.
635660 GALVESTON (ZON	E)	5/9/2016 Coastal Flood		0	0 \$	The was minor water over wash at the intersection of Highway 87 and Highway 124 due to \$0 the combination of above normal tides and wave run up.	Some coastal flooding was observed due to the combination of above normal water levels and wave run up.
COCCO CALVEGICIA (ZOIN	-,	5,0,2010 000000111000			Ψ	and combination of above normal tides and wave run up.	A fast eastward moving storm system tracked across the area during the
005000 041 V50504 00	CALVECTON	5 (40 (0040 Flack Flack					day. One county reported some wind damage, and there was one flood
635663 GALVESTON CO.	GALVESTON	5/19/2016 Flash Flood		0	0 \$	\$0 Flash flooding occurred near the intersection of Interstate 45 and 61st Street in Galveston	. report on Galveston Island. A western upper low over central Texas, in combination with an
644970 GALVESTON CO.	(GLS)SCHOLES FLD GAL	6/4/2016 Flash Flood		0	0 \$	\$0 Harborside Drive was closed due to high water.	approaching inland frontal boundary sagging south towards the coast within a very moist air mass, provided the necessary focus for storm clusters to track over the southeastern forecast area and produce a high rainfall-leading-to-a-flooding event.
							Clusters of thunderstorms formed in a regionally moist and unstable air mass ahead of an approaching northeastern surface boundary. One of these storms produced a cloud to ground lightning strike that produced a
654701 GALVESTON CO.	LEAGUE CITY	6/28/2016 Lightning		0	0 \$8,00	\$0 A lightning strike caused electrical damage to the League City City Hall's parking lot lights. A waterspout moved onshore and became a weak tornado just east of the Galveston	power outage in League City, Texas. A waterspout south of Galveston, moved onshore and became a tornado.
						Fishing Pier at 61st Street. The tornado moved across Seawall Boulevard and dissipated.	No damage was observed as it dissipated before crossing Seawall
636446 GALVESTON CO.	(GLS)SCHOLES FLD GAL	7/17/2016 Tornado	EF0	0	0 \$	\$0 There was no damage.	Boulevard.
637888 GALVESTON CO.	LEAGUE CTY SPCLND AR	7/20/2016 Funnel Cloud		0	0 \$	\$0 A League City area funnel cloud lasted around fifteen minutes.	A funnel cloud was sighted in the Dickinson and League City area.

See										
Description									A prolonged period of easterly winds south of a near coastal warm front produced elevated	Efficient low level convergence along a near coastal warm frontal boundary
Description										1
1999 1999										
Section Company Comp	672283 GALVESTON (ZONE)		12/3/2016	Coastal Flood			\$20,000	\$1		
### Propriet Gard Value 1970 1970 24 Than							7=1,101	<u> </u>		Efficient low level convergence along a near coastal warm frontal boundary
### Propriet Gard Value 1970 1970 24 Than									Impassable roads due to high water included the FM 1764 - Emmett Lowry Parkway and	within a moist environment generated thunderstorms that produced
										extreme early day rainfall rates. This intense morning rainfall produced
Part	672274 GALVESTON CO.	TEXAS CITY GULF ARPT	12/3/2016	Flash Flood			\$50,000	\$(1 * '	1
							, , , , , , ,			ŭ
										power line damage and downed some trees. The most damage occurred in
Part Mark Company	675241 GALVESTON (ZONE)		1/22/2017	Strong Wind 41			\$1,000	\$(Power lines were downed in the League City area.	l'
Section Sect	,						1,733		,	,
Accordance Company C	681536 GALVESTON CO.	FLAKE	2/14/2017	Thunderstorm Wind 52	2		\$4,000	\$(Six power poles were blown down near the intersection of Highway 87 and Helen Blvd.	
							1,7333		 	
STATE CALLY STOK CL AMADE State Stat	681541 GALVESTON CO.	ALTA LOMA	2/14/2017	Thunderstorm Wind 53	3		\$12,000	\$1		
							7-2,000	_		
A STAND CAUSETING CO. SALESTON CO. SALESTO	681547 GALVESTON CO.	FLAKE	2/14/2017	Thunderstorm Wind 53	3		\$4,000	\$1	Power poles were snapped at Crenshaw Elementary School.	
Section Company Comp	001017 07121201011 001	. Dute	2/1//201/	- Transcription Transcription			Ψ 1,000		Tomor posses more smapped at oronoman Eternativally consess	across the state.
Section Company Comp									A funnel cloud that was sighted over the city became a watershout when it moved into	Training showers and thunderstorms associated with a southern plains
48700 CALVESTINI CO. 48000 FOR SARTH COURT FO	676602 GALVESTON CO	SANTEON	2/17/2017	Funnel Cloud			امه	\$, ,
87700 CALVESTOR CO. 1 FAGUE CTYLE SARET 9050007 Plane Travel 6 0 6 6 5 Desart finding was regarded access to the finding and cereal to the finding control to the cape of some of	070002 GALVESTON GO.	OAIV LLOIV	2/1//201/	Tumet otoda			,	Ψ	outveston buy.	
Section Sect										1
## A PROPERTY COMES AND STORY	007005 0417/50701100	LEACHE OITY COARDT	0,000,00047	Floor Floor			ا م		Ohmont flooding was about a super the Friends was a super the Friends was a	_
99320 64VETON CONC. 4789037 Place 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789037 Place 1 1 0 9 9 0 9 54,000 4789038 Place 1 1 0 9 9 0 9 54,000 4789038 Place 1 1 0 9 9 0 9 54,000 4789038 Place 1 1 0 9 9 0 9 54,000 4789038 Place 1 1 0 9 9 9 0 9 54,000 4789039 Place 1 1 0 9 9 9 0 9 54,000 4789039 Place 1 1 0 9 9 9 9 0 9 54,000 4789039 Place 1 1 0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	687225 GALVESTON CO.	LEAGUE CITY S S ARPT	3/29/2017	Flash Flood		0	50	\$1	• ,	0
Street libriding as caseny emicrate is stall around the College of the Hambard. It by Report 1997 or en Figure allowed a size in more or parameter o	004000 0417/50101/2015		4/40/0047	Dia Occurrent				Φ.	, , , , ,	
Signed (SALANSITON) C.D. IN AMAQUAL ALLEGOD Plana Proceed A 14,0000 P	691029 GALVESTON (ZONE)		4/16/2017	Rip Current		1 0	\$0	\$1	J yards oπsnore near 35th street.	
SCHIES CAL WESTOR CD LAMARQUE 415/007 Plano Rood 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
90186 CALVESTON CO. ATALOPA 418/2027 Flash Trood 0 9 44,000 ATALOPA 418/2027 Flash Trood 0 9 340,000 ATALOPA 418/2027 Flash Trood 0 9 340,000 3										1
Walter regarded in homes at Avenue M 1/2 and 26th Street at round at 32nd Street and on Ave P 2 25th Street is start 6 2.6 actions of 10 and 2 feetween teach that are transcriant view develoated by the Model (see Street to Model). See the International countries are street to Model (see Street to Model). See the International countries are street to Model (see Street to Model). See the Model (see Street to Model).										1
Part 2 Arth Street in Samue 1 hours and separation of Committee of Com	693186 GALVESTON CO.	LA MARQUE	4/18/2017	Flash Flood		0 0	\$4,000	\$1) water was also reported in La Marque at the Gulf Freeway and FM 519 intersection.	flooding.
Part 2 Arth Street in Samue 1 hours and separation of Committee of Com										
were closed due to filosoffe, Street flooding was also reported allering \$, 3 and 1 Avenues of the STATE of Control of the STA										
Beging CALVESTON CO. ALTA COMA. 4.78 (2017) Road-Broad 0 0 \$100,000 50 Improvement the intersections, Approximately broads were closed and forming. An EPS transaction damaged a heliotry in along Termin-Sea table. Plans Plans Road, Change of the Control of t									P at 28th Street in Santa Fe. Sections of O and P Avenue near the 28th Street intersection	A weak upper low over the region allowed a slow moving organized
89318 DALVESTON CO. ALTA LOMA 428/2917 Figure Priority ALTA COMMAN ALTA COMMA									were closed due to flooding. Street flooding was also reported along R, S and T Avenues at	clustering of storms to position themselves over the coastal counties.
A RETO Contact de Disease de La Contraction de L									the 32nd and 33rd street intersections. Approximately 8 roads were closed and	These storms produced high rainfall rates that lead to isolated flash
Beganza OALVESTON, CO.NE. 689372 OALVESTON, CO.NE. 6972017 Round FTD D D D D SQD, DOD SQD, DOD SQD, ACT OF THE CAME AND THE Was a rip Current facility one 850 OALVESTON, CO.NE. 6972017 Round FTD D D D D D D D D D D D D D D D D D D	693188 GALVESTON CO.	ALTA LOMA	4/18/2017	Flash Flood		0 0	\$100,000	\$1	impassable due to flood waters within town limits.	flooding.
Best 2 (GALYSTON CO.D. GLSS-CHOLES FLD, GAL GOUGH OF ST2/2017 (Flore of the Cooling and two containeds. FF 0 0 0 \$20,000 \$0 valent-pour that moved on-share. From Cooling and two containeds. From Cooling and									An EFO tornado damaged a Holiday Inn along Termini-San Luis Pass Road. Damage	
808 SQ (ALVESTON (ZONE) 5.2(12/017) Rip Current 1 0 SQ SQ A 20 year old make drowned near GSrd Street and Seawell Blwd. There was a rip current flatality near 850 Gulf Road on the Bolivar Preinsula. There was a rip current flatality near 850 Gulf Road on the Bolivar Preinsula. Tropical Storm Cinity made landfall in southwestern Louisiana between Purk Activut, Tropical Storm Cinity made landfall in southwestern Louisiana between Cinity made landfall in southwestern Louisiana between Purk Activut, Tropical Storm Cinity made landfall in southwestern Louisiana between Cinity made landfall landfall properties and the Cinity made landfall landfall properties was considered to make a facility of the Cinity made landfall									included blown out windows and lattice damage. Witnesses indicated this was a	Morning storms became severe and produced wind damage, some
63.433 (ALVESTON (ZONE) 6412-2017 (APC DEFINITION OF TOPICS ASSESSED	689172 GALVESTON CO.	(GLS)SCHOLES FLD GAL	5/22/2017	Tornado	EF0	0 0	\$20,000	\$(waterspout that moved onshore.	flooding and two tornadoes.
Trippical Scorm Clindy made landfall in southwestern Louisiana between Port Arthur, TX and Cameron, LAir the early morning hours of June 22nd. Clindy's main impact was minor coastal flooding around Galveston Island. Clindy's main impact was minor coastal flooding around Galveston Island. Clindy's main impact was minor coastal flooding around Galveston Island. Clindy's main impact was minor coastal flooding around Galveston on a dround one quarter inch Boulson intercontinental Airport to 4.33 inches on the Bolivar Pennisulua. The life belower Pennisulua with the highest sustained with pass a service of a Robinson of Airport Pennisulua. The life belower Pennisulua in the life service as a Western Robinson of the Bolivar Pennisulua and the peak gust of Norois (52 mph) was recorded a Robinson Pennisulua and the peak gust of Norois (52 mph) was recorded a Robinson Pennisulua. The life service pennisulua in the life service pennisulua in the life service pennisulua. The lowest sea-level pressure was 999 mb at Galveston Scholace Pinelia. The lowest sea-level pressure was 999 mb at Galveston Scholace Pinelia Air Pennisulua. The life service at the service of the Scholace Pinelia Air Pennisulua. The life service at the service of the Scholace Pinelia Air Pennisulua. The life service at the service of the Scholace Pinelia Air Pennisulua in the service of the Scholace Pinelia Air Pennisulua in the service was sea-level pressure was 999 mb at Galveston Scholace Pinelia Air Pennisulua. The life service of the Scholace Pinelia Air Pennisulua in the service was sea-level pressure was 999 mb at Galveston Scholace Pinelia Air Pennisulua. The life sea sea of the Scholace Pinelia Air Pennisulua in the sea of the Scholace Pinelia Air Pennisulua in the sea of the Scholace Pinelia Air Pennisulua in the sea of the Scholace Pinelia Air Pennisulua in the sea of the Scholace Pinelia Air Pennisulua in the sea of the Scholace Pinelia Air Pennisulua in the sea of the Scholace Pinelia Air Pennisulua in the sea of the Scholace Pinelia Air Pe	690880 GALVESTON (ZONE)		5/31/2017	Rip Current		1 0	\$0	\$	A 20 year old male drowned near 63rd Street and Seawall Blvd.	There was a rip current fatality off the Galveston Island beach.
Part Arthur, Xr and Cameron, Lin the early morninghours of Jane 2240. Gindy's main impact was minor coastal flooding around Gallweston Island. Gindy's main impact was minor coastal flooding, 2014 below Peninsula. Storm total rainfall ranged from around or equarer inch at Houston Intercontinental Airport to 4.33 inche on the Bolivar Peninsula. The highest amounts generally across Chambers, Solveston and Liberty counties as well as the Bolivar Peninsula. The highest studened wind of 37 knots (48 mph) was recorded at Weather-Flow site KCRB on the Bolivar Peninsula. The highest studened wind of 37 knots (48 mph) was recorded at Weather-Flow site KCRB on the Bolivar Peninsula. The highest studened wind of 37 knots (48 mph) was recorded at Weather-Flow site KCRB on the Bolivar Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind was recorded at Rollowyre Peninsula. The highest studented was recorded at Rollowyre Peninsula. The highest studented was recorded at Rollowyre Peninsula. The highest studented and the recorded at Rollowyre Peninsula. The highest studented and the Rollowyre studented by such and associated wave run up up dot on rise in developing studented with the peninsula. The highest studented at the peninsula of the peninsula material based and studented the Rollowyre Rollowyre Peninsula. The highest studented and the Rollowyre Rollowyre Peninsula. The highest studented and the west ended to a peninsula of the west ended to a peninsula of the Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Ro	693431 GALVESTON (ZONE)		6/12/2017	Rip Current		1 0	\$0	\$	There was a rip current fatality near 850 Gulf Road on the Bolivar Peninsula.	There was a rip current fatality on the Bolivar Peninsula.
Part Arthur, Xr and Cameron, Lin the early morninghours of Jane 2240. Gindy's main impact was minor coastal flooding around Gallweston Island. Gindy's main impact was minor coastal flooding, 2014 below Peninsula. Storm total rainfall ranged from around or equarer inch at Houston Intercontinental Airport to 4.33 inche on the Bolivar Peninsula. The highest amounts generally across Chambers, Solveston and Liberty counties as well as the Bolivar Peninsula. The highest studened wind of 37 knots (48 mph) was recorded at Weather-Flow site KCRB on the Bolivar Peninsula. The highest studened wind of 37 knots (48 mph) was recorded at Weather-Flow site KCRB on the Bolivar Peninsula. The highest studened wind of 37 knots (48 mph) was recorded at Weather-Flow site KCRB on the Bolivar Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind of 48 knots (52 mph) was recorded at Rollowyre Peninsula. The highest studened wind was recorded at Rollowyre Peninsula. The highest studented was recorded at Rollowyre Peninsula. The highest studented was recorded at Rollowyre Peninsula. The highest studented and the recorded at Rollowyre Peninsula. The highest studented and the Rollowyre studented by such and associated wave run up up dot on rise in developing studented with the peninsula. The highest studented at the peninsula of the peninsula material based and studented the Rollowyre Rollowyre Peninsula. The highest studented and the Rollowyre Rollowyre Peninsula. The highest studented and the west ended to a peninsula of the west ended to a peninsula of the Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Rollowyre Ro										
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Cindy's main impact was minor coastal flooding around Galveston Island and especially the Bolivar Peninsula. Storm total rainfall ranged from around one quarter inch at Houston intercontinential Arport to 4.33 inche on the Bolivar Peninsula with the highest manual figure part to a stress of Chambers, Galveston and Liberty courties as well as the Bolivar Peninsula. The highest stassained wind of 37 knots (43 mph) was recorded at Relicious Peninsula. The highest stassained wind of 37 knots (43 mph) was recorded at Relicious Peninsula. The highest stassained wind of 37 knots (43 mph) was recorded at Relicious Peninsula. The highest san alvest pressure was well the Bolivar Peninsula. The highest san alvest pressure was well as the Bolivar Peninsula. The highest san alvest pressure was 989 mb at Galveston Scholes Field. Minor coastal flooding was the tropical storm's main impact Lospite predominant offshore winds, ong period swelts and associated wave run up led to a rise in water levels along foult fracing beaches, in addition, a peristent northerly wind component lead to a pile up of water on north facing Bay side bearings. A peristent northerly winch is an area that it especially vulnerable to coastal flooding. Essewhere, channels were elevated around Jamaica Beach and other west end communities of Galveston Island, but there was little impact. 707.141 GALVESTON (ZONE) 707.755 [GALVESTON CO. GALVESTON BAJS307] Funnet Cloud 0 0 50 \$0 Galveston Island, but there was little impact. Two Tunnet clouds were sighted on Galveston Island.										'
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Sequence of the property of the part of th											Harvey made landfall as a category 4 hurricane near Rockport. Tayas
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Court (1,14) go or mater 7, 200 for the court of 1,140 go or mater											area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds
across the causity. Clinac Cross in causative directedocal and leasing thresholoating in effective date and leasing thresholoating in effective date and leasing thresholoating and desert through a control of the cont										Numerous roads were flooded and impassable across northern and western Galveston	and a moderate storm surge near Matagorda Bay. In some of the heavier
Table 1										County. Approximately 7,000 homes and 125 businesses were impacted by flood waters	bands rain fell at a rate of over 5 inches per hour. This copious record
Octospas Regular, tomor Commerce y Report to each of regiments of a primary and second primary and second or information & Sp. War Be Businesed, PM 528, PM 538 and mulmores and adoption of the contributed to the merce and adopting more and an orbit of the many and second primary										across the county. Clear Creek measured record levels that lead to the widespread	amount of rain over a led to catastrophic flooding. Thousands of homes,
mundance sections on interestant 45, Bay Area Boulevard, CPM S2B, PM S1B and numerous cover of their branks and present and pr										flooding throughout Friendswood and League City. Major flooding occurred along the	businesses, and roads were flooded due to flash flooding and sheet flow
mundance sections on interestant 45, Bay Area Boulevard, CPM S2B, PM S1B and numerous cover of their branks and present and pr										Dickinson Bayou: from Cemetery Road to east of Highway 3 along FM 517. Flood waters	from long duration intense rain. Main stem rivers and adjoining tributaries.
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	720013 GALVESTUN CO.	ILOUI DOLIVAK AKLI	OIZOIZUI/ Flash F	Floou		0]	0	\$0	\$0	Low tying sections of righway o7 off the bouvar Peninsula were 1.000ed due to fain.	uns also continuated to the massive moduling across southeastern rexas.

				Harvey made landfall as a category 4 hurricane near Rockport, Texas
720859 GALVESTON CO. FRIENDSWOOD	8/26/2017 Flash Flood		\$0	during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds and exacerbated the flooding. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads.
72000 OALVESTON CO. THENDOWOOD	0/20/2017 1431111004		Ψ0	this disc contributed to the massive hooding derosa southeastern rexus.
720862 GALVESTON CO. FRIENDSWOOD	8/26/2017 Flash Flood	0 0	\$0 \$	Harvey made landfall as a category 4 hurricane near Rockport, Texas during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large inundated hundreds to thousands of homes and businesses. Roads and highways in and around northern and central Galveston County were flooded and therefore closed for long time periods. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads.
720871 GALVESTON CO. SAN LEON	8/26/2017 Flash Flood	3 0	\$10,000,000,000 \$10,00	There were numerous water rescues across western and central Galveston County. Flood waters completely inundated hundreds to thousands of homes and businesses in League City, Dickinson and Santa Fe. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 518 and numerous primary and secondary county roads. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 518. FM 518 and numerous primary and secondary county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads. There were numerous water rescues and flooded homes within the Friendswood, Pearland and Dickinson areas.
720878 GALVESTON CO. LEAGUE CITY S S	ARPT 8/27/2017 Flash Flood		\$0	Harvey made landfall as a category 4 hurricane near Rockport, Texas during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds and FM 646 in and around League City and Dickinson were flooded and therefore closed for long time periods. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads.

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720709 GALVESTON CO.	KEMAH	8/27/2017 Tornado	EFO	0	0 \$200,000	and a moderate storm surge near Matagorda Bay. In some of the heavier bands rain fell at a rate of over 5 inches per hour. This copious record amount of rain over a led to catastrophic flooding. Thousands of homes, businesses, and roads were flooded due to flash flooding and sheet flow from long duration intense rain. Main stem rivers and adjoining tributaries, creeks and bayous reached full capacity and came out of their banks and this also contributed to the massive flooding across southeastern Texas.
721081 GALVESTON CO.	LEAGUE CITY'S SARPT	8/27/2017 Flash Flood		0	0 \$0	Harvey made landfall as a category 4 hurricane near Rockport, Texas during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds and a moderate storm surge near Matagorda Bay. In some of the heavier banks. Approximately 7,000 homes and 125 businesses were impacted by flood waters across the county. Clear Creek measured record levels that lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads.
721099 GALVESTON CO.	LEAGUE CITY'S SARPT	8/28/2017 Flash Flood		0	0 \$0	Harvey made landfall as a category 4 hurricane near Rockport, Texas during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds and a moderate storm surge near Matagorda Bay. In some of the heavier bands rain fell at a rate of over 5 inches per hour. This copious record amount of rain over a led to catastrophic flooding. Thousands of homes, businesses, and roads were flooded due to flash flooding and sheet flow from long duration intense rain. Main stem rivers and adjoining tributaries, inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous \$0 primary and secondary county roads.
721115 GALVESTON CO.	WALLIS	8/28/2017 Flash Flood		0	0 \$0	Harvey made landfall as a category 4 hurricane near Rockport, Texas during the evening of August 25th. The storm then weakened to a tropical storm and slowed, looping back and tracking over SE Texas then back over the Gulf of Mexico making a second landfall along the Louisiana coast during the early morning hours of August 30th. Over that 5 day period over Southeast Texas TS Harvey produced catastrophic flooding with a large area of 30 to 60 inches of rain, 23 tornadoes, tropical storm force winds and a moderate storm surge near Matagorda Bay. In some of the heavier bands rain fell at a rate of over 5 inches per hour. This copious record amount of rain over a led to catastrophic flooding. Thousands of homes, be lead to the widespread flooding throughout Friendswood and League City. Major flooding occurred along the Dickinson Bayou; from Cemetery Road to east of Highway 3 along FM 517. Flood waters inundated sections of Interstate 45, Bay Area Boulevard, FM 528, FM 518 and numerous primary and secondary county roads.

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	rivers and adjoining tributaries, d came out of their banks and
Harvey made landfall as a category 4 hurric during the evening of August 25th. The storr storm and slowed, looping back and rate of Mexico making a second landfall during the early morning hours of August 30 Southeast Texas TS Harvey produced catas area of 30 to 60 inches of rain, 23 to tornadoe: and area of 30 to 60 inches of rain, 23 tornadoe: and a morner storm surge near Matagord bands rain fell at a rate of over 5 inches per amount of rain over a led to catastrophic fit businesses, and roads were flooded due to from long duration intense rain. Madin stern the storm surge of the storm surge	n then weakened to a tropical ng over SE Texas then back over lalong the Louisiana coast th. Over that 5 day period over trophic flooding with a large s, tropical storm force winds a Bay. In some of the heavier hour. This copious record poding. Thousands of homes, flash flooding and sheet flow rivers and adjoining tributaries,
721133 GALVESTON CO. GALVESTON 8/29/2017 Flash Flood 0 0 \$1,000 \$0 impassable. this also contributed to the massive flooding	
Heavy rains caused flooding from a north to An EFO tornado downed trees and branches along either side of Benson's Bayou. Damage was caused by a tornado, thunders 719055 GALVESTON CO. DICKINSON ####### Tornado EFO 0 0 \$50,000 \$0 included home and vehicle windows along with residential fences. strike.	
Heavy rains caused flooding from a north to	
Damage was caused by a tornado, thunders of purple of the strike. 719056 GALVESTON CO. DICKINSON ######## Thunderstorm Wind 50 0 0 5- \$0 Damage was reported near the intersection of FM 646 and Highway 3. strike.	torm winds and a lightning
Multiple roadways were flooded and impassable, including southern I-45 feeder roads in Heavy rains caused flooding from a north to	south line of thunderstorms.
Friendswood and League City, the intersection of West Bay Area Blvd and FM 518, and Damage was caused by a tornado, thunders	torm winds and a lightning
719058 GALVESTON CO. LEAGUE CITY S S ARPT ####### Flash Flood 0 \$0 \$0 Westover Park Avenue south of FM 518.	
The forcing of an approaching upper trough precipitation falling through a deep enough to snow. The heaviest snow fell across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms and the strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7th with measurable snow across the rosponsive forms are strength of the 7t	sub freezing lower layer to turn northwestern CWA the evening central and southern forecast urs of the 8th.
A line of thunderstorms produced some wir 745053 [GALVESTON CO. ARCADIA 3/29/2018 Thunderstorm Wind 50 0 0 \$500 There was some minor residential awning and tree limb damage. tornado.	d damage, flash flooding and a
An oleander tree was knocked down and a wooden bench swing collapsed around the A line of thunderstorms produced some wire	d damage, flash flooding and a
745055 GALVESTON CO. GALVESTON 3/29/2018 Thunderstorm Wind 50 0 \$0 \$0 intersection of 15th Street and Avenue M. tornado.	
A line of thunderstorms produced some wir 745056 GALVESTON CO. GALVESTON 3/29/2018 Thunderstorm Wind 52 0 0 0 \$1,000 \$0 A power pole was downed near an apartment complex on 21st Street. tornado.	d damage, flash flooding and a
745056 GALVESTON CO. GALVESTON CO. GALVESTON GO. GALVESTON GO. TEXAS CITY GULF ARPT 5/23/2018 Funnel Cloud Go. Several funnel clouds were sighted.	
746493 GALVESTON CO. TEXAS CITY 5/23/2018 Funnel Cloud 0 0 \$0 \$0 A funnel cloud was sighted.	
757528 GALVESTON CO. BACLIFF 6/9/2018 Thunderstorm Wind 52 0 0 0 \$3,000 \$0 Numerous trees were downed off of Gordy Road. Trees were downed in the Bacliff area.	
771043 GALVESTON CO. SAN LUIS PASS 8/29/2018 Lightning strick a home and caused a fire that destroyed the property. Lightning stricks damaged a couple of home and caused a fire that destroyed the property.	
771044 GALVESTON CO. ROLLOVER 8/29/2018 Lightning Ughtning Strikes damaged a couple of home Significant flooding occurred on Galveston Island from Jamaica Beach up into the city of	IS.
Significant tooding occurred on Galveston Island from Jamaica Beach up into the city of Galveston as over 10 inches of rain fell in some spots. There were numerous road closures with at least one washed out roadway in the town of Jamaica Beach. There were reports of Little movement of clustering rain and storr	-
771734 GALVESTON CO. JAMAICA BEACH 9/3/2018 Flash Flood 0 \$200,000 \$0 water within some structures. coastline caused flooding on Galveston Isla	
Flooding was reported on the College of the Mainland campus. A few flooded residences had a half of a foot of water in them along Meadowlark Lane in western Texas City and Slow moving thunderstorms clustered up or	-
Flooding was reported on the College of the Mainland campus. A few flooded residences	ing.

	1	<u> </u>	T				1		
700007 0444/50704 00	L EAGUE OIT/	0/40/0040	5 5						There was flooding along the Gulf Freeway-Interstate 45 that closed sections of the A slow moving line of clustering thunderstorms produced high rainfall that
786887 GALVESTON CO.	LEAGUE CITY	9/12/2018	Flash Flood			0	0	\$0	\$0 freeway between the FM 518 and Highway 96 exits. caused road and highway flooding in the League City area.
									There were flooded roads, with reports of water as high as two feet, around Ball High
									School. Sections of Harborside Drive-SH 275 from Interstate 45 east to Ferry Road were Passing thunderstorms produced high enough rainfall rates to induce
785230 GALVESTON CO.	GALVESTON	9/14/2018	Flash Flood			0	0	\$0	\$0 closed due to high water. flooding on Galveston Island.
									Roads were impassable from the Downtown Galveston area to across parts of the Port Slow moving showers and thunderstorms produced heavy rainfall from the
777293 GALVESTON CO.	(GLS)SCHOLES FLD GAL	9/29/2018	Flash Flood			0	0	\$50,000	\$0 Bolivar area. downtown Galveston area to the Port Bolivar area.
									An 11 year-old boy got caught in a rip current and drown near 17th Street at the Seawall. Two brothers drowned off of Galveston Island due to being caught up
786913 GALVESTON ISLAND	4	########	Rip Current			2	0	\$0	\$0 His 16 year-old boy went to attempt a rescue but also drown. within a strong Gulf of Mexico rip current.
									There were reports of water near homes with flooded cars and roadways in Santa Fe, Clustering storms focused along an inland-moving warm front. These
									Dickinson and League City. Some of the flooding occurred as Dickinson Bayou went out of storms produced localized flooding around Galveston County and
788965 GALVESTON CO.	ARCADIA	########	Flash Flood			0	0	\$0	\$0 banks at SH 3 near Hughes Road. Galveston Island.
									There were numerous reports of street flooding on the east end of Galveston Island from
									Scholes Field eastward towards Ferry Road. High water encroached the dorms at Texas Clustering storms focused along an inland-moving warm front. These
									A&M-Galveston on Pelican Island with flooding inundating the Strand and points along storms produced localized flooding around Galveston County and
788966 GALVESTON CO.	GALVESTON	#########	Flash Flood			اه	0	\$(\$0 Harborside Road towards Ferry Road. Galveston Island.
								*	Thunderstorm winds caused minor structure damage. Winds rolled over an exposed, non-
784796 GALVESTON CO.	TEXAS CITY		Thunderstorm Wind	56		ام	0	\$(\$0 anchored mobile trailer off of Dike Drive. the passage of a squall line of thunderstorms.
704730 GAEVESTON GG.	TEXAS OTT		munacistorm vvina	30			0	Ψ	Strong damaging wind gusts and one tornado occurred in association with
785179 GALVESTON CO.	GALVESTON		Thunderstorm Wind	50		ام	0	\$(\$0 Thunderstorm winds downed two palm trees on Harborside Drive and 29th Street. the passage of a squall line of thunderstorms.
783179 GALVESTON CO.	GALVESTON	**********	munuerstorm wind	30		- 4	U	φι	
705040 041 //505011 00	OALVESTON.	1	The consideration and Addisonal				0	Φ.	Strong damaging wind gusts and one tornado occurred in association with
785210 GALVESTON CO.	GALVESTON	########	Thunderstorm Wind	52		0	0	\$0	\$0 There was a report of a collapsed residence on Ave S and 47th street. the passage of a squall line of thunderstorms.
									There was high flood water that caused the intersection of the Gulf Freeway and Highway Storms associated with a slow moving cold front produced flash flooding
797760 GALVESTON CO.	LEAGUE CITY	12/8/2018	Flash Flood			0	0	\$0	\$0 96 to become impassable. and some wind damage.
									Storms associated with a slow moving cold front produced flash flooding
797759 GALVESTON CO.	GALVESTON	12/8/2018	Flash Flood			0	0	\$0	\$0 There were sections of Harborside Drive that became impassable due to high flood waters. and some wind damage.
									Late evening through early morning severe thunderstorms produced
790798 GALVESTON ISLAND	1	########	Coastal Flood			0	0	\$0	\$0 High water impacted several SH 87 locations on the east end of Bolivar. severe hail and some wind damage.
									Trees and fences were downed and there were damaged and destroyed trampolines, A strong cold front moved through Southeast Texas during the overnight
793448 GALVESTON CO.	ALTA LOMA	1/19/2019	Thunderstorm Wind	50		0	0	\$15,000	\$0 gazebos, barn roofs and retail signs. hours and produced wind damage.
									Thunderstorms produced hail and flash flooding as a disturbance moved
798741 GALVESTON CO.	DICKINSON	2/26/2019	Hail	0.88		0	0	\$0	\$0 There were various reports of pea to nickel sized hail.
									A storm system moved across the area during the day and produced large
807363 GALVESTON CO.	DICKINSON	4/7/2019	Thunderstorm Wind	53		ol	0	\$-	\$3,000 There were trees blown down. hail, damaging winds and tornadoes.
									A storm system moved across the area during the day and produced large
807366 GALVESTON CO.	TEXAS CITY GULF ARPT	4/7/2019	Thunderstorm Wind	52		اه	0	\$(\$3,000 There were trees downed. hail, damaging winds and tornadoes.
007000 07.2720.07.001	12/0/10 0111 0021 / 1111 1	2020	Thundon Storm Time				, ,	Ψ,	A storm system moved across the area during the day and produced large
807369 GALVESTON CO.	CRYSTAL BEACH	1/7/2019	Thunderstorm Wind	55		ام	0	\$7,000	\$0 Some travel trailers were flipped over. hail, damaging winds and tornadoes.
007000 0712 02010 10 00.	OTTO IAL BETTOTI	47772010	munucistomi vina	00			Ŭ	Ψί,ου	An early morning line of thunderstorms produced damaging winds and a
832211 GALVESTON CO.	ARCADIA	5/4/2019	Tornado		EF0		0	\$10,000	\$0 Brief touchdown. Peeled off tin roof, damaged manufactured home and storage shed.
632211 GALVESTON CO.	ANCADIA	3/4/2019	Torriado		EFU	٧	U	\$10,000	There were numerous reports of either high water in low lying locations or impassable
									roadways due to flooding. There were flooded roads around Friendswood, League City at
									the Gulf Freeway and Highway 96, the I-45 feeder roads near FM 646 in Dickinson and in Slow moving thunderstorms produce several inches of rain near Kingwood
830431 GALVESTON CO.	НІТСНСОСК	5///2019	Flash Flood			0	0	\$0	\$0 Texas City near the high school. and over Fort Bend County.
									Shortwave disturbances traveling across a slow-moving frontal boundary
									There were reports of trees and power lines downed along Highway 96 just west of Highway within a moist air mass allowed for the development of high rainfall
830467 GALVESTON CO.	LEAGUE CITY	5/9/2019	Thunderstorm Wind	55		0	0	\$0	\$0 3. producing storms.
									Flash flooding lead to impassable roads that extended from Friendswood and League City
									down the Gulf Freeway to include, Dickinson, Texas City and the city of Galveston. One Shortwave disturbances traveling across a slow-moving frontal boundary
									house flooded in Dickinson with some vehicle flooding. Approximately 25 vehicles were within a moist air mass allowed for the development of high rainfall
830477 GALVESTON CO.	LEAGUE CITY S S ARPT	5/9/2019	Flash Flood			ol	0	\$20,000	\$0 flooded in Texas City with some water entering the Heights Elementary School. producing storms.
								. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Shortwave disturbances traveling across a slow-moving frontal boundary
									within a moist air mass allowed for the development of high rainfall
830474 GALVESTON CO.	DICKINSON	5/9/2019	Thunderstorm Wind	55		ام	n	\$-	\$0 Thunderstorm winds damaged the roof of the volunteer fire department. producing storms.
5,12,25,01,00.		1.5.2015						•	Some low lying beach front roads had some water on them, and water was up to the
									seawall at some locations. Water was also over parts of the Highway 87 and Highway 124
824303 GALVESTON ISLAND		5/22/2010	Coastal Flood			ام	٥	\$(\$0 intersection on the Bolivar Peninsula. Some coastal flooding was observed.
024000 OALVESTON ISLAND	1	312212019				U	U	20	An eighteen month old boy died after being left in a car for five hours. The high temperature
921420 CALVECTONICI AND		6/22/2012	Hoot			,		Α,	
821439 GALVESTON ISLAND	1	6/23/2019	пеат			1	0	\$0	\$0 was 92 degrees but the heat index reached 113 degrees. A child dies after being left in a car.
			L						A large area of the Bolivar Peninsula was without power after strong thunderstorm wind A thunderstorm produced strong wind gusts that took out the power to
823267 GALVESTON CO.	FLAKE	6/29/2019	Thunderstorm Wind	60		0	0	\$0	\$0 gusts were observed. parts of the Bolivar Peninsula.
		l _							A 22-year-old male swimmer drowned after being caught within rip currents near the 29th A 22-year-old man drowned after being caught within rip currents off
823729 GALVESTON ISLAND	1	7/4/2019	Rip Current			1	0	\$0	\$0 Street Jetty. Galveston Island.

A weak surface low pressure system strengthene limelda just after noon on September 17th around southwest of Freport. Intelda moved onshore or weakened to a tropical depression. Imelda move on southwest then north-northaced evastating flooding southwest Team and the state of lorses. Although fresh wetters the United States, the 5th wettest in the Contigue 4th vettest the United States, the 5th wettest in the Contigue 4th vettest the United States, the 5th wettest in the Contigue 4th vettest in the state of lorses. Although fresh main impact, an EF-1 tomado also occurred on many roads in the Strand area as water flowed over the curb and alth wettest in the state of lorses. Although fresh main impact, an EF-1 tomado also occurred on many roads in the Strand area as water flowed over the curb and alth wettest in the contigue 4th vettest in the state of lorses. Although fresh main impact, an EF-1 tomado also occurred on an any roads in the Strand area as water flowed over the curb and alth vettest in the teat of lorses. Although fresh main impact, an EF-1 tomado also occurred in an impac	and 15 miles south the area Freeport and quickly the dear Freeport and quickly the dear Freeport and quickly the days and produced a few and across portions of the inches falling mainly tropical cyclone to impact to us United States, and the water flooding was the cell within one of the area on the north side of
melda just after noon on September 17th around southwest of Freeport. Imelda move do a shore on weakened to a tropical depression. Imelda move northwest then north-northeast over the next and northwest then north-northeast over the next astengt fooling southwest Texaswith maximum amounts over over a 24 hour period. Imelda is not better the United States, the 5th wettest in the contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the United States, the 5th wettest in the Contigue 4th wettest in the State of Texas. Although fresh wetters in the Contigue 4th wettest in the State of Texas. Although fresh wetters in the Contigue 4th wettest in the State of Texas. Although fresh wetters and a solid wetter the United States and	and 15 miles south the area Freeport and quickly the dear Freeport and quickly the dear Freeport and quickly the days and produced a few and across portions of the inches falling mainly tropical cyclone to impact to us United States, and the water flooding was the cell within one of the area on the north side of
southwest of Freeport. Imeida moved onshore in weakened to a tropical depression. Inheida move on routhwest then north-northeast over he next few heavy rain bands that caused devasting flooding occurred on many roads in the Strand area as water flowed over the curbs and the United States, the 5th wettest in the state of Texas. All though fresh wain in impact, an EF-1 tornado also occured in a relating bands from the storm. The storm of the storm of the storm of the storm of a variety of the storm of a variety of the storm of a variety of the wettest of the storm of the storm of the storm. The weight of rain on top of a section of a warehouse collapsed due to accumulated and impassable due to floodwaters. 857870 GALVESTON CO. GALVESTON ######## Heavy Rain 0 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	tear Freeport and quickly ed very slowly to the north-w days and produced a few ng across portions of 40 inches falling mainly tropical cyclone to impact ous United States, and the water flooding was the cell within one of the area on the north side of
weakened to a tropical depression. Imelda move northwest then north-neast over the next few heavy rain bands that caused devastating flooding Southeast Texaswith maximum amounts over over a 24 hour period. Imelda is the 74 hwetest the United States, the 54 hwetest in the United States, the 54 hwetest in the United States, the 54 hwetest in the State of Texas. Although fresh main impact, an EF-1 tornado also occurred in a cleading bands and impassable due to floodwaters. 857794 GALVESTON CO. GALVESTON 9/18/2019 Flash Flood 0 0 \$0 \$0 sidewalks. Ferry Road near UTMB became inundated and impassable due to floodwaters. 857870 GALVESTON CO. GALVESTON ######## Heavy Rain 0 0 \$0 \$0 impassible due to Ordinate of the Woody Compress Warehouse collapsed due to accumulated collapse. 857871 GALVESTON ISLAND ######### Coastat Flood 0 \$0 \$0 impassible due to bay water run up during high tide. Coastat flooding occurred during high tide on Bol Numerous roadways were flooded in western Dickinson and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony An upper low produced helped trigger scattered states and Bay Colony.	ed very slowly to the north- w days and produced a few ng across portions of 40 inches falling mainly tropical cyclone to impact ous United States, and the water flooding was the cell within one of the area on the north side of
northwest then north-northeast over the next few heavy rain bands that causide devastating tower over a 24 hour period. Imelda is the 7th wettest it the United States, the 5th wettest in the contributed 4th wettest in the Strand area as water flowed over the curbs and sidewalks. Ferry Road near UTMB became inundated and impassable due to floodwaters. 857794 GALVESTON CO. GALVESTON 9/18/2019 Flash Flood 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	w days and produced a few ng across portions of 40 inches falling mainly tropical cyclone to impact ous United States, and the water flooding was the cell within one of the area on the north side of
heavy rain bands that caused devastating flooding Southeast Texas. with maximum amounts over over a 24 hour period. Imided state, the 5th wettest the United States, the 5th wettest in the Ontigue 4th wettest in the United States, the 5th wettest in the Ontigue 4th wettest in the Strand area as water flowed over the curbs and the William Amounts over the Curbs and the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and also occurred in a curb and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Strand area as water flowed over the curbs and eading bands from the storm. This damaged and a storm of the Mody Compress Warehouse collapsed due to accumulated and impassable due to floodwaters. A 20 x 20 foot portion of the Mody Compress Warehouse collapsed due to accumulated and impassable due to floodwaters. A 20 x 20 foot portion of the Mody Compress Warehouse collapsed due to accumulated and impassable due to floodwaters. A 20 x 20 foot portion of the Mody Compress	ng across portions of 40 inches falling mainly tropical cyclone to impact ous United States, and the water flooding was the cell within one of the area on the north side of
Southeast Texaswith maximum amounts over over a 24 hour period. Imelda is the 7th wettest the United States, the 5th wettest in the contiguous distributed States, the 5th wettest in the contiguous distributed States, the 5th wettest in the contiguous distributed States, the 5th wettest in the state of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Texas. Although fresh main impact, an EF-1 tornado also occurred in a clear of Te	40 inches falling mainly tropical cyclone to impact ous United States, and the water flooding was the cell within one of the area on the north side of
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the United States, the 5th wettest in the contiguod 4th wettest in the state of Texas. Although fresh wain impact, an EF-1 tonado also occurred on many roads in the Strand area as water flowed over the curbs and leading bands, an EF-1 tonado also occurred in a control of the Heavy Rain for the Highlands. 857870 GALVESTON CO. GALVESTON ######## Heavy Rain	ous United States, and the water flooding was the cell within one of the area on the north side of
4th wettest in the state of Texas. Although fires he main impact, an EF-1 tornado also occurred on many roads in the Strand area as water flowed over the curbs and leading bands from the storm. This damaged an as storm of a section of a warehouse collapsed due to accumulated and impassable due to floodwaters. 857870 GALVESTON CO. GALVESTON ######### Heavy Rain 857871 GALVESTON ISLAND ###################################	water flooding was the cell within one of the area on the north side of
B57794 GALVESTON CO. GALVESTON B57870 GALVESTON CO. GALVESTON ######## Heavy Rain B57870 GALVESTON CO. GALVESTON ######## Heavy Rain B57871 GALVESTON ISLAND B57871 GALVESTON ISLAND B57871 GALVESTON ISLAND B57870 GALVESTON ISLAND B57870 GALVESTON ISLAND ######### Coastal Flood B57871 GALVESTON ISLAND ########## Coastal Flood B57871 GALVESTON ISLAND ######### Coastal Flood B57871 GALVESTON ISLAND ######### Coastal Flood B57871 GALVESTON ISLAND ########## Coastal Flood B57871 GALVESTON ISLAND ###################################	cell within one of the area on the north side of
Flooding occurred on many roads in the Strand area as water flowed over the curbs and 857794 GALVESTON CO. GALVESTON 9/18/2019 Flash Flood 0 0 \$0 \$idewalks. Ferry Road near UTMB became inundated and impassable due to floodwaters. A 20 x 20 foot portion of the Moody Compress Warehouse collapsed due to accumulated 7 The weight of rain on top of a section of a warehouse collapsed. B57870 GALVESTON CO. GALVESTON ######## Heavy Rain 0 0 0 \$0 \$0 \$0 Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became 1 impassible due to bay water run up during high tide. B57871 GALVESTON ISLAND ######## Coastal Flood 0 0 \$0 \$0 \$0 Mumerous roadways were flooded in western Dickinson and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony An upper low produced helped trigger scattered so	area on the north side of
857794 GALVESTON CO. GALVESTON M. 9/18/2019 Flash Flood D. 0 \$ sidewalks. Ferry Road near UTMB became inundated and impassable due to floodwaters. Baytown near the Highlands. A 20 x 20 foot portion of the Moody Compress Warehouse collapsed due to accumulated The weight of rain on top of a section of a warehouse collapsed. B57870 GALVESTON CO. GALVESTON ######## Heavy Rain Discrimination of the food of the Moody Compress Warehouse collapsed due to accumulated The weight of rain on top of a section of a warehouse collapse. Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became impassable due to accumulated to the weight of rain on top of a section of a warehouse collapse. Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became impassable due to bay water run up during high tide. Coastal Flood Discrimination of the Moody Compress Warehouse collapsed due to accumulated to the weight of rain on top of a section of a warehouse collapsed. Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became impassable due to bay water run up during high tide. Coastal Flood Discrimination of the Moody Compress Warehouse collapsed due to accumulated to the weight of rain on top of a section of a warehouse collapsed. Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became impassable due to bay water run up during high tide. Coastal Flood Discrimination of the Moody Compress Warehouse collapsed due to accumulated to the weight of rain on top of a section of a warehouse collapsed due to accumulated to the weight of rain on top of a section of a warehouse collapsed due to accumulated to the weight of rain on the roof. Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became impassable due to bay water run up during high tide. Coastal Flood Discrimination of the Moody Compress Warehouse Coastal Flood Discrimination of the Moody Coastal Flood Discrimination of the Moody Coastal Flood Discrim	
A 20 x 20 foot portion of the Moody Compress Warehouse collapsed due to accumulated collapsed. A 20 x 20 foot portion of the Moody Compress Warehouse collapsed due to accumulated collapse. Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became impassible due to bay water run up during high tide. Coastal Flood Numerous roadways were flooded in western Dickinson and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony A 20 x 20 foot portion of the Moody Compress Warehouse collapsed due to accumulated by rain on top of a section of a wareho collapse. Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became impassible due to bay water run up during high tide. Coastal flooding occurred during high tide on Bol varied in western Dickinson and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony An upper low produced helped trigger scattered standards and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony	ouse roof caused it to
857870 GALVESTON CO. GALVESTON ####### Heavy Rain 0 0 0 \$0 \$0 \$0 rain on the roof. collapse. 857871 GALVESTON ISLAND ######### Coastal Flood ######### Coastal Flood ######### Coastal Flood Numerous roadways were flooded in western Dickinson and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony An upper low produced helped trigger scattered states and Bay Colony	
Frenchtown Road on extreme western Bolivar peninsula near the the ferry dock became ######### Coastal Flood ######### Coastal Flood ######### Coastal Flood ########## Coastal Flood Numerous roadways were flooded in western Dickinson and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony An upper low produced helped trigger scattered standards and produced helped trigger scattered standards.	
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Numerous roadways were flooded in western Dickinson and southern League City including, but not limited to, the Bayou Lakes, Brentwood Estates and Bay Colony An upper low produced helped trigger scattered so	ılivar peninsula.
000000 CALVECTON CO. FACULT CITY C CARDT. FMF (0000 Flood 1000 F	slow moving
886363 GALVESTON CO. LEAGUE CITY S S ARPT 5/15/2020 Flash Flood 0 0 \$0 neighborhoods. thunderstorms within an unstable warm and very	y moist air mass.
Severe thunderstorms developed and produce w	vind damage, hail and few
894420 GALVESTON CO. ALTA LOMA 5/27/2020 Funnel Cloud 0 0 \$0 \$0 A funnel cloud was sighted. tornadoes.	ļ
Severe thunderstorms developed and produce w	vind damage, hail and few
894429 GALVESTON CO. TEXAS CITY 5/27/2020 Thunderstorm Wind 56 0 0 0 \$11,000 \$0 There was some roof damage to a Texas City business. tornadoes.	ļ
Severe thunderstorms developed and produce w	vind damage, hail and few
894430 GALVESTON CO. TEXAS CITY 5/27/2020 Thunderstorm Wind 56 0 0 0 \$5,500 \$0 Large tree limbs and some fencing were blown down. tornadoes.	
Severe thunderstorms developed and produce w	vind damage, hail and few
894431 GALVESTON CO. (GLS)SCHOLES FLD GAL 5/27/2020 Thunderstorm Wind 61 0 0 50 \$0 The wind gust was measured at KGLS. tornadoes.	
A series of disturbances moving across the area	generated a funnel cloud
883406 GALVESTON CO. NADEAU HGTS 5/28/2020 Hail 0.7 0 0 \$10 \$0 Dime sized hail was observed in Texas City. and some hail.	
894373 GALVESTON CO. FLAKE 5/29/2020 Funnel Cloud was observed near the Bolivar Peninsula. A funnel cloud was observed over the Bolivar Peninsula. A funnel cloud was observed near the Bolivar Peninsula.	
Hurricane Laura made landfall along the southwo	
Period of storm surge flooding and high surf from 8/26 to 8/27 leading to flooding of low hurricane brought high surf, elevated tides and so	-
lying areas and roads. Beach erosion on Gulf side. Tide gauges measured tides 3 to 4 feet to tropical storm force along the SE Texas coast.	
above MHHW. Bolivar Peninsula and Galveston Island, including Jamaica Beach, with sustained winds to tropical storm force at land of	bservation sites and very
918161 GALVESTON ISLAND / 8/26/2020 Storm Surge/Tide 0 0 \$0 wiltiple roads closed. little rainfall.	
Hurricane Laura made landfall along the southw	
hurricane brought high surf, elevated tides and so	-
Period of storm surge flooding and high surf from 8/26 to 8/27 leading to flooding of low to tropical storm force along the SE Texas coast.	
lying areas and roads around parts of Kemah and other coastal communities. Beach sustained winds to tropical storm force at land of	bservation sites and very
918165 COASTAL GALVESTOI 8/26/2020 Storm Surge/Tide 0 0 \$0 \$0 erosion. Tide gauges measured tides 3 to 4 feet above MHHW. little rainfall.	
Sistera was ald white male went witness and was reported to incide between the 42 vd. The swimmers draw and when a witness of Cal	lugatan basabas ayar
Sixteen year old white male went swimming and was reported missing between the 43rd- Two swimmers drowned when swimming off Galveston ISLAND A 9/5/2020 Rip Current 1 0 \$0 \$0 \$47th Street rock groins along the Seawall in Galveston. Body was recovered next day. Labor Day weekend.	vestori beaches over
909473 GALVESTON ISLAND / 9/5/2020 Rip Current 1 0 \$0 \$0 \$47th Street rock groins along the Seawall in Galveston. Body was recovered next day. Labor Day weekend. Hispanic male drowned around 4 pm between the 43rd-47th Street rock groins along the	
Seawall in Galveston. He and his teenage daughter were swimming far from shore (she was Two swimmers drowned when swimming off Galveston).	lyastan haashas ayar
	vestori peacries over
909474 GALVESTON ISLAND / 9/6/2020 Rip Current 1 0 \$0 \$0 rescued by a surfer and lifeguard). Labor Day weekend.	
Tropical Storm Beta made landfall near Matagoro	da bay on September 21
Significant beach erosion occurred along the Bolivar Peninsula and Galveston Island. A As the system pushed slowly inland, portions of S	
fishing pier at 61st St. in Galveston was damaged. Numerous roads were flooded from high flash flooding from heavy rain bands, storm surge	•
storm tides. Some garages were inundated with water. Maximum water heights reached gusts. Storm surge was enhanced by long fetch o	-
3.77 ft above MHHW at the Galveston Fishing Pier and 3.56 above MHHW at the Galveston Gulf behind a cold front. 20 to 25 homes were da	
920223 GALVESTON ISLAND 9/21/2020 Storm Surge/Tide 0 80 80 Bay entrance.	
OZZZZZO OKRZZO OKROLINO W W WO DAY CHURING. I ALUING PORTUGINO CHER CHERK AND LOWER DIAYS DE	ayous.
Tropical Storm Beta made landfall near Matagoro	da bay on September 21.
As the system pushed slowly inland, portions of S	
Widespread coastal flooding occurred across coastal Galveston County. Flooding was flash flooding from heavy rain bands, storm surge	•
observed in San Leon, Bayou Vista, Clear Lake Shores, and Kemah Boardwalk gusts. Storm surge was enhanced by long fetch o	-
was flooded. Numerous instances of street flooding and road closures were reported. Gulf behind a cold front. 20 to 25 homes were da	
920224 COASTAL GALVESTO 9/21/2020 Storm Surge/Tide 0 0 \$0 \$ Heavy rain from the storm resulted in bayou and creek flooding, including Clear Creek. along portions of Clear Creek and Lower Brays Bayou and Creek flooding, including Clear Creek.	
40 Total Total Control	. ,
Delta made landfall along the southwest Louisia	ina coast but produced
Hurricane Delta produced a long duration of sustained tropical storm force winds across tropical storm force winds across parts of Southern	·
coastal areas. At Galveston Airport, GLS max sustained of 39 knots or 45 mph, max wind produced high surf and elevated tides leading to	
925570 GALVESTON ISLAND 10/8/2020 Tropical Storm 0 0 \$0 so gust 50 knots of 58 mph. flooding along Gulf facing beaches and around G	

				· · · · · · · · · · · · · · · · · · ·				
925613 GALVESTON ISLAND		10/9/2020	Coastal Flood		0	0 \$0	Prolonged period of high tides, coastal flooding and beach erosion from fringe effects of \$0 Hurricane Delta.	Delta made landfall along the southwest Louisiana coast but produced tropical storm force winds across parts of Southeast Texas. Delta also produced high surf and elevated tides leading to mainly minor coastal flooding along Gulf facing beaches and around Galveston Bay.
925567 COASTAL GALVESTO		10/9/2020	Tropical Storm		0	0 \$0	Hurricane Delta produced a long duration of sustained tropical storm force winds across coastal areas including around Galveston Bay. At the Texas City Levee, maximum \$0 sustained winds were 46 mph, maximum wind gust 57 mph.	Delta made landfall along the southwest Louisiana coast but produced tropical storm force winds across parts of Southeast Texas. Delta also produced high surf and elevated tides leading to mainly minor coastal flooding along Gulf facing beaches and around Galveston Bay.
			·				A man who struggled in the water near the 53rd Street rock groin Sunday evening died	
919903 GALVESTON ISLAND		########	Rip Current		1	0 \$0	\$0 between 7 pm and 8 pm.	Man drowns off Galveston beach due to rip current.
929080 GALVESTON CO.	DICKINSON	1/6/2021	Hail 1		0	0 \$0	Severe hail (1 in.) was observed by a member of the public as a squall line moved through \$0 Galveston County.	A squall line which formed along an advancing surface cold front produced strong wind gusts, severe hail, and an EF-1 Tornado in Texas City, TX which resulted in damage to homes and businesses.
929081 GALVESTON CO.	NADEAU HGTS	1/6/2021	Tornado	EF1	0	0 \$500,000	NWS conducted a storm survey of storm damage in the area around the intersection of 21st street and 13th avenue north, then along a path toward the ESE ending at Anchor Park. Damage suggested a tornado on the high end of EF1 rating for the most severe damage occurred at a convenience store and the adjacent Tradewinds Apartment complex. A clear relatively narrow path was seen in the severe damage. Although most debris was pushed toward the east dirt and insulation was found splattered on all sides of many structures including the east downwind side. Damage continued intermittently along an ESE path to Rainbow Park where numerous hardwood tree trunks and large limbs were snapped off and an iron fence was pushed over. In addition a business lost most of their roof around 6th street and 11th avenue. Most of the other damage along the path was EF0 tree damage \$0 through a residential area but little or no damage to structures.	A squall line which formed along an advancing surface cold front produced strong wind gusts, severe hail, and an EF-1 Tornado in Texas City, TX which resulted in damage to homes and businesses.
929079 GALVESTON CO.	КЕМАН	1/6/2021	Hail 1		0	0 \$0	Severe hail (1 in.) was observed by a member of the public as a squall line moved through \$0 Galveston County.	A squall line which formed along an advancing surface cold front produced strong wind gusts, severe hail, and an EF-1 Tornado in Texas City, TX which resulted in damage to homes and businesses.
945983 GALVESTON ISLAND		2/15/2021	Cold/Wind Chill		4	0 \$10,000,000	Very cold air and gusty winds overspread SE Texas behind an Arctic front with wind chill indices from near zero to single digits for much the period from Sunday night to Tuesday morning. Increased power demand, wind and ice led to widespread power outages. \$0 Bursting pipes caused many to be without water as well.	Record cold and windy conditions gripped Southeast Texas behind the passage of an Arctic front. The extreme cold and increased demand led to widespread power outages, loss of heat for many and led to the bursting of pipes with some losing water for many days. Numerous fatalities resulted both from hypothermia, carbon monoxide poisoning and other effects.
945979 COASTAL GALVESTO		2/15/2021	Cold/Wind Chill		0	0 \$0	Very cold air and gusty winds overspread SE Texas behind an Arctic front with wind chill indices from near zero to single digits for much the period from Sunday night to Tuesday morning. Increased power demand, wind and ice led to widespread power outages. \$0 Bursting pipes caused many to be without water as well.	Record cold and windy conditions gripped Southeast Texas behind the passage of an Arctic front. The extreme cold and increased demand led to widespread power outages, loss of heat for many and led to the bursting of pipes with some losing water for many days. Numerous fatalities resulted both from hypothermia, carbon monoxide poisoning and other effects.
945985 INLAND GALVESTON		2/15/2021	Cold/Wind Chill		5	0 \$2,000,000	Very cold air and gusty winds overspread SE Texas behind an Arctic front with wind chill indices from near zero to single digits for much the period from Sunday night to Tuesday morning. Increased power demand, wind and ice led to widespread power outages. \$0 Bursting pipes caused many to be without water as well.	Record cold and windy conditions gripped Southeast Texas behind the passage of an Arctic front. The extreme cold and increased demand led to widespread power outages, loss of heat for many and led to the bursting of pipes with some losing water for many days. Numerous fatalities resulted both from hypothermia, carbon monoxide poisoning and other effects. A man drowned after attempting to rescue others caught in a rip current at
944863 BOLIVAR PENINSULA		4/10/2021	Rip Current		1	0 \$0	\$0 A man drowned after attempting to rescue others caught in a rip current at Surfside Beach.	Surfside Beach.
944803 GALVESTON CO.	PATTON	4/23/2021	Thunderstorm Wind 50		0	0 \$0	Local emergency managers reported a travel trailer knocked over by strong thunderstorm \$0 wind gusts. A boy drowned after bring caught in a rip current in a no swimming area near 37th street in	Severe thunderstorms during the night of April 23 produced strong wind gusts, resulting in tree and power line, and minor structural damage. An eight year old boy died in a rip current in a no swimming area along
956687 GALVESTON ISLAND		5/2/2021	Rip Current		1	0 \$0	 \$0 Galveston.	Galveston Beach.
957389 GALVESTON ISLAND		5/11/2021	Rip Current		1	0 \$0	A 7-year-old male from St. Louis was swimming near the 37th Street Jetty and drowned in a \$0 rip current. The Galveston Beach Patrol was off duty at the time. Heavy rain resulted in high water over roadways, making streets impassable. At least 25	There was a rip current drowning near a jetty.
961193 GALVESTON CO.	BACLIFF	6/4/2021	Flash Flood		0	0 \$500,000	structures including many within the Bacliff Villas subdivision were inundated with \$0 floodwaters, resulting in water damage.	A series of thunderstorms produced heavy rainfall over Galveston County, resulting in flooding in the Bacliff area.
956680 BOLIVAR PENINSULA		6/26/2021	Rip Current		2	0 \$0	A 16 year old male drowned near Gilchrist Beach after being caught in a rip current. A 32 year old male drowned after entering the water and attempting a rescue.	There were two rip current fatalities on the Bolivar Peninsula.
961470 GALVESTON CO.	CRYSTAL BEACH	7/20/2021	Funnel Cloud		0	0 \$0	A funnel cloud was sighted along the Bolivar Peninsula near the Rancho Caribe \$0 neighborhood as a thunderstorm lingered offshore.	A funnel cloud was sighted along the Bolivar Peninsula.
964448 GALVESTON CO.	CAPLEN	8/2/2021	Tornado	EF0	0	0 \$0	\$0 A waterspout moved onshore. This EFO tornado lasted a short time and caused no damage.	A waterspout moved onshore along the Bolivar Peninsula.

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970459 GALVESTON CO.	LEAGUE CITY S S ARPT	8/29/2021	Lightning		0	0 \$250,000	Lightning strike initiated a fire which severely damaged a two story home. Family and pet were able to evacuate in time with no injuries.	During the early morning hours, lightning started a fire as a residence in League City that was severely damaged.
987152 GALVESTON ISLAND (9/13/2021	Tropical Storm		0	0 \$0	Hurricane Nicholas produced several hours of strong tropical storm force sustained wind and gusts. There were numerous power outages and minor to moderate damage to some structures and roofs. The storm also produced minor storm surge flooding.	Nicholas formed on September 12 in the Southwestern Gulf of Mexico, slowly advancing northeastward along the Middle Texas Coast. It eventually made landfall 10 miles west of Sargent just after midnight on September 14, with maximum sustained wind speeds of 75 mph. Heavy rain bands associated with Nicholas brought widespread rainfall totals of 6 to 10 inches to the Southeast Texas Coast, while strong wind gusts resulted in tree and structural damage as well as widespread power outages across the area. Additionally, Nicholas's surge resulted in flooding along the coast, particularly around Matagorda Bay.
			·					
987151 BOLIVAR PENINSULA		9/13/2021	Tropical Storm		0	0 \$0	Hurricane Nicholas produced tropical storm force sustained winds and gusts. The storm \$0 also produced minor storm surge flooding and beach erosion.	Nicholas formed on September 12 in the Southwestern Gulf of Mexico, slowly advancing northeastward along the Middle Texas Coast. It eventually made landfall 10 miles west of Sargent just after midnight on September 14, with maximum sustained wind speeds of 75 mph. Heavy rain bands associated with Nicholas brought widespread rainfall totals of 6 to 10 inches to the Southeast Texas Coast, while strong wind gusts resulted in tree and structural damage as well as widespread power outages across the area. Additionally, Nicholas's surge resulted in flooding along the coast, particularly around Matagorda Bay.
								Nicholas formed on September 12 in the Southwestern Gulf of Mexico,
987438 BOLIVAR PENINSULA		9/13/2021	Storm Surge/Tide		0	0 \$0	Coastal tide gauges measured and NWS storm survey confirmed generally 3 to 6 feet of surge above MHHW along the Gulf Coast and Galveston Bay, with closer to the lower end the range for Bolivar Peninsula.	slowly advancing northeastward along the Middle Texas Coast. It eventually made landfall 10 miles west of Sargent just after midnight on September 14, with maximum sustained wind speeds of 75 mph. Heavy rain bands associated with Nicholas brought widespread rainfall totals of 6 to 10 inches to the Southeast Texas Coast, while strong wind gusts resulted in tree and structural damage as well as widespread power outages across the area. Additionally, Nicholas's surge resulted in flooding along the coast, particularly around Matagorda Bay.
								Nicholas formed on September 12 in the Southwestern Gulf of Mexico,
987408 GALVESTON ISLAND (9/13/2021	Storm Surge/Tide		0	0 \$0	Coastal tide gauges measured and NWS storm survey confirmed generally 3 to 6 feet of surge above MHHW along the Gulf Coast and Galveston Bay. Storm survey found a few spots of higher surge with close to 8 feet above MHHW estimated at Sargent but this included the impacts of surf/wave action.	slowly advancing northeastward along the Middle Texas Coast. It eventually made landfall 10 miles west of Sargent just after midnight on September 14, with maximum sustained wind speeds of 75 mph. Heavy rain bands associated with Nicholas brought widespread rainfall totals of 6 to 10 inches to the Southeast Texas Coast, while strong wind gusts resulted in tree and structural damage as well as widespread power outages across the area. Additionally, Nicholas's surge resulted in flooding along the coast, particularly around Matagorda Bay.
							Funnel cloud was observed near Bayou Vista on a webcam. There were no reports of	Chaware and thundarstarms dayalaned along and ahood of a strong cold
983280 GALVESTON CO.	HIGHLAND BAYOU	########	Funnel Cloud		0	0 \$0	\$0 damage.	Showers and thunderstorms developed along and ahead of a strong cold front and produced funnel clouds, wind damage and a tornado.
1002652 GALVESTON CO.	ARCADIA	3/14/2022	Towards	EF0		0 \$15,000	A very brief EF-0 tornado occurred along West Half Moon Road in Santa Fe, just to the northwest of Santa Fe High School. A large oak tree was snapped, causing roof damage and destroying a well pump. The garage door in a single family home was blown out. A utility building had its metal siding destroyed. Several large pieces of heavy equipment \$0 sitting outdoors were picked up and moved by the tornado.	Showers and thunderstorms developed along and ahead of an evening cold front and produced a weak tornado and some hail.
	ANCADIA			EFO	0		Due to prolonged dry period, severe drought began over southern portions of Southeast	Due to prolonged dry period, severe drought began over parts of of
1023975 COASTAL GALVESTOR		4/5/2022	טרסught		0	0 \$0	\$0 Texas. Due to prolonged dry period, severe drought began over southern portions of Southeast	Southeast Texas in early April. Due to prolonged dry period, severe drought began over parts of of
1023978 INLAND GALVESTON		4/5/2022	Drought		0	0 \$0	\$0 Texas. Due to prolonged dry period, severe drought began over southern portions of Southeast	Southeast Texas in early April. Due to prolonged dry period, severe drought began over parts of of
1023977 GALVESTON ISLAND (4/5/2022	Drought		0	0 \$0	\$0 Texas.	Southeast Texas in early April.
1023976 BOLIVAR PENINSULA		4/5/2022	Drought		0	0 \$0	Due to prolonged dry period, severe drought began over southern portions of Southeast \$0 Texas.	Due to prolonged dry period, severe drought began over parts of of Southeast Texas in early April.
1015077 GALVESTON ISLAND (4/12/2022	High Wind 5	0		0 \$1,000	A power pole was downed along with several power lines. The gust was estimated from \$0 nearby KGLS ASOS observation at 939 AM CST.	Strong wind gusts produced some damage on Galveston Island.
1032236 GALVESTON ISLAND		5/1/2022		-	0	0 \$1,000	\$0 Severe Drought continued through the month of May.	Large ridge of high pressure kept it hot and mainly dry with very little rainfall. This led to an expansion of severe to extreme drought through the period.
1002200 OALVESTON ISLAND		0/1/2022	DI OUBIIL			φυ	40 Develo Drought continued though the month of Play.	Large ridge of high pressure kept it hot and mainly dry with very little
1032231 COASTAL GALVESTO		5/1/2022	Drought		0	0 \$0	\$0 Severe Drought continued through the month of May.	rainfall. This led to an expansion of severe to extreme drought through the period.
1032225 BOLIVAR PENINSULA		5/1/2022	Drought		0	0 \$0	\$0 Severe to Extreme Drought continued through the month of May.	Large ridge of high pressure kept it hot and mainly dry with very little rainfall. This led to an expansion of severe to extreme drought through the period.
TITLE DOLLAR ENGINEER	1				<u> </u>	Ψ γ γ	++	process.

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								Large ridge of high pressure kept it hot and mainly dry with very little
1000000 111 111 0 11 17 17		F /4 /0000				40	400 0 1 11 11 11 11 11	rainfall. This led to an expansion of severe to extreme drought through the
1032238 INLAND GALVESTON	CALVECTON	5/1/2022		50	0 0	\$0	\$0 Severe Drought continued through the month of May.	period.
1016423 GALVESTON CO.	GALVESTON	5/24/2022	Thunderstorm Wind	50	0 0	\$500	\$0 A palm tree was downed on Texas Clipper Road. A 64 mph wind gust was recorded at Scholes Field in Galveston at the KGLS ASOS site as a	A rapidly northward moving severe thunderstorm downed a tree. A series of strong thunderstorms resulted in tree damage during the early
1018800 GALVESTON CO.	(GLS)SCHOLES FLD GAL	5/25/2022	Thunderstorm Wind	56		\$0	\$0 strong thunderstorm moved through the area.	morning hours of May 25.
1010000 CALVESTON CO.	(OLS)SCHOLLSTED OAL	3/23/2022	. Intunderstorm wind	30		Ψ0	Severe to extreme drought continued and intensified for coastal counties of SE Texas	Severe to extreme drought continued and intensified for coastal counties
1042611 INLAND GALVESTON		6/1/2022	Drought			\$0	\$0 through the month of June.	of SE Texas through the month of June.
10-2011 112 1112 0/12 201011		0/1/2022	Drought		0 0	Ψ0	Severe to extreme drought continued and intensified for coastal counties of SE Texas	Severe to extreme drought continued and intensified for coastal counties
1042609 GALVESTON ISLAND		6/1/2022	2 Drought		0 0	\$0	\$0 through the month of June.	of SE Texas through the month of June.
							Severe to extreme drought continued and intensified for coastal counties of SE Texas	Severe to extreme drought continued and intensified for coastal counties
1042603 COASTAL GALVESTO	1	6/1/2022	2 Drought		0 0	\$0	\$0 through the month of June.	of SE Texas through the month of June.
							Severe to extreme drought continued and intensified for coastal counties of SE Texas	Severe to extreme drought continued and intensified for coastal counties
1042599 BOLIVAR PENINSULA		6/1/2022	Drought		0 0	\$0	\$0 through the month of June.	of SE Texas through the month of June.
1025031 GALVESTON CO.	LEAGUE CITY	6/27/2022	Lightning		0 0	\$25,000	\$0 A lightning strike caused significant damage to a home.	A lightning strike caused a house fire.
							Continued dry conditions led to continuing severe to extreme drought over portions of	Continued dry conditions led to continuing severe to extreme drought over
1048589 COASTAL GALVESTO		7/1/2022	Drought		0 0	\$0	\$0 Southeast Texas.	portions of Southeast Texas.
							Continued dry conditions led to continuing severe to extreme drought over portions of	Continued dry conditions led to continuing severe to extreme drought over
1048594 GALVESTON ISLAND		7/1/2022	Drought		0 0	\$0	\$0 Southeast Texas.	portions of Southeast Texas.
						.	Continued dry conditions led to continuing severe to extreme drought over portions of	Continued dry conditions led to continuing severe to extreme drought over
1048593 BOLIVAR PENINSULA		7/1/2022	Drought		0 0	\$0	\$0 Southeast Texas.	portions of Southeast Texas.
						4.0	Continued dry conditions led to continuing severe to extreme drought over portions of	Continued dry conditions led to continuing severe to extreme drought over
1048590 INLAND GALVESTON		7/1/2022	Drought		0 0	\$0	\$0 Southeast Texas.	portions of Southeast Texas.
405 4700 041 //50704 101 4415		0.44.40000	N.D			40		Severe to exceptional drought continued through early August, with some
1054790 GALVESTON ISLAND		8/1/2022	Drought		0 0	\$0	\$0 relief late in the month Severe to exceptional drought continued through most the month of August but with some	relief over all but western zones later in the month.
1054785 COASTAL GALVESTO		8/1/2022	Drought			\$0	\$0 relief late in the month	Severe to exceptional drought continued through early August, with some
1054785 COASTAL GALVESTO		8/1/2022	Drought		0 0	\$0	Severe to exceptional drought continued through most the month of August but with some	relief over all but western zones later in the month.
1054791 INLAND GALVESTON		8/1/2022	Drought			\$0	\$0 relief late in the month	Severe to exceptional drought continued through early August, with some relief over all but western zones later in the month.
1057927 GALVESTON CO.	(GLS)SCHOLES FLD GAL	i	Thunderstorm Wind	53	0 0	\$0	\$0 Wind gust was measured at the Galveston ASOS site (KGLS).	
1057927 GALVESTON CO.	(GLS)SCHOLES FLD GAL	########	Thunderstorm wind	55	0 0	\$0	willing gust was fileasured at the Galveston ASOS site (NGLS).	A thunderstorm wind gust was observed on Galveston Island. A cluster of strong thunderstorms developed across the area during the
								evening of December 29 and early morning hours of December 30. These
								storms produced heavy rain and gusty winds, notably resulting in flash
								flooding in portions of Galveston County. Additionally, a funnel cloud was
1072115 GALVESTON CO.	(GLS)SCHOLES FLD GAL		Funnel Cloud			\$0	\$0 A funnel cloud was reported near the intersection of 57th St and Seawall Blvd in Galveston.	sighted near Galveston Island.
1072113 GALVESTON CO.	(GLS/SCHOLES FLD GAL	*********	- Fullilet Gloud		0 0	φ0	40 A fullifier cloud was reported flear the intersection of 37 th 3t and 3eawait blvd in Galveston.	A cluster of strong thunderstorms developed across the area during the
								evening of December 29 and early morning hours of December 30. These
								storms produced heavy rain and gusty winds, notably resulting in flash
							Multiple vehicles were stranded by floodwaters in the vicinity of the Interstate 45 and TX	flooding in portions of Galveston County. Additionally, a funnel cloud was
1063802 GALVESTON CO.	TEXAS CITY GULF ARPT	 #########	Flash Flood			\$0	\$0 Highway 3 corridor.	sighted near Galveston Island.
1000002 CAEVEOTON CO.	TEXAS OF FOOL AND		i tusii i toou		0 0	Ψ0	φυ i ngiway σ comaon.	A cluster of strong thunderstorms developed across the area during the
								evening of December 29 and early morning hours of December 30. These
								storms produced heavy rain and gusty winds, notably resulting in flash
								flooding in portions of Galveston County. Additionally, a funnel cloud was
1063810 GALVESTON CO.	NADEAU HGTS	########	Flash Flood		0 0	\$0	\$0 Street flooding leading to impassable roadways was reported in Texas City.	sighted near Galveston Island.
							+	A cluster of strong thunderstorms developed across the area during the
								evening of December 29 and early morning hours of December 30. These
								storms produced heavy rain and gusty winds, notably resulting in flash
							Dickinson's Emergency Operations Center reported 5.25 inches of storm total rainfall,	flooding in portions of Galveston County. Additionally, a funnel cloud was
1063822 GALVESTON CO.	DICKINSON	#########	Flash Flood		0 0	\$0	\$0 resulting in widespread flooding on multiple streets throughout the city.	sighted near Galveston Island.
1079799 GALVESTON CO.	LEAGUE CITY S S ARPT	1/24/2023	Thunderstorm Wind	55	0 0	\$10,000	\$0 Spotty roof, tree and fence damage spotted around Friendswood.	Several tornadoes occurred across the area in the afternoon.
1079800 GALVESTON CO.	LEAGUE CITY S S ARPT		Thunderstorm Wind	55	0 0	\$10,000	\$0 Spotty roof, tree and fence damage spotted around Friendswood.	Several tornadoes occurred across the area in the afternoon.
								A series of severe thunderstorms produced large hail and strong, damaging
							A lightning strike ignited a fire in a church along FM 518 in League City, causing damage to	winds during the overnight hours of March 27 as a cold front drifted
1084289 GALVESTON CO.	LEAGUE CITY	3/28/2023	Lightning		0 0	\$25,000	\$0 the building.	southward toward the coastline.
								A line of strong thunderstorms ahead of an approaching cold front
							Quarter sized hail was observed on Galveston Island at the intersection of 20th and Market	produced hail and wind damage on the night of April 20 and early morning
1082231 GALVESTON CO.	GALVESTON	4/20/2023	Hail	1		\$0	\$0 Streets.	hours of April 21.
1091996 GALVESTON CO.	DICKINSON	5/16/2023	Lightning		0 0	\$250,000	\$0 An historic Dickinson home caught on fire and was destroyed after a lightning strike.	Afternoon through early evening thunderstorms produced some damage.
1091999 GALVESTON CO.	LEAGUE CITY	5/16/2023	Hail	0.75	0 0	\$0	\$0 There was penny sized hail.	Afternoon through early evening thunderstorms produced some damage.
1092000 GALVESTON CO.	LEAGUE CITY S S ARPT	5/16/2023	Thunderstorm Wind	50	0 0	\$0	\$0 A large tree limb was downed.	Afternoon through early evening thunderstorms produced some damage.
								Afternoon through evening severe thunderstorms produced numerous
								wind damage and hail reports. A lightning strike and some flash flooding
1093201 GALVESTON CO.	LEAGUE CITY S S ARPT	6/8/2023	Thunderstorm Wind	51	0 0	\$0	\$0 Trees were downed near Windsong Intermediate School.	occured too.
								Afternoon through evening severe thunderstorms produced numerous
								wind damage and hail reports. A lightning strike and some flash flooding
1093192 GALVESTON CO.	DICKINSON	6/8/2023	Hail	1	0 0	\$0	\$0 Quarter sized hail was reported along 40th Street East.	occured too.
		· ·						

							Afternoon through evening severe thunderstorms produced numerous
	l				4.5		wind damage and hail reports. A lightning strike and some flash flooding
1093193 GALVESTON CO.	LEAGUE CITY	6/8/2023	Hail 1	0 0	\$0	\$0 Quarter sized hail was reported near the FM 270 and FM 518 intersection.	occured too.
							Afternoon through evening severe thunderstorms produced numerous
1098689 GALVESTON CO.	TEXAS CITY	6/0/2022	Thunderstorm Wind 58		\$0	\$0 Wind gust occurred at the Brigantine Cay Court mesonet site.	wind damage and hail reports. A lightning strike and some flash flooding occured too.
1098089 GALVESTON CO.	TEXAS CITT	0/6/2023	Thunderstorm Wind 36		φυ	will gust occurred at the brigantine Cay Court mesonet site.	Afternoon through evening severe thunderstorms produced numerous
							wind damage and hail reports. A lightning strike and some flash flooding
1098688 GALVESTON CO.	(GLS)SCHOLES FLD GAL	6/8/2023	Thunderstorm Wind 53	0 0	\$0	\$0 Wind gust occurred at KGLS.	occured too.
							Evening storms moves across the area and produced numerous wind
1093327 GALVESTON CO.	PATTON	6/10/2023	Thunderstorm Wind 50	0 0	\$0	\$0 Wind gust occurred at the Crab Lake WeatherFlow site.	gusts, wind damage reports and hail.
							Evening storms moves across the area and produced numerous wind
1093328 GALVESTON CO.	PATTON	6/10/2023	Thunderstorm Wind 53	0 0	\$0	\$0 Wind gust occurred at the Crab Lake WeatherFlow site.	gusts, wind damage reports and hail.
							An extended period of excessive heat began. The first stretch reaching
							warning criteria was in mid-June with more to come. On other days were
4445050 1111 4115 0 411/50704	.]	0/40/0000			40	Period of extremely hot weather. Long period of at least advisory levels. In StormData	generally at advisory levels. Excessive Heat Warning issued for max heat
1115059 INLAND GALVESTON	N I	6/16/2023	Excessive Heat	0 0	\$0	\$0 periods of warning levels are recorded.	indices 113F or above. An extended period of excessive heat began. The first stretch reaching
							warning criteria was in mid-June with more to come. On other days were
						Period of extremely hot weather. Long period of at least advisory levels. In StormData	generally at advisory levels. Excessive Heat Warning issued for max heat
1115055 GALVESTON ISLAND		6/16/2023	Excessive Heat		\$0	\$0 periods of warning levels are recorded.	indices 113F or above.
1110000 07.12720101110271112		0,10,2020	2.0000ive vious		40	to bonoaco manning to roto are roto accurate	An extended period of excessive heat began. The first stretch reaching
							warning criteria was in mid-June with more to come. On other days were
						Period of extremely hot weather. Long period of at least advisory levels. In StormData	generally at advisory levels. Excessive Heat Warning issued for max heat
1115049 COASTAL GALVESTO	וס	6/16/2023	Excessive Heat	0 0	\$0	\$0 periods of warning levels are recorded.	indices 113F or above.
							An extended period of excessive heat began. The first stretch reaching
							warning criteria was in mid-June with more to come. On other days were
						Period of extremely hot weather. Long period of at least advisory levels. In StormData	generally at advisory levels. Excessive Heat Warning issued for max heat
1115044 BOLIVAR PENINSULA	A	6/16/2023	Excessive Heat	0 0	\$0	\$0 periods of warning levels are recorded.	indices 113F or above.
4445404 1111 4115 0411/50704	.]	0.05.0000	<u> </u>		40	Another stretch of warning level heat overspread the area with heat indices near 113	Another round of warning level heat overspread much of the area excluding
1115121 INLAND GALVESTON	N I	6/25/2023	Excessive Heat	0 0	\$0	\$0 degrees Fahrenheit.	the immediate coastal counties.
							Continued excessive heat occurred during most of July. The first stretch
							reaching warning criteria was on the 12th through the 14th, with most
							other days reaching Heat Advisory Levels. Excessive Heat Warnings are
						Period of extremely hot weather, within a long period of at least Heat Advisory conditions.	issued for maximum heat index values of 113F or above or maximum
1127175 INLAND GALVESTON	ı	7/12/2023	Excessive Heat	0 0	\$0	\$0 In StormData periods of conditions reaching Excessive Heat Warning levels are recorded.	temperatures of 105 or above.
							The extremely hot and humid summer continued with excessive heat
							warnings for most days between 8/5 and 8/26, and heat advisories for
						The extremely hot and humid summer continued with excessive heat warnings for most	many others. This episode includes the first of two stretches of warning
1136798 BOLIVAR PENINSULA	A	8/5/2023	Excessive Heat	0 0	\$0	\$0 days between 8/5 and 8/26, and heat advisories for many others.	level conditions.
							The extremely hot and humid summer continued with excessive heat
						The extremely hot and humid summer continued with excessive heat warnings for most	warnings for most days between 8/5 and 8/26, and heat advisories for many others. This episode includes the first of two stretches of warning
1136816 INLAND GALVESTON		0/5/2022	Excessive Heat		¢0	\$0 days between 8/5 and 8/26, and heat advisories for many others.	level conditions.
1130810 INLAND GALVESTON	N I	0/3/2023	Excessive Heat	0 0	φυ	go days between 6/3 and 6/20, and near advisories for many others.	The extremely hot and humid summer continued with excessive heat
							warnings for most days between 8/5 and 8/26, and heat advisories for
						The extremely hot and humid summer continued with excessive heat warnings for most	many others. This episode includes the first of two stretches of warning
1136812 GALVESTON ISLAND) (8/5/2023	Excessive Heat	0 0	\$0	\$0 days between 8/5 and 8/26, and heat advisories for many others.	level conditions.
							The extremely hot and humid summer continued with excessive heat
							warnings for most days between 8/5 and 8/26, and heat advisories for
						The extremely hot and humid summer continued with excessive heat warnings for most	many others. This episode includes the first of two stretches of warning
1136805 COASTAL GALVESTO	DI .	8/5/2023	Excessive Heat	0 0	\$0	\$0 days between 8/5 and 8/26, and heat advisories for many others.	level conditions.
						The outromoly hat and humid summer continued with avecasive heat warning of the section	The extremely hot and humid summer continued with excessive heat
						The extremely hot and humid summer continued with excessive heat warnings for most	warnings for most days between 8/5 and 8/26, and heat advisories for
1136835 BOLIVAR PENINSUL	٨	8/22/2022	Excessive Heat		\$0	days between 8/5 and 8/26, and heat advisories for many others. This episode includes the \$0 first of two stretches of warning level conditions, mainly between 8/23 and 8/26.	many others. This episode includes the second of two stretches of warning level conditions.
1100000 BOLIVAN PENINSUL		0/23/2023	LACCOSTIVE FIERL		φυ	40 mist of two suctones of walling level conditions, maility between 0/23 and 0/20.	The extremely hot and humid summer continued with excessive heat
						The extremely hot and humid summer continued with excessive heat warnings for most	warnings for most days between 8/5 and 8/26, and heat advisories for
						days between 8/5 and 8/26, and heat advisories for many others. This episode includes the	many others. This episode includes the second of two stretches of warning
1136852 INLAND GALVESTON	1	8/23/2023	Excessive Heat	0 0	\$0	\$0 first of two stretches of warning level conditions, mainly between 8/23 and 8/26.	level conditions.
						, , , , , , , , , , , , , , , , , , , ,	The extremely hot and humid summer continued with excessive heat
						The extremely hot and humid summer continued with excessive heat warnings for most	warnings for most days between 8/5 and 8/26, and heat advisories for
						days between 8/5 and 8/26, and heat advisories for many others. This episode includes the	many others. This episode includes the second of two stretches of warning
1136848 GALVESTON ISLAND) (8/23/2023	Excessive Heat	0 0	\$0	\$0 first of two stretches of warning level conditions, mainly between 8/23 and 8/26.	level conditions.
							The extremely hot and humid summer continued with excessive heat
						The extremely hot and humid summer continued with excessive heat warnings for most	warnings for most days between 8/5 and 8/26, and heat advisories for
4400044 004074 04117777	,]	0.000.0000	Formation Units			days between 8/5 and 8/26, and heat advisories for many others. This episode includes the	many others. This episode includes the second of two stretches of warning
1136841 COASTAL GALVESTO	וע	8/23/2023	Excessive Heat	0 0	\$0	\$0 first of two stretches of warning level conditions, mainly between 8/23 and 8/26.	level conditions.

	<u> </u>	ı		1	1			In	
444074 001 040 050 0010		0.44.0000	_					The county was in Extreme (D3) to Exceptional (D4) Drought for entire month of September	, , , , , ,
1141971 BOLIVAR PENINSULA		9/1/2023	Drought		0	0 \$0	\$0	due a long duration lack of rainfall and a very hot, dry period. The county was in Extreme (D3) to Exceptional (D4) Drought for entire month of September	entire month of September.
1141984 GALVESTON ISLAND		9/1/2023	Drought			0 \$0	90	due a long duration lack of rainfall and a very hot, dry period.	entire month of September.
1141984 GALVESTON ISLAND		9/1/2023	Diougiit			0 \$0	φ0	The county was in Extreme (D3) to Exceptional (D4) Drought for entire month of September	
1141978 COASTAL GALVESTO		9/1/2023	Drought		0	0 \$0	\$0	due a long duration lack of rainfall and a very hot, dry period.	entire month of September.
			1					The county was in Extreme (D3) to Exceptional (D4) Drought for entire month of September	·
1141989 INLAND GALVESTON		9/1/2023	Drought		0	0 \$0	\$0	due a long duration lack of rainfall and a very hot, dry period.	entire month of September.
									A heat wave gripped much of Southeast Texas in early September with
								A heat wave gripped much of Southeast Texas in early September with at least advisory	advisory level conditions experienced for several days between September
1142028 COASTAL GALVESTO		9/5/2023	Heat		0	0 \$0	\$0	level conditions experienced for several days between September 5th and September 9th.	5th and September 9th.
									A heat wave gripped much of Southeast Texas in early September with
								A heat wave gripped much of Southeast Texas in early September with at least advisory	advisory level conditions experienced for several days between September
1142034 GALVESTON ISLAND		9/5/2023	Heat		0	0 \$0	\$0	level conditions experienced for several days between September 5th and September 9th.	5th and September 9th.
								A heat ways gripped much of Couthocat Tayon in early Contembox with at least advisory	A heat wave gripped much of Southeast Texas in early September with
1142021 BOLIVAR PENINSULA		9/5/2023	Hoat			0 \$0		A heat wave gripped much of Southeast Texas in early September with at least advisory level conditions experienced for several days between September 5th and September 9th.	advisory level conditions experienced for several days between September 5th and September 9th.
1142021 BOLIVAN FEININGOLA		9/3/2023	lieat		0	0 \$0	φ0	lever conditions experienced for several days between September 3th and September 3th.	A heat wave gripped much of Southeast Texas in early September with
								A heat wave gripped much of Southeast Texas in early September with at least advisory	advisory level conditions experienced for several days between September
1142038 INLAND GALVESTON		9/5/2023	Heat		0	0 \$0		level conditions experienced for several days between September 5th and September 9th.	5th and September 9th.
11 12000 1112 1112 0112 1131		0/0/2020	- rout				Ψ.	Heavy rain from ongoing thunderstorms resulted in street flooding along NASA Boulevard in	,
1127156 GALVESTON CO.	LEAGUE CITY	9/15/2023	Flash Flood		0	0 \$0	\$0	Webster.	some localized flash flooding and isolated wind damage.
									Late afternoon through early evening severe thunderstorms produced
1122729 GALVESTON CO.	LEAGUE CTY SPCLND AR	9/15/2023	Thunderstorm Wind 52		0	0 \$1,000	\$0	A large tree was knocked down onto a road and a parked car.	some localized flash flooding and isolated wind damage.
								Street flooding was reported along Broadway on the East End of Galveston Island, with	Late afternoon through early evening severe thunderstorms produced
1127152 GALVESTON CO.	GALVESTON	9/15/2023	Flash Flood		0	0 \$0	\$0	several cars stalled due to floodwaters.	some localized flash flooding and isolated wind damage.
									To start the month of October most of the region was in Extreme or D3
								To start the month of October most of the region was in Extreme or D3 drought with other	drought with other locations in Severe or D2. By the end of the month
1145305 BOLIVAR PENINSULA		10/1/2023	Drought		0	0 \$0	\$0	locations in Severe or D2. By the end of the month drought was mostly in the D2 range.	drought was mostly in the D1 to D2 range.
								To start the month of Ostahav most of the varion was in Futrame av D2 dvs.ught with ather	To start the month of October most of the region was in Extreme or D3
1145311 COASTAL GALVESTO		10/1/2022	Drought			0 \$0		To start the month of October most of the region was in Extreme or D3 drought with other locations in Severe or D2. By the end of the month drought was mostly in the D2 range.	drought with other locations in Severe or D2. By the end of the month
1145511 COASTAL GALVESTO		10/1/2023	Diougiit		0	0 \$0	φ0	tocations in Severe of Dz. By the end of the month drought was mostly in the Dz fange.	drought was mostly in the D1 to D2 range. To start the month of October most of the region was in Extreme or D3
								To start the month of October most of the region was in Extreme or D3 drought with other	drought with other locations in Severe or D2. By the end of the month
1145321 INLAND GALVESTON		10/1/2023	Drought		0	0 \$0	\$0	locations in Severe or D2. By the end of the month drought was mostly in the D2 range.	drought was mostly in the D1 to D2 range.
							+-		To start the month of October most of the region was in Extreme or D3
								To start the month of October most of the region was in Extreme or D3 drought with other	drought with other locations in Severe or D2. By the end of the month
1145317 GALVESTON ISLAND		10/1/2023	Drought		0	0 \$0	\$0	locations in Severe or D2. By the end of the month drought was mostly in the D2 range.	drought was mostly in the D1 to D2 range.
									Numerous thunderstorms produced areas of 3 to locally 6 inches of
1143215 GALVESTON CO.	GALVESTON	########	Flash Flood		0	0 \$5,000	\$0	Roadways flooded between 45th and 39th street. Few high water rescues.	rainleading to localized flooding.
									A series of disturbances moved across the area resulting in numerous
									flash flood events that resulted in the flooding of many homes, extensive
1149122 GALVESTON CO.	DICKINSON	1/24/2024	Lightning		0	0 \$25,000	\$0	There was a home fire in the St. Edmunds neighborhood off of FM 646.	high water rescues, and a flood-related fatality.
1156948 GALVESTON CO.	GILCHRIST	2/17/2024	Hail 1.25			0	, bo	A social media user documented widespread hail in Gilchrist. The maximum hail diameter observed was 1.25 inches.	Several rounds of severe thunderstorms produced numerous reports of
1156948 GALVESTON CO.	GILCHRIST	3/17/2024	Hait 1.25		0	50	\$0	Numerous power lines were downed, poles were snapped, trees were downed and there	large hail and wind damage.
								was damage to structures in and around the Dickinson area intersection of Hill Avenue and	Late night through early morning severe thunderstorms moved eastward
1163663 GALVESTON CO.	DICKINSON	4/10/2024	Thunderstorm Wind 60		0	0 \$10,000	\$0	Salvato Street.	across the area and produced hail, strong winds and some tornadoes.
1100000 07.127.207.077.007	21011110011		- Indiadolese III VIII de Go			410,000	40		actions and and produced half, extend times and come terms access
									Late night through early morning severe thunderstorms moved eastward
1163651 GALVESTON CO.	DICKINSON	4/10/2024	Thunderstorm Wind 56		0	0 \$-	\$0	The wind gust occurred at a weather station.	across the area and produced hail, strong winds and some tornadoes.
									Late night through early morning severe thunderstorms moved eastward
1163662 GALVESTON CO.	LEAGUE CITY	4/10/2024	Thunderstorm Wind 51		0	0 \$0	\$0	Trees were downed in the League City area just north of FM 518 near Clear Creek.	across the area and produced hail, strong winds and some tornadoes.
									Late night through early morning severe thunderstorms moved eastward
1177199 GALVESTON CO.	DICKINSON	4/10/2024	Thunderstorm Wind 72		0	0 \$-	\$0	Measured gust from anemometer on radio tower at Dickinson PD. 25 to 30 feet AGL.	across the area and produced hail, strong winds and some tornadoes.
								Multiple types were downed clong FM 517 in the eyes executed Diskingen Lligh Coheal, Ciding	Late wight through early marking access the melevatorms may ad a actuard
1163650 CALVESTON CO	DICKINGON	4/10/2024	Thunderstorm Wind 65			\$100,000	40	Multiple trees were downed along FM 517 in the area around Dickinson High School. Siding	
1163659 GALVESTON CO.	DICKINSON	4/10/2024	Thunderstorm Wind 65		U	0 \$100,000	\$0	was also ripped of a nearby apartment building.	across the area and produced hail, strong winds and some tornadoes.
									Late night through early morning severe thunderstorms moved eastward
1163664 GALVESTON CO.	SAN LEON	4/10/2024	Thunderstorm Wind 65		0	0 \$10,000	\$0	There was some wind damage across parts of San Leon and Bacliff.	across the area and produced hail, strong winds and some tornadoes.
220000.		20, 2024			 	Ψ10,000	ψ0	The Interstate 45 feeder road was nearly impassable due to floodwaters in the La Marque	Evening through overnight storms produced a lot of flash flooding, a couple
1177181 GALVESTON CO.	HITCHCOCK VOLK ARPT	4/29/2024	Flash Flood		0	0 \$0	\$0	area.	tornadoes, some winds damage and some hail.
								A 26 year old male from Leesville, LA drowned in a rip current near 24th Street. In addition,	
								lifeguards rescued at least a dozen other people throughout the day that were rip	
1170606 GALVESTON ISLAND		5/25/2024	Rip Current		1	0 \$0	\$0	current/surf related.	There was a rip current fatality.
									Another round of severe thunderstorms moved across the area resulting in
1170653 GALVESTON CO.	LEAGUE CITY	5/28/2024	Thunderstorm Wind 52		0	0 \$0	\$0	Shingles were blown off and one-inch tree limbs were broken.	numerous reports of wind damage.

								Another round of severe thunderstorms moved across the area resulting
170644 GALVESTON	N CO.	(GLS)SCHOLES FLD GAL	5/28/2024 Thunderstorm Wind	54	0	0 \$0	\$0 Wind gust occurred at KGLS.	numerous reports of wind damage.
								Early morning severe thunderstorms produced damaging winds and large
170588 GALVESTON	N CO.	DICKINSON	5/31/2024 Hail	2	0	0 \$0	\$0 Hen egg size hail was observed.	hail.
							Quarter sized hail was observed at the intersection of FM 646 and FM 517. Report came	Early morning severe thunderstorms produced damaging winds and large
170589 GALVESTON	N CO.	DICKINSON	5/31/2024 Hail	1	0	0 \$0	\$0 from a Spaceflight Meteorology Group (SMG) meteorologist.	hail.
								Early morning severe thunderstorms produced damaging winds and large
170591 GALVESTON	N CO.	LEAGUE CITY	5/31/2024 Hail	1.75	0	0 \$0	\$0 Golf ball sized hail was observed in the League City area.	hail.
								Early morning severe thunderstorms produced damaging winds and larg
170592 GALVESTON	N CO.	LEAGUE CITY S S ARPT	5/31/2024 Hail	2	0	0 \$0	\$0 Half dollar to hen egg sized hail was observed.	hail.
								Early morning severe thunderstorms produced damaging winds and lar
70594 GALVESTON	N CO.	DICKINSON	5/31/2024 Hail	2.75	0	0 \$0	\$0 Hail up to baseball sized was collected around the WFO HGX office.	hail.
71027 GALVESTON	N CO.	(GLS)SCHOLES FLD GAL	6/5/2024 Thunderstorm Wind	55	0	0 \$0	\$0 Wind gust occurred at the Avenue N Tempest Weather System site.	Gusty winds accompanied southward moving showers and thunderstor
71028 GALVESTON	N CO.	(GLS)SCHOLES FLD GAL	6/5/2024 Thunderstorm Wind	51	0	0 \$0	\$0 Wind gust occurred at the Avenue N Tempest Weather System site.	Gusty winds accompanied southward moving showers and thunderstor
								A Potential Tropical Cyclone became Tropical Storm Alberto as it move
								generally westward across the southern Gulf of Mexico and made landf
							Widespread coastal flooding was reported along the Bolivar Peninsula, in particular across	in the Tampico area. Coastal flooding occurred along the upper Texas
94692 BOLIVAR PE	ENINSULA		6/19/2024 Coastal Flood		0	0 \$0	\$0 portions of Highway 87 which at times became impassable.	coast.
								A Potential Tropical Cyclone became Tropical Storm Alberto as it move
								generally westward across the southern Gulf of Mexico and made land
							Coastal flooding was reported along Dickinson Bayou, resulting in several roads becoming	in the Tampico area. Coastal flooding occurred along the upper Texas
94706 INLAND GAL	ALVESTON		6/19/2024 Coastal Flood		0	0 \$0	\$0 flooded.	coast.
								A Potential Tropical Cyclone became Tropical Storm Alberto as it move
								generally westward across the southern Gulf of Mexico and made land
								in the Tampico area. Coastal flooding occurred along the upper Texas
94709 COASTAL GA	GALVESTO		6/19/2024 Coastal Flood		0	0 \$0	\$0 Widespread coastal flooding was reported around the city of Clear Lake Shores.	coast.
								A Potential Tropical Cyclone became Tropical Storm Alberto as it move
								generally westward across the southern Gulf of Mexico and made lands
								in the Tampico area. Coastal flooding occurred along the upper Texas
204419 COASTAL GA	GALVESTO		6/21/2024 Rip Current		1	0 \$0	\$0 A 17-year-old from Louisiana drowned on west side of Tower 25 according to Beach Patrol	coast.
								Hurricane Beryl made landfall during the early morning hours of July 8th
								near the city of Matagorda with a minimum central pressure of 978.8 ml
								Maximum sustained winds were measured at 65 knots (74 mph) with g
								up to at least 84 knots (97 mph). On average, Beryl produced 4-8 inche
								rainfall, with the highest amounts ranging from 10-15 inches. There wa
								one confirmed EF-1 tornado on Galveston island near Jamaica Beach
								during the early morning hours of July 8. The storm also produced surge
								flooding generally between 4 to 6 feet AGL, with a maximum of 8 feet
								measured by survey crews. There have been 22 total fatalities attribute
							A waterspout associated with an outer rain band of Hurricane Beryl moved onshore near	Beryl, including 4 people killed by falling trees, 3 drownings, 1 death du
							Jamaica Beach in the early morning hours. The tornado remained on the ground for just	power loss in a medical device, 2 accidental deaths during debris clear
94766 GALVESTON	NCO	SAN LUIS PASS	7/8/2024 Tornado	EF1	0	0 \$0	\$0 over a mile, resulting in damage power poles as well as significant damage to a home.	and 11 heat-related deaths due to power loss in the wake of the storm.
4700 OALVESTON	1100.	DAN LOID I ADD	77672024 Torriduo	LI I		Ψ0	φυ over a fille, resulting in damage power potes as well as significant damage to a nome.	and 11 heat-related deaths due to power toss in the wake of the storm.
								Hurricane Beryl made landfall during the early morning hours of July 8tl
								near the city of Matagorda with a minimum central pressure of 978.8 m
								Maximum sustained winds were measured at 65 knots (74 mph) with g
								up to at least 84 knots (97 mph). On average, Beryl produced 4-8 inche
								rainfall, with the highest amounts ranging from 10-15 inches. There wa
								one confirmed EF-1 tornado on Galveston island near Jamaica Beach
								during the early morning hours of July 8. The storm also produced surge
								flooding generally between 4 to 6 feet AGL, with a maximum of 8 feet
								measured by survey crews. There have been 22 total fatalities attribute
							Hurricane Beryl produced sustained tropical storm force winds across coastal Galveston	Beryl, including 4 people killed by falling trees, 3 drownings, 1 death du
							County. Wind gusts in excess of 60 mph were observed in Texas City and at the Texas	power loss in a medical device, 2 accidental deaths during debris clean
183964 COASTAL GA			7/8/2024 Tropical Storm			0 \$0	\$0 Corinthian Yacht Club in Kemah.	and 11 heat-related deaths due to power loss in the wake of the storm.

					Libraria and Damid and deal landfall during data and an arrival and a surface for the control of
					Hurricane Beryl made landfall during the early morning hours of July 8th
					near the city of Matagorda with a minimum central pressure of 978.8 mb.
					Maximum sustained winds were measured at 65 knots (74 mph) with gusts
					up to at least 84 knots (97 mph). On average, Beryl produced 4-8 inches on
					rainfall, with the highest amounts ranging from 10-15 inches. There was
					one confirmed EF-1 tornado on Galveston island near Jamaica Beach
					during the early morning hours of July 8. The storm also produced surge
				Hurricane Beryl produced several hurricane force gusts in addition to sustained tropical	flooding generally between 4 to 6 feet AGL, with a maximum of 8 feet
				storm force winds across Galveston Island. The strongest observed gusts occurred to the	measured by survey crews. There have been 22 total fatalities attributed to
				east of Surfside Beach (85 mph) and Scholes Field (73 mph). Widespread damage to	Beryl, including 4 people killed by falling trees, 3 drownings, 1 death due to
				power lines, homes, hotels, trees, and businesses was observed across the island.	power loss in a medical device, 2 accidental deaths during debris cleanup,
1183956 GALVESTON ISLAND	7/8/2024 Tropical Storm	0	0 \$16,000,00	0 \$0 Damage estimates from County DSO.	and 11 heat-related deaths due to power loss in the wake of the storm.
					Hurricane Beryl made landfall during the early morning hours of July 8th
					near the city of Matagorda with a minimum central pressure of 978.8 mb.
					Maximum sustained winds were measured at 65 knots (74 mph) with gusts
					up to at least 84 knots (97 mph). On average, Beryl produced 4-8 inches on
					rainfall, with the highest amounts ranging from 10-15 inches. There was
					one confirmed EF-1 tornado on Galveston island near Jamaica Beach
					during the early morning hours of July 8. The storm also produced surge
					flooding generally between 4 to 6 feet AGL, with a maximum of 8 feet
					measured by survey crews. There have been 22 total fatalities attributed to
					Beryl, including 4 people killed by falling trees, 3 drownings, 1 death due to
					power loss in a medical device, 2 accidental deaths during debris cleanup,
1183997 BOLIVAR PENINSULA	7/8/2024 Tropical Storm	0	0 9	\$0 Hurricane Beryl produced tropical storm force winds along the Bolivar Peninsula.	and 11 heat-related deaths due to power loss in the wake of the storm.
	1,000				
					Hurricane Beryl made landfall during the early morning hours of July 8th
					near the city of Matagorda with a minimum central pressure of 978.8 mb.
					Maximum sustained winds were measured at 65 knots (74 mph) with gusts
					up to at least 84 knots (97 mph). On average, Beryl produced 4-8 inches on
					rainfall, with the highest amounts ranging from 10-15 inches. There was
					one confirmed EF-1 tornado on Galveston island near Jamaica Beach
					during the early morning hours of July 8. The storm also produced surge
					flooding generally between 4 to 6 feet AGL, with a maximum of 8 feet
				Hurricane Beryl produced tropical storm force winds across inland Galveston County.	measured by survey crews. There have been 22 total fatalities attributed to
				Nearby wind gust observations in bordering counties indicated gusts in excess of 60 mph.	Beryl, including 4 people killed by falling trees, 3 drownings, 1 death due to
				Widespread damage to power lines, homes, trees, and businesses was observed across	power loss in a medical device, 2 accidental deaths during debris cleanup,
1183971 INLAND GALVESTON	7/8/2024 Tropical Storm	0	0		and 11 heat-related deaths due to power loss in the wake of the storm.
					Hurricane Beryl made landfall during the early morning hours of July 8th
					near the city of Matagorda with a minimum central pressure of 978.8 mb.
					Maximum sustained winds were measured at 65 knots (74 mph) with gusts
					up to at least 84 knots (97 mph). On average, Beryl produced 4-8 inches on
					rainfall, with the highest amounts ranging from 10-15 inches. There was
					one confirmed EF-1 tornado on Galveston island near Jamaica Beach
					during the early morning hours of July 8. The storm also produced surge
					flooding generally between 4 to 6 feet AGL, with a maximum of 8 feet
					measured by survey crews. There have been 22 total fatalities attributed to
					Beryl, including 4 people killed by falling trees, 3 drownings, 1 death due to
					power loss in a medical device, 2 accidental deaths during debris cleanup,
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Broadway. Cameras in the area indicated possible inundation in businesses along 184227 GALVESTON CO. GALVESTON T/20/2024 Flash Flood 1205403 GALVESTON CO. DICKINSON 1205406 GALVESTON CO. NADEAU HGTS 1205406 GALVESTON CO. MADEAU HGTS 1205406 GALVESTON CO. (GLS)SCHOLES FLD GAL 1206408 GALVESTON CO. (GLS)SCHOLES FLD GAL 1206					
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Dickinson Emergency manager reported flooding near I-45 and FM-517, with nearby flash flooding occurred on July 26th across portions of Harris and galveston counties. Texas City Emergency manager reported numerous water rescues, including 2 to 3 rescues flash flooding occurred on July 26th across portions of Harris and galveston counties. Texas City Emergency manager reported numerous water rescues, including 2 to 3 rescues flash flooding occurred on July 26th across portions of Harris and galveston counties. Significant street flooding occurred on Stewart Rd between 81st and 75th street. Additional flash flooding occurred on Galveston lstand. 120363 GALVESTON CO. (GLS)SCHOLES FLD GAL 9/2/224 Flash Flood 0 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	1104007 CALVESTON CO	7/20/2024 Floor Floor	٦	0 440.000	
1205403 GALVESTON CO. DICKINSON 7/26/2024 Flash Flood DICKINSON DICKINSON Flash Flood DICKINSON Flash Flood DICKINSON DICKINSON Flash Flood DICKINSON Flash Flood DICKINSON	110422/ GALVESTON CO. GALVESTON	//20/2024 Flash Flood	0	\$10,000	
Texas City Emergency manager reported numerous water rescues, including 2 to 3 rescues Flash flooding occurred on July 26th across portions of Harris and from flooded homes. Significant street flooding occurred on Stewart Rd between 81st and 75th street. Additional street flooding occurred on Galveston Island. Significant street flooding occurred on Galveston Island. Significant street flooding occurred on Galveston Island. Some coastal flooding occurred from Hurricane Francine.	120E402 CALVESTON CO DICKINGON	7/26/2024 Floor Floor	٦		
1205406 GALVESTON CO. NADEAU HGTS 7/26/2024 Flash Flood 0 0 \$20,000 \$0 from flooded homes. Galveston counties. Galveston counties. Significant street flooding occurred on Stewart Rd between 81st and 75th street. Additional Significant street flooding occurred on Stewart Rd between 81st and 75th street. Additional Flash Flood 1201435 Some coastal flooding occurred on Galveston Island. 1201435 COASTAL GALVESTON Co. GLS)SCHOLES FLD GAL 9/2/2024 Flash Flood 0 0 \$0 \$0 \$0 \$0 \$0 \$0	1205403 GALVESTON CO. DICKINSON	//20/2024 Flash Flood	0	\$0	
Significant street flooding occurred on Stewart Rd between 81st and 75th street. Additional street flooding occurred on Stewart Rd between 81st and 75th street. Additional street flooding occurred on Galveston Island. 1201435 COASTAL GALVESTOI 9/11/2024 Coastal Flood 0 0 \$0 \$0 Bay Harbor area of Galveston had 16 to 18 inches of coastal flooding. Significant street flooding occurred on Stewart Rd between 81st and 75th street. Additional street flooding occurred on Galveston Island. Flash flooding occurred on Galveston Island. Some coastal flooding occurred from Hurricane Francine.	1205 40C CALVESTON CO. NADEAULIOTO	7/00/0004 Floob Flood		0 200	
1200863 GALVESTON CO. (GLS)SCHOLES FLD GAL 9/2/2024 Flash Flood 0 0 \$0 \$treet flooding occurred near Moody Gardens and along Broadway. Flash flooding occurred on Galveston Island. 1201435 COASTAL GALVESTOI 9/11/2024 Coastal Flood 0 0 \$0 \$0 Bay Harbor area of Galveston had 16 to 18 inches of coastal flooding. Some coastal flooding occurred from Hurricane Francine.	1205406 GALVESTON CO. NADEAU HGTS	//26/2024 Flash Flood	0	\$20,000	
1201435 COASTAL GALVESTOI 9/11/2024 Coastal Flood 0 0 \$0 \$0 Bay Harbor area of Galveston had 16 to 18 inches of coastal flooding. Some coastal flooding occurred from Hurricane Francine.	4000000 04175010100	0/0/0004/511-5			
	1, 7		0		
12/01/43/ BOLIVAK PENINSULA 9/11/20/24 Coastal flooding occurred from Hurricane Francine.			0		
	1201437 BULIVAN PENINSULA	9/11/2024 Coastal Flood	U	٥١ \$0	To polywater was running over righway 87 and was bringing debris onto the roadway.

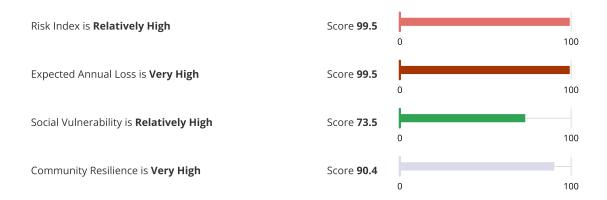
										The first report of a tornado in the Dickinson area came from an emergency manager, who
										relayed that multiple homes were damaged in and around the area. The survey team
										found that an EF1 tornado touched down near Hughes road between I-45 and HWY 3 and
										moved northeast across FM 517 and HWY 146, and then moved into Galveston bay near
										Bayshore park. Most of the damage was rated EF0 with wind speeds of 60-80 mph.
										However, a few homes received EF1 damage peaking at 90 mph east of Dickinson High Multiple tornadic storms occurred during the afternoon on the 28th,
1224048	GALVESTON CO.	DICKINSON	########	Tornado		EF1	0	0	\$0	\$0 Schoot. producing hail, wind and tornadoes.
										A member of the public measured a wind gust around 66 MPH near the intersection of 40th
										Street and Texas Avenue, associated with a thunderstorm that produced a tornado in Multiple tornadic storms occurred during the afternoon on the 28th,
1229120	GALVESTON CO.	DICKINSON	########	Thunderstorm Wind	57	,	0	0	\$0	\$0 Galveston county. producing hail, wind and tornadoes.
										Texas Department of Transportation reported water on Texas highway 87 where it meets
1230373	COASTAL GALVESTO	or	1/9/2025	Coastal Flood			0	0	\$0	\$0 State highway 124. Coastal flooding occurred on the Bolivar Peninsula on January 9th.
										Winter precipitation began on the evening on the 20th as a NWS employee reported light
										sleet falling at the NWS Houston-Galveston Office in Dickinson. Precipitation rates
										increased overnight, becoming predominantly snow during the early morning hours of the
										21st, then diminished during the late morning. One NWS employee measured 0.1875
										inches of an ice and sleet mixture accumulated on their personal snow table early in the
										morning. Later reports from the public, CoCoRaHS station TX-GV-76, a HAM radio
										operator, a trained storm spotter and multiple NWS employees showed 1.75-3.2 inches of A major winter storm impacted southern United States across the Gulf
										snowfall across the area. The highest amounts were measured around Dickinson and coast, producing what would go on to be historic levels of snowfall in some
1231472	COASTAL GALVESTO	or	1/20/2025	Winter Storm			0	0	\$0	\$0 League City. areas over Southeast Texas.



June 18, 2025

Galveston County, Texas

Summary



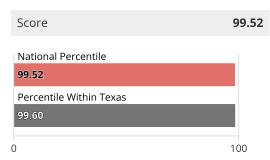
While reviewing this report, keep in mind that low risk is driven by lower loss due to natural hazards, lower social vulnerability, and higher community resilience.

For more information about the National Risk Index, its data, and how to interpret the information it provides, please review the **About the National Risk Index** and **How to Take Action** sections at the end of this report. Or, visit the National Risk Index website at hazards.fema.gov/nri/learn-more to access supporting documentation and links.

Risk Index

The Risk Index rating is Relatively High for Galveston County, TX when compared to the rest of the U.S.





100% of U.S. counties have a lower Risk Index100% of counties in Texas have a lower Risk Index

Risk Index Legend
Very High Relatively High Relatively Moderate Relatively Low Very Low
No Rating Not Applicable Insufficient Data

Hazard Type Risk Index

Hazard type Risk Index scores are calculated using data for only a single hazard type, and reflect a community's Expected Annual Loss value, community risk factors, and the adjustment factor used to calculate the risk value.

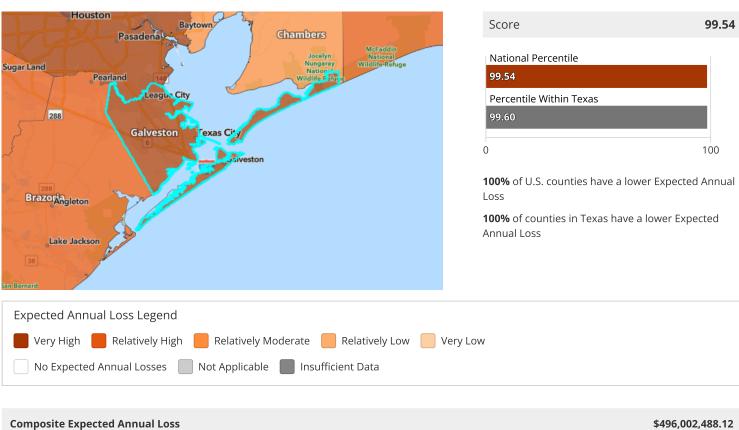
Hazard Type	Risk Index Rating	Risk Index Score	National Percentile
Avalanche	Not Applicable		
Coastal Flooding	Relatively Low	62.4	0 100
Cold Wave	Very High	96.7	0 100
Drought	Relatively Low	68.8	0 100
Earthquake	Very Low	51	0 100
Hail	Relatively Moderate	83.1	0 100
Heat Wave	Relatively High	96	0 100
Hurricane	Relatively High	98.3	0 100
Ice Storm	Relatively Low	59.7	0 100
Landslide	Relatively Low	36.7	0 100
Lightning	Relatively High	98.6	0 100
Riverine Flooding	Very High	100	0 100
Strong Wind	Relatively Low	38.4	0 100
Tornado	Relatively High	97	0 100
Tsunami	Insufficient Data		
Volcanic Activity	Not Applicable		
Wildfire	Relatively Moderate	90.5	0 100
Winter Weather	Relatively High	92.6	0 100

Risk Factor Breakdown

Hazard Type	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
Riverine Flooding	\$337,273,825	Relatively High	Very High	1.12	\$379,986,195	100
Hurricane	\$131,705,771	Relatively High	Very High	1.12	\$143,940,043	98.3
Tornado	\$16,714,467	Relatively High	Very High	1.12	\$18,485,292	97
Heat Wave	\$2,711,005	Relatively High	Very High	1.12	\$3,089,451	96
Lightning	\$2,230,131	Relatively High	Very High	1.12	\$2,418,856	98.6
Cold Wave	\$1,625,064	Relatively High	Very High	1.12	\$1,862,410	96.7
Wildfire	\$1,690,713	Relatively High	Very High	1.12	\$1,798,852	90.5
Hail	\$569,984	Relatively High	Very High	1.12	\$621,763	83.1
Winter Weather	\$475,732	Relatively High	Very High	1.12	\$530,094	92.6
Coastal Flooding	\$367,255	Relatively High	Very High	1.12	\$390,852	62.4
Strong Wind	\$246,579	Relatively High	Very High	1.12	\$267,356	38.4
Earthquake	\$141,987	Relatively High	Very High	1.12	\$162,172	51
Drought	\$128,481	Relatively High	Very High	1.12	\$121,547	68.8
Ice Storm	\$99,594	Relatively High	Very High	1.12	\$108,473	59.7
Landslide	\$21,900	Relatively High	Very High	1.12	\$24,026	36.7
Avalanche		Relatively High	Very High	1.12		
Tsunami		Relatively High	Very High	1.12		
Volcanic Activity		Relatively High	Very High	1.12		

Expected Annual Loss

In Galveston County, TX, expected loss each year due to natural hazards is Very High when compared to the rest of the U.S.



Composite Expected Annual Lo	\$496,002,488.12		
Composite Expected Annual Lo	oss Rate National Percentile		99.7
Building EAL	\$462,634,875.39	Population EAL	2.86 fatalities
Building EAL Rate	\$1 per \$122.66 of building value	Population EAL Rate	1 per 122.49K people
Agriculture EAL	\$176,616.11	Population Equivalence EAL	\$33,190,996.62
Agriculture EAL Rate	\$1 per \$59.98 of agriculture value		

Expected Annual Loss for Hazard Types

Expected Annual Loss scores for hazard types are calculated using data for only a single hazard type, and reflect a community's relative expected annual loss for only that hazard type.

15 of 18 hazard types contribute to the expected annual loss for Galveston County, TX.

Hazard Type	Expected Annual Loss Rating	EAL Value	Score
Riverine Flooding	Very High	\$337,273,825	100.0
Hurricane	Relatively High	\$131,705,771	98.4

Hazard Type	Expected Annual Loss Rating	EAL Value	Score
Tornado	Relatively High	\$16,714,467	97.0
Heat Wave	Relatively High	\$2,711,005	96.2
Lightning	Very High	\$2,230,131	98.6
Wildfire	Relatively Moderate	\$1,690,713	90.9
Cold Wave	Very High	\$1,625,064	96.5
Hail	Relatively Moderate	\$569,984	83.5
Winter Weather	Relatively High	\$475,732	92.4
Coastal Flooding	Relatively Low	\$367,256	64.4
Strong Wind	Relatively Low	\$246,580	43.2
Earthquake	Very Low	\$141,987	51.0
Drought	Relatively Low	\$128,481	71.9
Ice Storm	Relatively Moderate	\$99,594	61.1
Landslide	Relatively Low	\$21,900	63.2
Avalanche	Not Applicable		
Tsunami	Insufficient Data		
Volcanic Activity	Not Applicable		

Expected Annual Loss Values

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Avalanche					
Coastal Flooding	\$367,255	\$234,980	\$132,275	0.01	n/a
Cold Wave	\$1,625,064	\$16,405	\$1,602,708	0.14	\$5,950
Drought	\$128,481	n/a	n/a	n/a	\$128,481
Earthquake	\$141,987	\$111,135	\$30,851	0.00	n/a
Hail	\$569,984	\$283,285	\$284,136	0.02	\$2,562
Heat Wave	\$2,711,005	\$301	\$2,710,703	0.23	\$1
Hurricane	\$131,705,771	\$123,172,087	\$8,495,579	0.73	\$38,105
Ice Storm	\$99,594	\$4,497	\$95,098	0.01	n/a
Landslide	\$21,900	\$4,500	\$17,400	0.00	n/a
Lightning	\$2,230,131	\$70,878	\$2,159,253	0.19	n/a
Riverine Flooding	\$337,273,825	\$334,703,831	\$2,569,197	0.22	\$798

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Strong Wind	\$246,579	\$162,724	\$83,654	0.01	\$202
Tornado	\$16,714,467	\$2,275,536	\$14,438,688	1.24	\$243
Tsunami	n/a	n/a	n/a	n/a	n/a
Volcanic Activity					
Wildfire	\$1,690,713	\$1,583,616	\$106,965	0.01	\$132
Winter Weather	\$475,732	\$11,101	\$464,489	0.04	\$142

Exposure Values

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Avalanche					
Coastal Flooding	\$2,676,964,539,456	\$37,686,517,779	\$2,639,278,021,677	227,523.97	n/a
Cold Wave	\$4,122,290,144,798	\$56,746,974,030	\$4,065,532,578,123	350,476.95	\$10,592,645
Drought	\$4,944,231	n/a	n/a	n/a	\$4,944,231
Earthquake	\$4,124,657,207,000	\$56,746,007,000	\$4,067,911,200,000	350,682.00	n/a
Hail	\$4,122,290,770,230	\$56,746,977,585	\$4,065,533,200,000	350,477.00	\$10,592,645
Heat Wave	\$4,122,290,144,798	\$56,746,974,030	\$4,065,532,578,123	350,476.95	\$10,592,645
Hurricane	\$4,122,194,264,055	\$56,746,143,140	\$4,065,437,544,091	350,468.75	\$10,576,824
Ice Storm	\$4,100,129,820,075	\$56,169,923,544	\$4,043,959,896,530	348,617.23	n/a
Landslide	\$33,598,158,063	\$846,964,301	\$32,751,193,762	2,823.38	n/a
Lightning	\$4,122,280,177,585	\$56,746,977,585	\$4,065,533,200,000	350,477.00	n/a
Riverine Flooding	\$1,223,087,510,790	\$19,721,070,775	\$1,203,363,401,379	103,738.22	\$3,038,636
Strong Wind	\$4,122,290,770,230	\$56,746,977,585	\$4,065,533,200,000	350,477.00	\$10,592,645
Tornado	\$4,122,290,770,230	\$56,746,977,585	\$4,065,533,200,000	350,477.00	\$10,592,645
Tsunami	n/a	n/a	n/a	n/a	n/a
Volcanic Activity					
Wildfire	\$134,119,636,850	\$2,173,422,625	\$131,945,038,565	11,374.57	\$1,175,660
Winter Weather	\$4,122,290,144,798	\$56,746,974,030	\$4,065,532,578,123	350,476.95	\$10,592,645

Annualized Frequency Values

Hazard Type	Annualized Frequency	Events on Record	Period of Record
Avalanche			

Hazard Type	Annualized Frequency	Events on Record	Period of Record
Coastal Flooding	3.8 events per year	n/a	Various (see documentation)
Cold Wave	0.2 events per year	3	2005-2021 (16 years)
Drought	9 events per year	448	2000-2021 (22 years)
Earthquake	0.024% chance per year	n/a	2021 dataset
Hail	2.2 events per year	35	1986-2021 (34 years)
Heat Wave	0.2 events per year	2	2005-2021 (16 years)
Hurricane	0.3 events per year	43	East 1851-2021 (171 years) / West 1949-2021 (73 years)
Ice Storm	0.9 events per year	28	1946-2014 (67 years)
Landslide	0 events per year	0	2010-2021 (12 years)
Lightning	98 events per year	1,014	1991-2012 (22 years)
Riverine Flooding	3.2 events per year	76	1996-2019 (24 years)
Strong Wind	1.3 events per year	22	1986-2021 (34 years)
Tornado	0.3 events per year	72	1950-2021 (72 years)
Tsunami	n/a	n/a	1800-2021 (222 years)
Volcanic Activity			
Wildfire	0.313% chance per year	n/a	2021 dataset
Winter Weather	0.6 events per year	7	2005-2021 (16 years)

Historic Loss Ratios

Hazard Type	Overall Rating
Avalanche	
Coastal Flooding	Very Low
Cold Wave	Very Low
Drought	Relatively High
Earthquake	Very Low
Hail	Relatively Low
Heat Wave	Relatively Low
Hurricane	Relatively High
Ice Storm	Very Low
Landslide	Relatively Low
Lightning	Relatively Low

Hazard Type	Overall Rating
Riverine Flooding	Relatively Low
Strong Wind	Very Low
Tornado	Relatively Moderate
Tsunami	Insufficient Data
Volcanic Activity	
Wildfire	Very Low
Winter Weather	Relatively Moderate

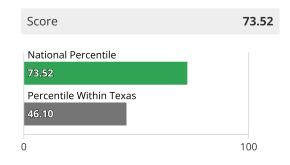
Expected Annual Loss Rate

Hazard Type	Building EAL Rate (per building value)	Population EAL Rate (per population)	Agriculture EAL Rate (per agriculture value)
Avalanche			
Coastal Flooding	\$1 per \$241.50K	1 per 30.74M	
Cold Wave	\$1 per \$3.46M	1 per 2.54M	\$1 per \$1.78K
Drought			\$1 per \$82.45
Earthquake	\$1 per \$510.61K	1 per 131.78M	
Hail	\$1 per \$200.32K	1 per 14.31M	\$1 per \$4.13K
Heat Wave	\$1 per \$188.68M	1 per 1.50M	\$1 per \$7.61M
Hurricane	\$1 per \$460.71	1 per 478.55K	\$1 per \$277.98
Ice Storm	\$1 per \$12.62M	1 per 42.75M	
Landslide	\$1 per \$12.61M	1 per 233.65M	
Lightning	\$1 per \$800.63K	1 per 1.88M	
Riverine Flooding	\$1 per \$169.54	1 per 1.58M	\$1 per \$13.28K
Strong Wind	\$1 per \$348.73K	1 per 48.60M	\$1 per \$52.55K
Tornado	\$1 per \$24.94K	1 per 281.57K	\$1 per \$43.59K
Tsunami			
Volcanic Activity			
Wildfire	\$1 per \$35.83K	1 per 38.01M	\$1 per \$80.23K
Winter Weather	\$1 per \$5.11M	1 per 8.75M	\$1 per \$74.69K

Social Vulnerability

Social groups in **Galveston County, TX** have a **Relatively High** susceptibility to the adverse impacts of natural hazards when compared to the rest of the U.S.



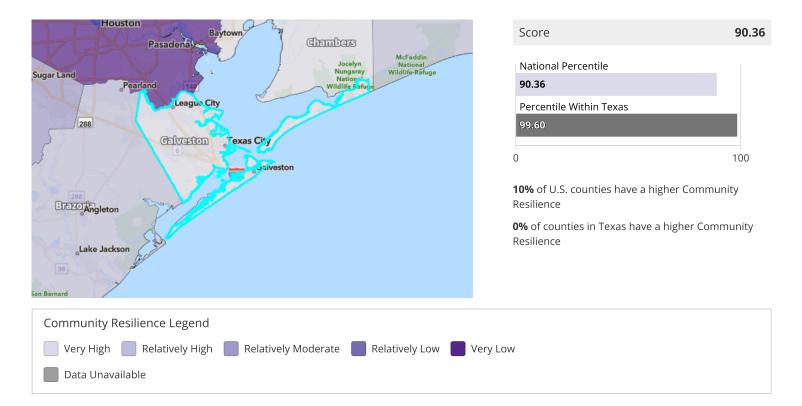


74% of U.S. counties have a lower Social Vulnerability **46%** of counties in Texas have a lower Social Vulnerability



Community Resilience

Communities in **Galveston County**, **TX** have a **Very High** ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.



About the National Risk Index

The National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 natural hazards: Avalanche, Coastal Flooding, Cold Wave, Drought, Earthquake, Hail, Heat Wave, Hurricane, Ice Storm, Landslide, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire, and Winter Weather.

The National Risk Index leverages available source data for Expected Annual Loss due to these 18 hazard types, Social Vulnerability, and Community Resilience to develop a baseline relative risk measurement for each United States county and Census tract. These measurements are calculated using average past conditions, but they cannot be used to predict future outcomes for a community. The National Risk Index is intended to fill gaps in available data and analyses to better inform federal, state, local, tribal, and territorial decision makers as they develop risk reduction strategies.

Explore the National Risk Index Map at hazards.fema.gov/nri/map.

Visit the National Risk Index website at hazards.fema.gov/nri/learn-more to access supporting documentation and links.

Calculating the Risk Index

Risk Index values are calculated using an equation* that combines values for Expected Annual Loss (EAL) due to natural hazards, with the Community Risk Factor (CRF), which is a function of Social Vulnerability and Community Resilience:

Risk Index = Expected Annual Loss × Community Risk Factor

where Community Risk Factor = $f\left(\frac{\text{Social Vulnerability}}{\text{Community Resilience}}\right)$

*County-level risk values are derived by summing the risk values of all Census tracts within that county.

Risk is presented as a composite value and score for all 18 hazard types, as well as individual values and scores for each hazard type.

For more information, visit hazards.fema.gov/nri/determining-risk.

Calculating Expected Annual Loss

Expected Annual Loss values are calculated using an equation* that combines values for exposure, annualized frequency, and historic loss ratios for 18 hazard types:

Expected Annual Loss = Exposure × Annualized Frequency × Historic Loss Ratio

*Excluding Avalanche, Drought, Earthquake, and Tornado, EAL values for each hazard are calculated at the Census block level and summed together to determine Census tract and county-level hazard type EAL values.

Expected Annual Loss is presented as a composite value and score for all 18 hazard types, as well as individual values and scores for each hazard type.

For more information, visit hazards.fema.gov/nri/expected-annual-loss.

Calculating Social Vulnerability

Social Vulnerability is measured using the Social Vulnerability Index (SVI) published by the Centers for Disease Control and Prevention (CDC).

For more information, visit hazards.fema.gov/nri/social-vulnerability.

Calculating Community Resilience

Community Resilience is measured at the County level using the Baseline Resilience Indicators for Communities (HVRI BRIC) published by the University of South Carolina's Hazards and Vulnerability Research Institute (HVRI).

For more information, visit hazards.fema.gov/nri/community-resilience.

Values, Scores, and Ratings

The National Risk Index provides three different types of results for Risk and each component used to derive Risk: EAL, Social Vulnerability, and Community Resilience:

Values. Values for Risk and EAL are in units of dollars, representing the community's average economic loss from natural hazards each year. For Social Vulnerability and Community Resilience, values are the index values for the community provided by the source data sets.

Scores. Scores represent the national percentile ranking of the community's component value compared to all other communities at the same level (county or Census tract).

Ratings. Ratings refer to the qualitative terms that describe the relative risk of an area within the same geographic level. These rating categories range from "Very Low" to "Very High". Ratings for Social Vulnerability and Community Resilience are based on quintiles of those components' scores, while Risk and EAL ratings are based on more advanced statistical calculations on values. As a result, there is no fixed range of scores or values that correspond to the rating categories.

How to Take Action

There are many ways to reduce natural hazard risk through mitigation. Communities with high National Risk Index scores can take action to reduce risk by decreasing Expected Annual Loss due to natural hazards, decreasing Social Vulnerability, and increasing Community Resilience.

For information about how to take action and reduce your risk, visit hazards.fema.gov/nri/take-action.

Disclaimer

The National Risk Index (the Risk Index or the Index) and its associated data are meant for planning purposes only. This tool was created for broad nationwide comparisons and is not a substitute for localized risk assessment analysis. Nationwide datasets used as inputs for the National Risk Index are, in many cases, not as accurate as available local data. Users with access to local data for each National Risk Index risk factor should consider substituting the Risk Index data with local data to recalculate a more accurate risk index. If you decide to download the National Risk Index data and substitute it with local data, you assume responsibility for the accuracy of the data and any resulting data index. Please visit the Contact Us page if you would like to discuss this process further.

The methodology used by the National Risk Index has been reviewed by subject matter experts in the fields of natural hazard risk research, risk analysis, mitigation planning, and emergency management. The processing methods used to create the National Risk Index have produced results similar to those from other natural hazard risk analyses conducted on a smaller scale. The breadth and combination of geographic information systems (GIS) and data processing techniques leveraged by the National Risk Index enable it to incorporate multiple hazard types and risk factors, manage its nationwide scope, and capture what might have been missed using other methods.

The National Risk Index does not consider the intricate economic and physical interdependencies that exist across geographic regions. Keep in mind that hazard impacts in surrounding counties or Census tracts can cause indirect losses in your community regardless of your community's risk profile.

Nationwide data available for some risk factors are rudimentary at this time. The risk profiles for the vast majority of hazard types are based on historical frequency and loss data. They represent risk and expected annual loss based on average past conditions, not future predictions. The National Risk Index will be continuously updated as new data become available and improved methodologies are identified.

For comprehensive details about how the Risk Index can help you and its limitations, see the National Risk Index Technical Documentation

Assumption of Risk

In view of the identified limitations of the National Risk Index associated data, by using the data, you acknowledge and agree that FEMA makes no representations or warranties about the accuracy, completeness, or fitness for any particular purpose of the data; that the data is provided "as is" without warranty of any kind; that you assume full responsibility for any consequences that may arise, including financial losses, legal disputes, or other adverse outcomes; and that you release FEMA and the federal government from any liability that may arise to the extent allowable by law.

Attribution, No Endorsement

Please attribute your use of the National Risk Index and its associated data to the Federal Emergency Management Agency.

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Zuzak, C., E. Goodenough, C. Stanton, M. Mowrer, A. Sheehan, B. Roberts, P. McGuire, and J. Rozelle. 2023. National Risk Index Technical Documentation. Federal Emergency Management Agency, Washington, DC.

The National Risk Index Contact Us page is available at hazards.fema.gov/nri/contact-us.



June 18, 2025

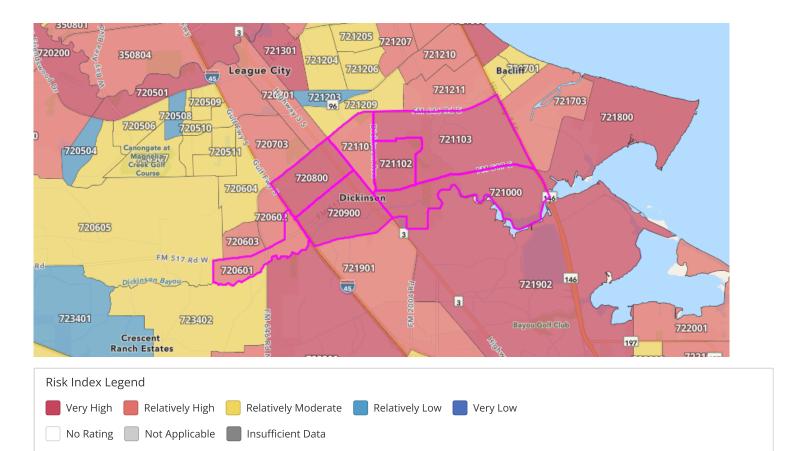
Risk Comparison Report

Use this report to determine how risk factors in selected communities compare to each other. Click a community name in any table below to open an individual risk profile report for that community and review its risk factors in more detail.

While reviewing this report, keep in mind that low risk is driven by lower loss due to natural hazards, lower social vulnerability, and higher community resilience.

For more information about the National Risk Index, its data, and how to interpret the information it provides, please review the **About the National Risk Index** and **How to Take Action** sections at the end of this report. Or, visit the National Risk Index website at hazards.fema.gov/nri/learn-more to access supporting documentation and links.

Risk Index



Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167720900	TX	Very High	99.9	0 100
2	Census tract 48167720800	TX	Very High	99.57	0 100
3	Census tract 48167721102	TX	Very High	99.35	0 100

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
4	Census tract 48167721103	TX	Very High	98.72	0 100
5	Census tract 48167721000	TX	Very High	97.87	0 100
6	Census tract 48167720601	TX	Relatively High	94.8	0 100
7	Census tract 48167721101	TX	Relatively High	87.38	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167720900	TX	\$12,019,220	Very High	Very High	1.6	\$19,232,903	99.9
2	Census tract 48167720800	TX	\$7,841,713	Relatively High	Very High	1.38	\$10,786,999	99.57
3	Census tract 48167721102	TX	\$6,176,392	Very High	Very High	1.44	\$8,916,331	99.35
4	Census tract 48167721103	TX	\$5,481,970	Relatively High	Very High	1.22	\$6,683,400	98.72
5	Census tract 48167721000	TX	\$4,144,214	Relatively High	Very High	1.29	\$5,357,364	97.87
6	Census tract 48167720601	TX	\$4,599,418	Very Low	Very High	0.75	\$3,439,772	94.8
7	Census tract 48167721101	TX	\$1,661,836	Relatively High	Very High	1.22	\$2,025,399	87.38

Hazard Type Risk Index

Hazard type Risk Index scores are calculated using data for only a single hazard type, and reflect a community's relative risk for only that hazard type.

Avalanche

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
	Census tract 48167720601	TX	Not Applicable		
	Census tract 48167720800	TX	Not Applicable		
	Census tract 48167720900	TX	Not Applicable		
	Census tract 48167721000	TX	Not Applicable		
	Census tract 48167721101	TX	Not Applicable		
	Census tract 48167721102	TX	Not Applicable		
	Census tract 48167721103	TX	Not Applicable		

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
	Census tract 48167720601	TX	N/A	Very Low	Very High	0.75	N/A	N/A
	Census tract 48167720800	TX	N/A	Relatively High	Very High	1.38	N/A	N/A
	Census tract 48167720900	TX	N/A	Very High	Very High	1.6	N/A	N/A
	Census tract 48167721000	TX	N/A	Relatively High	Very High	1.29	N/A	N/A
	Census tract 48167721101	TX	N/A	Relatively High	Very High	1.22	N/A	N/A
	Census tract 48167721102	TX	N/A	Very High	Very High	1.44	N/A	N/A
	Census tract 48167721103	TX	N/A	Relatively High	Very High	1.22	N/A	N/A

Coastal Flooding

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167720900	TX	Relatively Low	88.77	0 100
2	Census tract 48167721000	TX	Relatively Low	88.54	0 100
3	Census tract 48167720800	TX	Relatively Low	84.82	0 100
4	Census tract 48167721102	TX	Relatively Low	84.19	0 100
5	Census tract 48167721103	TX	Relatively Low	83.01	0 100
6	Census tract 48167720601	TX	Relatively Low	79.89	0 100

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
7	Census tract 48167721101	TX	Very Low	78.47	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167720900	TX	\$5,008	Very High	Very High	1.6	\$8,013	88.77
2	Census tract 48167721000	TX	\$5,804	Relatively High	Very High	1.29	\$7,503	88.54
3	Census tract 48167720800	TX	\$2,003	Relatively High	Very High	1.38	\$2,755	84.82
4	Census tract 48167721102	TX	\$1,622	Very High	Very High	1.44	\$2,341	84.19
5	Census tract 48167721103	TX	\$1,398	Relatively High	Very High	1.22	\$1,705	83.01
6	Census tract 48167720601	TX	\$980	Very Low	Very High	0.75	\$733	79.89
7	Census tract 48167721101	TX	\$388	Relatively High	Very High	1.22	\$473	78.47

Cold Wave

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721102	TX	Relatively High	94.14	0 100
2	Census tract 48167720900	TX	Relatively High	93.4	0 100
3	Census tract 48167720800	TX	Relatively High	90.49	0 100
4	Census tract 48167721103	TX	Relatively Moderate	85.56	0 100
5	Census tract 48167721101	TX	Relatively Moderate	82.5	0 100
6	Census tract 48167721000	TX	Relatively Moderate	82.26	0 100
7	Census tract 48167720601	TX	Relatively Moderate	73.15	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721102	TX	\$33,765	Very High	Very High	1.44	\$48,744	94.14
2	Census tract 48167720900	TX	\$27,564	Very High	Very High	1.6	\$44,107	93.4
3	Census tract 48167720800	TX	\$22,597	Relatively High	Very High	1.38	\$31,085	90.49
4	Census tract 48167721103	TX	\$16,223	Relatively High	Very High	1.22	\$19,779	85.56
5	Census tract 48167721101	TX	\$12,825	Relatively High	Very High	1.22	\$15,630	82.5
6	Census tract 48167721000	TX	\$11,846	Relatively High	Very High	1.29	\$15,313	82.26
7	Census tract 48167720601	TX	\$10,141	Very Low	Very High	0.75	\$7,584	73.15

Drought

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721103	TX	Relatively Low	84.81	0 100
2	Census tract 48167721000	TX	Very Low	76.48	0 100
3	Census tract 48167721101	TX	Very Low	74.02	0 100
4	Census tract 48167720601	TX	Very Low	73.6	0 100
5	Census tract 48167720800	TX	Very Low	69.51	0 100
	Census tract 48167720900	TX	No Rating	0	0 100
	Census tract 48167721102	TX	No Rating	0	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721103	TX	\$1,069	Relatively High	Very High	1.22	\$1,303	84.81
2	Census tract 48167721000	TX	\$83	Relatively High	Very High	1.29	\$107	76.48
3	Census tract 48167721101	TX	\$33	Relatively High	Very High	1.22	\$41	74.02
4	Census tract 48167720601	TX	\$45	Very Low	Very High	0.75	\$34	73.6
5	Census tract 48167720800	TX	\$1	Relatively High	Very High	1.38	\$2	69.51
	Census tract 48167720900	TX	\$0	Very High	Very High	1.6	\$0	0
	Census tract 48167721102	TX	\$0	Very High	Very High	1.44	\$0	0

Earthquake

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167720900	TX	Very Low	24.65	0 100
2	Census tract 48167721102	TX	Very Low	21.48	0 100
3	Census tract 48167720800	TX	Very Low	20.37	0 100
4	Census tract 48167721103	TX	Very Low	10.52	0 100
5	Census tract 48167720601	TX	Very Low	9.54	0 100
6	Census tract 48167721101	TX	Very Low	9.25	0 100
7	Census tract 48167721000	TX	Very Low	7.41	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167720900	TX	\$2,283	Very High	Very High	1.6	\$3,654	24.65
2	Census tract 48167721102	TX	\$2,102	Very High	Very High	1.44	\$3,034	21.48
3	Census tract 48167720800	TX	\$2,057	Relatively High	Very High	1.38	\$2,830	20.37
4	Census tract 48167721103	TX	\$1,009	Relatively High	Very High	1.22	\$1,230	10.52
5	Census tract 48167720601	TX	\$1,454	Very Low	Very High	0.75	\$1,087	9.54
6	Census tract 48167721101	TX	\$857	Relatively High	Very High	1.22	\$1,045	9.25
7	Census tract 48167721000	TX	\$616	Relatively High	Very High	1.29	\$797	7.41

Hail

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
Kalik	Community	State	Misk muck Mating	Nisk illuex score	National Fercentile
1	Census tract 48167720900	TX	Relatively Moderate	74.33	0 100
	Census tract				1
2	48167721102	TX	Relatively Moderate	73.58	0 100
3	Census tract	TX	Relatively Low	71.37	0 100
	48167720800				1.00
4	Census tract	TX	Relatively Low	64.53	0 100
	48167721103		<u>, </u>		
5	Census tract	TX	Relatively Low	62.22	0 100
	48167720601				
6	Census tract	TX	Relatively Low	62	0 100
•	48167721101	171	relatively LOVV	32	100
7	Census tract	TV	Dolativaly Low	61.93	0 100
/	48167721000	TX	Relatively Low	61.82	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167720900	TX	\$7,563	Very High	Very High	1.6	\$12,102	74.33
2	Census tract 48167721102	TX	\$7,852	Very High	Very High	1.44	\$11,335	73.58
3	Census tract 48167720800	TX	\$6,834	Relatively High	Very High	1.38	\$9,401	71.37
4	Census tract 48167721103	TX	\$4,273	Relatively High	Very High	1.22	\$5,210	64.53
5	Census tract 48167720601	TX	\$5,729	Very Low	Very High	0.75	\$4,285	62.22
6	Census tract 48167721101	TX	\$3,447	Relatively High	Very High	1.22	\$4,201	62
7	Census tract 48167721000	TX	\$3,207	Relatively High	Very High	1.29	\$4,145	61.82

Heat Wave

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721102	TX	Relatively High	88.29	0 100
2	Census tract 48167720900	TX	Relatively High	86.87	0 100
3	Census tract 48167720800	TX	Relatively High	81.36	0 100
4	Census tract 48167721103	TX	Relatively Moderate	72.84	0 100
5	Census tract 48167721101	TX	Relatively Moderate	68.49	0 100
6	Census tract 48167721000	TX	Relatively Moderate	67.96	0 100
7	Census tract 48167720601	TX	Relatively Moderate	59.53	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721102	TX	\$50,223	Very High	Very High	1.44	\$72,502	88.29
2	Census tract 48167720900	TX	\$40,899	Very High	Very High	1.6	\$65,445	86.87
3	Census tract 48167720800	TX	\$33,445	Relatively High	Very High	1.38	\$46,007	81.36
4	Census tract 48167721103	TX	\$23,684	Relatively High	Very High	1.22	\$28,875	72.84
5	Census tract 48167721101	TX	\$19,010	Relatively High	Very High	1.22	\$23,169	68.49
6	Census tract 48167721000	TX	\$17,479	Relatively High	Very High	1.29	\$22,596	67.96
7	Census tract 48167720601	TX	\$20,030	Very Low	Very High	0.75	\$14,980	59.53

Hurricane

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167720900	TX	Very High	95.8	0 100
2	Census tract 48167720800	TX	Relatively High	94.64	0 100
3	Census tract 48167721102	TX	Relatively High	93.59	0 100
4	Census tract 48167721103	TX	Relatively High	88.21	0 100
5	Census tract 48167720601	TX	Relatively High	87.34	0 100
6	Census tract 48167721000	TX	Relatively High	86.95	0 100
7	Census tract 48167721101	TX	Relatively High	86.76	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167720900	TX	\$1,444,382	Very High	Very High	1.6	\$2,311,269	95.8
2	Census tract 48167720800	TX	\$1,436,789	Relatively High	Very High	1.38	\$1,976,435	94.64
3	Census tract 48167721102	TX	\$1,209,954	Very High	Very High	1.44	\$1,746,708	93.59
4	Census tract 48167721103	TX	\$770,316	Relatively High	Very High	1.22	\$939,139	88.21
5	Census tract 48167720601	TX	\$1,128,354	Very Low	Very High	0.75	\$843,864	87.34
6	Census tract 48167721000	TX	\$621,217	Relatively High	Very High	1.29	\$803,068	86.95
7	Census tract 48167721101	TX	\$643,467	Relatively High	Very High	1.22	\$784,239	86.76

Ice Storm

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721102	TX	Relatively Low	50.59	0 100
2	Census tract 48167720900	TX	Relatively Low	48.33	0 100
3	Census tract 48167720800	TX	Relatively Low	39.46	0 100
4	Census tract 48167721103	TX	Very Low	28.23	0 100
5	Census tract 48167721101	TX	Very Low	24.03	0 100
6	Census tract 48167720601	TX	Very Low	23.52	0 100
7	Census tract 48167721000	TX	Very Low	23.3	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721102	TX	\$1,852	Very High	Very High	1.44	\$2,674	50.59
2	Census tract 48167720900	TX	\$1,529	Very High	Very High	1.6	\$2,446	48.33
3	Census tract 48167720800	TX	\$1,260	Relatively High	Very High	1.38	\$1,734	39.46
4	Census tract 48167721103	TX	\$881	Relatively High	Very High	1.22	\$1,074	28.23
5	Census tract 48167721101	TX	\$709	Relatively High	Very High	1.22	\$864	24.03
6	Census tract 48167720601	TX	\$1,125	Very Low	Very High	0.75	\$842	23.52
7	Census tract 48167721000	TX	\$643	Relatively High	Very High	1.29	\$832	23.3

Landslide

Rank	Community State Risk Index Rating Risk Index Score		National Percentile		
	Census tract 48167720601	TX	No Rating	0	0 100
	Census tract 48167720800	TX	No Rating	0	0 100
	Census tract 48167720900	TX	No Rating	0	0 100
	Census tract 48167721000	TX	No Rating	0	0 100
	Census tract 48167721101	TX	No Rating	0	0 100
	Census tract 48167721102	TX	No Rating	0	0 100
	Census tract 48167721103	TX	No Rating	0	0 100

Rank	, 		Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score	
	Census tract 48167720601	TX	\$0	Very Low	Very High	0.75	\$0	0
	Census tract 48167720800	TX	\$0	Relatively High	Very High	1.38	\$0	0
	Census tract 48167720900	TX	\$0	Very High	Very High	1.6	\$0	0
	Census tract 48167721000	TX	\$0	Relatively High	Very High	1.29	\$0	0
	Census tract 48167721101	TX	\$0	Relatively High	Very High	1.22	\$0	0
	Census tract 48167721102	TX	\$0	Very High	Very High	1.44	\$0	0
	Census tract 48167721103	TX	\$0	Relatively High	Very High	1.22	\$0	0

Lightning

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721102	TX	Very High	97.95	0 100
2	Census tract 48167720900	TX	Very High	97.73	0 100
3	Census tract 48167720800	TX	Very High	94.6	0 100
4	Census tract 48167721103	TX	Relatively High	86.27	0 100
5	Census tract 48167721000	TX	Relatively High	81.85	0 100
6	Census tract 48167721101	TX	Relatively High	81.37	0 100
7	Census tract 48167720601	TX	Relatively High	81.01	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721102	TX	\$39,339	Very High	Very High	1.44	\$56,791	97.95
2	Census tract 48167720900	TX	\$34,065	Very High	Very High	1.6	\$54,509	97.73
3	Census tract 48167720800	TX	\$27,613	Relatively High	Very High	1.38	\$37,984	94.6
4	Census tract 48167721103	TX	\$18,758	Relatively High	Very High	1.22	\$22,869	86.27
5	Census tract 48167721000	TX	\$14,609	Relatively High	Very High	1.29	\$18,885	81.85
6	Census tract 48167721101	TX	\$15,162	Relatively High	Very High	1.22	\$18,479	81.37
7	Census tract 48167720601	TX	\$24,347	Very Low	Very High	0.75	\$18,208	81.01

Riverine Flooding

Rank	Community	State	Risk Index Rating Risk Index Score		National Percentile
1	Census tract 48167720900	TX	Very High	99.99	0 100
2	Census tract 48167720800	TX	Very High	99.95	0 100
3	Census tract 48167721102	TX	Very High	99.91	0 100
4	Census tract 48167721103	TX	Very High	99.87	0 100
5	Census tract 48167721000	TX	Very High	99.79	0 100
6	Census tract 48167720601	TX	Very High	99.44	0 100
7	Census tract 48167721101	TX	Relatively High	98.42	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167720900	TX	\$10,215,132	Very High	Very High	1.6	\$16,346,040	99.99
2	Census tract 48167720800	TX	\$6,105,570	Relatively High	Very High	1.38	\$8,398,775	99.95
3	Census tract 48167721102	TX	\$4,545,859	Very High	Very High	1.44	\$6,562,470	99.91
4	Census tract 48167721103	TX	\$4,477,655	Relatively High	Very High	1.22	\$5,458,979	99.87
5	Census tract 48167721000	TX	\$3,361,004	Relatively High	Very High	1.29	\$4,344,882	99.79
6	Census tract 48167720601	TX	\$3,229,751	Very Low	Very High	0.75	\$2,415,438	99.44
7	Census tract 48167721101	TX	\$852,126	Relatively High	Very High	1.22	\$1,038,548	98.42

Strong Wind

Rank	Community	State	Risk Index Rating Risk Index Score		National Percentile		
1	Census tract 48167720900	TX	Relatively Low	37.15	0 100		
2	Census tract 48167721102	TX	Relatively Low	34.97	0 100		
3	Census tract 48167720800	TX	Relatively Low	33.65	0 100		
4	Census tract 48167721103	TX	Very Low	25.27	0 100		
5	Census tract 48167720601	TX	Very Low	23.78	0 100		
6	Census tract 48167721101	TX	Very Low	23.44	0 100		
7	Census tract 48167721000	TX	Very Low	23.3	0 100		

Rank	Community	State	State EAL Value Social Vuln		Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167720900	TX	\$3,217	Very High	Very High	1.6	\$5,148	37.15
2	Census tract 48167721102	TX	\$3,116	Very High	Very High	1.44	\$4,498	34.97
3	Census tract 48167720800	TX	\$3,009	Relatively High	Very High	1.38	\$4,139	33.65
4	Census tract 48167721103	TX	\$1,761	Relatively High	Very High	1.22	\$2,147	25.27
5	Census tract 48167720601	TX	\$2,463	Very Low	Very High	0.75	\$1,842	23.78
6	Census tract 48167721101	TX	\$1,454	Relatively High	Very High	1.22	\$1,772	23.44
7	Census tract 48167721000	TX	\$1,349	Relatively High	Very High	1.29	\$1,744	23.3

Tornado

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721102	TX	Relatively High	91.51	0 100
2	Census tract 48167720900	TX	Relatively High	90.32	0 100
3	Census tract 48167720800	TX	Relatively High	82.88	0 100
4	Census tract 48167721103	TX	Relatively Moderate	70.31	0 100
5	Census tract 48167721101	TX	Relatively Moderate	65.3	0 100
6	Census tract 48167720601	TX	Relatively Moderate	64.94	0 100
7	Census tract 48167721000	TX	Relatively Moderate	64.91	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721102	TX	\$271,960	Very High	Very High	1.44	\$392,605	91.51
2	Census tract 48167720900	TX	\$230,438	Very High	Very High	1.6	\$368,742	90.32
3	Census tract 48167720800	TX	\$193,233	Relatively High	Very High	1.38	\$265,809	82.88
4	Census tract 48167721103	TX	\$132,060	Relatively High	Very High	1.22	\$161,002	70.31
5	Census tract 48167721101	TX	\$106,503	Relatively High	Very High	1.22	\$129,803	65.3
6	Census tract 48167720601	TX	\$170,487	Very Low	Very High	0.75	\$127,502	64.94
7	Census tract 48167721000	TX	\$98,512	Relatively High	Very High	1.29	\$127,350	64.91

Tsunami

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
	Census tract 48167720601	TX	Insufficient Data		
	Census tract 48167720800	TX	Insufficient Data		
	Census tract 48167720900	TX	Insufficient Data		
	Census tract 48167721000	TX	Insufficient Data		
	Census tract 48167721101	TX	Insufficient Data		
	Census tract 48167721102	TX	Insufficient Data		
	Census tract 48167721103	TX	Insufficient Data		

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
	Census tract 48167720601	TX	N/A	Very Low	Very High	0.75	N/A	N/A
	Census tract 48167720800	TX	N/A	Relatively High	Very High	1.38	N/A	N/A
	Census tract 48167720900	TX	N/A	Very High	Very High	1.6	N/A	N/A
	Census tract 48167721000	TX	N/A	Relatively High	Very High	1.29	N/A	N/A
	Census tract 48167721101	TX	N/A	Relatively High	Very High	1.22	N/A	N/A
	Census tract 48167721102	TX	N/A	Very High	Very High	1.44	N/A	N/A
	Census tract 48167721103	TX	N/A	Relatively High	Very High	1.22	N/A	N/A

Volcanic Activity

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
Name	Community	State	NISK HIGEX Rating	NISK IIIdex Score	National Fercentile
	Census tract	TX	Not Applicable		
	48167720601	IA	пос Арріїсаріе		
	Census tract	TX	Not Applicable		
	48167720800	1/	пот Аррисавіе		
	Census tract	TX	Not Applicable		
	48167720900	1/	пос Арріїсавіе		
	Census tract	TX	Not Applicable		
	48167721000	1/	тос Арріїсавіе		
	Census tract	TX	Not Applicable		
	48167721101	1/	тот Аррисавіе		
	Census tract	TX	Not Applicable		
	48167721102	1/	пос Арріісавіе		
	Census tract	TX	Not Applicable		
	48167721103	1/\	пот Арріїсавіе		

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
	Census tract 48167720601	TX	N/A	Very Low	Very High	0.75	N/A	N/A
	Census tract 48167720800	TX	N/A	Relatively High	Very High	1.38	N/A	N/A
	Census tract 48167720900	TX	N/A	Very High	Very High	1.6	N/A	N/A
	Census tract 48167721000	TX	N/A	Relatively High	Very High	1.29	N/A	N/A
	Census tract 48167721101	TX	N/A	Relatively High	Very High	1.22	N/A	N/A
	Census tract 48167721102	TX	N/A	Very High	Very High	1.44	N/A	N/A
	Census tract 48167721103	TX	N/A	Relatively High	Very High	1.22	N/A	N/A

Wildfire

Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721103	TX	Relatively Moderate	89.71	0 100
2	Census tract 48167721000	TX	Relatively Low	81.66	0 100
3	Census tract 48167721101	TX	Relatively Low	78.02	0 100
4	Census tract 48167720800	TX	Relatively Low	74.78	0 100
5	Census tract 48167721102	TX	Very Low	47.6	0 100
6	Census tract 48167720900	TX	Very Low	43.81	0 100
	Census tract 48167720601	TX	No Rating	0	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721103	TX	\$28,826	Relatively High	Very High	1.22	\$35,144	89.71
2	Census tract 48167721000	TX	\$4,849	Relatively High	Very High	1.29	\$6,269	81.66
3	Census tract 48167721101	TX	\$2,599	Relatively High	Very High	1.22	\$3,168	78.02
4	Census tract 48167720800	TX	\$1,545	Relatively High	Very High	1.38	\$2,126	74.78
5	Census tract 48167721102	TX	\$198	Very High	Very High	1.44	\$286	47.6
6	Census tract 48167720900	TX	\$130	Very High	Very High	1.6	\$209	43.81
	Census tract 48167720601	TX	\$0	Very Low	Very High	0.75	\$0	0

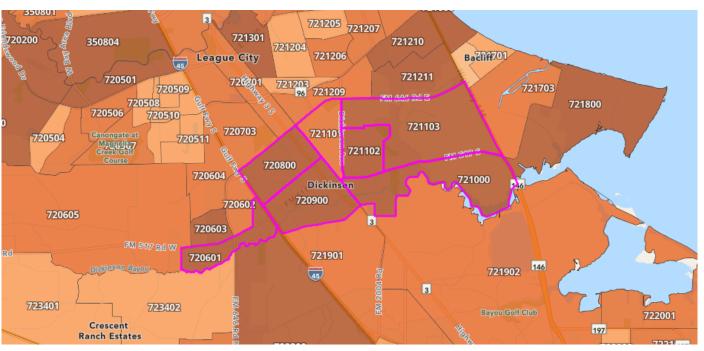
Winter Weather

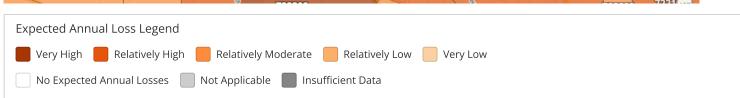
Rank	Community	State	Risk Index Rating	Risk Index Score	National Percentile
1	Census tract 48167721102	TX	Relatively High	88.2	0 100
2	Census tract 48167720900	TX	Relatively High	87	0 100
3	Census tract 48167720800	TX	Relatively Moderate	82.16	0 100
4	Census tract 48167721103	TX	Relatively Moderate	73.87	0 100
5	Census tract 48167721101	TX	Relatively Moderate	69.71	0 100
6	Census tract 48167721000	TX	Relatively Moderate	69.24	0 100
7	Census tract 48167720601	TX	Relatively Moderate	66.45	0 100

Rank	Community	State	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
1	Census tract 48167721102	TX	\$8,551	Very High	Very High	1.44	\$12,344	88.2
2	Census tract 48167720900	TX	\$7,011	Very High	Very High	1.6	\$11,219	87
3	Census tract 48167720800	TX	\$5,757	Relatively High	Very High	1.38	\$7,919	82.16
4	Census tract 48167721103	TX	\$4,056	Relatively High	Very High	1.22	\$4,945	73.87
5	Census tract 48167721101	TX	\$3,255	Relatively High	Very High	1.22	\$3,967	69.71
6	Census tract 48167721000	TX	\$2,996	Relatively High	Very High	1.29	\$3,873	69.24
7	Census tract 48167720601	TX	\$4,511	Very Low	Very High	0.75	\$3,374	66.45

Expected Annual Loss

Expected Annual Loss measures the expected loss each year due to natural hazards.





Rank	Community	State	EAL Value	Score
1	Census tract 48167720900	TX	\$12,019,220	99.8
2	Census tract 48167720800	TX	\$7,841,713	99.43
3	Census tract 48167721102	TX	\$6,176,392	99.01
4	Census tract 48167721103	TX	\$5,481,970	98.67
5	Census tract 48167720601	TX	\$4,599,418	97.97
6	Census tract 48167721000	TX	\$4,144,214	97.4
7	Census tract 48167721101	TX	\$1,661,836	86.6

Expected Annual Loss for Hazard Types

Expected Annual Loss scores for hazard types are calculated using data for only a single hazard type, and reflect a community's relative expected annual loss for only that hazard type.

Avalanche

Rank	Community	State	EAL Value	Score
	Census tract 48167720601	TX	N/A	
	Census tract 48167720800	TX	N/A	
	Census tract 48167720900	TX	N/A	
	Census tract 48167721000	TX	N/A	
	Census tract 48167721101	TX	N/A	
	Census tract 48167721102	TX	N/A	
	Census tract 48167721103	TX	N/A	

Coastal Flooding

Rank	Community	State	EAL Value	Score
1	Census tract 48167721000	TX	\$5,804	87.7
2	Census tract 48167720900	TX	\$5,008	87.1
3	Census tract 48167720800	TX	\$2,003	83.8
4	Census tract 48167721102	TX	\$1,622	83.0
5	Census tract 48167721103	TX	\$1,398	82.5
6	Census tract 48167720601	TX	\$980	81.2
7	Census tract 48167721101	TX	\$388	78.1

Cold Wave

Community	State	EAL Value	Score
Census tract 48167721102	TX	\$33,765	92.2
Census tract 48167720900	TX	\$27,564	90.5
Census tract 48167720800	TX	\$22,597	88.4
Census tract 48167721103	TX	\$16,223	84.6
Census tract 48167721101	TX	\$12,825	81.4
	Census tract 48167721102 Census tract 48167720900 Census tract 48167720800 Census tract 48167721103 Census tract	Census tract 48167721102 TX Census tract 48167720900 TX Census tract 48167720800 TX Census tract 48167721103 TX Census tract TX	Census tract 48167721102 TX \$33,765 Census tract 48167720900 TX \$27,564 Census tract 48167720800 TX \$22,597 Census tract 48167721103 TX \$16,223 Census tract TX \$12,825

Rank	Community	State	EAL Value	Score
6	Census tract 48167721000	TX	\$11,846	80.3
7	Census tract 48167720601	TX	\$10,141	78.2

Drought

Community	State	EAL Value	Score
Census tract 48167721103	TX	\$1,069	84.6
Census tract 48167721000	TX	\$83	76.2
Census tract 48167720601	TX	\$45	74.7
Census tract 48167721101	TX	\$33	74.0
Census tract 48167720800	TX	\$1	69.6
Census tract 48167720900	TX	\$0	0.0
Census tract 48167721102	TX	\$0	0.0
	Census tract 48167721103 Census tract 48167721000 Census tract 48167720601 Census tract 48167721101 Census tract 48167720800 Census tract 48167720900 Census tract	Census tract 48167721103 Census tract 48167721000 Census tract 48167720601 Census tract 48167721101 Census tract 48167721101 Census tract 48167720800 Census tract 48167720900 Census tract 48167720900 TX	Census tract 48167721103 TX \$1,069 Census tract 48167721000 TX \$83 Census tract 48167720601 TX \$45 Census tract 48167721101 TX \$33 Census tract 48167720800 TX \$1 Census tract 48167720900 TX \$0 Census tract 48167720900 TX \$0

Earthquake

Rank	Community	State	EAL Value	Score
1	Census tract 48167720900	TX	\$2,283	18.0
2	Census tract 48167721102	TX	\$2,102	16.9
3	Census tract 48167720800	TX	\$2,057	16.6
4	Census tract 48167720601	TX	\$1,454	12.6
5	Census tract 48167721103	TX	\$1,009	9.5
6	Census tract 48167721101	TX	\$857	8.3
7	Census tract 48167721000	TX	\$616	6.4

Hail

Community	State	EAL Value	Score
Census tract 48167721102	TX	\$7,852	71.1
Census tract 48167720900	TX	\$7,563	70.6
Census tract 48167720800	TX	\$6,834	69.5
Census tract 48167720601	TX	\$5,729	67.4
Census tract 48167721103	TX	\$4,273	64.0
	Census tract 48167721102 Census tract 48167720900 Census tract 48167720800 Census tract 48167720601 Census tract	Census tract 48167721102 TX Census tract 48167720900 TX Census tract 48167720800 TX Census tract 48167720601 TX Census tract 48167720601 TX	Census tract 48167721102 TX \$7,852 Census tract 48167720900 TX \$7,563 Census tract 48167720800 TX \$6,834 Census tract 48167720601 TX \$5,729 Census tract 48167720601 TX \$4,273

Rank	Community	State	EAL Value	Score
6	Census tract 48167721101	TX	\$3,447	61.3
7	Census tract 48167721000	TX	\$3,207	60.3

Heat Wave

Rank	Community	State	EAL Value	Score
1	Census tract 48167721102	TX	\$50,223	85.7
2	Census tract 48167720900	TX	\$40,899	82.2
3	Census tract 48167720800	TX	\$33,445	78.3
4	Census tract 48167721103	TX	\$23,684	71.6
5	Census tract 48167720601	TX	\$20,030	68.4
6	Census tract 48167721101	TX	\$19,010	67.3
7	Census tract 48167721000	TX	\$17,479	65.7

Hurricane

Rank	Community	State	EAL Value	Score
1	Census tract 48167720900	TX	\$1,444,382	92.8
2	Census tract 48167720800	TX	\$1,436,789	92.8
3	Census tract 48167721102	TX	\$1,209,954	91.2
4	Census tract 48167720601	TX	\$1,128,354	90.5
5	Census tract 48167721103	TX	\$770,316	87.1
6	Census tract 48167721101	TX	\$643,467	85.5
7	Census tract 48167721000	TX	\$621,217	85.2

Ice Storm

Rank	Community	State	EAL Value	Score
1	Census tract 48167721102	TX	\$1,852	44.1
2	Census tract 48167720900	TX	\$1,529	39.3
3	Census tract 48167720800	TX	\$1,260	34.6
4	Census tract 48167720601	TX	\$1,125	31.8
5	Census tract 48167721103	TX	\$881	26.3

R	Rank	Community	State	EAL Value	Score
	6	Census tract 48167721101	TX	\$709	22.2
	7	Census tract 48167721000	TX	\$643	20.6

Landslide

Rank	Community	State	EAL Value	Score
	Census tract 48167720601	TX	\$0	0.0
	Census tract 48167720800	TX	\$0	0.0
	Census tract 48167720900	TX	\$0	0.0
	Census tract 48167721000	TX	\$0	0.0
	Census tract 48167721101	TX	\$0	0.0
	Census tract 48167721102	TX	\$0	0.0
	Census tract 48167721103	TX	\$0	0.0

Lightning

Rank	Community	State	EAL Value	Score
1	Census tract 48167721102	TX	\$39,339	96.9
2	Census tract 48167720900	TX	\$34,065	95.5
3	Census tract 48167720800	TX	\$27,613	92.7
4	Census tract 48167720601	TX	\$24,347	90.6
5	Census tract 48167721103	TX	\$18,758	85.1
6	Census tract 48167721101	TX	\$15,162	79.8
7	Census tract 48167721000	TX	\$14,609	78.8

Riverine Flooding

Rank	Community	State	EAL Value	Score
6	Census tract 48167720601	TX	\$3,229,751	99.8
7	Census tract 48167721101	TX	\$852,126	98.4

Strong Wind

Community	State	EAL Value	Score
Census tract 48167720900	TX	\$3,217	32.2
Census tract 48167721102	TX	\$3,116	31.8
Census tract 48167720800	TX	\$3,009	31.3
Census tract 48167720601	TX	\$2,463	28.9
Census tract 48167721103	TX	\$1,761	25.3
Census tract 48167721101	TX	\$1,454	23.7
Census tract 48167721000	TX	\$1,349	23.1
	Census tract 48167720900 Census tract 48167721102 Census tract 48167720800 Census tract 48167720601 Census tract 48167721103 Census tract 48167721101 Census tract	Census tract 48167720900 Census tract 48167721102 Census tract 48167720800 Census tract 48167720601 Census tract 48167721103 Census tract 48167721101 Census tract 48167721101 Census tract TX	Census tract 48167720900 TX \$3,217 Census tract 48167721102 TX \$3,116 Census tract 48167720800 TX \$3,009 Census tract 48167720601 TX \$2,463 Census tract 48167721103 TX \$1,761 Census tract 48167721101 TX \$1,454 Census tract 48167721101 TX \$1,349

Tornado

Rank	Community	State	EAL Value	Score
1	Census tract 48167721102	TX	\$271,960	86.8
2	Census tract 48167720900	TX	\$230,438	82.4
3	Census tract 48167720800	TX	\$193,233	77.6
4	Census tract 48167720601	TX	\$170,487	74.4
5	Census tract 48167721103	TX	\$132,060	68.1
6	Census tract 48167721101	TX	\$106,503	63.5
7	Census tract 48167721000	TX	\$98,512	62.0

Tsunami

Community	State	EAL Value	Score
Census tract 48167720601	TX	N/A	
Census tract 48167720800	TX	N/A	
Census tract 48167720900	TX	N/A	
Census tract 48167721000	TX	N/A	
Census tract 48167721101	TX	N/A	
	Census tract 48167720601 Census tract 48167720800 Census tract 48167720900 Census tract 48167721000 Census tract	Census tract 48167720601 TX Census tract 48167720800 TX Census tract 48167720900 TX Census tract 48167721000 TX Census tract 48167721000 TX	Census tract

Rank	Community	State	EAL Value	Score
	Census tract 48167721102	TX	N/A	
	Census tract 48167721103	TX	N/A	

Volcanic Activity

Rank	Community	State	EAL Value	Score
	Census tract 48167720601	TX	N/A	
	Census tract 48167720800	TX	N/A	
	Census tract 48167720900	TX	N/A	
	Census tract 48167721000	TX	N/A	
	Census tract 48167721101	TX	N/A	
	Census tract 48167721102	TX	N/A	
	Census tract 48167721103	TX	N/A	

Wildfire

Rank	Community	State	EAL Value	Score
1	Census tract 48167721103	TX	\$28,826	89.3
2	Census tract 48167721000	TX	\$4,849	80.8
3	Census tract 48167721101	TX	\$2,599	77.0
4	Census tract 48167720800	TX	\$1,545	71.6
5	Census tract 48167721102	TX	\$198	44.3
6	Census tract 48167720900	TX	\$130	39.8
	Census tract 48167720601	TX	\$0	0.0

Winter Weather

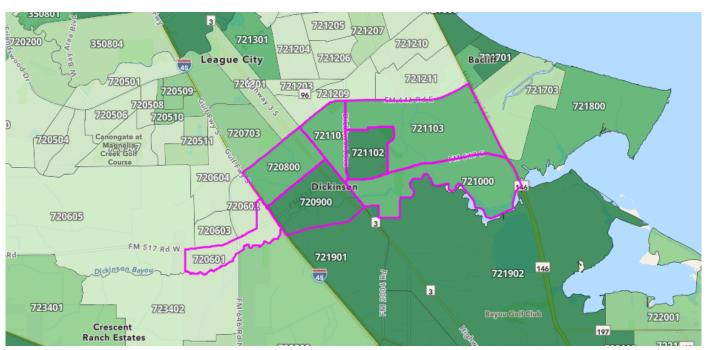
Rank	Community	State	EAL Value	Score
1	Census tract 48167721102	TX	\$8,551	85.2
2	Census tract 48167720900	TX	\$7,011	82.1
3	Census tract 48167720800	TX	\$5,757	78.8
4	Census tract 48167720601	TX	\$4,511	74.1
5	Census tract 48167721103	TX	\$4,056	72.1

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Rank	Community	State	EAL Value	Score
6	Census tract 48167721101	TX	\$3,255	67.9
7	Census tract 48167721000	TX	\$2,996	66.2

Social Vulnerability

Social Vulnerability measures the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood.

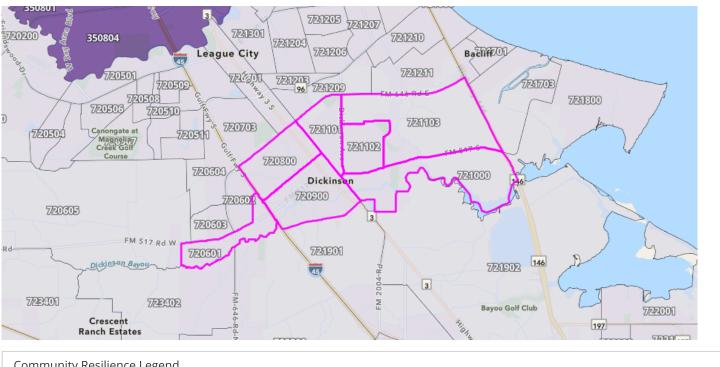




Rank	Community	State	Rating	Score
1	Census tract 48167720900	TX	Very High	96.0
2	Census tract 48167721102	TX	Very High	84.6
3	Census tract 48167720800	TX	Relatively High	78.8
4	Census tract 48167721000	TX	Relatively High	70.8
5	Census tract 48167721103	TX	Relatively High	62.8
6	Census tract 48167721101	TX	Relatively High	62.8
7	Census tract 48167720601	TX	Very Low	8.5

Community Resilience

Community Resilience measures a County's ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions.





Rank	Community	State	Rating	Score
1	Census tract 48167720601	TX	Very High	85.6
1	Census tract 48167720800	TX	Very High	85.6
1	Census tract 48167720900	TX	Very High	85.6
1	Census tract 48167721000	TX	Very High	85.6
1	Census tract 48167721101	TX	Very High	85.6
1	Census tract 48167721102	TX	Very High	85.6
1	Census tract 48167721103	TX	Very High	85.6

About the National Risk Index

The National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 natural hazards: Avalanche, Coastal Flooding, Cold Wave, Drought, Earthquake, Hail, Heat Wave, Hurricane, Ice Storm, Landslide, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire, and Winter Weather.

The National Risk Index leverages available source data for Expected Annual Loss due to these 18 hazard types, Social Vulnerability, and Community Resilience to develop a baseline relative risk measurement for each United States county and Census tract. These measurements are calculated using average past conditions, but they cannot be used to predict future outcomes for a community. The National Risk Index is intended to fill gaps in available data and analyses to better inform federal, state, local, tribal, and territorial decision makers as they develop risk reduction strategies.

Explore the National Risk Index Map at hazards.fema.gov/nri/map.

Visit the National Risk Index website at hazards.fema.gov/nri/learn-more to access supporting documentation and links.

Calculating the Risk Index

Risk Index values are calculated using an equation* that combines values for Expected Annual Loss (EAL) due to natural hazards, with the Community Risk Factor (CRF), which is a function of Social Vulnerability and Community Resilience:

Risk Index = Expected Annual Loss × Community Risk Factor

where Community Risk Factor = $f\left(\frac{\text{Social Vulnerability}}{\text{Community Resilience}}\right)$

Risk is presented as a composite value and score for all 18 hazard types, as well as individual values and scores for each hazard type.

For more information, visit hazards.fema.gov/nri/determining-risk.

Calculating Expected Annual Loss

Expected Annual Loss values are calculated using an equation* that combines values for exposure, annualized frequency, and historic loss ratios for 18 hazard types:

Expected Annual Loss = Exposure × Annualized Frequency × Historic Loss Ratio

*Excluding Avalanche, Drought, Earthquake, and Tornado, EAL values for each hazard are calculated at the Census block level and summed together to determine Census tract and county-level hazard type EAL values.

Expected Annual Loss is presented as a composite value and score for all 18 hazard types, as well as individual values and scores for each hazard type.

For more information, visit hazards.fema.gov/nri/expected-annual-loss.

Calculating Social Vulnerability

Social Vulnerability is measured using the Social Vulnerability Index (SVI) published by the Centers for Disease Control and Prevention (CDC).

For more information, visit hazards.fema.gov/nri/social-vulnerability.

^{*}County-level risk values are derived by summing the risk values of all Census tracts within that county.

Calculating Community Resilience

Community Resilience is measured at the County level using the Baseline Resilience Indicators for Communities (HVRI BRIC) published by the University of South Carolina's Hazards and Vulnerability Research Institute (HVRI).

For more information, visit hazards.fema.gov/nri/community-resilience.

Values, Scores, and Ratings

The National Risk Index provides three different types of results for Risk and each component used to derive Risk: EAL, Social Vulnerability, and Community Resilience:

Values. Values for Risk and EAL are in units of dollars, representing the community's average economic loss from natural hazards each year. For Social Vulnerability and Community Resilience, values are the index values for the community provided by the source data sets.

Scores. Scores represent the national percentile ranking of the community's component value compared to all other communities at the same level (county or Census tract).

Ratings. Ratings refer to the qualitative terms that describe the relative risk of an area within the same geographic level. These rating categories range from "Very Low" to "Very High". Ratings for Social Vulnerability and Community Resilience are based on quintiles of those components' scores, while Risk and EAL ratings are based on more advanced statistical calculations on values. As a result, there is no fixed range of scores or values that correspond to the rating categories.

How to Take Action

There are many ways to reduce natural hazard risk through mitigation. Communities with high National Risk Index scores can take action to reduce risk by decreasing Expected Annual Loss due to natural hazards, decreasing Social Vulnerability, and increasing Community Resilience.

For information about how to take action and reduce your risk, visit hazards.fema.gov/nri/take-action.

Disclaimer

The National Risk Index (the Risk Index or the Index) and its associated data are meant for planning purposes only. This tool was created for broad nationwide comparisons and is not a substitute for localized risk assessment analysis. Nationwide datasets used as inputs for the National Risk Index are, in many cases, not as accurate as available local data. Users with access to local data for each National Risk Index risk factor should consider substituting the Risk Index data with local data to recalculate a more accurate risk index. If you decide to download the National Risk Index data and substitute it with local data, you assume responsibility for the accuracy of the data and any resulting data index. Please visit the Contact Us page if you would like to discuss this process further.

The methodology used by the National Risk Index has been reviewed by subject matter experts in the fields of natural hazard risk research, risk analysis, mitigation planning, and emergency management. The processing methods used to create the National Risk Index have produced results similar to those from other natural hazard risk analyses conducted on a smaller scale. The breadth and combination of geographic information systems (GIS) and data processing techniques leveraged by the National Risk Index enable it to incorporate multiple hazard types and risk factors, manage its nationwide scope, and capture what might have been missed using other methods.

The National Risk Index does not consider the intricate economic and physical interdependencies that exist across geographic regions. Keep in mind that hazard impacts in surrounding counties or Census tracts can cause indirect losses in your community regardless of your community's risk profile.

Nationwide data available for some risk factors are rudimentary at this time. The risk profiles for the vast majority of hazard types are based on historical frequency and loss data. They represent risk and expected annual loss based on average past conditions, not future predictions. The National Risk Index will be continuously updated as new data become available and improved methodologies are identified.

For comprehensive details about how the Risk Index can help you and its limitations, see the National Risk Index Technical Documentation

Assumption of Risk

In view of the identified limitations of the National Risk Index associated data, by using the data, you acknowledge and agree that FEMA makes no representations or warranties about the accuracy, completeness, or fitness for any particular purpose of the data; that the data is provided "as is" without warranty of any kind; that you assume full responsibility for any consequences that may arise, including financial losses, legal disputes, or other adverse outcomes; and that you release FEMA and the federal government from any liability that may arise to the extent allowable by law.

Attribution, No Endorsement

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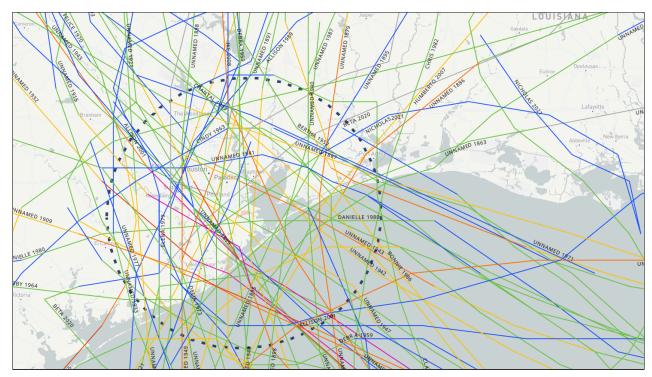
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Preferred citation for the National Risk Index:

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The National Risk Index Contact Us page is available at hazards.fema.gov/nri/contact-us.





Search Filter Criteria

Location: Dickinson, Galveston County, Texas, 77539, USA

Categories: H5, H4, H3, H2, H1, TS, TD, ET Months: ALL

Years: ALL

El Niño-Southern Oscillation (ENSO): ALL Minimum Pressure (mb) below: 1030

Buffer Distance: 60 Buffer Unit: Nautical Miles

STORM NAME	DATE RANGE	MAX WIND SPEED	MIN PRESSURE	MAX CATEGORY
NICHOLAS 2021	Sep 12, 2021 to Sep 17, 2021	65	988	H1
BETA 2020	Sep 17, 2020 to Sep 25, 2020	55	993	TS
IMELDA 2019	Sep 17, 2019 to Sep 19, 2019	40	1003	TS
IKE 2008	Sep 01, 2008 to Sep 15, 2008	125	935	H4
EDOUARD 2008	Aug 03, 2008 to Aug 06, 2008	55	996	TS
HUMBERTO 2007	Sep 12, 2007 to Sep 14, 2007	80	985	H1

STORM NAME	DATE RANGE	MAX WIND SPEED	MIN PRESSURE	MAX CATEGORY
IVAN 2004	Sep 02, 2004 to Sep 24, 2004	145	910	Н5
GRACE 2003	Aug 30, 2003 to Sep 02, 2003	35	1007	TS
ALLISON 2001	Jun 05, 2001 to Jun 19, 2001	50	1000	TS
DEAN 1995	Jul 28, 1995 to Aug 02, 1995	40	999	TS
JERRY 1989	Oct 12, 1989 to Oct 16, 1989	75	982	H1
CHANTAL 1989	Jul 30, 1989 to Aug 03, 1989	70	984	H1
ALLISON 1989	Jun 24, 1989 to Jul 01, 1989	45	999	TS
UNNAMED 1987	Aug 09, 1987 to Aug 17, 1987	40	1007	TS
BONNIE 1986	Jun 23, 1986 to Jun 28, 1986	75	990	H1
ALICIA 1983	Aug 15, 1983 to Aug 21, 1983	100	962	НЗ
CHRIS 1982	Sep 09, 1982 to Sep 12, 1982	55	994	TS
UNNAMED 1981	Jun 03, 1981 to Jun 05, 1981	30	-1	TD
DANIELLE 1980	Sep 04, 1980 to Sep 07, 1980	50	1004	TS
UNNAMED 1980	Jul 17, 1980 to Jul 21, 1980	30	-1	TD
ELENA 1979	Aug 30, 1979 to Sep 02, 1979	35	1004	TS
CLAUDETTE 1979	Jul 15, 1979 to Jul 29, 1979	45	997	TS
UNNAMED 1977	Jun 13, 1977 to Jun 14, 1977	25	-1	TD
UNNAMED 1974	Aug 24, 1974 to Aug 26, 1974	30	-1	TD
UNNAMED 1974	Jul 13, 1974 to Jul 17, 1974	30	-1	TD
UNNAMED 1973	Sep 06, 1973 to Sep 12, 1973	30	-1	TD
DELIA 1973	Sep 01, 1973 to Sep 07, 1973	60	986	TS
FERN 1971	Sep 03, 1971 to Sep 13, 1971	80	978	H1
UNNAMED 1971	Jul 07, 1971 to Jul 08, 1971	25	-1	TD
FELICE 1970	Sep 12, 1970 to Sep 19, 1970	60	990	TS
ABBY 1964	Aug 05, 1964 to Aug 08, 1964	60	1000	TS
CINDY 1963	Sep 16, 1963 to Sep 20, 1963	55	996	TS
DEBRA 1959	Jul 22, 1959 to Jul 27, 1959	75	980	H1
BERTHA 1957	Aug 08, 1957 to Aug 11, 1957	55	998	TS

STORM NAME	DATE RANGE	MAX WIND SPEED	MIN PRESSURE	MAX CATEGORY
UNNAMED 1949	Sep 27, 1949 to Oct 07, 1949	95	965	H2
UNNAMED 1947	Aug 18, 1947 to Aug 27, 1947	70	984	H1
UNNAMED 1946	Jun 13, 1946 to Jun 16, 1946	35	-1	TS
UNNAMED 1945	Aug 24, 1945 to Aug 29, 1945	100	963	Н3
UNNAMED 1943	Jul 25, 1943 to Jul 30, 1943	90	967	H2
UNNAMED 1942	Aug 17, 1942 to Aug 23, 1942	70	-1	H1
UNNAMED 1941	Sep 17, 1941 to Sep 27, 1941	110	985	Н3
UNNAMED 1941	Sep 11, 1941 to Sep 16, 1941	50	1001	TS
UNNAMED 1940	Sep 18, 1940 to Sep 25, 1940	45	1004	TS
UNNAMED 1940	Aug 03, 1940 to Aug 10, 1940	85	972	H2
UNNAMED 1938	Oct 10, 1938 to Oct 17, 1938	50	996	TS
UNNAMED 1934	Aug 26, 1934 to Sep 01, 1934	70	998	H1
UNNAMED 1933	Jul 14, 1933 to Jul 27, 1933	45	-1	TS
UNNAMED 1932	Aug 12, 1932 to Aug 15, 1932	130	935	H4
UNNAMED 1921	Jun 16, 1921 to Jun 26, 1921	80	980	H1
UNNAMED 1915	Aug 05, 1915 to Aug 23, 1915	125	940	H4
UNNAMED 1909	Jul 13, 1909 to Jul 22, 1909	100	959	Н3
UNNAMED 1908	Jul 29, 1908 to Aug 03, 1908	50	-1	TS
UNNAMED 1900	Aug 27, 1900 to Sep 15, 1900	125	936	H4
UNNAMED 1899	Jun 26, 1899 to Jun 27, 1899	35	-1	TS
UNNAMED 1898	Sep 20, 1898 to Sep 28, 1898	50	-1	TS
UNNAMED 1897	Sep 10, 1897 to Sep 13, 1897	75	-1	H1
UNNAMED 1895	Oct 02, 1895 to Oct 07, 1895	35	-1	TS
UNNAMED 1891	Jul 03, 1891 to Jul 08, 1891	80	-1	H1
UNNAMED 1888	Jul 04, 1888 to Jul 06, 1888	50	-1	TS
UNNAMED 1888	Jun 16, 1888 to Jun 18, 1888	70	-1	H1
UNNAMED 1886	Jun 13, 1886 to Jun 15, 1886	85	-1	H2
UNNAMED 1880	Jun 21, 1880 to Jun 25, 1880	40	-1	TS

STORM NAME	DATE RANGE	MAX WIND SPEED	MIN PRESSURE	MAX CATEGORY
UNNAMED 1879	Aug 19, 1879 to Aug 24, 1879	90	964	H2
UNNAMED 1875	Sep 08, 1875 to Sep 18, 1875	100	978	Н3
UNNAMED 1871	Jun 08, 1871 to Jun 10, 1871	50	-1	TS
UNNAMED 1871	Jun 01, 1871 to Jun 05, 1871	50	999	TS
UNNAMED 1867	Oct 02, 1867 to Oct 09, 1867	90	-1	H2
UNNAMED 1863	Sep 29, 1863 to Oct 01, 1863	60	-1	TS
UNNAMED 1854	Sep 18, 1854 to Sep 20, 1854	90	-1	H2

TEXAS WILDFIRE RISK ASSESSMENT SUMMARY REPORT

DickinsonwithBuffer





Report was generated using $\underline{www.texaswildfirerisk.com}$

Report version: 5.0

Report generated: 6/19/2025

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The wildfire hazard maps in the Texas Wildfire Risk Assessment Portal include fuel disturbances through 2022. Events after January 2023 are not reflected in these maps. Users in affected areas should prioritize local knowledge of current fuel and hazard conditions.

The wildfire hazard information provided is intended solely for wildfire mitigation and prevention planning, communication, and collaboration purposes. It is not designed or validated for underwriting or insurance-related processes. Insurance entities should use their own methodologies and property-specific assessments to evaluate wildfire susceptibility. Texas A&M Forest Service and its application providers accept no liability for the use of this data in insurance practices. Users should also note that property boundaries included in any product do not represent an on-the-ground survey suitable for legal, engineering, or surveying purposes. They represent only the approximate relative locations.

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Introduction

TWRA Summary Report

Welcome to the Texas Wildfire Risk Assessment Summary Report for **DickinsonwithBuffer**. This report contains a set of selected products developed by the Texas Wildfire Risk Assessment project, which have been summarized explicitly for the DickinsonwithBuffer project area.

The **Texas Wildfire Risk Assessment** (TWRA) provides a consistent, comparable set of scientific results to be used as a foundation for wildfire mitigation planning in Texas. Results of the assessment can be used to help prioritize areas in the state where tactical analyses, community interaction and education, or mitigation treatments might be necessary to reduce risk from wildfires. The TWRA products included in this report are designed to provide the information needed to support the following key priorities:

- Identify areas that are most prone to wildfire
- Identify areas that may require additional tactical planning, specifically related to mitigation projects and Community Wildfire Protection Planning
- Provide the information necessary to justify resource, budget and funding requests
- Allow agencies to work together to better define priorities and improve emergency response, particularly across jurisdictional boundaries
- Increase communication with local residents and the public to address community priorities and needs
- Plan for response and suppression resource needs
- Plan and prioritize hazardous fuel treatment programs

To learn more about the TWRA project or to create a custom summary report, go to www.texaswildfirerisk.com.



Map Products and Descriptions

Each map product in this report is accompanied by a general description, table, chart, or map. Please see the table below for a list of data layers available in the Summary Report.

Layer	Description	
Wildfire Occurrence Statistics	Information regarding number of fires, acres suppressed and cause of fire.	
Burn Probability	Burn Probability is the likelihood of wildfire burning a specific location within one calendar year or wildfire season.	
Wildfire Exposure Score	Wildfire Exposure Score combines wildfire likelihood (Burn Probability) and damage to homes (Damage Potential) for all areas regardless of whether a structure currently exists at that location.	
Damage Potential	Damage Potential represents the possible damage from wildfire to a home or parcel considering both fire intensity and embers from nearby fuel.	
Housing Unit Density	This layer displays housing unit density measured in housing units per square kilometer.	
Housing Unit Impact	Housing Unit Impact represents the relative potential impact to housing units if a fire were to occur.	
Housing Unit Risk	Housing Unit Risk represents the relative potential risk to housing units.	
Sources of Ember Load to Buildings	This layer displays the potential for fuel to be a source of embers to buildings.	
Functional Wildland Urban Interface	This dataset classifies the land near buildings into wildfire risk mitigation zones.	
Characteristic Fire Intensity Scale	Quantifies the potential fire intensity by orders of magnitude as determined by fuel and a range of possible wind and weather conditions.	
95th Percentile Fire Intensity Scale	95th Percentile (Average-Worst) Fire Intensity Scale quantifies fire intensity by orders of magnitude as determined by the worst five percent of wind and weather conditions.	
Characteristic Flame Length	Flame length measures the height of flames as determined by fuel and a range of possible wind and weather conditions.	
95th Percentile Flame Length	95th Percentile (Average-Worst) Flame Length measures the height of flames as determined by the worst five percent of wind and weather conditions.	
Characteristic Rate of Spread	This layer represents the rate of spread (ROS) as determined by fuel and weather characteristics across a full range of possible wind and weather conditions.	
95th Percentile Rate of Spread	95th Percentile (Average-Worst) Rate of Spread measures the rate of spread as determined by the worst five percent of wind and weather conditions.	
Probability of Crown Fire	This layer shows the likelihood of experiencing at least mid-grade passive crown fire.	

Layer	Description	
Probability of Exceeding Manual Control	This layer shows the likelihood that flames at the head of the fire will exceed 4 feet, which is generally considered the limit for manual fire control.	
Probability of Exceeding Mechanical Control	This layer shows the likelihood that flames at the head of the fire will exceed 8 feet, which is considered the limit for mechanical fire control in fire operations.	
Probability of Extreme Fire Behavior	This layer shows the likelihood that flames at the head of the fire will exceed 11 feet, which is considered threshold for extreme fire behavior in fire operations.	
Suppression Difficulty Index	Suppression Difficulty Index provides a rating of relative difficulty in performing wildfire control work considering factors like terrain, access, fuel, and fire behavior.	
Wildfire Hazard Potential	Wildfire Hazard Potential maps challenges to wildfire control and includes information such as Burn Probability, small-fire ignition density, fire intensity measures, and fuel/vegetation type.	
Conditional Ember Production Index	A relative index of the potential ember production if a fire were to occur.	
Conditional Ember Load Index	A relative index of the potential for a location to receive embers from surrounding land if a fire were to occur.	
Surface Fuels	Contains the parameters needed to compute surface fire behavior characteristics.	
Percent Slope	Percent Slope measures the rate of change of elevation over a given horizontal distance, expressed as a percent.	

Wildfire Hazard

The information in this section of the report describes the historical trends in wildfire, the annual likelihood of wildfire based on fire modeling, and two integrated hazard layers characterizing wildfire risk to homes - including a measure of ember load from nearby fuel.

Contents:

Wildfire Occurrence Statistics
Burn Probability
Wildfire Exposure Score
Damage Potential

Wildfire Occurrence Statistics

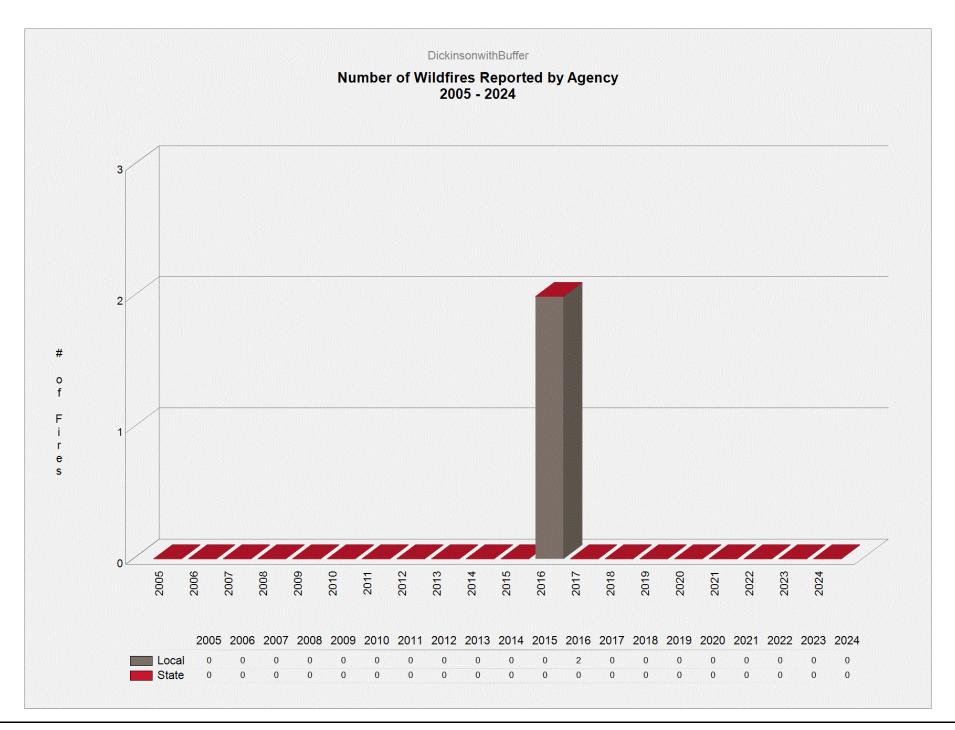
Description

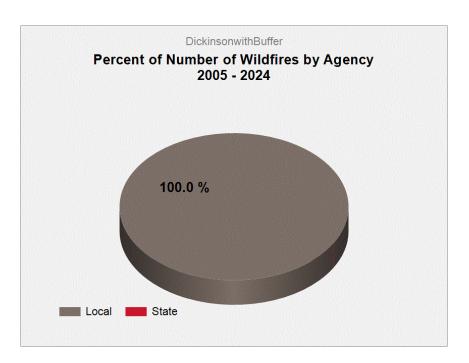
Wildfire occurrence statistics provide insight as to the number of fires, acres burned and cause of fires in Texas. These statistics are useful for prevention and mitigation planning. They can be used to quantify the level of fire business, determine the time of year most fires typically occur, and develop a fire prevention campaign aimed at reducing a specific fire cause. The fire occurrence statistics are grouped by primary response agency type, which include:

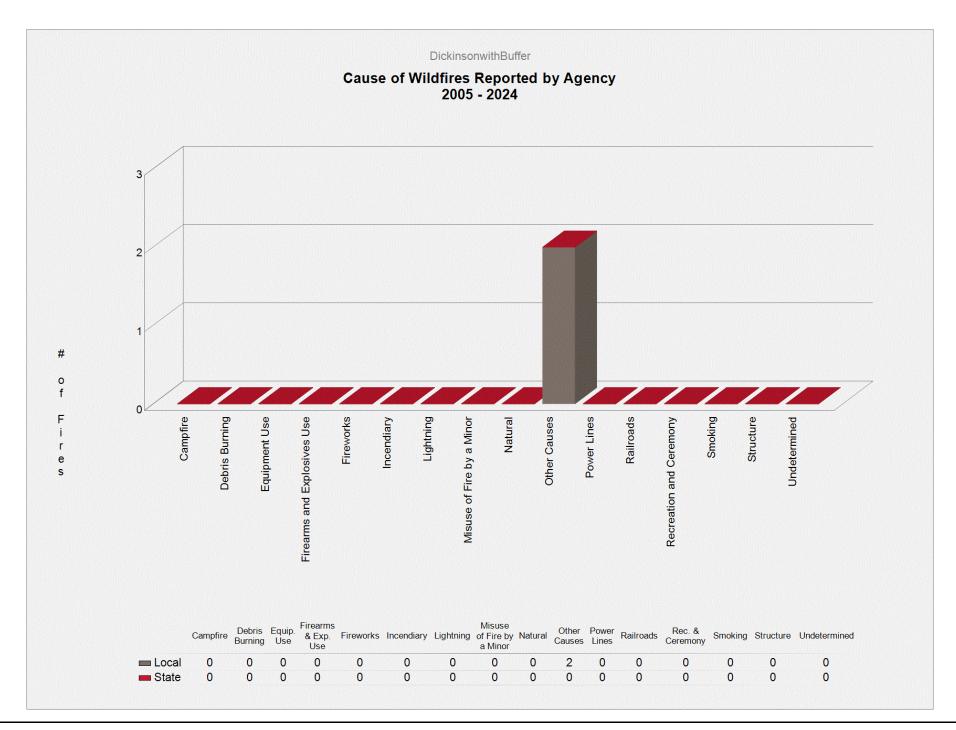
• **Texas Forest Service (TFS)** – The Texas Forest Service fire occurrence database represents all state-reported fires.

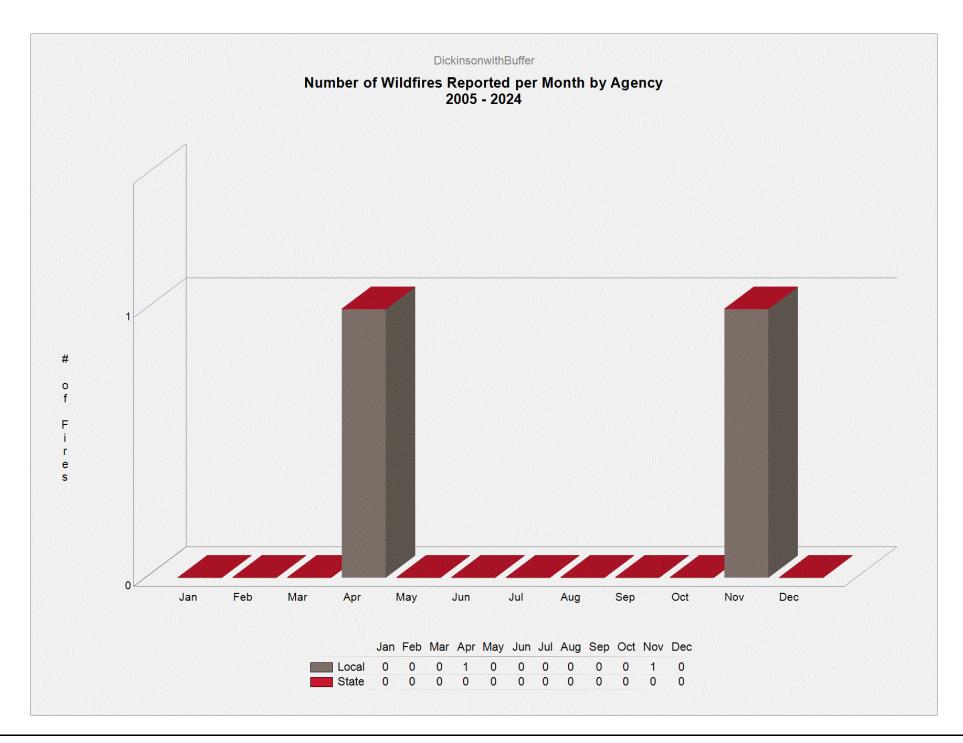
• Local – The local category includes fires reported via Texas Forest Service's online fire department reporting system. It is a voluntary reporting system that includes fires reported by both paid and volunteer fire departments since 2005.

Twenty years of historic fire report data was used to create the fire occurrence summary charts. Data was obtained from state and local fire department report data sources for the years 2005 to 2024. The compiled fire occurrence database was cleaned to remove duplicate records and to correct inaccurate locations.









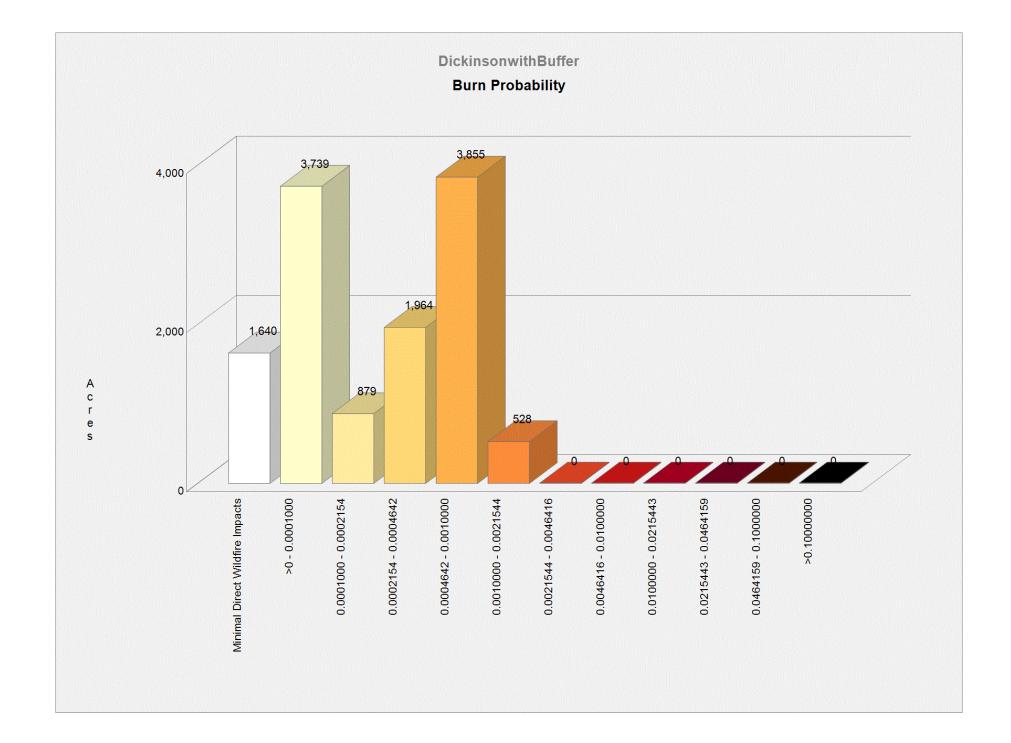
Burn Probability

Burn probability is the likelihood of wildfire burning a specific location within a set time frame - commonly represented as the chance of burning during one calendar year or wildfire season.

Burn Probability can be expressed as a fraction (ex. 0.005) or odds (1-in-200) and is based on fire behavior modeling across thousands of simulations of possible fire seasons. In each simulation, factors contributing to the probability of a fire occurring, including weather and ignition likelihood are varied based on patterns derived from observations in recent decades. It is not predictive and does not reflect any currently forecasted weather or fire danger conditions. Burn Probability does not say anything about the intensity of fire if it occurs.

Data Source: Texas Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

Burn Probability Category	Acres	Percent
Minimal Direct Wildfire Impacts	1,641	13 %
>0 - 0.0001000	3,739	30 %
0.0001000 - 0.0002154	879	7 %
0.0002154 - 0.0004642	1,964	16 %
0.0004642 - 0.0010000	3,855	31 %
0.0010000 - 0.0021544	528	4 %
0.0021544 - 0.0046416	0	0 %
0.0046416 - 0.0100000	0	0 %
0.0100000 - 0.0215443	0	0 %
0.0215443 - 0.0464159	0	0 %
0.0464159 - 0.1000000	0	0 %
>0.10000000	0	0 %
Total	12,605	100 %



Wildfire Exposure Score

Wildfire Exposure Score (also called "Structure Exposure Score") combines two important wildfire factors related to structure exposure: the chance of wildfire (Burn Probability – defined as the likelihood of wildfire burning a specific location within a calendar year or wildfire season) and the potential damage to homes from wildfire (Damage Potential – defined as an estimate of damage that a wildfire could cause to homes considering both fire intensity and embers from nearby fuel).

Exposure scores are provided for all areas regardless of whether a structure currently exists at that location. Each Wildfire Exposure Score category accounts for a 1.5 times (or 50 percent) difference in exposure. For example, a structure located within Class 3/10 is 1.5 times more exposed than one in Class 2/10, and so on.

Wildfire Exposure Score Category	Acres	Percent
1/10	1,641	13 %
2/10	5,950	47 %
3/10	2,080	17 %
4/10	2,041	16 %
5/10	819	6 %
6/10	73	1 %
7/10	0	0 %
8/10	0	0 %
9/10	0	0 %
10/10	0	0 %
Total	12,605	100 %

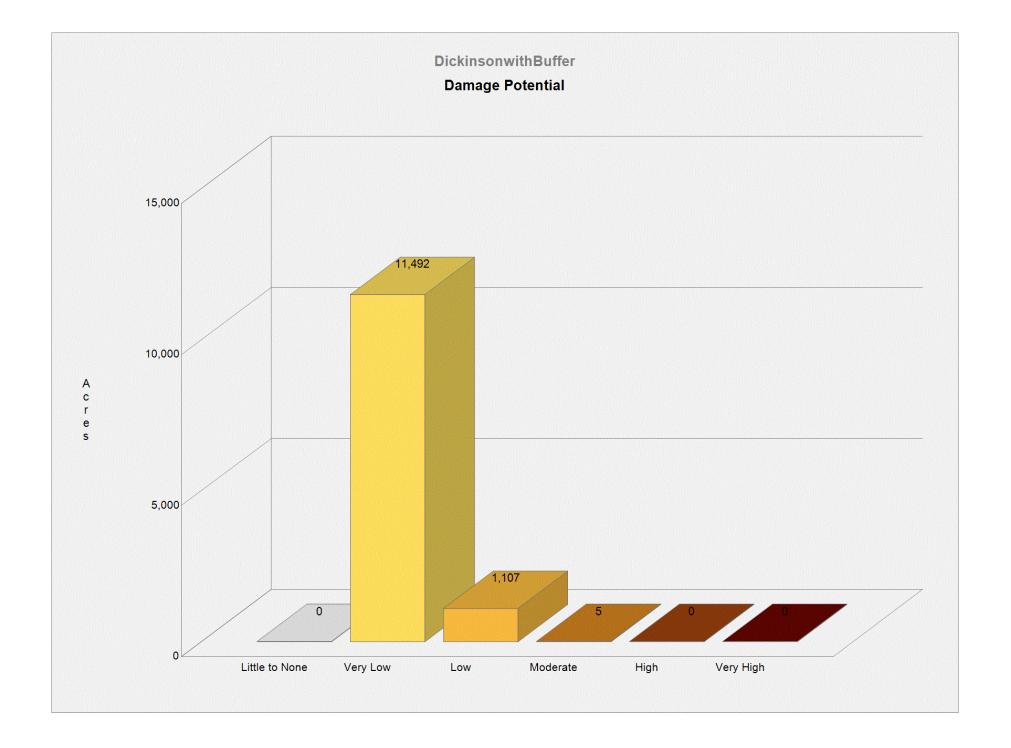
Damage Potential

Damage Potential provides an index of potential damage to homes from wildfire. It considers factors like flame length and embers lofted from nearby fuel.

Damage Potential is a relative index (from low to high), that provides a broad measure of the possible damage from wildfire, based generally on the landscape, rather than specific characteristics of a home or parcel. For planning uses and broad applications, the index is calculated for all areas regardless of whether a structure currently exists at that location. This index does not incorporate a measure of wildfire likelihood.

Damage Potential is a fire-effects measure and includes flame-length estimates that reflect all spread directions (heading, backing, and flanking). Intensities from nonheading spread directions are considerably lower than those at the head of the fire.

Damage Potential Category	Acres	Percent
Little to None	0	0 %
Very Low	11,492	91 %
Low	1,107	9 %
Moderate	5	0 %
High	0	0 %
Very High	0	0 %
Total	12,605	100 %



Risk to Homes and Communities

The information in this section provides useful information for communities to help prepare for and prevent wildfires.

Contents:

Housing Unit Density

Housing Unit Impact

Housing Unit Risk

Sources of Ember Load to Buildings

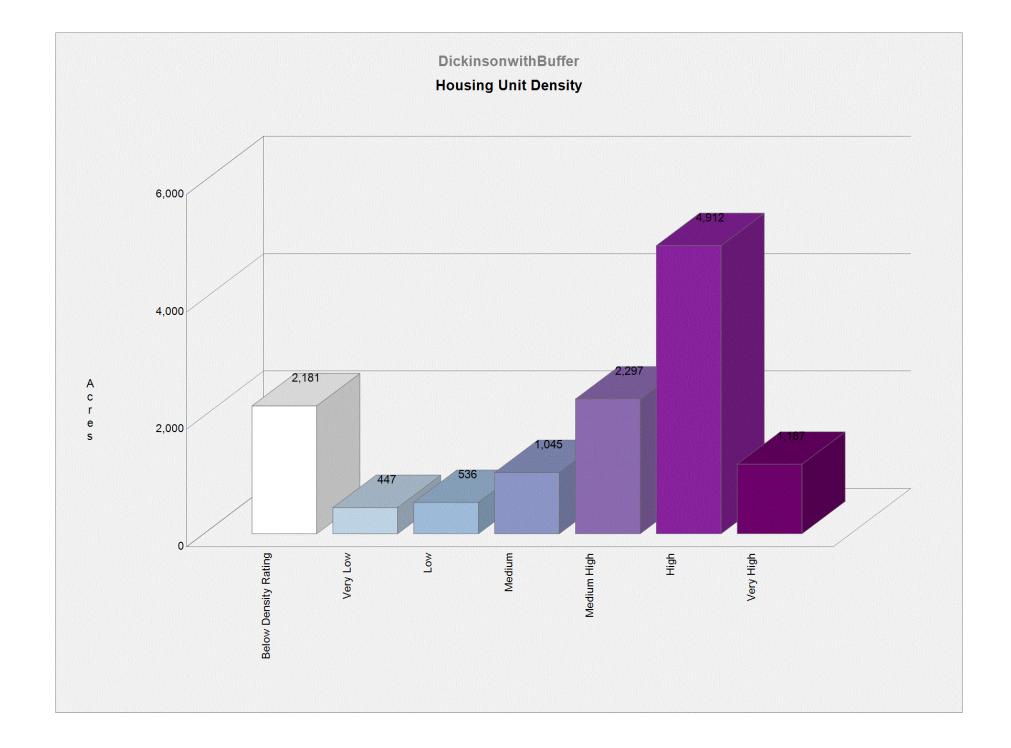
Functional Wildland Urban Interface (WUI)

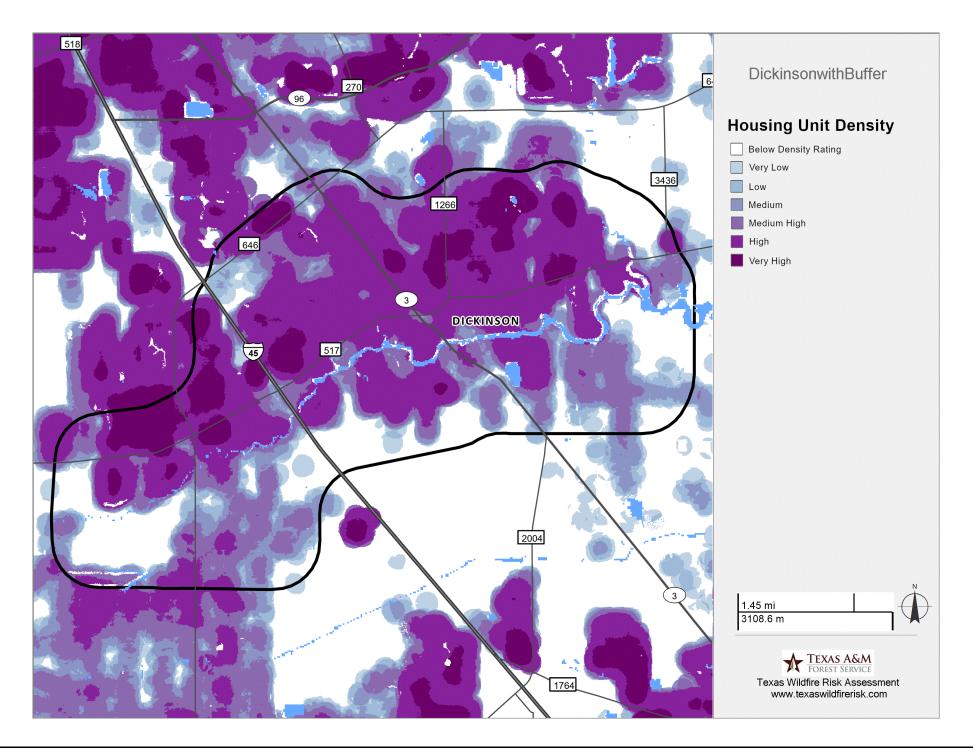
Housing Unit Density

This layer displays housing unit density measured in housing units per square kilometer and reflects 2020 estimates of housing unit counts from the U.S. Census Bureau, combined with building footprint data from Onegeo and USA Structures - both reflecting 2022 conditions. The same methodology was used here as was used to produce the Housing Unit Density layer created as part of the Wildfire Risk to Communities Project (Jaffe et al., 2024; WRC, 2024). However, housing unit counts and density (housing units/km2) were calculated at 10-m resolution for TWRA.

Data Source: Texas Wildfire Risk Assessment, Pyrologix 2023

Housing Unit Density Category	Acres	Percent
Below Density Rating	2,181	17 %
Very Low	448	4 %
Low	536	4 %
Medium	1,045	8 %
Medium High	2,297	18 %
High	4,912	39 %
Very High	1,187	9 %
Total	12,605	100 %



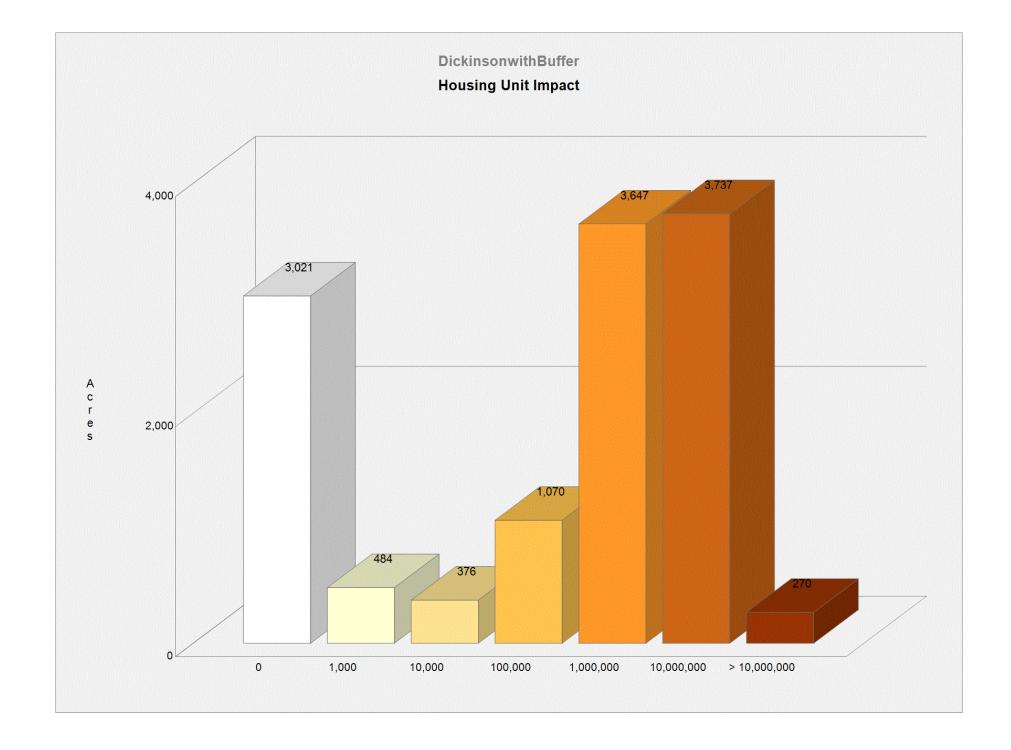


Housing Unit Impact

This dataset represents the relative potential impact to housing units if a fire were to occur. Housing Unit Impact (HUImpact) incorporates housing-unit counts with the general consequences of fire on a home as a function of fire intensity. HUImpact does not include fire likelihood and does not reflect individual structure mitigations that would influence susceptibility.

The same methodology was used here as was used to produce the Housing Unit Impact layer created as part of the Wildfire Risk to Communities Project (Jaffe et al., 2024; WRC, 2024). However, Housing Unit Impact was produced at 10-m resolution for TWRA. Note: This legend was adjusted to account for the effect of 10-m resolution on the final values and to be comparable with the same data layer in the Southern Wildfire Risk Assessment. This adjustment is needed when comparing acres by legend class, however, original raster values should be used for any data analysis such as zonal summaries of Housing Unit Impact values.

Housing Unit Impact Category	Acres	Percent
0	3,021	24 %
1,000	485	4 %
10,000	376	3 %
100,000	1,070	8 %
1,000,000	3,647	29 %
10,000,000	3,737	30 %
> 10,000,000	270	2 %
Total	12,605	100 %



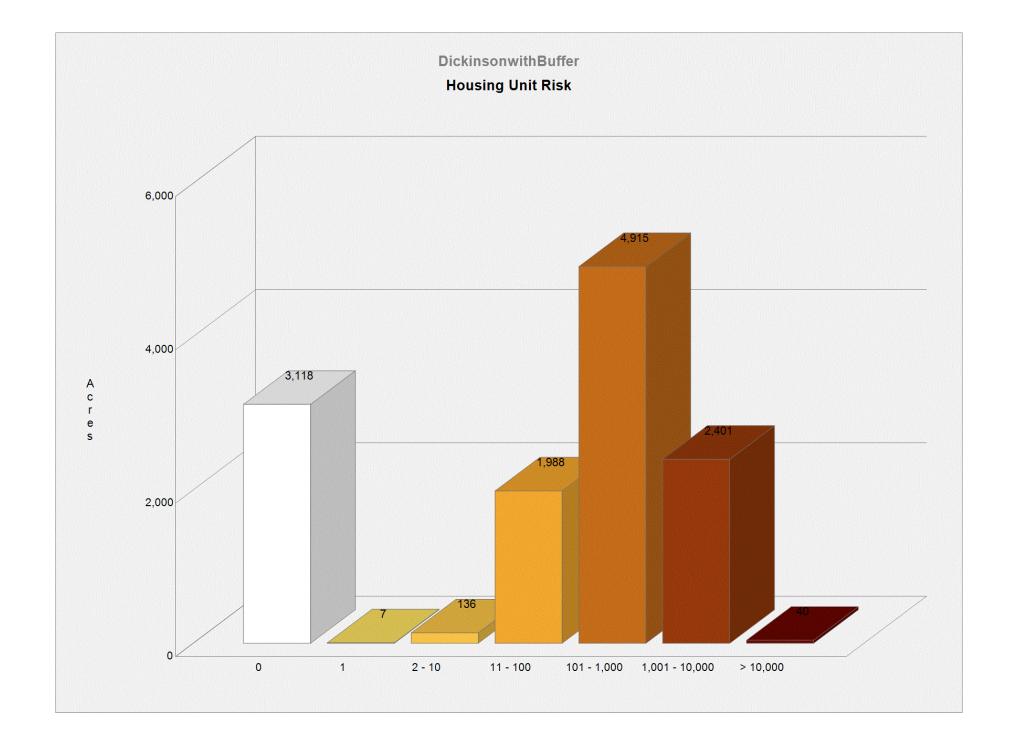
Housing Unit Risk

Housing Unit Risk (HURisk) represents the potential risk to housing units and incorporates both the general consequences of fire on a home as a function of fire intensity, and Burn Probability as a measure of wildfire likelihood. HURisk does not reflect individual structure mitigations that would influence susceptibility.

Housing Unit Risk integrates all four primary elements of wildfire risk - likelihood, intensity, susceptibility, and exposure - on pixels where housing unit density is greater than zero.

The same methodology was used here as was used to produce the Housing Unit Impact layer created as part of the Wildfire Risk to Communities Project (Jaffe et al., 2024; WRC, 2024). However, Housing Unit Impact was produced at 10-m resolution for TWRA. Note: This legend was adjusted to account for the effect of 10-m resolution on the final values and to be comparable with the same data layer in the Southern Wildfire Risk Assessment. This adjustment is needed when comparing acres by legend class, however, original raster values should be used for any data analysis such as zonal summaries of Housing Unit Impact values.

Housing Unit Risk Category	Acres	Percent
0	3,118	25 %
1	8	0 %
2 - 10	136	1%
11 - 100	1,988	16 %
101 - 1,000	4,915	39 %
1,001 - 10,000	2,401	19 %
> 10,000	40	0 %
Total	12,605	100 %



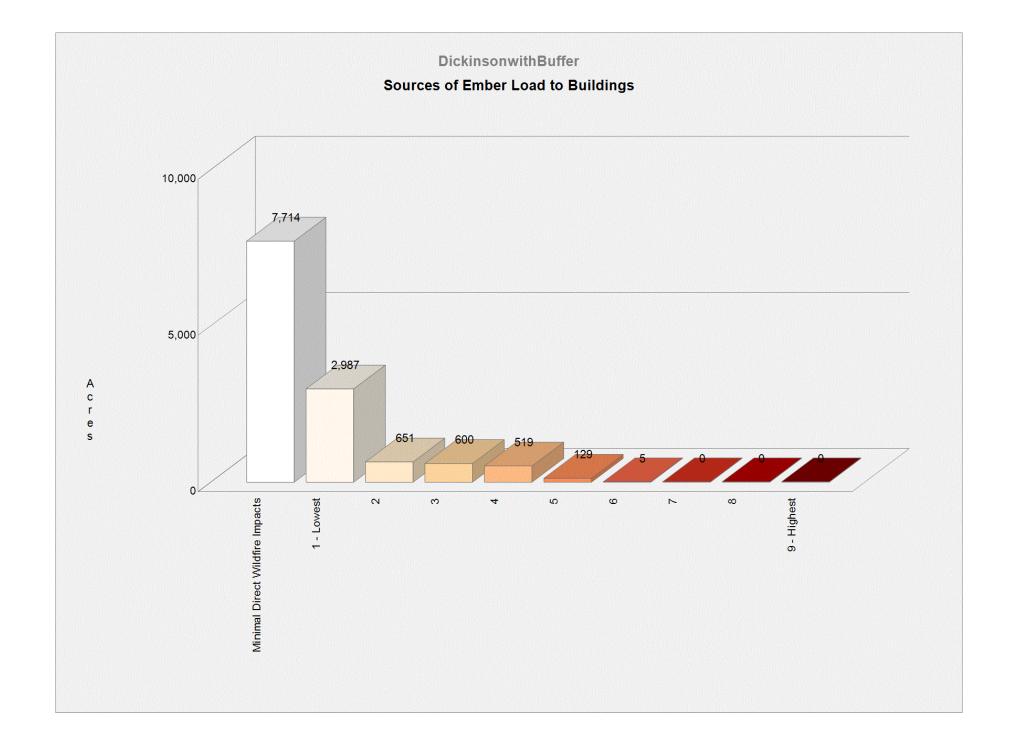
Sources of Ember Load to Buildings

Sources of Ember Load to Buildings (SELB) is a relative index of the potential for fuel to produce embers that land where buildings are located, given that a fire occurs.

SELB identifies burnable land cover that produces embers capable of reaching nearby buildings. Units are an index of the relative number of embers rather than a count of embers produced. Ember production is a function of fire type and intensity; ember travel is a function of wind speed and direction. Ember modeling is based on fire modeling from WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). WildEST results reflect how often weather conditions occur and capture the influence of high-spread conditions. SELB is based on heading-only fire behavior and does not include the likelihood of wildfire.

The Sources of Ember Load to Buildings layer is useful for prioritizing mitigation actions to reduce the potential for ember damage to buildings.

Sources of Ember Load to Buildings Category	Acres	Percent
Minimal Direct Wildfire Impacts	7,714	61 %
1 - Lowest	2,988	24 %
2	651	5 %
3	600	5 %
4	519	4 %
5	129	1 %
6	5	0 %
7	0	0 %
8	0	0 %
9 - Highest	0	0 %
Total	12,605	100 %



Functional Wildland Urban Interface (WUI)

Functional WUI represents a classification of the land near buildings* into zones that describe the wildfire risk mitigation activities appropriate for each zone.

Direct Exposure—The Direct Exposure zone is burnable land cover within 75 m of a structure. Reducing fire intensity and ember production in this zone would reduce the exposure of nearby buildings to heat and embers. Buildings in this zone also require hardening of the structure to resist ignition.

Indirect Exposure—The Indirect Exposure zone is nonburnable land cover within 1500 m of burnable land cover that is within 75 m of a structure, meaning that embers and home-to-home spread could reach within this zone. Indirectly exposed structures would benefit from the hardening of the structure to resist ignition from embers and nearby structures, but defensible space is usually not required due to the heavily developed nature of the zone.

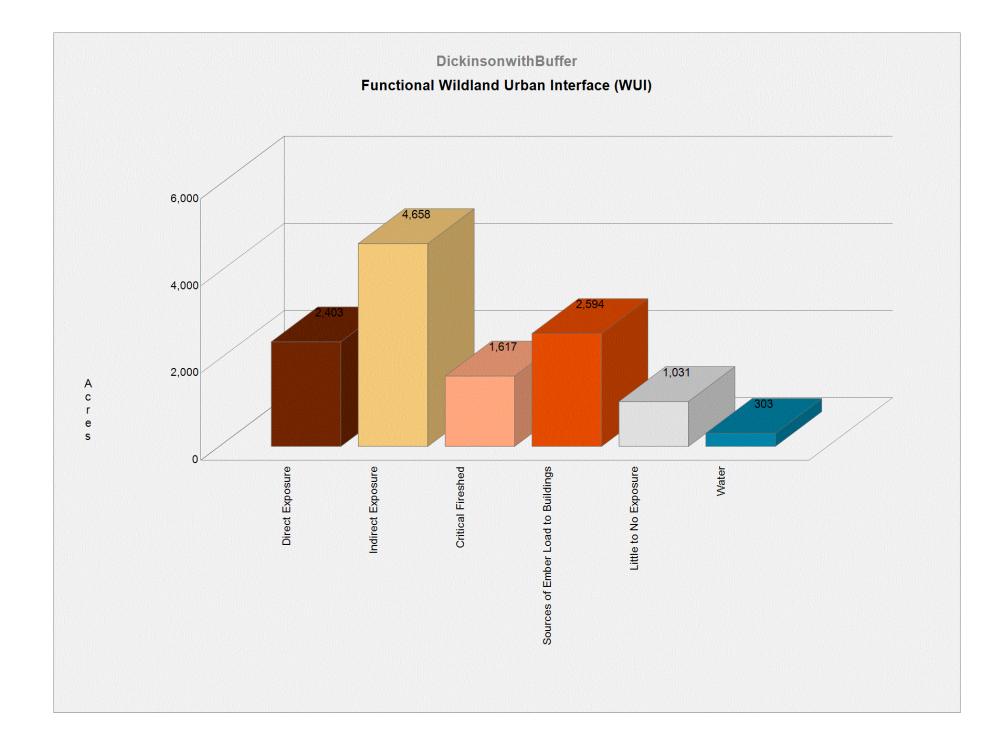
Critical Fireshed—The Critical Fireshed is the unpopulated land within about 2.4 km of a group of structures. Fires that originate within or spread to the Critical Fireshed have an immediate threat of reaching the nearby structures; fuel treatments that slow fire spread in this zone can reduce risk to these structures.

Sources of Ember Load to Buildings—These are areas of burnable land cover that produces embers capable of reaching nearby buildings. Ember production is a function of fire type and intensity, and ember travel is a function of wind speed and direction. Fuel treatment in this zone is a priority for reducing ember load to the nearby buildings.

Little-to-no Exposure—The Little-to-no Exposure zone is nonburnable land that is within 75 m of a structure but greater than 1500 m from a large (500 ha) contiguous block of burnable land cover. Flames—even from home-to-home spread—and embers are unlikely to reach the Little-to-no-Exposure zone, but smoke and evacuations could still impact this area.

*Buildings used in producing Functional WUI are defined as greater than 40 sq meters.

Functional Wildland Urban Interface (WUI) Category	Acres	Percent
Direct Exposure	2,403	19 %
Indirect Exposure	4,658	37 %
Critical Fireshed	1,617	13 %
Sources of Ember Load to Buildings	2,594	21 %
Little to No Exposure	1,031	8 %
Water	303	2 %
Total	12,605	100 %



Flame Front Characteristics

The information in this section of the report describes fire behavior characteristics at the flaming front of the fire.

Contents:

Characteristic Fire Intensity Scale

95th Percentile Fire Intensity Scale

Characteristic Flame Length

95th Percentile Flame Length

Characteristic Rate of Spread

95th Percentile Rate of Spread

Probability of Crown Fire

Fire Behavior Overview

Description

Fire behavior is the manner in which a fire reacts to the following environmental influences:

- 1. Fuels
- 2. Weather
- 3. Topography

Fire behavior characteristics are attributes of wildland fire that pertain to its spread, intensity, and growth. Fire behavior characteristics utilized in the Texas Wildfire Risk Assessment (TWRA) include fire type, rate of spread, flame length and fire intensity scale. These metrics are used to determine the potential fire behavior under different weather scenarios. Areas that exhibit moderate to high fire behavior potential can be identified for mitigation treatments, especially if these areas are in close proximity to homes, business, or other assets.

Fuels

The SWRA includes composition and characteristics for both surface fuels and canopy fuels. Significant increases in fire behavior will be captured if the fire has the potential to transition from a surface fire to a canopy fire.

Fuel datasets required to compute both surface and canopy fire potential include:

- Surface Fuels, generally referred to as fire behavior fuel models, provide the input parameters needed to compute surface fire behavior.
- **Canopy Cover** is the horizontal percentage of the ground surface that is covered by tree crowns. It is used to compute wind reduction factors and shading.
- Canopy Ceiling Height/Stand Height is the height above the ground of
 the highest canopy layer where the density of the crown mass within
 the layer is high enough to support vertical movement of a fire. A
 good estimate of canopy ceiling height would be the average height of
 the dominant and co-dominant trees in a stand. It is used for
 computing wind reduction to midflame height and spotting distances
 from torching trees (Fire Program Solutions, L.L.C, 2005).
- Canopy Base Height is the lowest height above the ground above which here is sufficient canopy fuel to propagate fire vertically (Scott & Reinhardt, 2001). Canopy base height is a property of a plot, stand, or group of trees, not of an individual tree. For fire modeling, canopy base height is an effective value that incorporates ladder fuel, such as tall shrubs and small trees. Canopy base height is used to determine if a surface fire will transition to a canopy fire.
- Canopy Bulk Density is the mass of available canopy fuel per unit canopy volume (Scott & Reinhardt, 2001). Canopy bulk density is a bulk property of a stand, plot, or group of trees, not of an individual tree. Canopy bulk density is used to predict whether an active crown fire is possible.

Weather

Environmental weather parameters needed to compute fire behavior characteristics include 1-hour, 10-hour, and 100-hour timelag fuel moistures, herbaceous fuel moisture, woody fuel moisture, and the 20-foot wind speed.

Weather variables were acquired from gridded weather data to generate 216 weather scenarios comprised of 9 wind speeds, 8 wind directions, and 3 moisture scenarios. Rather than employing multiple percentile weather categories (as previously used in the SWRA fire behavior calculations), the fire behavior modeling in the SWRA update is calculated with the Wildfire Exposure Simulation Tool (WildEST).

WildEST is a cloud-based system that uses a custom implementation of the FlamMap fire modeling system (Finney 2006) to produce simulations under a range of weather types (wind speed, wind direction, fuel moisture content). The 216 FlamMap runs are combined into a single output by weighting each scenario according to weather type probabilities that reflect how often each weather scenario occurs in the record, its co-occurrence with historical fire ignitions, and the influence of high-spread conditions (such as the disproportionate impact of hot, dry, and windy conditions on fire growth).

Two sets of results are provided for each of the Flame Front Characteristic layers. Results using all 216 weather scenarios are labeled "Characteristic" while "95th Percentile" or average-worst Flame Front Characteristics demonstrate the impact of the top five percent of weather types. These results represent an average of the worst 5% of weather types, weighted according to the frequency of the weather type and the influence of high-spread conditions.

Topography

Topography datasets required to compute fire behavior characteristics are elevation, slope and aspect.

Characteristic Fire Intensity Scale

Characteristic Fire Intensity Scale (FIS) specifically identifies where significant fuel hazards and associated dangerous fire behavior potential exist based on fuel and weighted across a full range of wind and weather conditions calculated using WildEST. Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations. These estimates include the contribution of crown fuel and crowning fire intensity.

Similar to the Richter scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. FIS consist of 5 classes where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensities and the maximum class, Class 5, represents very high wildfire intensities. Refer to descriptions below.

1. Class 1, Very Low:

Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.

2. Class 2, Low:

Small flames, usually less than two feet long; small amount of very short range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.

3. Class 3, Moderate:

Flames up to 9 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.

4. Class 4. High:

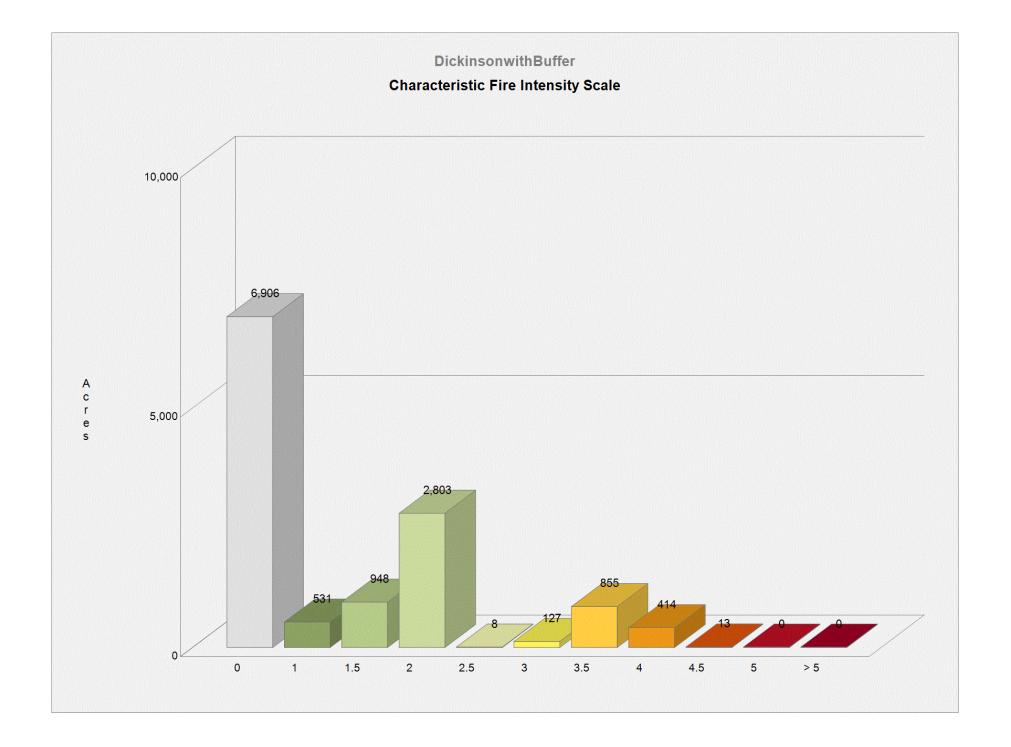
Large Flames, up to 40 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.

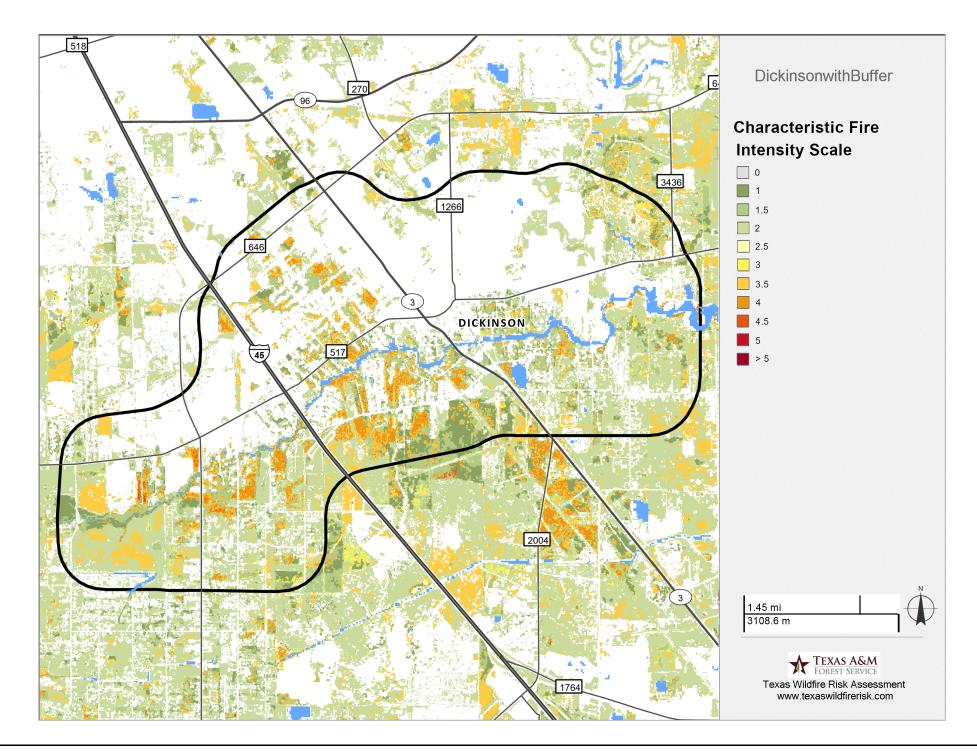
5. Class 5, Very High:

Flames exceeding 200 feet in length; expect extreme fire behavior.

To aid in viewing on the map, FIS is presented in 1/2 class increments. Please consult the TxWRAP User Manual for a more detailed description of the FIS class descriptions.

Characteristic Fire Intensity Scale Category	Acres	Percent
0	6,906	55 %
1	531	4 %
1.5	948	8 %
2	2,803	22 %
2.5	8	0 %
3	127	1 %
3.5	855	7 %
4	414	3 %
4.5	13	0 %
5	0	0 %
>5	0	0 %
Total	12,605	100 %





95th Percentile Fire Intensity Scale

This layer represents the "average-worst" 95th Percentile Fire Intensity Scale at the flaming front of the fire. Here, fireline intensity is represented as the standard Fire Intensity Scale (Log10 of fireline intensity) as determined by fuel and weather characteristics. These results are weighted according to the Weather Type Probabilities (WTPs) from the highest five percent of possible wind and weather conditions and include the contribution of crown fuel and crowning fire intensity, if applicable. Fireline intensity is calculated using WildEST. Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations.

Similar to the Richter scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. FIS consists of 5 classes where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensities and the maximum class, Class 5, represents very high wildfire intensities. Refer to descriptions below.

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2. Class 2, Low:

Small flames, usually less than two feet long; small amount of very short range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.

3. Class 3, Moderate:

Flames up to 9 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.

4. Class 4, High:

Large Flames, up to 40 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.

5. Class 5, Very High:

Flames exceeding 200 feet in length; expect extreme fire behavior.

To aid in viewing on the map, FIS is presented in 1/2 class increments. Please consult the TxWRAP User Manual for a more detailed description of the FIS class descriptions.

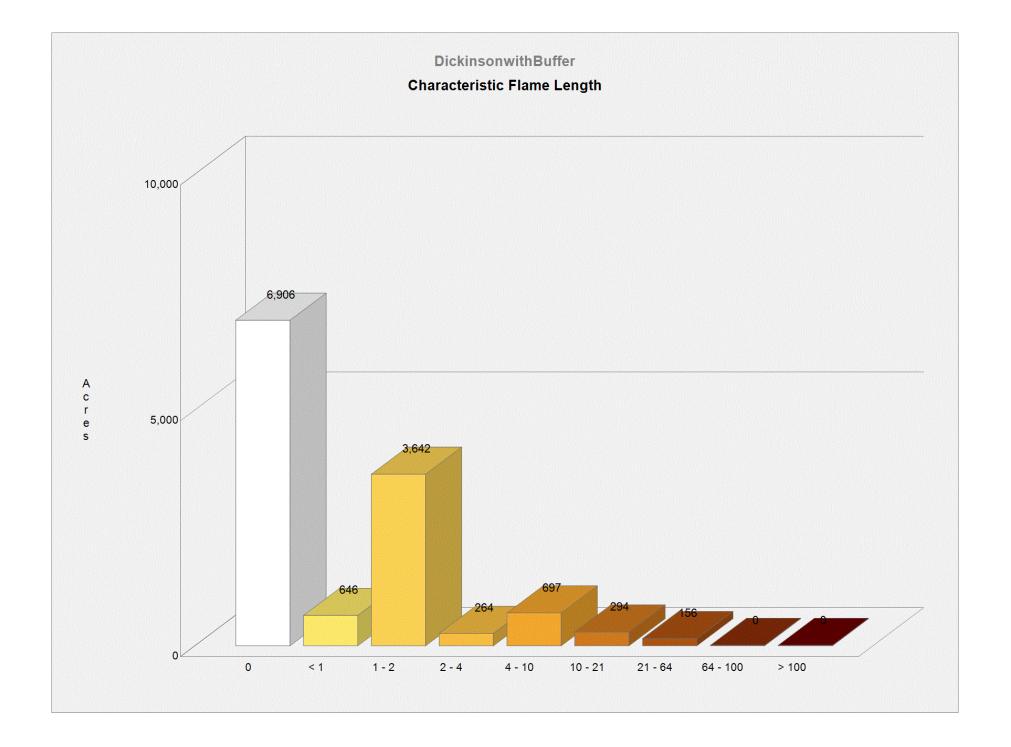
95th Percentile Fire Intensity Scale Category	Acres	Percent
0	6,906	55 %
1	491	4 %
1.5	40	0 %
2	1,240	10 %
2.5	2,322	18 %
3	197	2 %
3.5	77	1 %
4	481	4 %
4.5	449	4 %
5	401	3 %
>5	0	0 %
Total	12,605	100 %

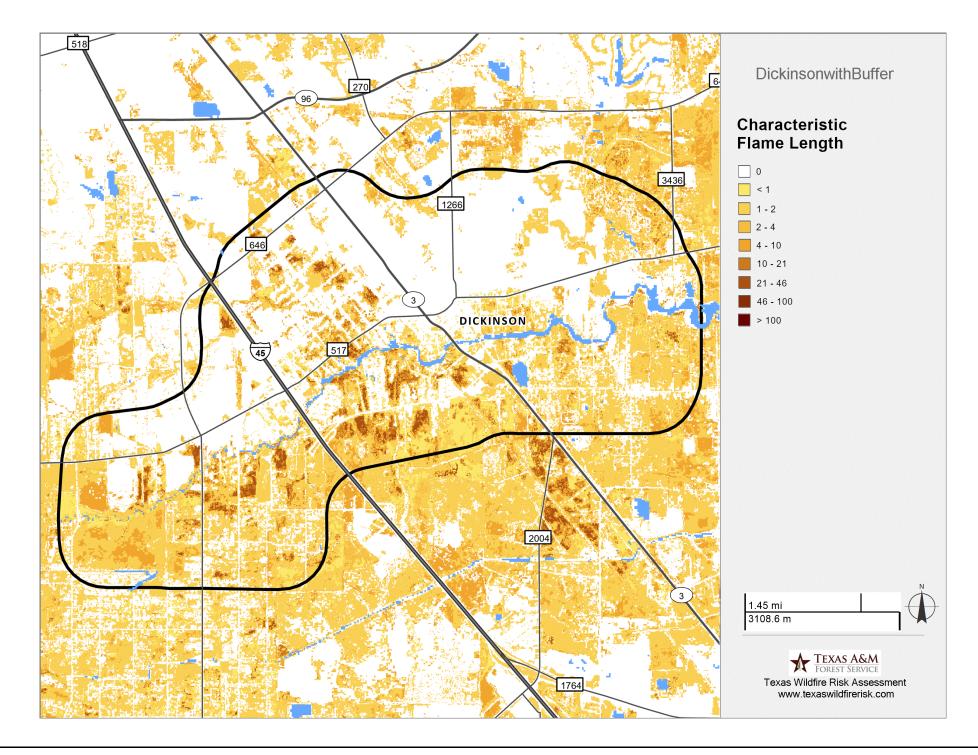
Characteristic Flame Length

This layer represents the flame length (in feet) as determined by fuel and weather characteristics. These results are weighted across a full range of possible wind and weather conditions and include the contribution of crown fire flame lengths, if applicable. Flame length is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations.

Uses for this flame length dataset include comparison of expected flame-lengths across the landscape for identifying wildfire hazards to the public and exploring hazard mitigation opportunities for communities and land management agencies.

Characteristic Flame Length Category	Acres	Percent
0	6,906	55 %
<1	646	5 %
1 - 2	3,642	29 %
2 - 4	264	2 %
4 - 10	697	6 %
10 - 21	294	2 %
21 - 46	156	1 %
46 - 100	0	0 %
> 100	0	0 %
Total	12,605	100 %





95th Percentile Flame Length

This layer represents the "average-worst" 95th Percentile Flame Length (in feet) at the flaming front of the fire as determined by fuel and weather characteristics. These results are weighted according to the Weather Type Probabilities (WTPs) from the highest five percent of possible wind and weather conditions and include the contribution of crown fire flame lengths, if applicable.

Flame length is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculation.

95th Percentile Flame Length Category	Acres	Percent
0	6,906	55 %
<1	531	4 %
1 - 2	1,241	10 %
2 - 4	2,474	20 %
4 - 10	120	1 %
10 - 21	502	4 %
21 - 46	23	0 %
46 - 100	538	4 %
> 100	270	2 %
Total	12,605	100 %

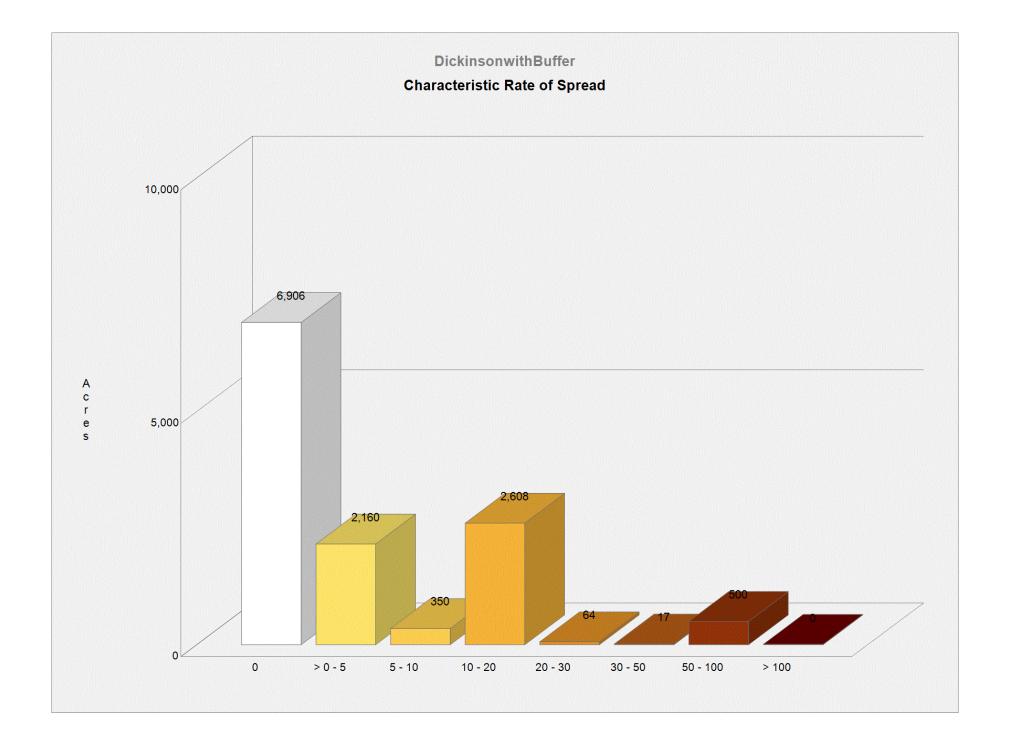
Characteristic Rate of Spread

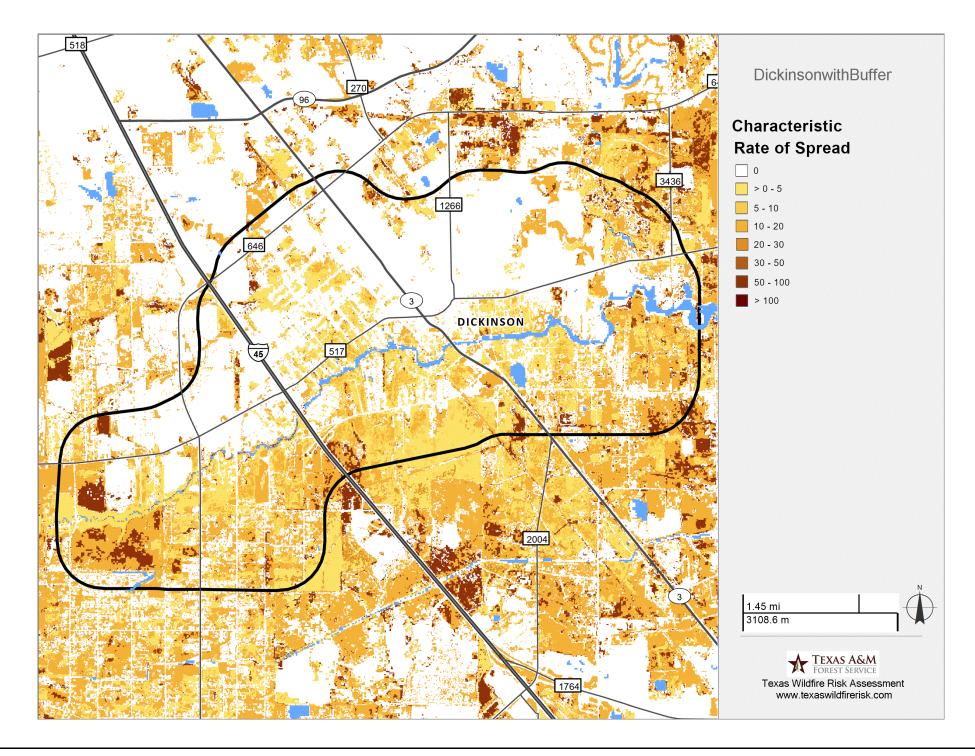
This layer represents the rate of spread as determined by fuel and weather characteristics. These results are weighted across a full range of possible wind and weather conditions and include the contribution of crown fire spread rate, if applicable.

Rate of Spread is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content).

Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations.

Characteristic Rate of Spread Category	Acres	Percent
0	6,906	55 %
> 0 - 5	2,160	17 %
5 - 10	350	3 %
10 - 20	2,608	21 %
20 - 30	64	1 %
30 - 50	17	0 %
50 - 100	500	4 %
> 100	0	0 %
Total	12,605	100 %



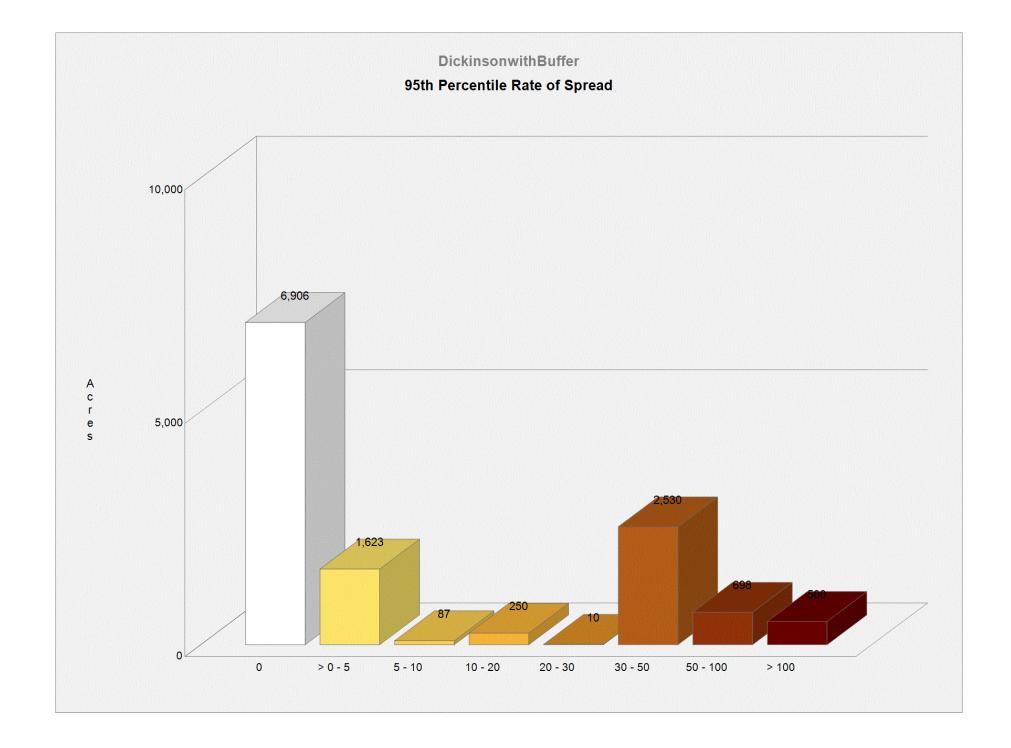


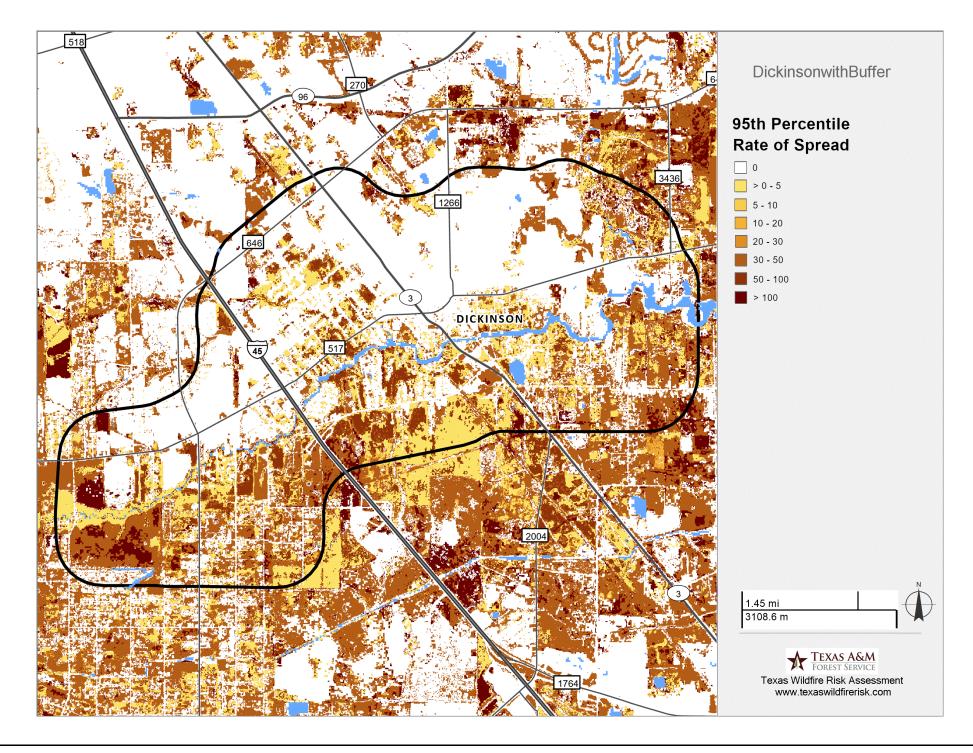
95th Percentile Rate of Spread

This layer represents the "average-worst" 95th Percentile Rate of Spread (ch/h) at the flaming front of the fire as determined by fuel and weather characteristics. These results are weighted according to the Weather Type Probabilities (WTPs) from the highest five percent of possible wind and weather conditions and include the contribution of crown fire spread rate, if applicable.

Rate of Spread is calculated using WildEST, a process used to perform and combine multiple fire behavior simulations under a range of weather types (wind speed, wind direction, fuel moisture content). Rather than weighting results solely by how frequently the weather conditions occur, the WildEST process factors the greater influence of high-spread conditions into the weighting calculations.

95th Percentile Rate of Spread Category	Acres	Percent
0	6,906	55 %
> 0 - 5	1,623	13 %
5 - 10	87	1 %
10 - 20	250	2 %
20 - 30	10	0 %
30 - 50	2,530	20 %
50 - 100	698	6 %
> 100	500	4 %
Total	12,605	100 %





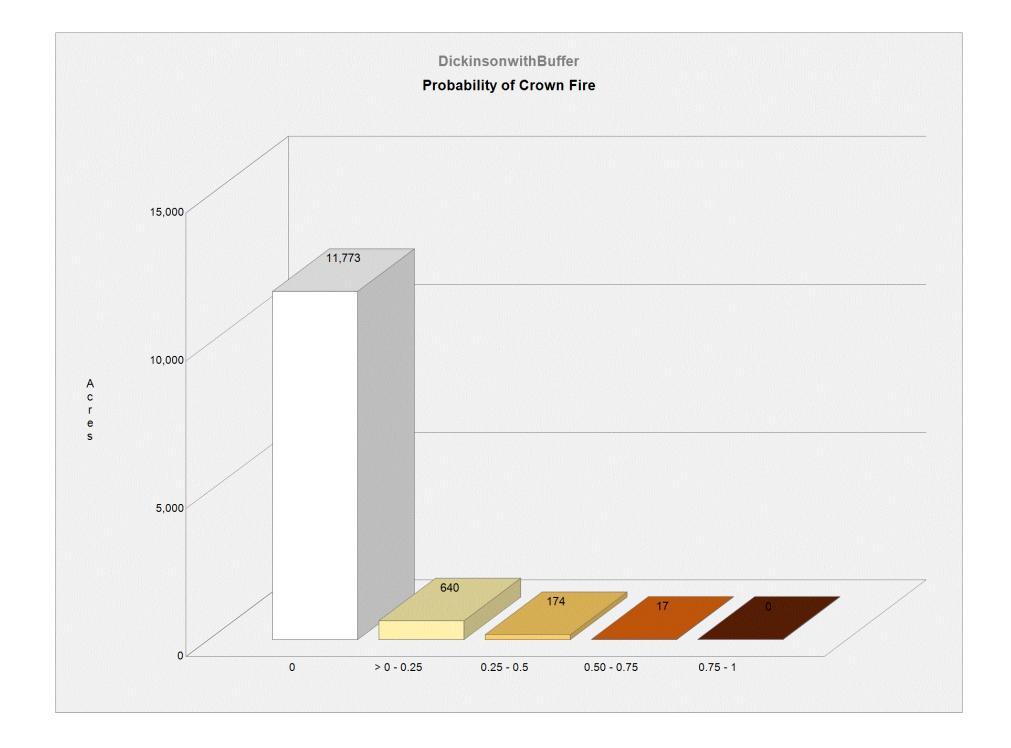
Probability of Crown Fire

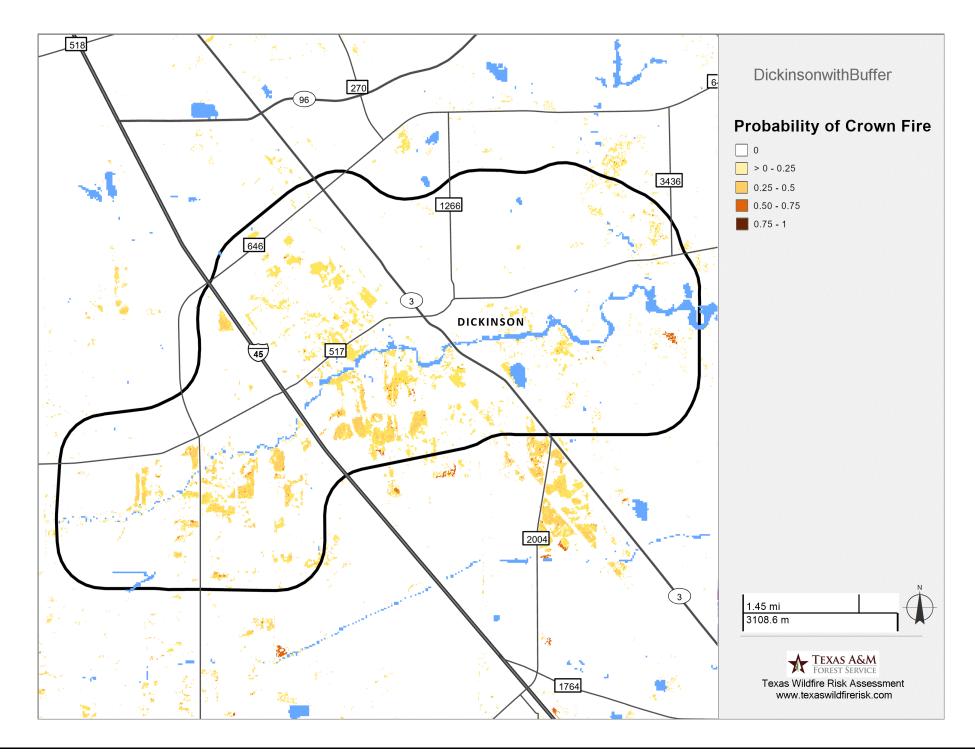
This layer shows the likelihood of the head of the fire experiencing crown fire (at least mid-grade passive crown fire). The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates.

Crown (or canopy) fires are very dangerous, destructive, and difficult to control due to their increased fire intensity. From a planning perspective, it is important to identify where these conditions are likely to occur on the landscape so that special preparedness measures can be taken if necessary.

Higher probability values indicate a high likelihood of crown fire. Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about the likelihood of a location experiencing crown fire, if a wildfire were to occur.

Probability of Crown Fire Category	Acres	Percent
0	11,773	93 %
> 0 - 0.25	640	5 %
0.25 - 0.5	174	1 %
0.50 - 0.75	17	0 %
0.75 - 1	0	0 %
Total	12,605	100 %





Challenges to Fire Operations

The information in this section of the report describes fire behavior information useful in operational fire planning and for identifying fuel treatment opportunities.

Contents:

Probability of Exceeding Manual Control
Probability of Exceeding Mechanical Control
Probability of Extreme Fire Behavior
Suppression Difficulty Index
Wildfire Hazard Potential

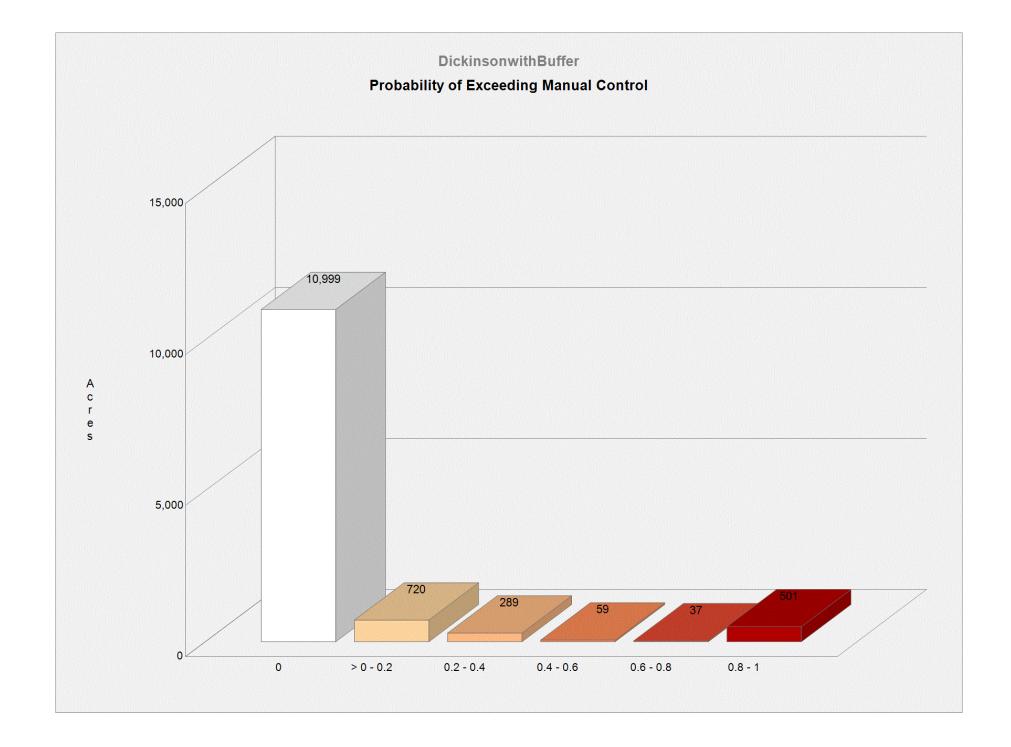
Probability of Exceeding Manual Control

This layer shows the likelihood that flames at the head of the fire will exceed 4 feet, which is generally considered the limit for manual fire control. The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates.

Higher probability values indicate a lower chance of success using manual control measures (i.e. hand crews and hand line). Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about flame lengths if a wildfire were to occur.

Flame length exceedance probabilities refer to the likelihood of flames reaching or surpassing a certain height, typically measured from the leading edge or "head" of a fire. These probabilities provide insight into the range of potential flame lengths under various weather conditions. For example, if the probability of exceeding a certain flame length threshold is 0.2 (20%), it means there is a 20% chance that flames exceed that height under the range of modeled weather scenarios. It also means that 80% of flame lengths are expected to be below the threshold. These probabilities help fire management personnel anticipate and plan for the potential intensity of wildfires in a specific area.

Probability of Exceeding Manual Control Category	Acres	Percent
0	10,999	87 %
> 0 - 0.2	720	6 %
0.2 - 0.4	289	2 %
0.4 - 0.6	59	0 %
0.6 - 0.8	37	0 %
0.8 - 1	501	4 %
Total	12,605	100 %



Probability of Exceeding Mechanical Control

This layer shows the likelihood that flames at the head of the fire will exceed 8 feet, which is considered the limit for mechanical fire control in fire operations. The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates.

Higher probability values indicate a lower chance of success using mechanical control measures such as dozers and engines. Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about flame lengths if a wildfire were to occur.

Flame length exceedance probabilities refer to the likelihood of flames reaching or surpassing a certain height, typically measured from the leading edge or "head" of a fire. These probabilities provide insight into the range of potential flame lengths under various weather conditions. For example, if the probability of exceeding a certain flame length threshold is 0.2 (20%), it means there is a 20% chance that flames exceed that height under the range of modeled weather scenarios. It also means that 80% of flame lengths are expected to be below the threshold. These probabilities help fire management personnel anticipate and plan for the potential intensity of wildfires in a specific area.

Probability of Exceeding Mechanical Control Category	Acres	Percent
0	11,196	89 %
> 0 - 0.2	603	5 %
0.2 - 0.4	766	6 %
0.4 - 0.6	13	0 %
0.6 - 0.8	6	0 %
0.8 - 1	21	0 %
Total	12,605	100 %

Probability of Extreme Fire Behavior

This layer shows the likelihood that flames at the head of the fire will exceed 11 feet, which is considered threshold for extreme fire behavior in fire operations. The head of the fire exhibits the most extreme fire behavior, demonstrating the highest intensity and fastest spread rates. Flames of this height can indicate extreme fire behavior and present significant challenges for suppression efforts.

Higher probability values indicate a high likelihood of extreme fire behavior such as crowning and spotting. Probability results reflect fuel characteristics and the flame lengths produced under a range of weather conditions. These probabilities do not include the likelihood of a wildfire occurring, rather, they provide information about flame lengths if a wildfire were to occur.

Flame length exceedance probabilities refer to the likelihood of flames reaching or surpassing a certain height, typically measured from the leading edge or "head" of a fire. These probabilities provide insight into the range of potential flame lengths under various weather conditions. For example, if the probability of exceeding a certain flame length threshold is 0.2 (20%), it means there is a 20% chance that flames exceed that height under the range of modeled weather scenarios. It also means that 80% of flame lengths are expected to be below the threshold. These probabilities help fire management personnel anticipate and plan for the potential intensity of wildfires in a specific area.

Probability of Extreme Fire Behavior Category	Acres	Percent
0	11,272	89 %
> 0 - 0.2	1,012	8 %
0.2 - 0.4	284	2 %
0.4 - 0.6	28	0 %
0.6 - 0.8	10	0 %
0.8 - 1	0	0 %
Total	12,605	100 %

Suppression Difficulty Index

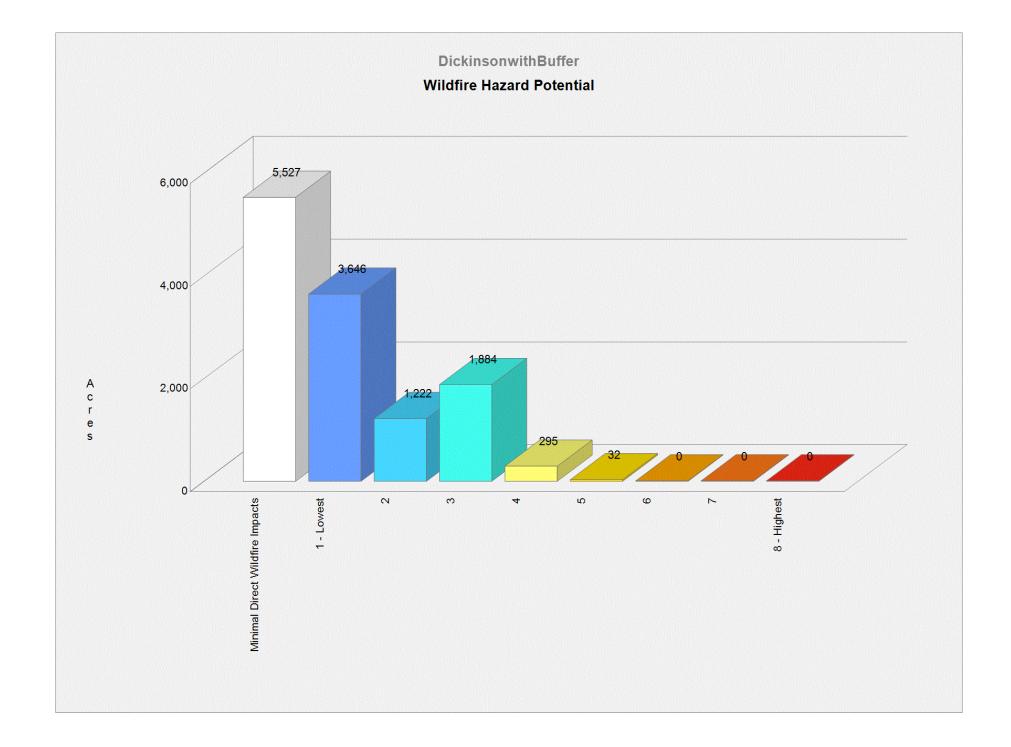
Suppression Difficulty Index can inform fire management decisions related to suppression strategies and resource placement. It classifies fire suppression challenges into six levels, ranging from very low to extreme. Blue areas indicate relatively manageable conditions with some combination of gentle terrain, less resistant fuels, easier access, and milder fire behavior. Red areas highlight tougher conditions with steep terrain, limited access, and more-intense fire activity. This index does not consider aerial suppression strategies, overhead hazards to firefighters like standing dead trees, and does not include the likelihood of a wildfire occurring.

Suppression Difficulty Index Category	Acres	Percent
Little to No Difficulty	6,846	54 %
Very Low Difficulty	4,978	39 %
Low Difficulty	544	4 %
Moderate Difficulty	236	2 %
High Difficulty	0	0 %
Very High Difficulty	0	0 %
Extreme Difficulty	0	0 %
Total	12,605	100 %

Wildfire Hazard Potential

Wildfire Hazard Potential is mapped with eight classes, ranging from low (blue) to high (red) hazard levels. The highest classes indicate areas with fuels more prone to experiencing extreme fire behavior during severe fire-weather conditions. Although Wildfire Hazard Potential is useful for long-term planning purposes, it does not incorporate current or forecasted weather conditions and should not be relied upon as a seasonal outlook.

Wildfire Hazard Potential Category	Acres	Percent
Minimal Direct Wildfire Impacts	5,527	44 %
1 - Lowest	3,646	29 %
2	1,222	10 %
3	1,884	15 %
4	295	2 %
5	32	0 %
6	0	0 %
7	0	0 %
8 - Highest	0	0 %
Total	12,605	100 %



Ember Characteristics

The information in this section of the report identifies the locations most likely to produce embers and the areas most likely to receive embers, given a wildfire occurs. Ember modeling is based on fuel characteristics, climate, and topography.

Contents:

Conditional Ember Production Index
Conditional Ember Load Index

Conditional Ember Production Index

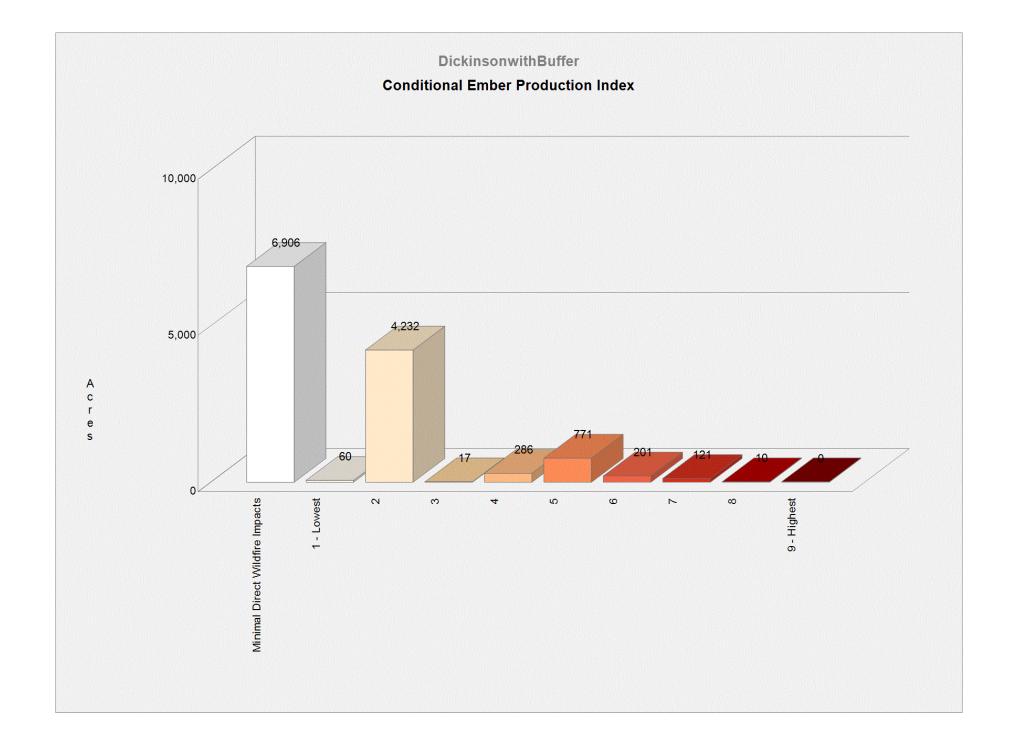
Conditional Ember Production Index (cEPI) provides a relative index of embers produced at a location, given that a fire occurs.

Ember production is based on surface and canopy fuel characteristics, climate, and topography within the pixel. Units are an index of the relative number of embers rather than a count of embers produced. Conditional EPI is based on heading-only fire behavior and does not include the likelihood of wildfire.

Embers can be produced from any burnable fuel source in the fuelscape, dependent on the wind and weather characteristics that lead to lofting embers.

Conditional EPI is useful for prioritizing fuel treatments to reduce the potential for ember production in volatile fuel types.

Conditional Ember Production Index Category	Acres	Percent
Minimal Direct Wildfire Impacts	6,906	55 %
1 - Lowest	61	0 %
2	4,232	34 %
3	17	0 %
4	286	2 %
5	771	6 %
6	201	2 %
7	121	1 %
8	10	0 %
9 - Highest	0	0 %
Total	12,605	100 %



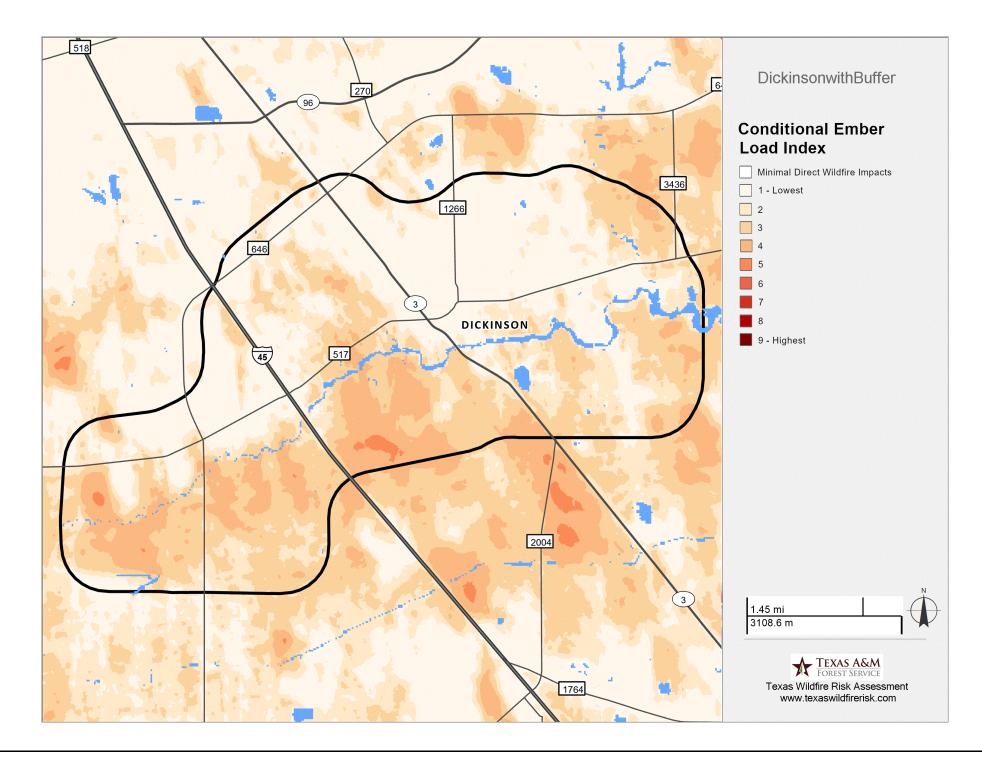
Conditional Ember Load Index

Conditional Ember Load Index (cELI) provides a relative index of embers received at a location, given that a fire occurs.

Ember load is based on surface and canopy fuel characteristics, climate, and topography within the pixel. Ember load incorporates downwind ember travel. Units are an index of the relative number of embers rather than a count of embers produced. Conditional ELI is based on heading-only fire behavior and does not include the likelihood of wildfire. Embers can be received by any pixel in the fuelscape; including both burnable and nonburnable fuel types.

Conditional ELI can be used to prioritize building hardening activities to resist ember ignition.

Conditional Ember Load Index Category	Acres	Percent
Minimal Direct Wildfire Impacts	0	0 %
1 - Lowest	4,752	38 %
2	2,698	21 %
3	3,609	29 %
4	1,495	12 %
5	51	0 %
6	0	0 %
7	0	0 %
8	0	0 %
9 - Highest	0	0 %
Total	12,605	100 %



Landscape Characteristics

The information in this section of the report describes the type of fuel characterized by the surface fuel model map and the percent slope, which is useful for characterizing conditions important for operating equipment.

Contents:

Surface Fuels
Percent Slope

Surface Fuels

Surface Fuels, or fire behavior fuel models as they are technically referred to, contain the parameters needed by the Rothermel (1972) surface fire spread model to compute surface fire behavior characteristics such as rate of spread, flame length, fireline intensity, and other fire behavior metrics. Surface fuels include grass, timber litter, shrub/brush, slash and other dead or live vegetation within about 6 feet of the ground and are shown here at 10-meter resolution.

This surface fuel map represents a combined effort by Texas A&M Forest Service (TAMFS) and Pyrologix to generate a custom, fine-resolution fuelscape built with 10-m vegetation data derived from Sentinel-2 imagery and reflects fuel disturbances through 2022 (Pyrologix, 2024).

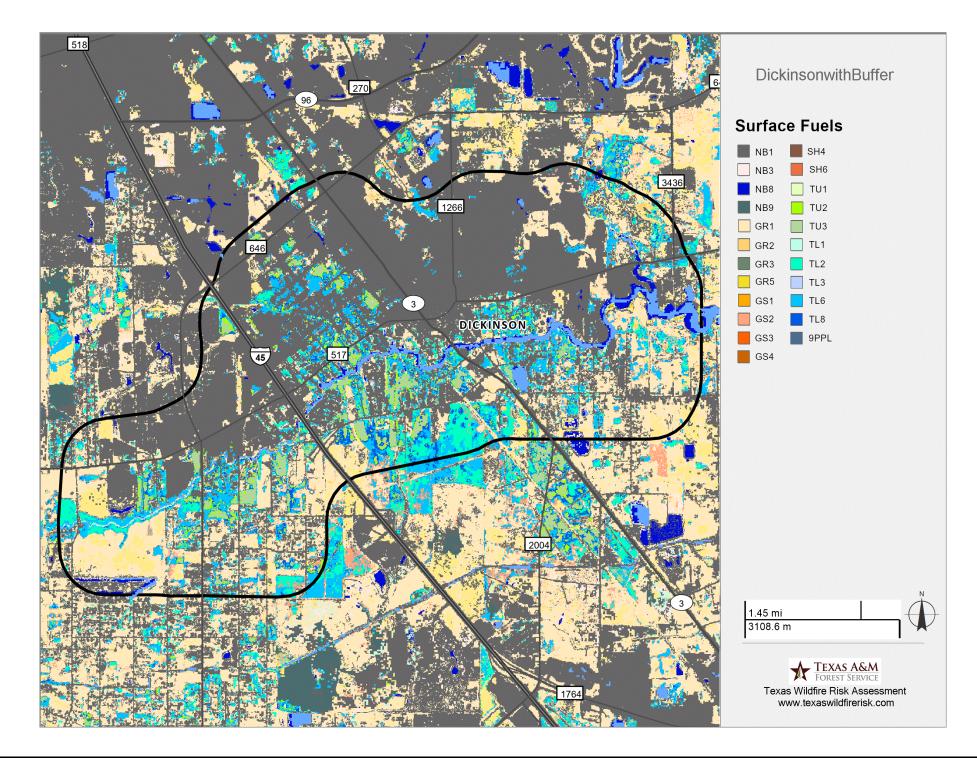
Surface fuels are typically categorized into four primary fuel types based on the primary carrier of the surface fire: 1) grass, 2) shrub/brush, 3) timber litter and 4) slash. There are two standard fire behavior fuel model sets published for use. The Fire Behavior Prediction System 1982 Fuel Model Set (Anderson, 1982) contains 13 fuel models and the Fire Behavior Prediction System 2005 Fuel Model Set (Scott & Burgan, 2005) contains 40 fuel models. One custom fuel model (9PPL) was used to characterize fire behavior in deep pine litter associated with closed pine plantations and dense natural pine stands.

A detailed fuels calibration process was undertaken that involved collaboration with fuels and fire behavior specialists across the State. Workshops were held to review the fuelscape products and calibrate the data by modifying specific vegetation and fuels classes to better reflect local knowledge and input.

Data Source: Texas Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

	Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent		
No	Non-burnable Fuel Type Models (insufficient wildland fuel to carry a wildland fire under any condition)						
	NB1	2005	6,573	52 %			
	NB3	2005	Agricultural field, maintained in nonburnable condition.	17	0 %		
	NB8	2005	Open water	303	2 %		
	NB9	2005	Bare ground	14	0 %		
Gr	ass Fuels Type M	odels (nearly pu	re grass and/or forb type)				
	GR1	2005	Grass is short, patchy, and possibly heavily grazed. Spread rate moderate; flame length low.	2,470	20 %		
	GR2	2005	Moderately coarse continuous grass, average depth about 1 foot. Spread rate high; flame length moderate.	17	0 %		
	GR3	2005	Very coarse grass, average depth about 2 feet. Spread rate high; flame length moderate.	479	4 %		
	GR5	2005	Dense, coarse grass, average depth about 1 to 2 feet. Spread rate very high; flame length high.	21	0 %		
Gr	ass-Shrub Fuels T	ype Models (mi	ixture of grass and shrub, up to 50 percent shrub coverage)				
	GS1	2005	Shrubs are about 1 foot high, low grass load. Spread rate moderate; flame length low.	0	0 %		
	GS2	2005	Shrubs are 1 to 3 feet high, moderate grass load. Spread rate high; flame length moderate.	255	2 %		
	GS3	2005	Moderate grass/shrub load, average grass/shrub depth less than 2 feet. Spread rate high; flame length moderate.	2	0 %		
	GS4	2005	Heavy grass/shrub load, depth greater than 2 feet. Spread rate high; flame length very high.	0	0 %		

	Surface Fuel	FBPS Fuel Surface Fuel Model Set Description		Acres	Percent		
Sh	hrub Fuel Type Models (Shrubs cover at least 50 percent of the site, grass sparse to nonexistent)						
	SH4	SH4 Low to moderate shrub and litter load, possibly with pine overstory, fuel bed depth about 3 feet. Spread rate high; flame length moderate.		0	0 %		
	SH6	2005	Dense shrubs, little or no herb fuel, depth about 2 feet. Spread rate high; flame length high.	0	0 %		
Tir	nber-Understory	Fuel Type Mod	els (Grass or shrubs mixed with litter from forest canopy)				
	TU1	2005	Fuelbed is low load of grass and/or shrub with litter. Spread rate low; flame length low.	0	0 %		
	TU2	2005	Fuelbed is moderate litter load with shrub component. Spread rate moderate; flame length low.	245	2 %		
	TU3	2005	Fuelbed is moderate litter load with grass and shrub components. Spread rate high; flame length moderate.	269	2 %		
Tir	nber Litter Fuel T	ype Models (de	ad and down woody fuel litter beneath a forest canopy)				
	TL1	2005	Light to moderate load, fuels 1 to 2 inches deep. Spread rate very low; flame length very low.	61	0 %		
	TL2	2005	Low load, compact. Spread rate very low; flame length very low.	470	4 %		
	TL3	2005	Moderate load conifer litter. Spread rate very low; flame length low.	0	0 %		
	TL6	2005	Moderate load, less compact. Spread rate moderate; flame length low.	1,093	9 %		
	TL8	2005	Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.	316	3 %		
Cu	stom Fuel Type N	/lodels					
	9PPL	Custom	Long-needle (pine litter, plantations) with a high load.	0	0 %		
			Total	12,605	100 %		



Percent Slope

Percent Slope measures the rate of change of elevation over a given horizontal distance (rise over run), expressed as a percent. Percent slope is used to characterize the local conditions for operating equipment. Slope identifies the inclination at a single location based on the adjacent elevation values. Steep local conditions can severely restrict the movement of equipment and resources for suppression and intensify fire behavior.

Data Source: Texas Wildfire Risk Assessment, Pyrologix 2023 (includes fuel disturbances through 2022)

Percent Slope Category	Acres	Percent
0 - 5	12,071	96 %
5 - 15	512	4 %
15 - 25	20	0 %
25 - 40	2	0 %
40 - 55	0	0 %
55 - 75	0	0 %
> 75	0	0 %
Total	12,605	100 %

References

Anderson, H. E. (1982). Aids to determining fuel models for estimating fire behavior. USDA For. Serv. Gen. Tech. Rep. INT-122.

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Jaffe, Melissa R.; Scott, Joe H.; Callahan, Michael N.; Dillon, Gregory K.; Karau, Eva C.; Lazarz, Mitchell T. 2024. Wildfire Risk to Communities: Spatial datasets of wildfire risk for populated areas in the United States. Fort Collins, CO: Forest Service Research Data Archive. https://doi.org/10.2737/RDS-2020-0060-2

Scott, J. H., & Burgan, R. E. (2005). Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model. Ft. Collins, CO, Rocky Mountain Research Station: USDA Forest Service, Gen. Tech. Rpt. RMRS-GTR-153.

Scott, J. H., & Reinhardt, E. D. (2001). Assessing the Crown Fire Potential by Linking Models of Surface and Crown Fire Behavior. Ft. Collins, CO, Rocky Mountain Research Station: USDA Forest Service, Research Paper RMRS-RP-29.

WRC, 2024. Wildfire Risk to Communities 2.0: Updated methods for geospatial datasets for populated areas in the United States. https://wildfirerisk.org/wp-content/uploads/2024/09/WildfireRiskToCommunities V2 Methods PopulatedAreas.pdf

More information about the wildfire risk and hazard data produced for the Texas Wildfire Risk Assessment is available in the project reports:

Contemporary Wildfire Hazard Across Texas. Prepared for Texas A&M Forest Service. Retrieved from https://pyrologix.com/reports/TWRA WildfireHazardReport.pdf

A 10-m fuelscape for All-lands in Texas. Prepared for Texas A&M Forest Service. Retrieved from https://pyrologix.com/reports/TWRA Fuelscape Report.pdf

Documentation on the Wildfire Exposure Simulation Tool (WildEST) is available from: https://pyrologix.com/reports/WildEST Documentation.pdf



Appendix D: Meeting Documentation

281-337-1576 (24-Hour) REPORT A PROBLEM





ABOUT CUSTOMER SERVICE CAREERS NEW CONSTRUCTION NEWS & RESOURCES CONTACT

News

WCID #1 / News / WCID #1 Holding Meeting to Develop Hazard N

WCID #1 Holding Meeting to Develop Hazard Mitigation Plan

Galveston County WCID #1 is working in partnership with the Houston-Galveston Area Council (H-GAC) to develop a Hazard Mitigation Plan. The public is invited to attend and provide input at its kick-off steering committee meeting:

Date: Tuesday, June 4, 6 p.m. Location: 2320 Falco St., Dickinson, TX 77539 Attend in person or by Zoom (call-in info below)

The Hazard Mitigation Committee will examine the district's risks and vulnerability to all hazards and assess its vulnerability to those risks. Additionally, they will look at critical infrastructure and key resources to determine which are most susceptible to risks.

What is the Hazard Mitigation Plan? The Hazard Mitigation Plan is a framework that guides our community in making decisions and developing policies to reduce or eliminate risk to life and property. The plan identifies the types of hazards that threaten our community, evaluates our vulnerability to those threats, and outlines a strategy to reduce or eliminate the risk posed by those threats to break the cycle of repeated destruction by natural hazard events.

Who participates in the Hazard Mitigation Plan? Hazard mitigation planning is the process used by state, local and tribal leaders to understand risks from natural hazards and develop long-term strategies to reduce the impacts of disasters on people, property, and the environment.

Why is the plan important? The Federal Disaster Mitigation Act of 2000 (DMA 2000) requires that a community/Special Purpose District have an approved hazard mitigation plan to be eligible to apply for and receive FEMA hazard mitigation funds. Receipt of these funds can be critical to implementation of identified hazard mitigation programs.

Zoom Info:

Topic: WCID #1 Hazard Mitigation Plan Kick-Off Steering Committee Meeting Time: Jun 4, 2024 06:00 PM Central Time (US and Canada)

Join Zoom Meeting

Meeting ID: 829 9094 8333 Passcode: 779741

RECENT NEWS

WCID #1 Holding Meeting to Hazard Mitigation Plan

2023 Water Quality Reports /

GCWA Announces Annual Cl Water Disinfection April 8-Ma

View and Track Your Water L Online

Freeze Preparedness Tips

Backdoor Garbage Collection Renewal Reminder

SCAM ALERT - Fraudulent (Texts

Hazardous Waste Services

Galveston County WCID #1 Dickinson's Water, District

REPORT A PROBLEM

Phone: 281-337-1576 (24-Hour)

CUSTOMER SERVICE

Phone: 281-337-1576 (Option 1)

Email: customerservice@gcwcid1tx.gov

ADMINISTRATIVE OFFICE

2750 FM 517 Rd Fast Dickinson, Texas 77539

Phone: 281-337-1576 Email: admin@gcwcid1tx.gov

OFFICE HOURS

Monday - Thursday: 8 AM - 5 PM Friday: 8 AM - 12 PM

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CAREERS NEW CONSTRUCTION CONTACT **HOME**



What are we doing?

Galveston County Water Control and Improvement District #1 (WCID #1) is working in partnership with the Houston-Galveston Area Council (H-GAC) to develop a Local Hazard Mitigation Plan (LHMP). The WCID #1 LHMP is a customized single-jurisdictional plan tailored for a water district that geographically covers people (water customers), property and critical water assets within WCID #1's service area.

The **goal** of this plan is to make WCID #1's service area and its customers less vulnerable and more resilient to future hazard events by identifying policies, actions and strategies that will help to reduce risk and prevent future losses.

The development of this plan will also make WCID #1 eligible for certain federal disaster assistance. This includes FEMA's Hazard Mitigation Assistance (HMA) grants, including the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) and Building Resilient Infrastructure and Communities (BRIC) program.

What is hazard mitigation?

FEMA defines "hazard mitigation" as any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.

Why is hazard mitigation important?

Hazard mitigation actions lead to building stronger, safer and smarter communities. The goal of the hazard mitigation plan is to reduce or eliminate long-term risks to life and property caused by hazards or disasters. On average, each dollar spent on hazard mitigation saves society an average of \$6 in avoided future losses, in addition to saving lives and preventing injuries. (Natural Hazard Mitigation Saves: 2017 Interim Report).

What will be included in the hazard mitigation plan?

The plan will identify and analyze natural hazards to which WCID #1 is susceptible and to identify policies, actions and strategies that will help to reduce risk and prevent future losses.

What can I do?

Public participation and feedback are vital parts of the hazard mitigation planning process. This can include:

- Attending and participating in the HMP Steering Committee meetings
- Collecting and providing other requested data (as available)
- Identifying mitigation actions for the plan
- Reviewing and providing comments on plan drafts, maps, and other HMP related components
- Informing the public, local officials and other interested parties about the planning process and providing the opportunity for them to comment on the plan
- Coordinating and participating in the public input process

Questions? Comments?

Contact Amanda Ashcroft, AICP- Amanda.Ashcroft@h-gac.com Look for HMP updates at www.WCID1.com and on the district's Facebook page.

(281) 337-1576







AGENDA

6:00 PM	Welcome and Introductions
	 Hazard Mitigation Planning Overview What is a Hazard Mitigation Plan? Benefits of a Hazard Mitigation Plan 2023 Hazard Mitigation Plan Policy Updates
	Project Organization
	Roles and Responsibilities
	Planning Process Overview
	Timeline
	Questions?
	Next Steps
	Adjourn

Attendance

Name	Organization	Title
Amanda Ashcroft	H-GAC	Resilience Planner
Cheryl Mergo	H-GAC	Senior Manager
Amy Nelson	City of Dickinson	Citizen
Andrew Nelson	City of Dickinson	Citizen
Derek Hunt	City of Dickinson	EMS Director, EOC Coordinator
Kathy Thomas	Communications Strategies, Galveston County WCID #1	Owner, Communications Consultant
Jeremy Conn	County Constable Precinct 4	Sergeant
Michael Berezin	City of Dickinson, Police Department	Police Chief
Laura Norman	Galveston County Office of Emergency Management	Deputy Emergency Management Coordinator
Angela Maloney	Galveston County WCID #1	Administrative Assistant
Ivan Langford	Galveston County WCID #1	General Manager
Keith Morgan	Galveston County WCID #1	Water & Wastewater Superintendent
Tony Garcia	Gulf Coast Water Authority	Plant Manager
Pastor William King III	Greater New Hope Baptist Church	Pastor, Citizen
Ryan Nokelby	HDR Inc., Galveston County WCID #1	Water/Wastewater Lead, District Engineer

Meeting Notes

Welcome

Ivan Langford welcomed all in attendance and gave some background regarding the Water Control Improvement District (WCID) and the need for a Local Hazard Mitigation Plan (LHMP).

Hazard Mitigation Planning Overview

Amanda Ashcroft reviewed the meeting agenda and went over meeting goals and objectives; to explain hazard mitigation, review the benefits of developing a LHMP, provide an overview of the planning process, and inform what roles the planning team, steering committee, and the public serves in the planning process.

The Steering Committee members then introduced their name, title, the organization they represented, and a hazard they are concerned about that could affect the planning area. Amanda gave some background on the role of H-GAC and introduced the WCID and their service area.

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 an approved LHMP for entities to remain 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 were summarized to the committee.

Project Organization

A project organization graphic was included to break down the differences between the planning team (H-GAC and WCID #1) and those invited to serve on the Steering Committee. The Planning Team and Steering Committee working together form our planning partnership for this LHMP. Amanda explained that, as part of the planning partnership, there are some roles and responsibilities all should be aware of.

Roles and Responsibilities

The roles and responsibilities of the Planning Partnership were outlined. These included:

- 1. Actively participate throughout the LHMP development
- 2. Attend meetings
- 3. Assist with coordination or participation in the public input process
- 4. Provide information and feedback
- 5. Adopt & implement the plan

Planning Process Overview

The LHMP Planning Process was discussed and broken down into 4 phases. These were: organize resources, Risk and capability assessment, mitigation strategy, and adoption and implementation. The components of an LHMP were then outlined to the steering committee.

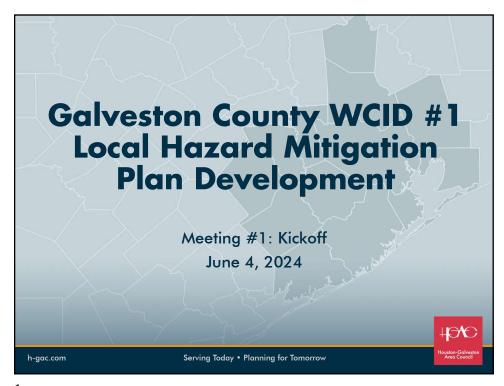
Timeline

Amanda reviewed the tentative project timeline. The first outreach event will be taking place on June 15, 2024, at the Galveston County Hurricane Preparedness Fair. H-GAC staff will set up a booth to collect public input through interactive exercises and hand out hurricane preparedness flyers. The WCID will also provide giveaway items and coloring books for the booth. A meeting for Phase 2: Risk and Capability Assessment is tentatively planned for August 2024. Detail will be sent out when a date is finalized.

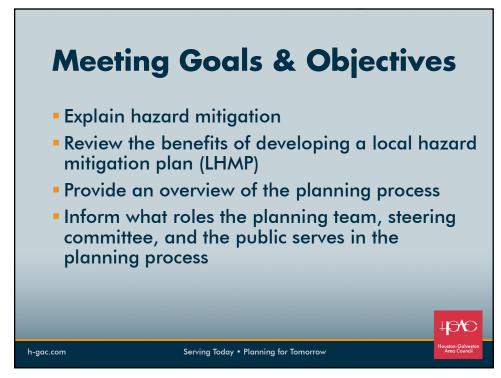
Outreach methods were discussed for how the planning partnership will get the word out to stakeholders for future meetings and public input.

Next Steps

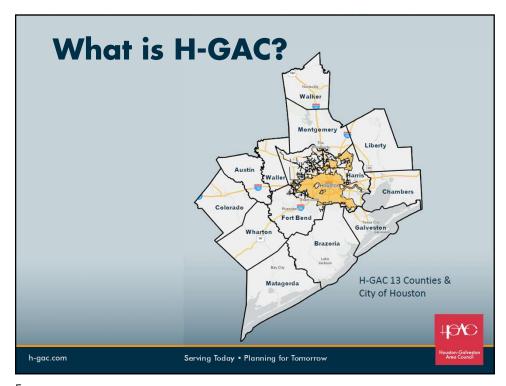
The next steps included identifying hazards to be included in this LHMP for the WCID. Amanda outlined what other recently updated LHMP's within the region have included for their hazards, and urged the steering committee to start thinking about what affects the project area, especially the critical infrastructure and services the WCID provides. Amanda also discussed HAZUS and the HAZUS models being run in-house by H-GAC.













Our vision

Provide excellent customer service by investing in infrastructure improvements, proactive communication, staff development and cost efficiencies

Galveston County WCID #1
Dickinson's Water District

Galveston County WCID #1
Dickinson's Water District

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Our service area



- DISTRIBUTE 2.1 million gallons of drinking water a day
- TREAT 1.8 million gallons of sewage a day
- ${\bf CONTRACT}$ to pick up solid waste for 8,500 households and businesses

Galveston County WCID #1
Dickinson's Water District

Galveston County WCID #1
Dickinson's Water District



Any action taken to reduce or eliminate the long-term risk to life, personal injury, and property damage that can result from a disaster

> Houston-Galveston Area Council

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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 FEMA approved hazard mitigation plans as a precondition for receiving FEMA mitigation funds.

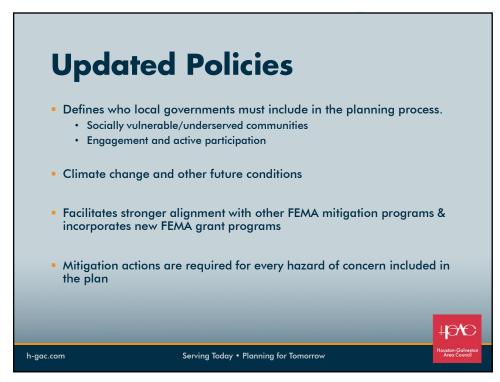
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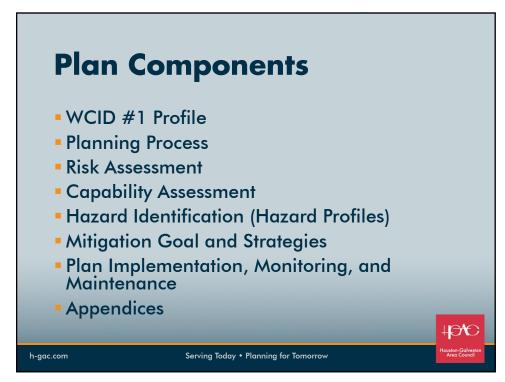






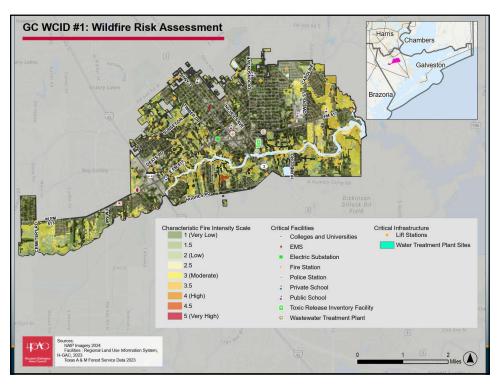


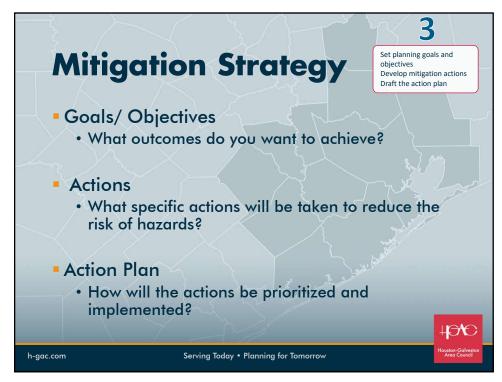


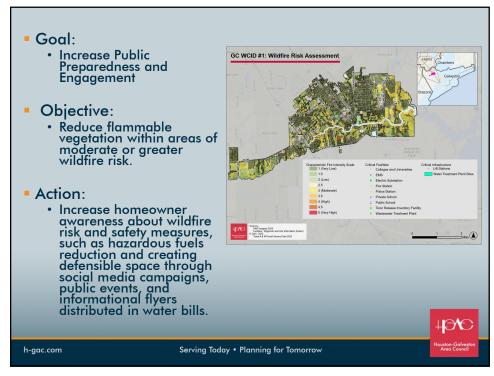




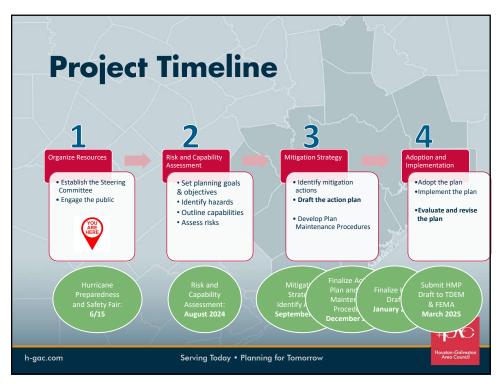


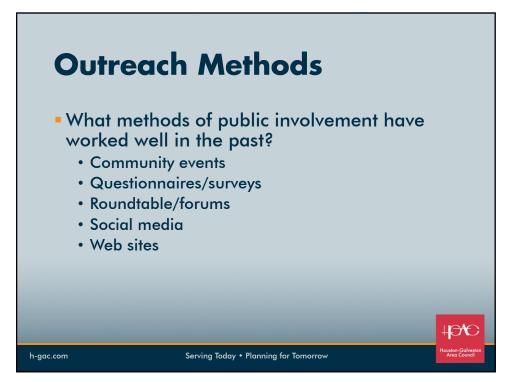












Hazard Identification						
City of Galveston Biologic Event Coastal Erosion Environmental Disaster Extreme Cold Extreme Heat Drought & Expansive Soils Fire (Wild & Urban) Flooding Hail Lightning Sea Level Change Tornado & Waterspout Tsunami Tropical Systems and Hurricanes Windstorm Winter Storm	Port of Galveston Coastal erosion/ land subsidence Cold Wave Drought Flooding Fog Heat Wave Hurricanes and tropical storms Lightning Pandemic Thunderstorms Tornadoes Winter storms	Chambers County Climate Change Drought Extreme Temperatures (heat and cold) Flooding (Street/Land) Flooding Geologic (Landslide, sinkholes, subsidence) Hurricane/Tropical Storm Tornado Severe Weather (high winds, lightning, hail) Severe Winter Storms (blizzard, heavy snow, ice)				
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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.

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AGENDA

6:00 PM	Welcome and Introductions
	 Hazard Mitigation Kickoff Meeting Recap What is Hazard Mitigation Project Organization Planning Process Project Timeline
	Hazard Identification
	Risk Assessment
	Next Steps Goal Setting Capability Assessment
	Questions?
8:00 PM	Adjourn

Meeting Notes

Welcome and Introductions

The Galveston County Water Control Improvement District #1 (GCWCID #1) General Manager welcomed all in attendance and gave some background regarding the Water Control Improvement District and the need for a Local Hazard Mitigation Plan (LHMP, HMP). All in attendance introduced themselves, their role, and the organization they were representing.

Hazard Mitigation Kickoff Meeting Recap

H-GAC staff reviewed meeting goals and objectives, then gave a quick summary of the kickoff meeting for those who were not present. This included an overview of GCWCID #1 and Houston-Galveston Area Council's role for this plan development, reviewing what hazard mitigation is and why it's important, and discussing the project organization and planning process.

Hazard Identification

H-GAC staff discussed the hazard identification and risk assessment for developing a hazard mitigation plan specific to the GCWCID #1. The Steering Committee received a handout that included various hazards included in the 2023 Texas State Hazard Mitigation Plan, hazards included within other recent HMPs from surrounding areas/counties, and public input results that were obtained at the Galveston County Disaster Preparedness Event on 6/15 regarding hazards of concern. The Steering Committee then identified key natural and human-caused hazards of concern that could affect the GCWCID#1 and it's critical infrastructure.

Identified hazards included hurricanes, severe winter weather, flooding, drought/expansive soils, extreme heat, severe weather (tornadoes, hail, lightning, wind), wildfire, cyber threats, water quality/quantity issues, hazmat, and pandemic. The Steering Committee discussed grouping related hazards (e.g., severe weather including tornado, hail, lightning) versus separating these into individual hazard profiles.

Risk Assessment

The Steering Committee was provided a Risk Assessment worksheet to rank the probability and severity for each hazard identified in the previous exercise. Scores given were specific to their impact on GCWCID#1 operations and infrastructure. The Risk Assessment was discussed, and hazards were scored collectively as a committee. The hazard ranking was then compared to the State HMP for Region 4 and public input data. The Steering Committee discussed their scores and agreed on the ranking of Hazards (high, Medium, Low). The Risk Assessment results can be seen in the table below.

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

Galveston County WCID #1 LHMP Steering Committee Meeting August 6, 2024, 6:00 PM

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

Hazard	Probability	Severity	Risk	Ranking
	(1, 2, 3, 4)	(1, 2, 4, 8)	(P x S)	
Cyber Threats	4	8	3 2	1, high
Hurricane	4	4	16	1, high
Severe Winter Weather	4	4	16	1, high
Water Quality & Quantity	2	4	8	2, medium
Hazardous Materials	1	8	8	2, medium
Flooding	3	2	6	2, medium
Severe Weather	4	1	4	2, medium
Extreme Heat	4	1	4	2, medium
Drought & Expansive Soils	4	1	4	2, medium
Pandemic	2	1	2	1, low
Fire	1	1	1	1, low
Dam/Levee Failure	1	1	1	1, low

Mission Statement

The Steering Committee discussed the need for a Mission Statement for the HMP. H-GAC staff presented examples and the Steering Committee worked together to draft the mission statement:

To be proactive in reducing risk and increasing resiliency of the WCID #1 water and wastewater systems during disasters by developing a hazard mitigation plan that focuses on protecting life, property, infrastructure, and the environment.

Next Steps

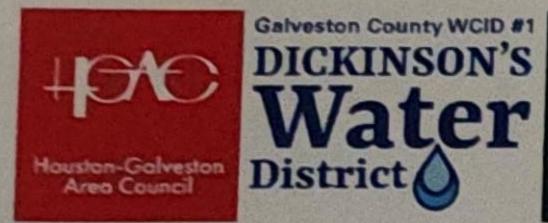
The core planning team will meet to further assess capabilities, make an inventory of assets for the GCWCID #1, and begin to brainstorm potential mitigation goals/objectives that align with the drafted mission statement and the vision of the GCWCID#1.

The next Steering Committee meeting is TBA.

Q&A None

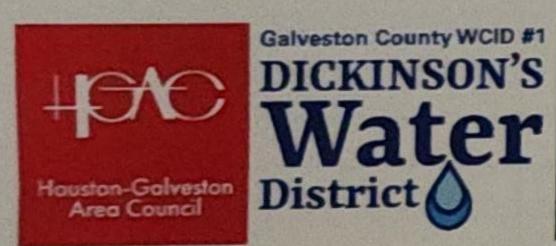
Attendance

Name	Organization	Title
Amanda Ashcroft	H-GAC	Resilience Planner
Cheryl Mergo	H-GAC	Senior Manager
Kathy Thomas	Communications Strategies, Galveston County WCID #1	Owner, Communications Consultant
Jeremy Conn	County Constable Precinct 4	Sergeant
A.M.	Galveston County WCID #1	Administrative Assistant
I.L.	Galveston County WCID #1	General Manager
K.M.	Galveston County WCID #1	Water & Wastewater Superintendent
Tony Garcia	Gulf Coast Water Authority	Plant Manager
Pastor William King III	Greater New Hope Baptist Church	Pastor, Citizen
Brad Burness	Galveston County Office of Emergency Management	Emergency Management Coordinator
Jeremy Borja	Galveston County Office of Emergency Management	Emergency Management Specialist
R. N.	HDR Inc., Galveston County WCID #1	Water/Wastewater Lead, District Engineer
Clint Weekley	Texas Department of Public Safety	DPS Sergeant



Galveston County WCID #1 Hazard Mitigation Plan Steering Committee Meeting August 6, 2024

Name	Title	Organization	County	Email	Keep me informed about the LHMP ⊠
Angela Majoney	Manut & Board Support	WCID#1	Gal	amaloney@geweidl +x. gov	X
Jerremy Boris	EM SPECALLIST	GC GEM	GAL	LERRMY + BORYA@GALVESTON COUNTY +x	.900
Jeveny Cons	159t	GC Pct 4 Constate	- (' -	Jereny, connagelvestoncountytx	gov
Tony Game	Plans Munga	GULT CONSTIVISE AHM	GAV	Tgaria a gourt x. son	
Brad Burness	EMC	GCOEM	GAL	brad. burness egglies ton county to gov	
Krith Morgan	Chief DUFD	DUFD	Fal	12 MOBAN & BC WCID 172. FOS	
William H. King TH	Paster		601	whking: i i a gmail. com	
Ryan Nokelby	WCID #1 Engineer	HOP, Inc.	Gal	Ryan. Nokelby endrinc. com	×
'''					



Galveston County WCID #1 Hazard Mitigation Plan Steering Committee Meeting August 6, 2024

Name	Title	Organization	County	Email	Keep me informed about the LHMP ⊠	
Clint Weekley	DPS Sergeout	295	Galveston	clint. weeklen @ dps. texas. gov		
m Cheryl Mergo m Kathy Thomas						
M Kathy I homas Iran 2 ANE FORD	Gm	W CID#	C f J	ilanstardage ward 1 tx, go	4	
				. IT Remove natural		
			1	Mission Statement I Remove natural from #2		
			#	2 good. To be proactive in reducing risk		
			0	2 good. To be pronotive in reducing risk to water 3 waste water systems		
				. 40 May 1		



Risk Assessment

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

PROBABILITY: A measure of how likely an event will occur

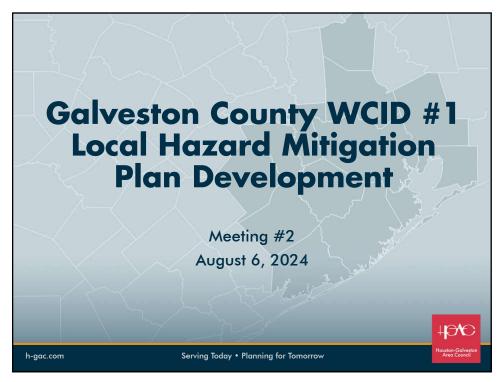
SEVERITY: How much a hazard affects the functionality of society and natural environment

Use the tables above as a guide

	Hazard	Probability (1, 2, 3, 4)	Severity (1, 2, 4, 8)	Risk (P x S)	Ranking
	Hurricane				
Storm Surger Ward Wind	Severe Winter Weather	4	4	16	1
	Severe Winter Weather Hurricane,	4	4	16	1
	Flooding	3	2	6	2
	Drought 3 Expansive	4	1	4	3
	Extreme Heat	4	1	4	3
	Severe Weather	4	1	4	3
	Dam/Levee Failure	1	1	1	3
	Fire -				3
	Cuba- Thomaska	4	8	32	1
	Technology) Hechnology) Security				
	Security)				
	Water Quality 3 auntity	2	4	8	2
	Hazmat		8	8	2
	Pandemic	2	1	2	3
	Bratterme.				

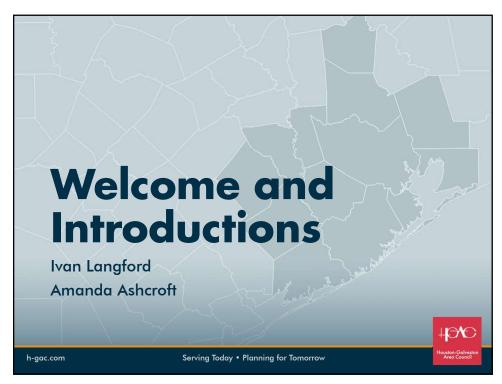
Drought Contingency Plan

Coult coast water Authority
Lis Water Supplier











Our vision Provide excellent customer service by investing in infrastructure improvements, proactive communication, staff development and cost efficiencies Galveston County WCID #1 Dickinson's Water, District



What is H-GAC?

Austin Waller

Colorado

Fort Bend

Galveston

H-GAC 13 Counties & City of Houston

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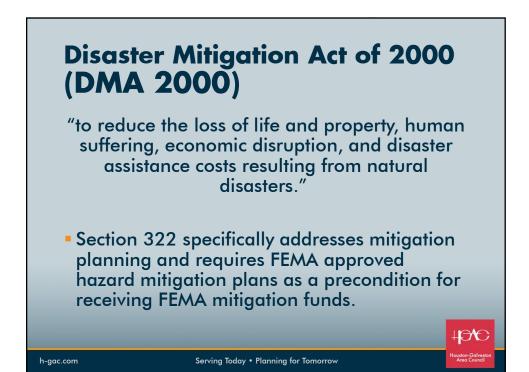
What is Hazard Mitigation Planning?

- Any action taken to reduce or eliminate the long-term risk to life, personal injury, and property damage that can result from a disaster
- The Hazard Mitigation Plan will assess the potential risk that natural hazards pose to buildings, infrastructure and equipment owned by WCID#1.

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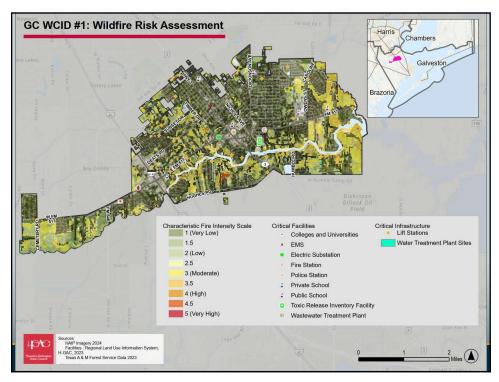




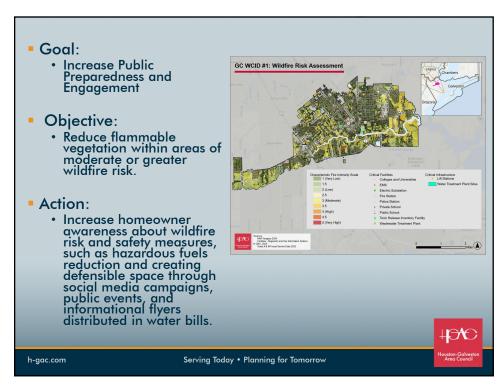




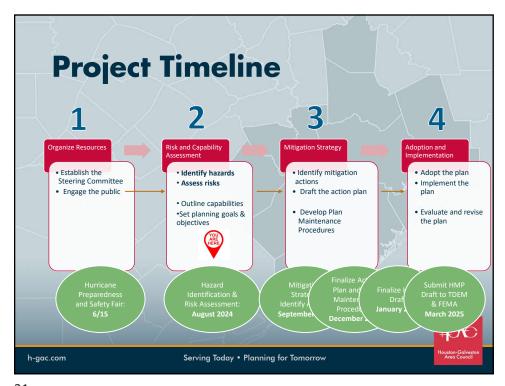


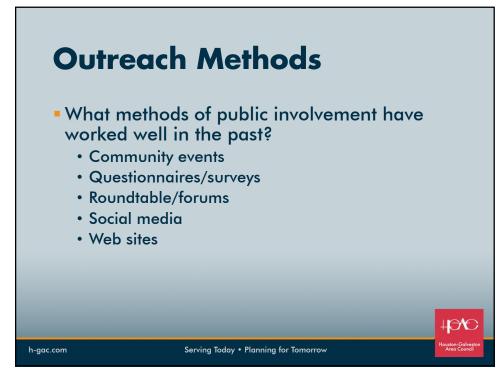


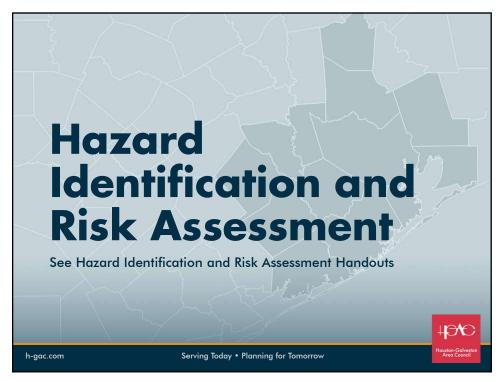






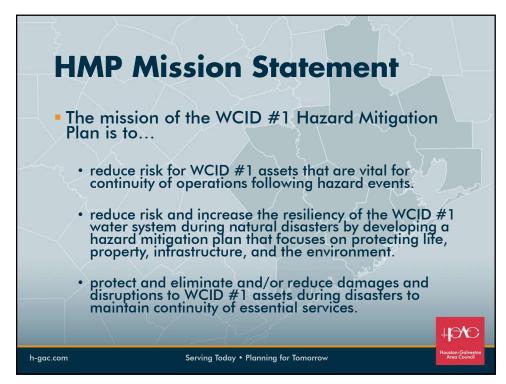


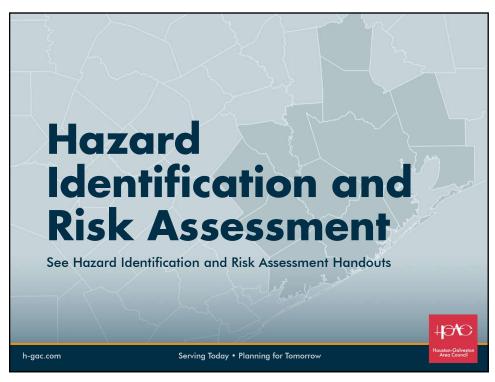




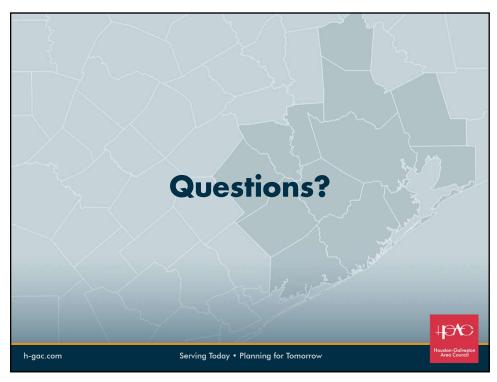
Hazard	Identification	on
City of Galveston Biologic Event Coastal Erosion Environmental Disaster Extreme Cold Extreme Heat Drought & Expansive Soils Fire (Wild & Urban) Flooding Hail Lightning Sea Level Change Tornado & Waterspout Tsunami Tropical Systems and Hurricanes Windstorm Winter Storm	Port of Galveston Coastal erosion/ land subsidence Cold Wave Drought Flooding Fog Heat Wave Hurricanes and tropical storms Lightning Pandemic Thunderstorms Tornadoes Winter storms	Chambers County Climate Change Drought Extreme Temperatures (heat and cold) Flooding (Street/Land) Flooding Geologic Clandslide, sinkholes, subsidence) Hurricane/Tropical Storm Tornado Severe Weather Chigh winds, lightning, hall) Severe Winter Storms Ublizzard, heavy snow, ice
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Galveston County WCID #1 LHMP Steering Committee Meeting

August 6, 2024, 6:00 PM

Hazard Identification

B1. Does the plan include a description of the type, location and extent of all natural hazards that can affect the jurisdiction? Does the plan also include information on previous occurrences of hazard events and on the probability of future hazard events? (Requirement 44 CFR § 201.6(c)(2)(i))

B1-a. The plan must include a description of all *natural hazards* that can affect the jurisdiction(s) in the planning area and their assets located outside of the planning area.

Natural hazards are a source of harm or difficulty created by a meteorological, environmental or geological event. Natural hazards impact the built environment.

Note: Identifying hazards includes identifying all the types of hazards that can occur, e.g., the different types of flood hazards (flash, riverine, storm surge, dam/levee failure, etc.).

2023 Texas State Hazard Mitigation Plan (SHMP) Hazards (All Regions):

Coastal Erosion Hurricane, Tropical Storm, and Depression

Dam Failure Land Subsidence

Drought Lightning

Earthquake Severe Coastal Flood

Expansive Soils Severe Wind

Extreme Heat Severe Winter Weather

Flood Tornado Hailstorm Wildfire

Texas SHMP, Region 4, Hazard Rankings by Total Damages:

Hazard	Hazard Ranking	Total Damages (Property & Crop)
Hurricane	1	\$4,084,033,024
Flood	2	\$1,546,670,341
Severe Coastal Flood	3	\$413,978,834
Drought	4	\$171,229,891
Severe Wind	5	\$79,397,008
Hailstorm	6	\$65,439,927
Tornado	7	\$61,350,962
Severe Winter Weather	8	\$45,338,067
Lightning	9	\$4,612,221
Extreme Heat	10	\$0
Wildfire	11	\$0

Region 4 Counties include Austin, Brazoria. Chambers, Colorado, Fort Bend, **Galveston**, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton

Note: The plan must provide the rationale if omitting any natural hazards that are commonly recognized to affect the participant(s) in the planning area.

Galveston County WCID #1 LHMP Steering Committee Meeting

August 6, 2024, 6:00 PM

Public Input Event, 6/15/2024:

Participants at the Galveston County Disaster Preparedness Event on 6/15 were introduced to the project and asked to place a sticker next to their top 3 hazards of concern. For this exercise, respondents were asked to place emphasis on hazards of concern that could affect the WCID #1 infrastructure, facilities, and delivery of services to customers within the planning area. There were 43 total responses.

Hazard Name	# of Responses
Hurricane	24
Severe Weather (Thunderstorm, Hailstorm, Lightning)	19
Extreme Heat	15
Cyber Threats	14
Flooding	12
Water Quality & Quantity	12
Windstorm	11
Sea Level Rise	6
Climate Change (other than sea level rise)	3
Invasive Species	3
Drought & Expansive Soils	2
HazMat / Biological	2
Tornado	2
Geologic (Landslide, Sinkholes, Subsidence)	1
Winter Weather (Ice Storm, Heavy Snow, Blizzard)	1
Other	1

Note: FEMA requires the addition of a hazard if there has been a recent disaster declaration for that hazard type. For example: Severe Ice Storm (2021), Flood (2024), Hurricane (2024) must be included in the LHMP. Additionally, **C4-b**. Each plan participant must identify one or more mitigation actions the participant(s) intends to implement for each hazard addressed in the risk assessment.

AGENDA

6:00 PM	Steering Committee Meeting Begins
	Wastewater Treatment Plant Annual Emergency Response Coordination & Scheduling of Field Exercise
6:30 PM	Public Forum- Welcome and Introductions
	 Hazard Mitigation Overview What is Hazard Mitigation Project Organization Planning Process Project Timeline
	Dickinson Bicentennial Event Recap
	Hazard Identification & Capability Assessment Results
	Public Survey
	Goal Setting Exercise
	Next Steps
	Questions?
8:00 PM	Adjourn

Meeting Notes

Welcome and Introductions

The Galveston County Water Control Improvement District #1 (GCWCID #1) General Manager welcomed all in attendance and conducted the WWTP annual emergency response coordination & field exercise scheduling.

Dickinson Bicentennial Event Recap

H-GAC staff reviewed the City of Dickinson's Bicentennial public engagement event and responses and how they compared to the SC hazard rankings from the risk assessment meeting.

Hazard Identification/ Risk Assessment Results

Hazard Name	SC Ranking	Public Ranking	Difference
Cyber Threats	1	10	9
Dam / Levee Failure	12	13	1
Drought	8	5	3
Extreme Heat	7	6	1
Fire	11	12	1
Flooding	5	2	3
Geologic (Expansive Soils, Erosion)	9	11	2
HazMat / Toxic Release	4	8	4
Hurricane & Storm Surge	3	1	2
Pandemic	10	9	1
Severe Weather (Thunderstorm,			
Hailstorm, Lightning, Windstorm,	6	3	3
Tornado)			
Winter Weather (Ice Storm, Heavy	2	4	2
Snow, Blizzard)		4	2
Dam/Levee Failure	3	7	4

Public Survey-

H-GAC staff gave an update on overall engagement activities including p0ublic survey response.

Survey Responses as of 11/1/2024:

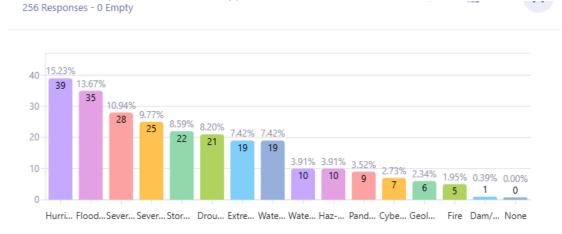
Online Public Survey Responses: **41** In-Person Public Survey Responses: **83**

Attended the SC meeting and public forum held on October 24th: 9 (all attendees were from the SC)

The SC agreed the survey will close on *November 21st*.

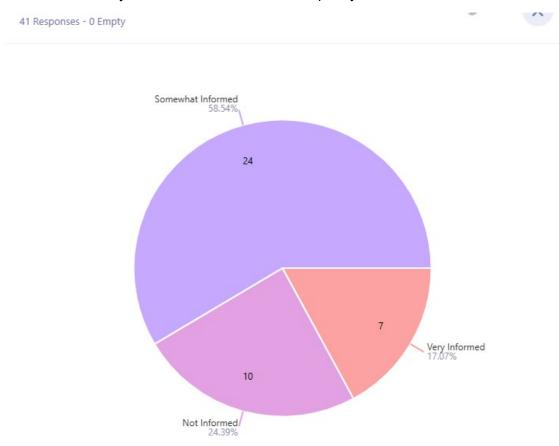
Excerpts from the online survey:

Which hazards or events are you most concerned about in the next 1 to 5 years that may impact your water service? (check all that apply):



- Data	Response	%
Hurricanes	39	15.23%
Flooding (street, riverine, coastal, etc.)	35	13.67%
Severe Weather (tornado, hail, thunderstorms, li	28	10.94%
Severe Winter Weather	25	9.77%
Storm Surge	22	8.59%
Drought	21	8.20%
Extreme Heat	19	7.42%
Water Quality	19	7.42%
Water Scarcity	10	3.91%
Haz-Mat/ Toxic Release	10	3.91%
Pandemic	9	3.52%
Cyber Threats	7	2.73%
Geological Hazards (Erosion, Expansive Soils)	6	2.34%
Fire	5	1.95%
Dam/Levee Failure	1	0.39%
None	0	0.00%

How informed do you feel about how hazards impact your water service?



- Data	Response	%
Somewhat Informed	24	58.54%
Not Informed	10	24.39%
Very Informed	7	17.07%

Goal Setting Exercise

The Steering Committee was provided a Goals & Objectives worksheet to aid in brainstorming SMART goals for the HMP. Excerpts from this exercise, which was conducted as a group through discussions and feedback at the SC meeting, can be found below.

A. What are the most valuable assets vital to the continuity of service for the WCID and community?

oonmianity i	
Potable water	COMMUNICATIONS Government communication and private communications: fiber optic lines, radio towers, cellular towers, internet, etc.
EQUIPMENT Wastewater treatment plants, Lift stations, Pump stations, Elevated service tanks.	STAFF Employees (trained)
SUPPLIES Supplies on hand (fuel (generators), treatment chemicals (GCWA))	

B. What are the 3 biggest challenges facing the WCID/ community?

B. What are the obliggest chancinges racing	
Floodplain elevation changes from 11' to 14'	Aging infrastructure (dates back to the 60's)
	Funding to combat ^
Impacts to infrastructure (WWTP, elevation, and improvements needed)	
,	
Inflationary cost of construction and materials	Manufacturing/supply of WCID equipment (replacement took 1 year previously)
	Equipment and replacement parts due to delayed manufacturing, are hard to get.
	Not in a timely manner

C. What is your vision/wish list for the WCID 10 years from now?

Solution for WWTP- Replacement? Elevation?	Resilient critical community lifeline (the WCID)- able to adapt to frequent changes/hazards
Update educational materials for customers - How do natural hazards affect your services through WCID #1?	

Galveston County WCID #1 LHMP Steering Committee & Public Forum Meeting October 24, 2024, 6:00 PM

Next Steps

The core planning team will continue biweekly meetings. The preliminary draft plan will start to be put together. As sections are finished, they will be sent out for review 1 week prior to any comments due back to the planning team. If further discussion is needed, a hybrid meeting will be scheduled with a minimum of 2 weeks advance notice to SC members.

Q&A None

Galveston County WCID #1 LHMP Steering Committee & Public Forum Meeting October 24, 2024, 6:00 PM

Attendance

Name	Organization	Title
Amanda Ashcroft	H-GAC	Resilience Planner
Derek Hunt	City of Dickinson	Emergency Management Coordinator
Jeremy Conn	Galveston County Constable Pct. 4	Sergeant
A.M.	Galveston County WCID #1	Administrative Assistant
I.L.	Galveston County WCID #1	General Manager
K.M.	Galveston County WCID #1	Water & Wastewater Superintendent
Tony Garcia	Gulf Coast Water Authority	Plant Manager
Brad Burness	Galveston County Office of Emergency Management	Emergency Management Coordinator
Mauro Arce	Texas Department of Public Safety	DPS Sergeant



Galveston County WCID #1 LHMP Steering Committee & Public Forum Meeting October 24, 2024, 6:00 PM

GOALS & OBJECTIVES

You are being asked to participate in a visioning exercise to consider the various elements linked to hazard vulnerability. These includ categories such as Government and Government Services; People; the Environment; the Economy; and the Community.

Goals should strive to be SMART:



Specific

Be specific about what you want to achieve

Ask yourself questions about your goals following the five W's - Who, What, When, Where, and Why





Measurable

Make sure that you can measure your success

You'll be able to track your progress by answering questions like how will you know when your goal is complete?



A

Achievable

Ensure your goal is realistic and achievable - don't set yourself a goal that's too easy or too difficult to complete

Look at your current situation and make sure you have what you need to achieve



R

Relevant

Set yourself a goal that's relevant to you

Is your goal
worthwhile to you?
Are you the right
person to achieve it?
Is your goal
applicable to your
current situation, or
is it unrealistic?



T

Time-bound

Assign a start and end date to your goal to encourage yourself to reach it with a deadline

Think about what you can do today, tomorrow, months from now to achieve



A. What are the most valuable assets vital to continuity of service for the WCID and community?

Potable water	COMMUNICATIONS Government communication and private communications: fiber optic lines, radio towers, cellular towers, internet, etc.
EQUIPMENT Wastewater treatment plants, Lift stations, Pump stations, Elevated service tanks.	STAFF Employees (trained)
SUPPLIES Supplies on hand (fuel (generators), treatment chemicals (GCWA))	

Sample response from other communities:

Sample answers from another community are just that, examples.

*Wastewater treatment plants, Lift stations, Pump stations, Elevated service tanks.	*Government communication and private communications: fiber optic lines, radio towers, cellular towers, utility Wi-Fi-max radio communications
•WCID website, social media, employees, public servants	•Hospital
•Schools, libraries, animal services	•Local waterways, parks, and trails
•Historic areas & local culture, local festivals or events	•Transportation, bridges, streets. Local/national railroad lines, public transit, roadways, airport
•Businesses	•Fire/EMS/Police/ 911 system

B. What are the 3 biggest challenges facing the WCID/ community?

Floodplain elevation changes from 11' to 14' Impacts to infrastructure (WWTP, elevation and improvements needed)	Aging infrastructure (dates back to the 60's) Funding to combat ^
Inflationary cost of construction and materials	Manufacturing/supply of WCID equipment (replacement took 1 year previously) Equipment and replacement parts due to delayed manufacturing, hard to get. Not in a timely manner

Sample response from other communities:

Sample answers from another community are just that, examples.

Population growth	•Expanding water/wastewater treatment capacity
•Underdeveloped water infrastructure	•Threat of Hurricane/Tropical storms
•Limited access to internet and City information	*Equipment and replacement parts due to delayed manufacturing, hard to get. Not in a timely manner
English as second language: we don't have a set policy or SOP to standardize translation and interpretation services	•Aversion to perceived unchecked growth, traffic, water scarcity, forsaking our small-town charm
•Legislative changes that impact operations	•Lack of funding for capital improvements: issuing bonds

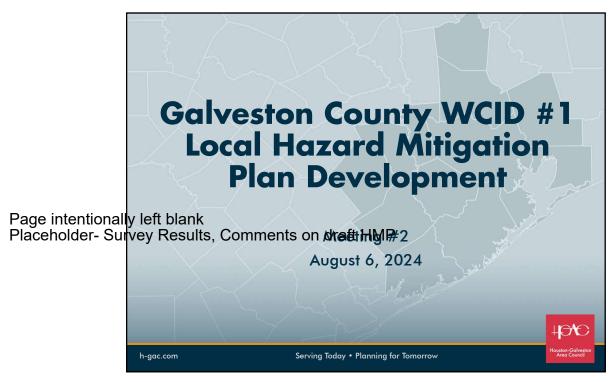
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Sample response from other communities:

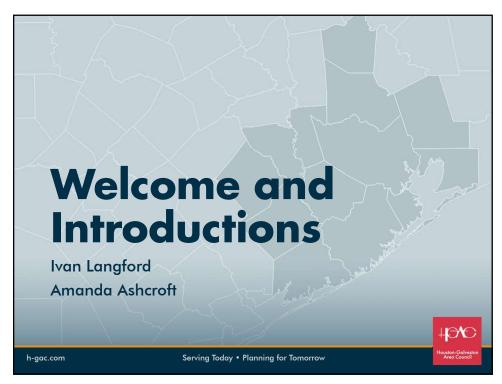
Sample answers from another community are just that, examples.

•Increased public/private partnerships
Movement to cloud based IT infrastructure will provide additional resiliency to disaster
•Increased water treatment capacity
•Educate citizens, elected officials, and property owners about hazards how to mitigation them.











Our vision Provide excellent customer service by investing in infrastructure improvements, proactive communication, staff development and cost efficiencies Galveston County WCID #1 Dickinson's Water, District



What is H-GAC?

Austin Waller

Colorado

Fort Bend

Galveston

H-GAC 13 Counties & City of Houston

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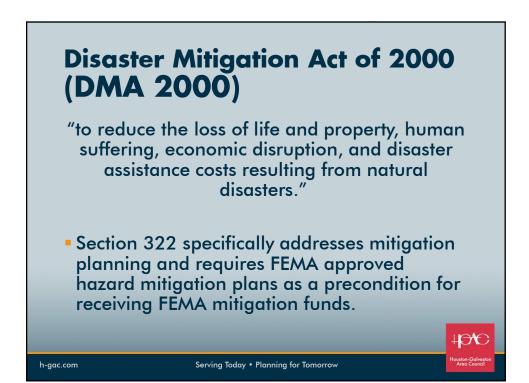
What is Hazard Mitigation Planning?

- Any action taken to reduce or eliminate the long-term risk to life, personal injury, and property damage that can result from a disaster
- The Hazard Mitigation Plan will assess the potential risk that natural hazards pose to buildings, infrastructure and equipment owned by WCID#1.

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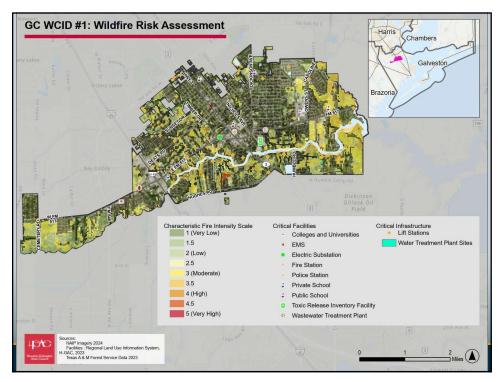




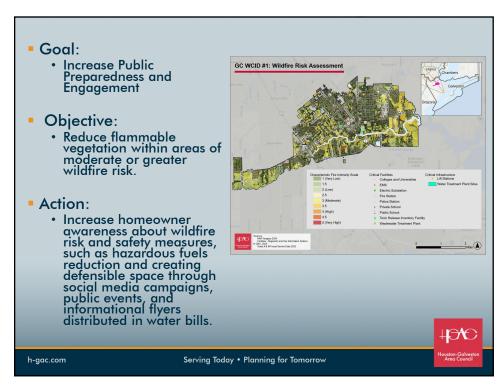




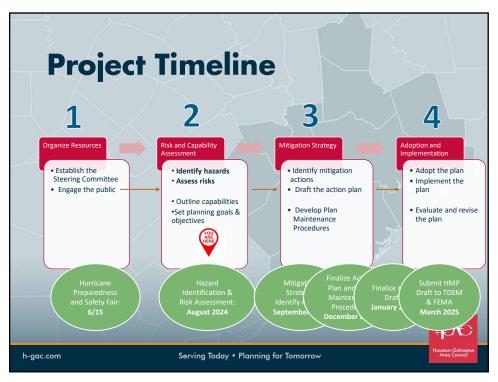


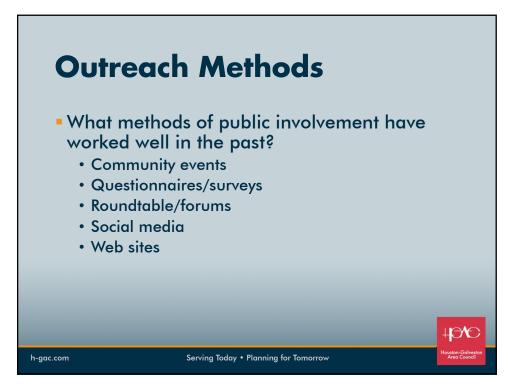


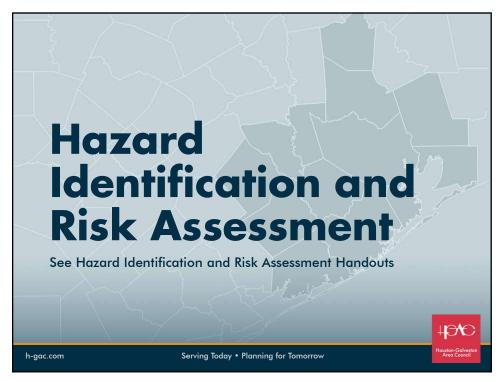






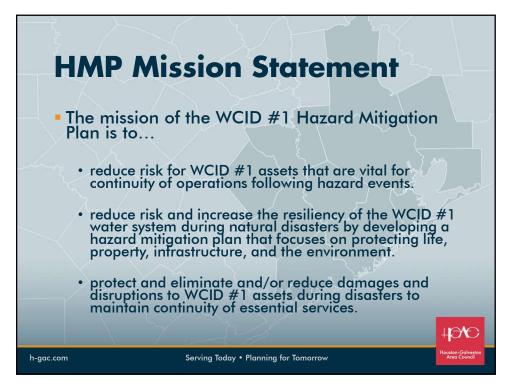


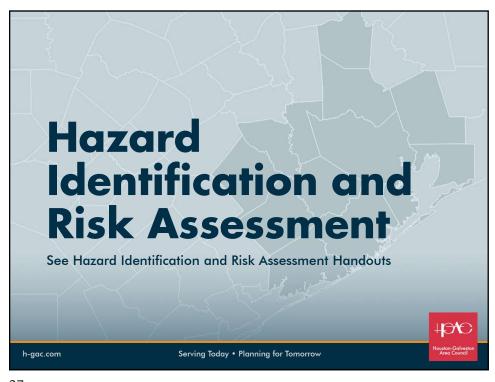




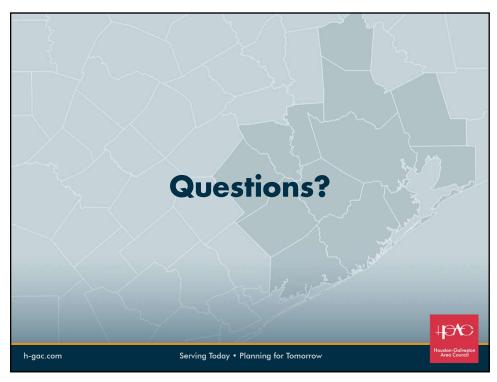
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H-GAC and the Dickinson Water Control Improvement District (WCID) are soliciting feedback on the Draft Hazard Mitigation Plan, and will be hosting a public forum on:

July 24th, 2025, from 6-8 PM at the City of Dickinson's City Hall Council Chambers 4403 Highway 3, Dickinson, TX 77539, Dickinson, Texas 77539

This meeting is open to the public, and all are welcome to attend.

The purpose of this meeting is to provide a project overview from H-GAC staff of work conducted to date, solicit feedback from the steering committee and stakeholders on the draft plan, and outline next steps for plan adoption and submittal to FEMA for approval.

Preparing a Hazard Mitigation Plan requires the engagement of local governments, stakeholders, and residents in the planning process. **Your feedback** will help shape the future of the WCID as we work together towards a **safer, more resilient community**. See you there!

Although in person attendance is preferred, for those who cannot attend in person, a Zoom link will be provided closer to the meeting date. Additionally, an online survey for feedback can be accessed using the QR code below.



Questions, feedback, or other comments regarding the WCID Hazard Mitigation Plan can be sent to Amanda Ashcroft at Amanda.Ashcroft@h-gac.com

News

DICKINSON'S

Water

WCID #1 / News / Public Forum and Feedback Survey for Draft Hazard Mitigation

Public Forum and Feedback Survey for Draft Hazard Mitigation Plan

H-GAC and the Dickinson Water Control Improvement District (WCID) are soliciting feedback on the <u>Draft Hazard Mitigation Plan</u>, and will be hosting a public forum on:

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Preparing a Hazard Mitigation Plan requires the engagement of local governments, stakeholders, and residents in the planning process. **Your feedback** will help shape the future of the WCID as we work together towards a **safer, more resilient community**. See you there!

Additionally, please provide comments and feedback on the draft plan via this online survey.

Questions regarding the WCID #1 Hazard Mitigation Plan can be sent to Amanda Ashcroft at Amanda. Ashcroft@h-gac.com

NOTE: Although in person attendance is preferred, for those who cannot attend in person, a Zoom link is provided below.

Topic: Hazard Mitigation Plan Draft - Public Forum

Time: Jul 24, 2025 06:00 PM Central Time (US and Canada)

Join Zoom Meeting

Meeting ID: 860 1005 8996

Passcode: 272606

RECENT NEWS

Public Forum and Feedback Survey > for Draft Hazard Mitigation Plan

2024 Water Quality Reports Available >

GCWA Announces Annual Change to > Water Disinfection April 7-21, 2025

Sign Up Now for WaterSmart to Pay > Your Bill

Important Information About Bill Pay
Changes

WCID #1 Holding Meeting to Develop > Hazard Mitigation Plan

2023 Water Quality Reports Available >

Use the WaterSmart Portal to Track Water Usage

AGENDA

6:00 PM	Public Forum- Welcome and Introductions		
	 Hazard Mitigation Overview What is Hazard Mitigation Project Organization Planning Process Project Timeline 		
	Public Comment on the Draft HMP		
	Review of Online Survey Responses		
	Next Steps		
	Questions?		
8:00 PM	Adjourn		

Meeting Notes

Hazard Mitigation Overview

H-GAC staff gave an overview of the planning process to date for developing the Hazard Mitigation Plan.

Public Comment on the Draft HMP

For the public comment portion of the meeting, H-GAC staff asked for anyone wishing to make a public comment on the draft Hazard Mitigation Plan to raise a hand (or unmute if online). There were no public comments (in-person or online) from those present.

Review of Online Survey Responses

H-GAC staff reviewed online survey responses gathered on JotForm regarding comments on the draft Hazard Mitigation Plan. The survey was available in both English and Spanish. While the survey had 30 views, there were no responses/ comments left on the draft plan.

Next Steps

H-GAC staff reviewed next steps for the draft plan. The local mitigation plan review tool will be completed and sent to TDEM with the draft plan for review.

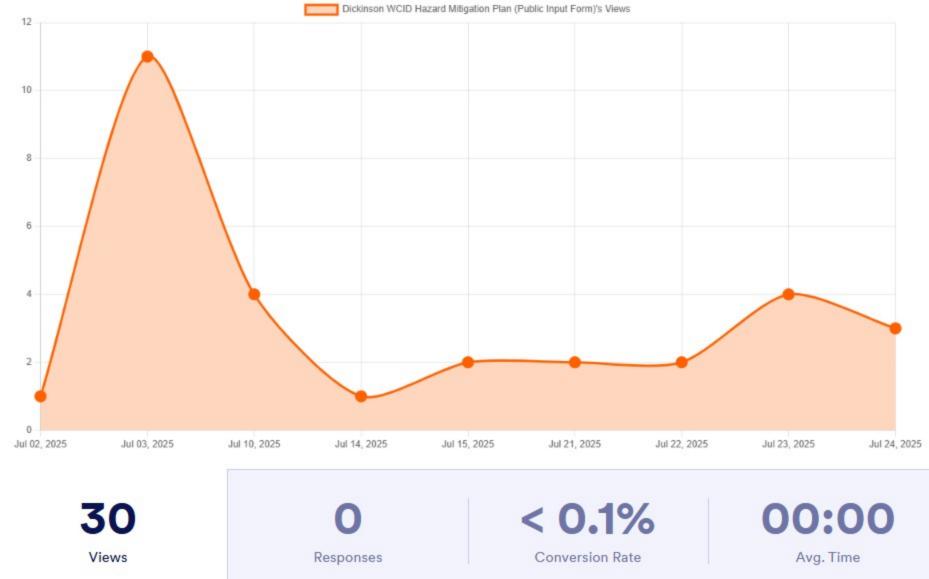
Attendance

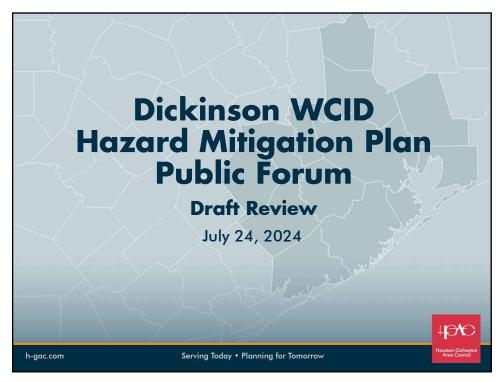
Name	Organization	Title	
Amanda Ashcroft	H-GAC	Resilience Planner	
Will McRory	SBP USA Resilience Fellow		
A.M.	WCID 1	Management & Board Support	
I.L.	WCID 1	General Manager	
K.M.	WCID 1, Dickinson Volunteer Fire Department	Water & Wastewater Superintendent, Fire Chief	
R.N.	WCID 1, HDR	District Engineer	
Tony Garcia	Gulf Coast Water Authority	Plant Manager	
Mark Morgan	TDEM	County Liaison Officer	

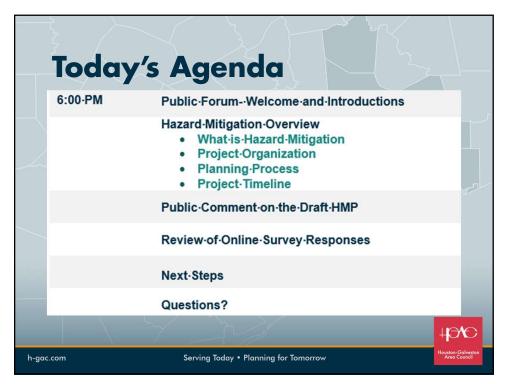


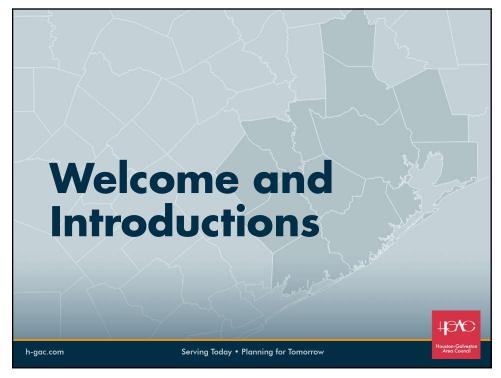
Dickinson WCID Hazard Mitigation Plan Steering Committee Meeting & Public Forum July 23, 2025

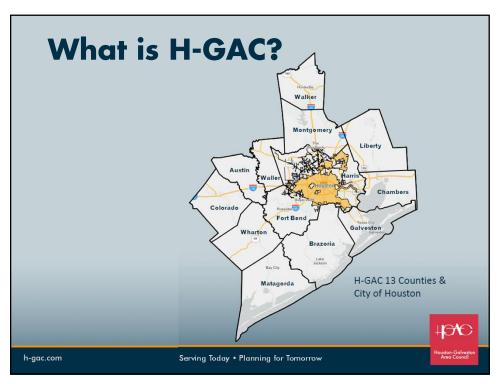
Name	Title	Organization	County	Email	Sign me up for updates via E-mail
Amanda Ashcroft		H-GAC			
Will MERORT	RESILIENCE FELLOW	SBP USA	TRAVIS	WMCCRORY @SBPUSA.ORG	×
Ryan Nokelby	District Engineer	WCID 41 /HDR	Galveston	Ryan. Nokelby endrinc.com	×
T ASU report	General Manager	WCID1	Galveston	ilangfordageweid1 tx.gov	×
Mark Mongaw	TIDEM CLO	TDEM State		mark, Morcain on the texas.	4
TONY yaren	Plant manger	GCWA	Galvestan	tgarcica acuata.gov	
Keith Monan	Sugartanh Wid	WCid1 + DVFD	GMLJestu	RMOREN QFLWicd ITK. BOX	
Keith Mogan Angela Maloney	Manut & Board Support	WCIDI	Balveston	Hurgan a Fi wied 1 Tx. 501 amaloney & geweid tx. gov	
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What is Hazard Mitigation Planning?

- Any action taken to reduce or eliminate the long-term risk to life, personal injury, and property damage that can result from a disaster
- The Hazard Mitigation Plan will assess the potential risk that natural hazards pose to buildings, infrastructure and equipment owned by WCID.



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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 FEMA approved hazard mitigation plans as a precondition for receiving FEMA mitigation funds.

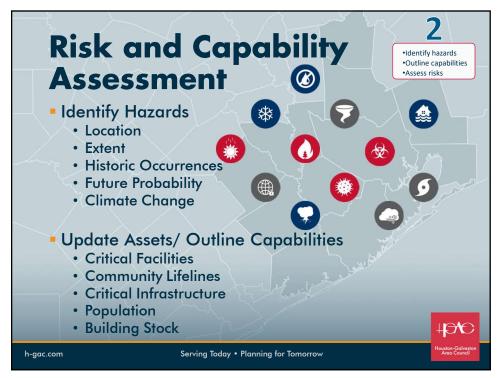
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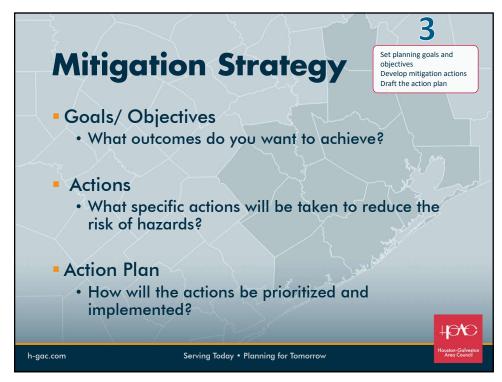
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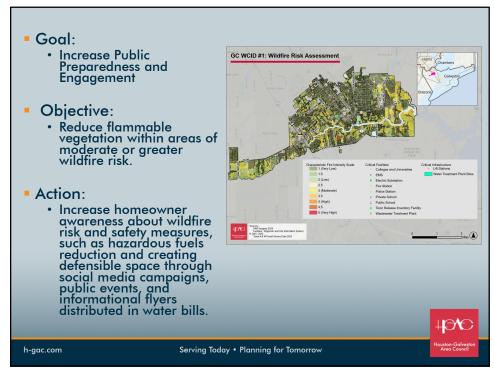




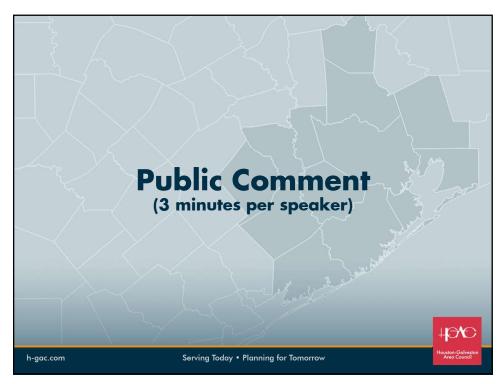


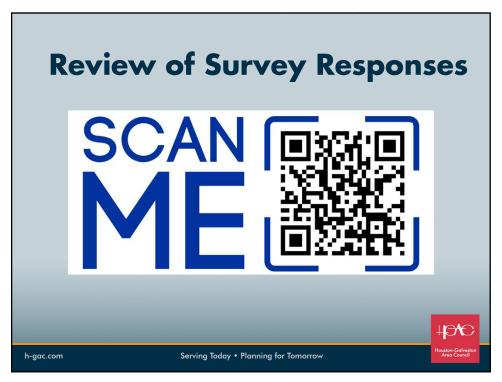




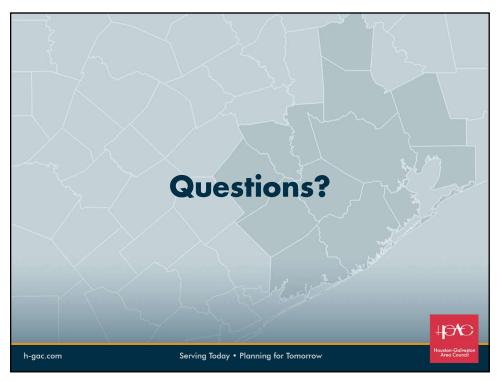
















What are we doing?

Dickinson Water Control and Improvement District (WCID) is working in partnership with the Houston-Galveston Area Council (H-GAC) to develop a Local Hazard Mitigation Plan (LHMP). The WCID LHMP is a customized single-jurisdictional plan tailored for a water district that geographically covers people (water customers), property and critical water assets within the WCID's service area.

The **goal** of this plan is to make the WCID's service area and its customers less vulnerable and more resilient to future hazard events by identifying policies, actions and strategies that will help to reduce risk and prevent future losses.

The development of this plan will also make the Dickinson WCID eligible for certain federal disaster assistance. This includes FEMA's Hazard Mitigation Assistance (HMA) grants, including the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) and other associated programs.

What is hazard mitigation?

FEMA defines "hazard mitigation" as any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.

Why is hazard mitigation important?

Hazard mitigation actions lead to building stronger, safer and smarter communities. The goal of the hazard mitigation plan is to reduce or eliminate long-term risks to life and property caused by hazards or disasters. On average, each dollar spent on hazard mitigation saves society an average of \$6 in avoided future losses, in addition to saving lives and preventing injuries. (Natural Hazard Mitigation Saves: 2017 Interim Report).

What will be included in the hazard mitigation plan?

The plan will identify and analyze natural hazards to which WCID #1 is susceptible and to identify policies, actions and strategies that will help to reduce risk and prevent future losses.

What can I do?

Public participation and feedback are vital parts of the hazard mitigation planning process. This can include:

- Attending and participating in the HMP Steering Committee meetings
- Identifying mitigation actions for the plan
- Participating in the public input process
- Reviewing and providing comments on plan drafts, maps, and other HMP related components

Take our public survey here:



Questions? Comments?

Contact Amanda Ashcroft, AICP Amanda. Ashcroft@h-gac.com

Look for HMP updates at www.WCID1.com and on the district's Facebook page.

Dickinson Water Control and Improvement District (WCID) provides drinking water, wastewater and contracted solid waste collection services to more than 8,000 households and businesses in the greater Dickinson area.

WATER DISTRICT CUSTOMER SERVICE: (281) 337-1576, Option 1

MORE INFO: www.wcid1.com









¿Qué estamos haciendo?

El Water Control Improvement District #1 (WCID #1) del condado de Galveston está trabajando en asociación con el Houston-Galveston Area Council (H-GAC) desarrollar Plan Local de Mitigación de Riesgos Naturales (LHMP) a través del programa de Texas General Land Office's LHMP.

El objetivo de este LHMP es hacer que el área de servicio de WCID #1 y sus clientes sean menos vulnerables y más resilientes a futuros peligros naturales mediante la identificación de políticas, acciones y estrategias que reducirán el riesgo.

Cuando FEMA aprueba el LHMP, el WCID #1 es elegible para solicitar asistencia financiera a través del Hazard Mitigation Grant Program (HMGP). Esto incluye subvenciones de Asistencia para la mitigación de riesgos (HMA), el Programa de subvenciones para la mitigación de riesgos (HMGP), el programa de Asistencia para la mitigación de inundaciones (FMA), y el programa de construcción de infraestructura y comunidades resilientes (BRIC).

¿Qué es la mitigación de riesgos?

FEMA define "mitigación de peligros" como cualquier acción sostenida adoptada para reducir o eliminar el riesgo a largo plazo para la vida humana y la propiedad debido a los peligros.

¿Por qué es importante la mitigación de riesgos?

Las acciones de mitigación de peligros conducen a la construcción de comunidades más fuertes, seguras e inteligentes. El objetivo del la mitigación de riesgos es reducir o eliminar los riesgos para la vida y la propiedad causados por peligros o desastres naturales.

¿Qué está incluido en el LHMP?

El LHMP inventariará los peligros potenciales a los que el WCID #1 es vulnerable, evaluar el riesgo para la infraestructura y las instalaciones críticas del WCID #1, y desarrollar una estrategia de mitigación para reducir el riesgo.

¿Qué puedo hacer?

La participación y los aportes del público son partes vitales del desarrollo de un LHMP. Esto incluye:

- Asistir y participar en las reuniones del Comité Directivo del LHMP.
- Participar en la opinión pública.
- Identificar acciones de mitigación para el plan.
- Revisar y dar comentarios sobre borradores de planes, mapas y otros componentes relacionados con LHMP.

Responde nuestra encuesta aquí



Escanee el código QR

¿Preguntas? ¿Comentarios?

Contacto Amanda Ashcroft, AICP Amanda.Ashcroft@h-gac.com

Encuentre actualizaciones en www.WCID1.com y Facebook.

WATER DISTRICT CUSTOMER SERVICE: (281) 337-1576, Opción 1

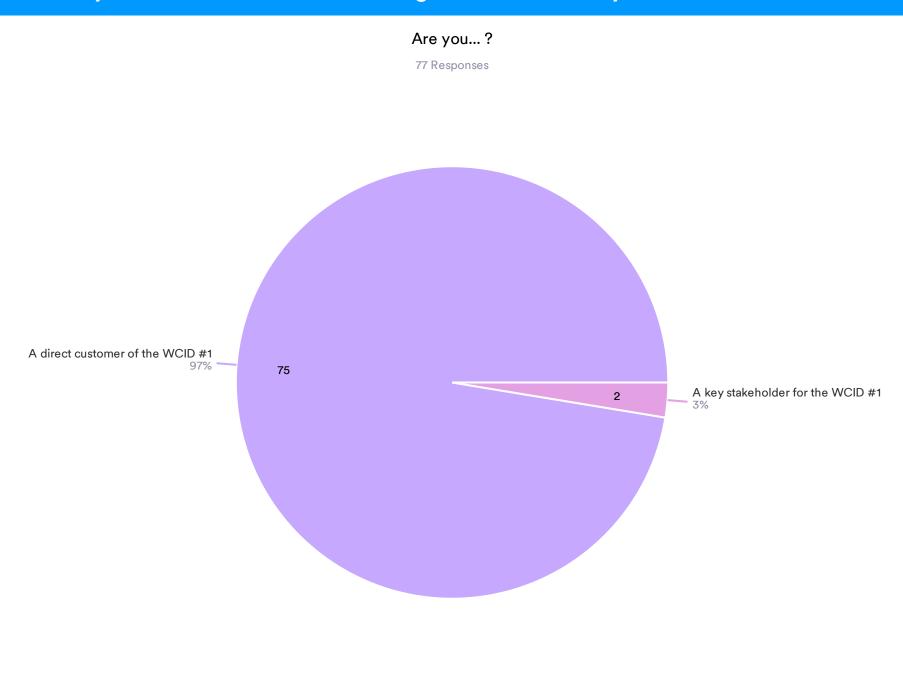
MÁS INFORMACIÓN: www.wcid1.com







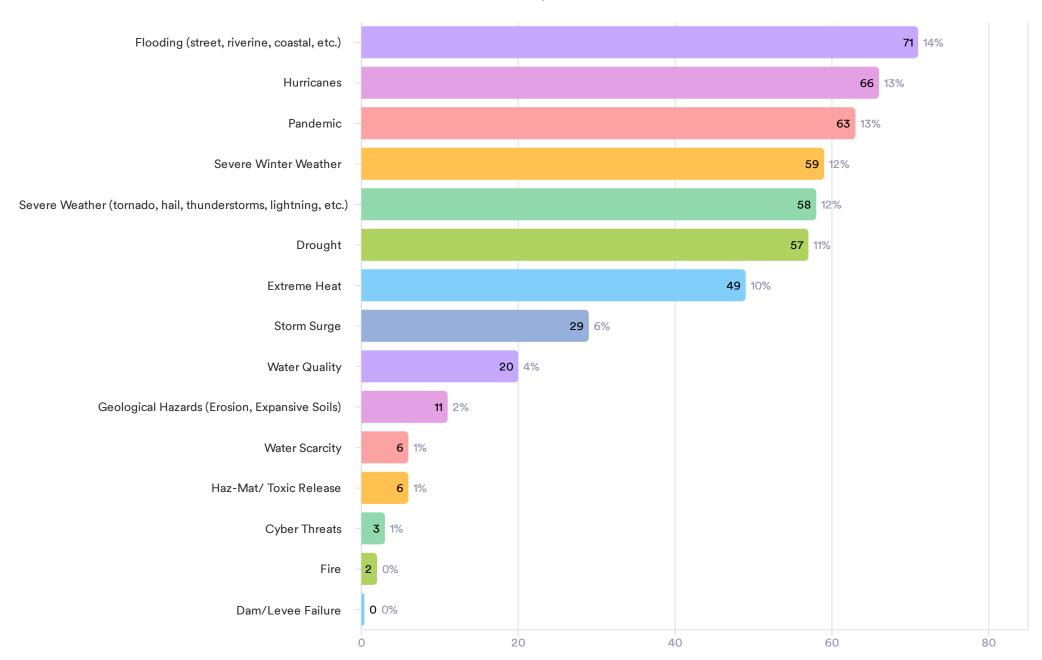
Appendix E: Survey Results



What is your zip code?

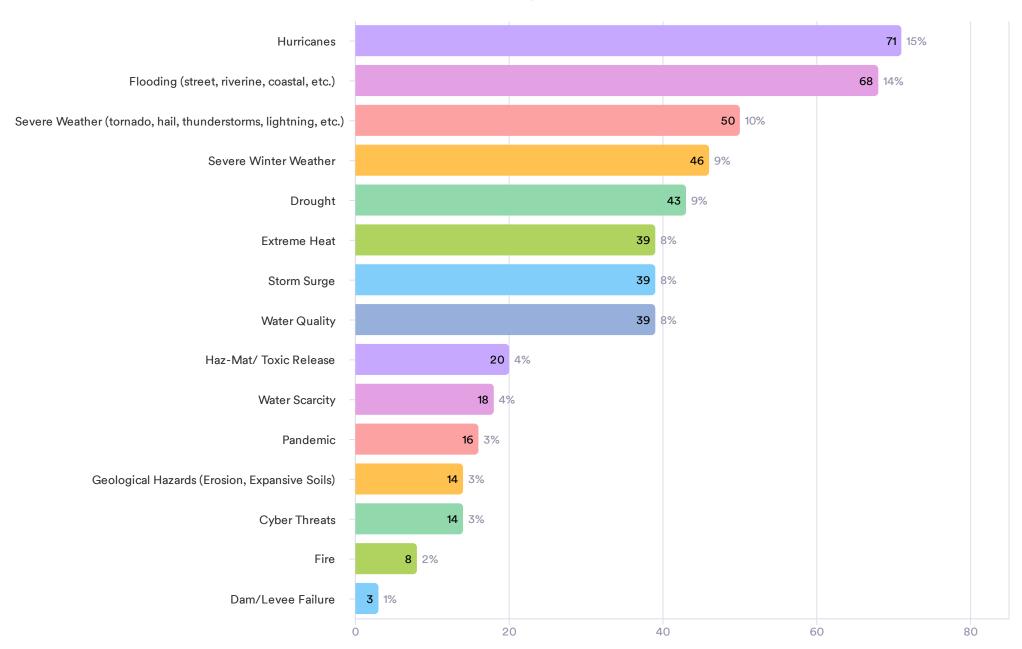
Data	Responses
77539	77

Which of the following hazards have you experienced within the past 10 years? (check all that apply)



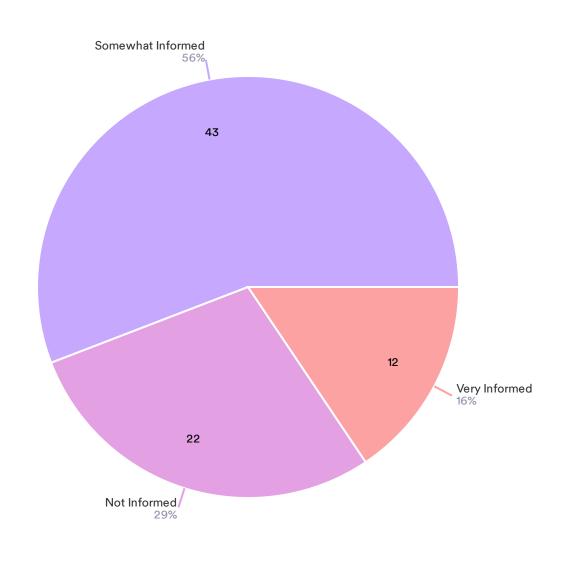
Which hazards or events are you most concerned about in the next 1 to 5 years that may impact your water service? (check all that apply)





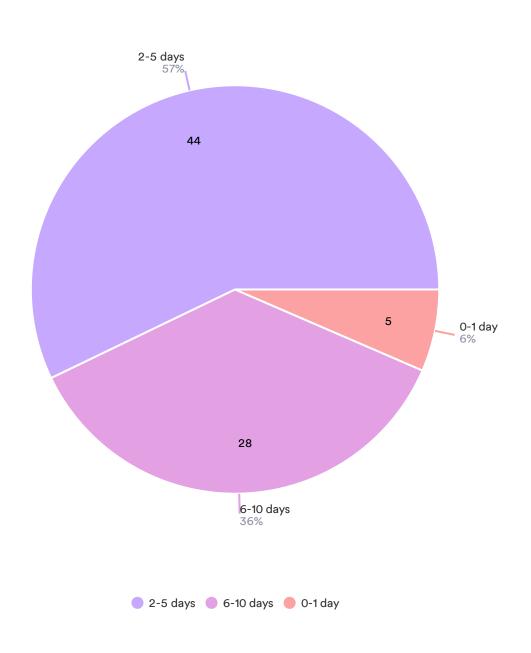
How informed do you feel about how hazards impact your water service?

77 Responses

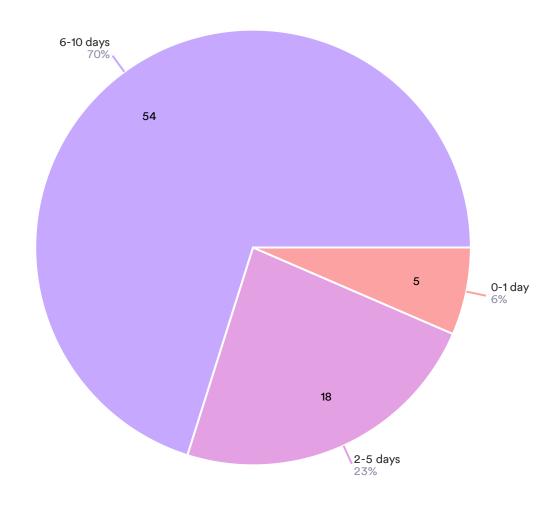


Somewhat Informed
Not Informed
Very Informed

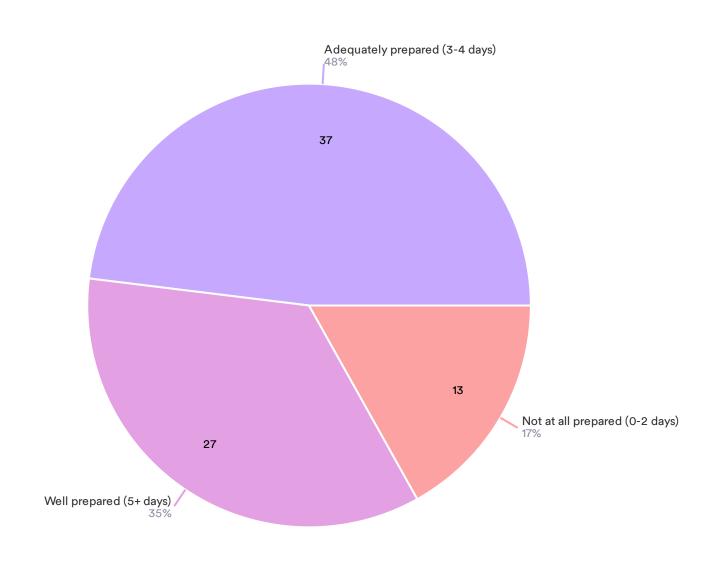
How many days of food and water does your household have on hand in the event of a disaster?



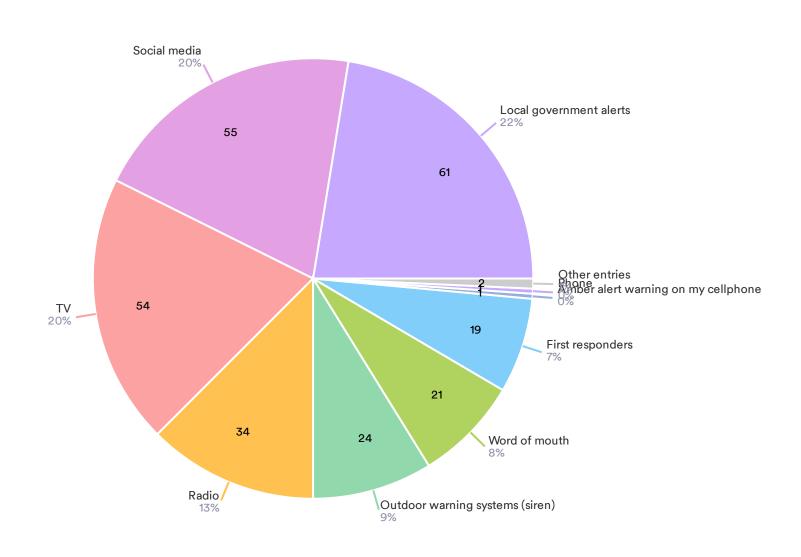
How many days of vital supplies (medications, oxygen, etc.) does your household have on hand in the event of a disaster?



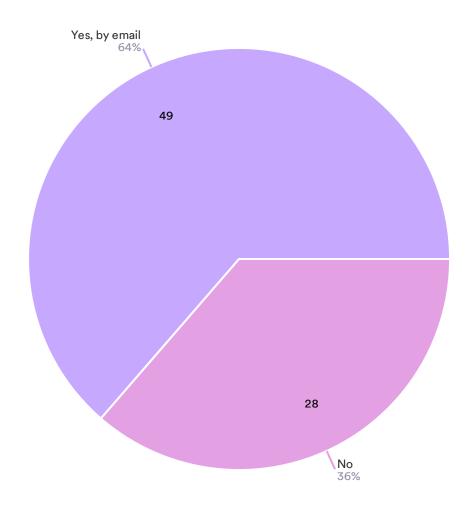
How prepared is your household to go without electricity for one to five days?



How would you expect to be notified in the case of an immediate threat caused by a hazard? (check all that apply)

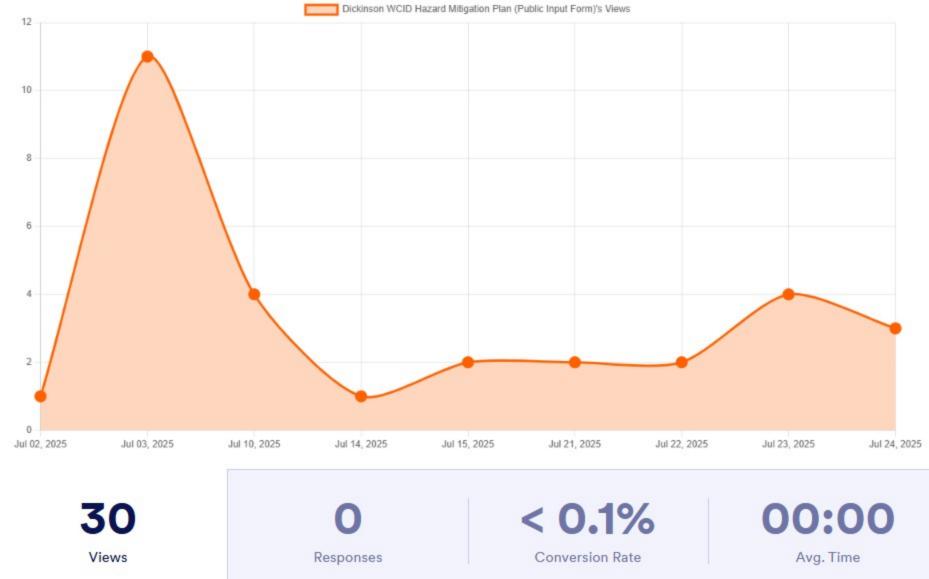


Would you like to receive updates on the WCID #1's LHMP planning process and future meetings?



Thank You!

Galveston County WCID #1 Local Hazard Mitigation Plan Survey



Appendix F: Plan Adoption

RESOLUTION NO. 2025-04

A RESOLUTION OF THE DICKINSON WATER CONTROL AND IMPROVEMENT DISTRICT ADOPTING
THE DICKINSON WCID HAZARD MITIGATION PLAN

WHEREAS the Dickinson Water Control and Improvement District (District), formerly known as Galveston County Water Control and Improvement District #1, recognizes the threat that natural hazards pose to people and property within its service boundaries; and

WHEREAS the District has prepared a multi-hazard mitigation plan, hereby known as the Dickinson WCID Hazard Mitigation Plan, 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 Dickinson WCID Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property within the District's service boundaries from the impacts of future hazards and disasters; and

WHEREAS adoption by the District demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Dickinson WCID Hazard Mitigation Plan.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF DIRECTORS OF DICKINSON WATER CONTROL AND IMPROVEMENT DISTRICT, DICKINSON, TEXAS:

Section 1. The District's Board of Directors hereby adopts the Dickinson WCID Hazard Mitigation Plan. While content related to the District may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the District to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require a separate adoption resolution.

ADOPTED by a vote of $\frac{5}{2025}$ in favor and $\frac{0}{2025}$ against, and $\frac{0}{2025}$ abstaining, this $\frac{18^{++}}{2025}$ day of

Ron Morales. President

Doreen Bridges, Secretary-Treasurer

Ivan Langford, General Manager

APPROVED AS TO FORM: By:

Prepared By:



Amanda Ashcroft, AICP, CFM