Table 22: Critical Facilities Vulnerable to Tornados and Potential Impacts

Jurisdiction	Critical Facilities	Potential Tornado Impacts								
		Loss of Power	Flying Debris	Uprooted Trees	Flooding Due to Physical Damages	Damaged or Destroyed Roofs	Damaged or Broken Windows	Wind Damage	Injuries	Death
Kenedy County	Kenedy County Courthouse	X	X	X	X	X	X	X	X	X
	Justice of the Peace Building / Hurricane Shelter	X	X	X	X	X	X	X	X	X
	Kenedy County Sheriff's Office	X	X	X	X	X	X	X	X	X
	Water Collection Treatment – Tower & Distribution	X	X	X	X	X	X	X	X	X
	Wastewater Collection & Treatment	X	X	X	X	X	X	X	X	X
	Emergency Services District #1	X	X	X	X	X	X	X	X	X
	Texas Gulf Wind Substation	X	X	X	X	X	X	X		
	Penascal Substation	X	X	X	X	X	X	X		
	Baffin Wind Substation	X	X	X	X	X	X	X		
	Stella Wind Electrical Substation	X	X	X	X	X	X	X		
	Kenedy County Tax Office	X	X	X	X	X	X	X	X	X
	Kenedy County Appraisal District / GWD	X	X	X	X	X	X	X	X	X
	Kenedy County Elections Office	X	X	X	X	X	X	X	X	X
	Kenedy County AG Building	X	X	X	X	X	X	X	X	X
	Maintenance "Ed Lopez" Facility	X	X	X	X	X	X	X	X	X
	Maintenance Barn Facility	X	X	X	X	X	X	X	X	X
	Sheriff's Office Substation	X	X	X	X	X	X	X		
	Garcia Street Pump House	X	X	X	X	X	X	X		

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 23: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

8. Drought

Drought is typically defined as a persistent and abnormal moisture deficiency that creates adverse impacts on vegetation, animals, and the human population.[18]

Droughts are one of the most complex natural hazards to identify because it is difficult to determine their precise beginning or end. In addition, droughts can lead to other hazards such as extreme heat and wildfires. Their impact on wildlife and area farming is enormous, often killing crops, grazing land, edible plants and even in severe cases, trees. A secondary hazard to drought is wildfire because dying vegetation serves as a prime ignition source. Therefore, a heat wave combined with a drought is a very dangerous situation.

Table 24: Drought Classifications

Meteorological Drought	The degree of dryness or departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
Hydrologic Drought	The effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels.
Agricultural Drought	Soil moisture deficiencies relative to water demands of plant life, usually crops.
Socioeconomic Drought	The effect of demands for water exceeding the supply as a result of a weather-related supply shortfall.

[18] NOAA, NIDIS. https://www.drought.gov/what-is-drought/drought-basics

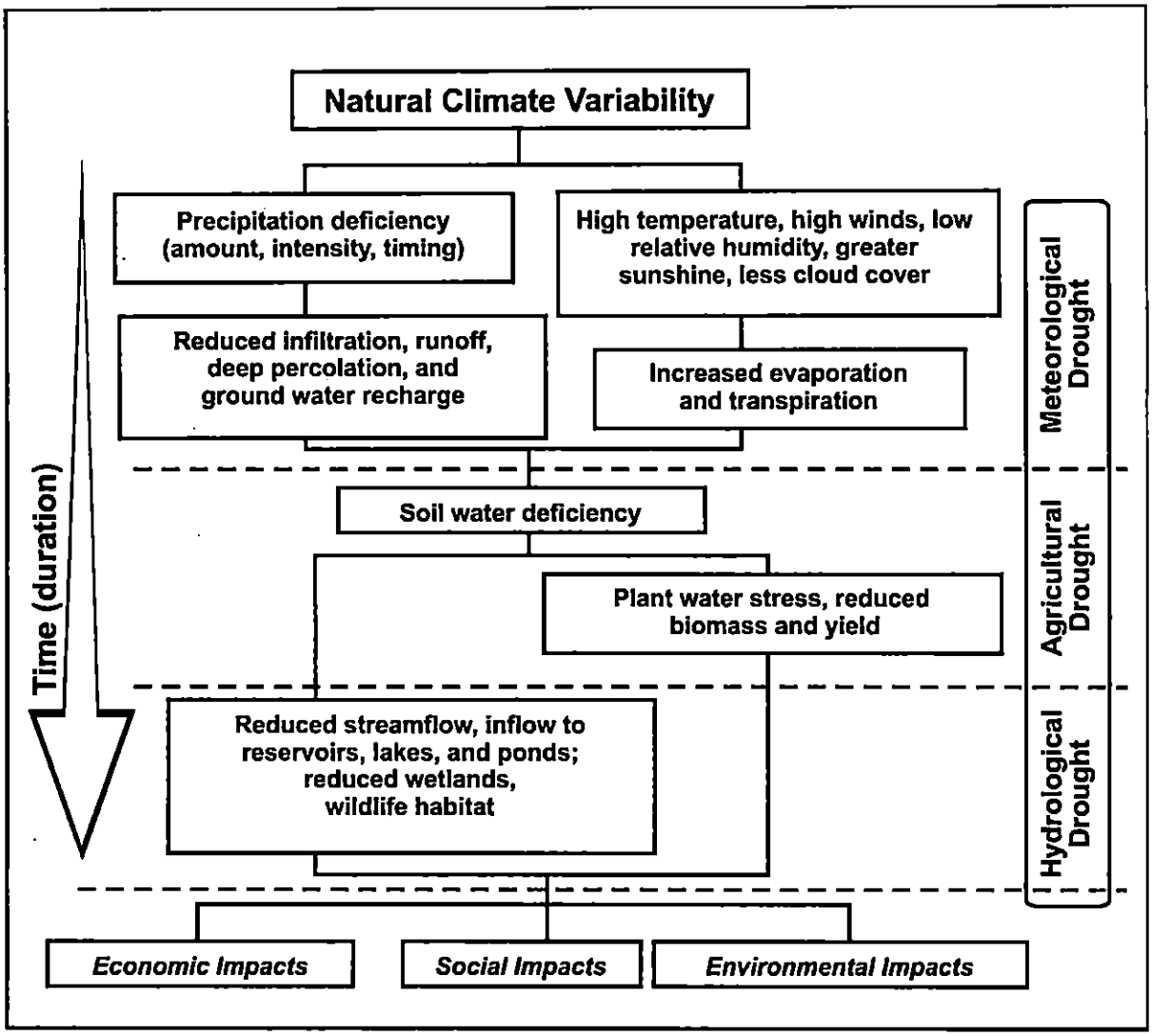

Figure 4: Sequence of Drought Occurrence and Impacts for Commonly Accepted Drought Types[19]

[19] Source: National Drought Mitigation Center, University of Nebraska-Lincoln, http://drought.unl.edu/DroughtBasics/TypesofDrought.aspx

1) Drought History

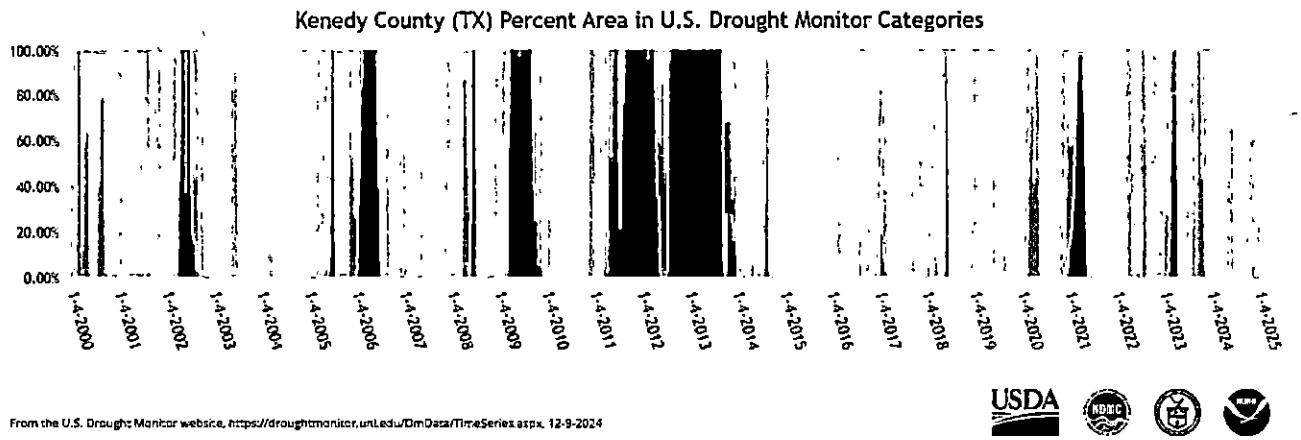

Figure 5: Kenedy County Drought History[20]

[20] Source: United States Drought Monitor https://droughtmonitor.unl.edu/Data.aspx

Drought history is recorded at the county level. The table below represents events recorded in the NCEI database, however, data from the US Drought Monitor, shown in Figure 5 above, shows more events that were not recorded in the NCEI. According to the data, Kenedy County has regularly experienced drought conditions since 2000.

Table 25: Kenedy County Drought History

Location	Date Range	Number of Drought Events	Fatalities	Injuries	Property Damage $2025	Crop Damage $2025
Countywide	3/27/2018 – 11/1/2023	60	0	0	$0	$0

2) Likelihood of Future Events

Based on historical drought in Texas and Kenedy County, it is highly likely that a future drought will affect the County, meaning an event affecting any or all the participating jurisdictions is probable in the next year, and a major drought every 20 years.

3) Extent

Since 2000, Kenedy County has regularly experienced county-wide droughts classified as periods ranging from abnormal dryness to exceptional drought. Between 2011 and 2012, the entire County was in a state of extreme or exceptional drought, the most severe drought categories.

The Palmer Drought Index is used to measure the extent of drought by measuring the duration and intensity of long-term drought-inducing circulation patterns. Long-term drought is cumulative, with the intensity of drought during the current month dependent upon the current weather patterns plus the cumulative patterns of previous months. The hydrological impacts of drought (e.g., reservoir levels, groundwater levels, etc.) take longer to develop.

Table 26: Palmer Drought Index

Drought Index	Drought Conditions Classifications						
	Extreme	Severe	Moderate	Normal	Mostly Moist	Very Moist	Extremely Moist
Z Index	-2.75 and below	-2.00 to -2.74	-1.25 to -1.99	-1.24 to +.99	+1.00 to +2.49	+2.50 to +3.49	n/a
Meteorological	-4.00 and below	-3.00 to -3.99	-2.00 to -2.99	-1.99 to +1.99	+2.00 to +2.00	+3.00 to +3.00	+4.00 and above
Hydrological	-4.00 and below	-3.00 to -3.99	-2.00 to -2.99	-1.99 to +1.99	+2.00 to +2.00	+3.00 to +3.00	+4.00 and above

Table 27: Palmer Drought Category Descriptions[21]

Category	Description	Possible Impacts	Palmer Drought Index
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures; fire risk above average. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.	-1.0 to -1.9
D1	Moderate Drought	Some damage to crops, pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing, or imminent, voluntary water use restrictions requested.	-2.0 to -2.9
D2	Severe Drought	Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed.	-3.0 to -3.9
D4	Extreme Drought	Major crop/pasture losses; extreme fire danger; widespread water shortages or restrictions.	-4.0 to -4.9
	Exceptional Drought	Exceptional and widespread crop/pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells, creating water emergencies.	-5.0 or less

Drought is monitored nationwide by the National Drought Mitigation Center (NDMC). Indicators are used to describe broad scale drought conditions across the U.S. Indicators correspond to the intensity of drought.

Based on the historical occurrences of drought, Kenedy County should anticipate experiencing droughts ranging from abnormally dry to exceptional drought or D0 to D4 based on the Palmer Drought Category. Given varying conditions, droughts may start on the low end of the Index but

[21] www.droughtmonitor.unl.edu

will intensify with duration and ongoing lack of precipitation. Future drought events may reach the intensity of D4 on the Palmer Drought Index.

4) Location and Impact

A) Location

Drought has no distinct geographic boundary. Drought can occur across the entire County.

B) Impact

General impacts may include water shortage, risk to public safety due to wildfire risk increases, respiratory impacts to the public due to affected air quality, and degradation of fish and wildlife habitat. Economic impacts may include increased prices for food, unemployment for farm workers and ranch hands, livestock mortality from limited grazing availability, and reduced tax revenues because of reduced supplies of agriculture products and livestock that are dependent on rainfall, along with other supply shortages.

5) Vulnerability

Because drought has the potential to impact every jurisdiction equally, all improved property and the entire population is exposed to this hazard. General impacts may include water shortage, risk to public safety due to wildfire risk increases, respiratory impacts to the public due to affected air quality, and degradation of fish and wildlife habitat.

Economic impacts may include increased prices for food, unemployment for farm workers and ranch hands, livestock mortality from limited grazing availability, and reduced tax revenues because of reduced supplies of agriculture products and livestock that are dependent on rainfall.

Lower income populations who may not have the resources to buy large quantities of bottled water in the event of a shortage may be more vulnerable than other populations.

A) Population

As described in Section 3 of Chapter 3 above, Kenedy County is home to vulnerable residents. Increased vulnerability may be due to many factors including but not limited to age, physical ability, financial means, housing type, and housing condition. Many of these vulnerabilities often overlap.

The County recognizes that vulnerable populations may need additional help preparing for and recovering from a drought. Lower income populations who may not have the resources to buy large quantities of bottled water in the event of a shortage may be more vulnerable than other populations.

B) Critical Facilities

Drought conditions may affect local critical facilities. Area fire departments may see increased demand for controlling wildland fire due to dry conditions. Drought is likely to require increased output from the local power companies to keep up with electrical demand. Depending on factors like time of year, temperature, and duration, increased electrical demand may cause brownouts that would impact critical facilities.

Table 28: Critical Facilities Vulnerable to Drought and Potential Impacts

Jurisdiction	Critical Facilities	Potential Drought Impacts	
		Increased Demand for Services	Economic Damages
Kenedy County	Kenedy County Courthouse		X
	Justice of the Peace Building / Hurricane Shelter		X
	Kenedy County Sheriff's Office		X
	Water Collection Treatment – Tower & Distribution	X	X
	Wastewater Collection & Treatment	X	X
	Emergency Services District #1	X	X
	Texas Gulf Wind Substation	X	X
	Penascal Substation	X	X
	Baffin Wind Substation	X	X
	Stella Wind Electrical Substation	X	X
	Kenedy County Tax Office		X
	Kenedy County Appraisal District / GWD		X
	Kenedy County Elections Office		X
	Kenedy County AG Building		X
	Maintenance "Ed Lopez" Facility	X	X
	Maintenance Barn Facility	X	X
	Sheriff's Office Substation	X	X
	Garcia Street Pump House	X	X

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 29: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

9. Extreme Cold

Extreme cold can happen anywhere in the state, although its levels can range extensively. In the panhandle extreme cold means days below zero Fahrenheit while in the Rio Grande Valley it means reaching temperatures below freezing.[22] Extreme cold is an issue any time winter temperatures drop significantly below normal and make staying warm and safe a challenge.

Extreme cold can accompany winter weather, but it can also be independent of those storms. For that reason, the impacts of extreme cold are presented here separately from the impacts of winter weather.

1) Extreme Cold History

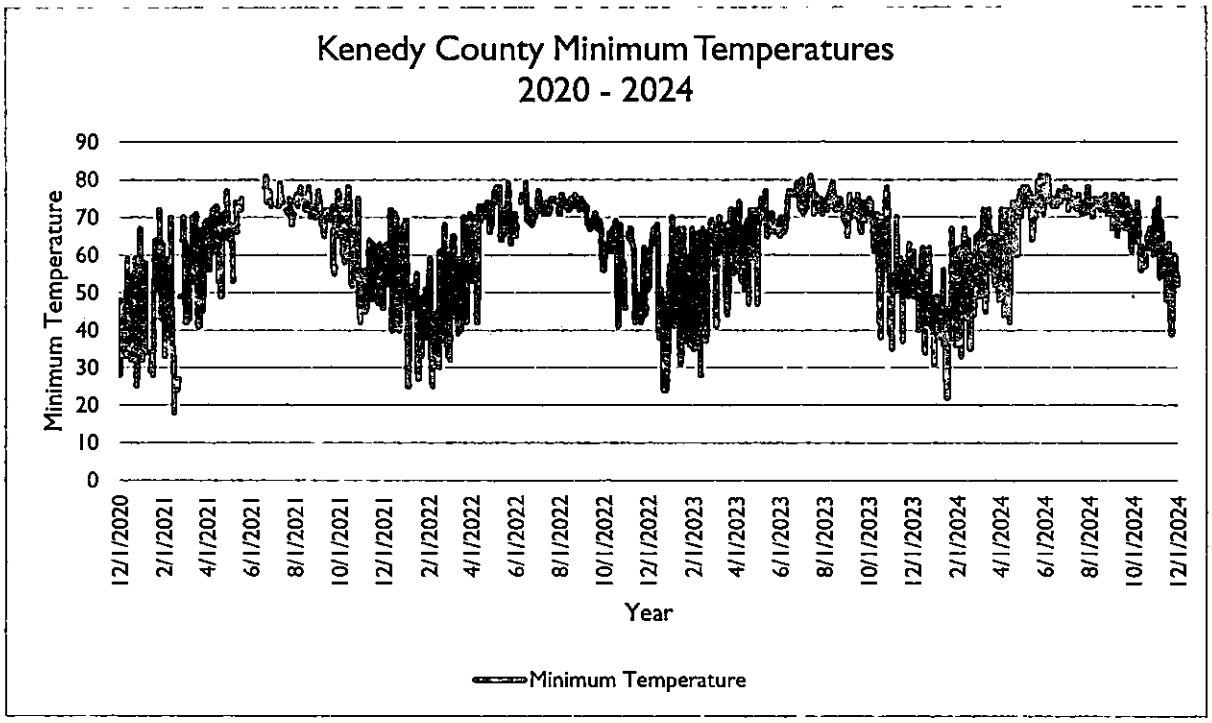

Figure 6: Minimum Recorded Daily Temperature 2020-2024[23]

Kenedy County has not previously included extreme cold in their mitigation plan as a standalone hazard.

Between 2020 to 2024, Kenedy County experienced 43 days with a minimum temperature of 32°F or colder. During the same timeframe, the coldest temperature recorded was 18°F on February 15, 2021. There was no climate data available for the years 2018 – 2019. Individual events recorded in the NCEI are reported in the table below.

[22] 2023 State of Texas Hazard Mitigation Plan

[23] Source: National Centers for Environmental Information, https://www.ncdc.noaa.gov/cdo-web/datasets

Table 30: Kenedy County Extreme Cold History

Location	Date Range	Number of Extreme Cold Events	Fatalities	Injuries	Property Damage $2025	Crop Damage $2025
Countywide	1/1/2018-1/17/2024	49	0	0	$0	0

2) Likelihood of Future Occurrence

Based on historic weather data, extreme cold in Kenedy County is highly likely, meaning an event affecting any or all the participating jurisdictions is probable in the next year.

3) Extent

The magnitude or intensity of an extreme cold event is measured according to temperature in relation to wind speed. The relationship is referred to as the "Wind Chill," and is depicted in Figure 7.

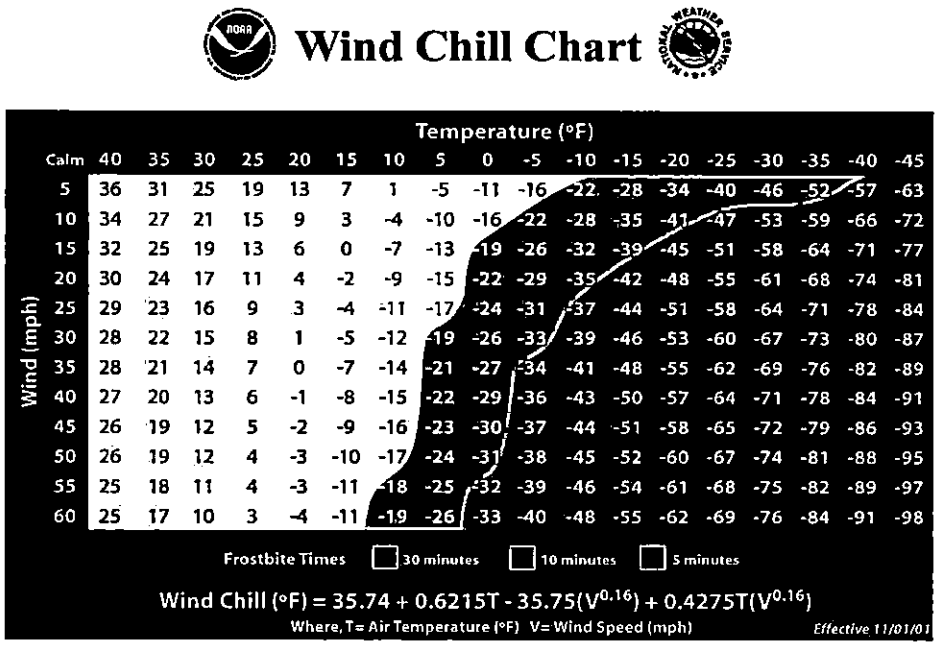

Figure 7: NOAA's NWS Wind Chill Index

As displayed in Figure 7, the wind chill temperature is a measurement of how cold the wind makes the air feel to the human body. Since wind can dramatically accelerate heat loss from

the body, a 20° day could feel just as cold as a calm day with 0° temperatures. The Wind Chill Chart factors the wind chill; it is not applicable in calm winds or when the temperature is over 50°.

The coldest temperatures in Kenedy County may meet or exceed the current record temperature of 18°F. Future extreme cold events may be as intense, long-lasting, and dangerous as previous ones.

4) Location and Impact

A) Location

Extreme cold has no distinct geographic boundary. Extreme cold can occur across the entire planning area and uniformly affect the entire County.

B) Impact

The potential impact of extreme cold is normally minor, resulting in few, if any, injuries. Based on the hazard's potential, in the worst cases, especially if combined with winter weather, the hazard may inflict property or crop damage, and it can even be deadly. Electrical grid failure, power outages, impacts to water and sewer infrastructure and pipe damage due to freezes are possible. Any shutdown of facilities due to extreme cold is expected to be temporary.

5) Vulnerability

A) Population

As described in Section 3 of Chapter 3 above, Kenedy County is home to vulnerable residents. Areas with concentrations of young, elderly, and low-income residents may feel greater impacts from extreme cold due to those populations' limited ability to properly address the hazard. Deficiencies may include but aren't limited to lack of heating in their homes or vehicles, lack of access to heated public spaces during the coldest part of the day or night, and frozen pipes that may jeopardize access to drinking water, and in the worst cases, lead to severe structural damage that can render a home unlivable. The consequences for these populations' exposure to extreme cold may include but are not limited to complications for those suffering from hypertension, hypothyroidism, and diabetes, as well as exhaustion, hypothermia, trench foot, or death.

B) Critical Facilities

While the entire County is exposed to extreme temperatures, existing buildings, infrastructure, and critical facilities were historically not considered vulnerable to damage significant enough to interrupt or stop normal operations. However, damage to existing buildings and infrastructure as a result of winter weather and extreme cold in recent years has shown

exceptions to long held assumptions about the threat of extreme cold. Therefore, all facilities are potentially vulnerable to the impacts noted in section 4b.

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 31: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

10. Extreme Heat

The National Weather Service criteria for an excessive heat warning is a heat index of 105 °F or greater that will last for 2 hours or more. In extreme heat your body works extra hard to maintain a normal temperature, which can lead to death. Extreme heat is responsible for the highest number of annual deaths among all weather-related hazards.[24] Humid conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground.

Although heat can damage buildings and facilities, it presents a more significant threat to the safety and welfare of citizens. The major human risks associated with severe summer heat include heat cramps; sunburn; dehydration; fatigue; heat exhaustion; and heat stroke. The most vulnerable population to heat casualties are children and the elderly or infirm, who frequently live on low fixed incomes and cannot afford to run air-conditioning on a regular basis. This population is sometimes isolated, with no immediate family or friends to look out for their wellbeing.

Severe summer heat is an invisible killer. Although a heat wave does not happen with the spectacle of other hazards such as tornados and floods, the National Center for Environmental Health reports that extreme heat caused 7,415 heat-related deaths in the United States from 1999 to 2010[25]. Extreme heat kills more people than hurricanes, floods, tornados, and lightning combined, according to the National Weather Service. In 2001, 300 deaths were caused by excessive heat exposure.

[24] https://www.ready.gov/heat
[25] http://www.bt.cdc.gov/disasters/extremeheat/heat_guide.asp

1) Extreme Heat History

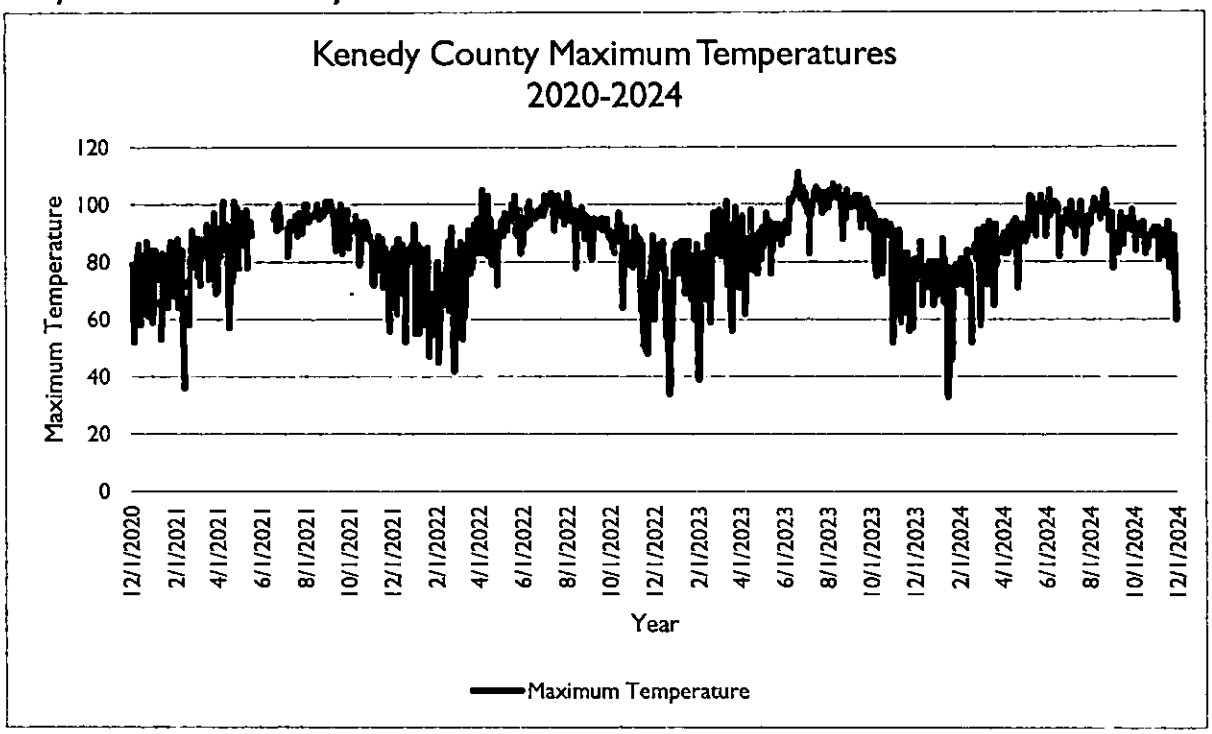

Figure 8: Maximum Recorded Daily Temperature 2020-2024[26]

In the 2018 HMAP, Kenedy County reported 278 days with a maximum temperature of 100˚F or hotter, between 2001 – 2017. Between 2020 to 2024, Kenedy County experienced 144 days with a maximum temperature of 100˚F or hotter. During the same timeframe, the hottest temperature recorded was 111˚F on June 22, 2023. There was no climate data available for the years 2018 – 2019. Individual events recorded in the NCEI are reported in the table below.

Table 32: Kenedy County Extreme Heat History

Location	Date Range	Number of Extreme Heat Events	Fatalities	Injuries	Property Damage $2025	Crop Damage $2025
Countywide	6/12/2023 6/5/2024	75	0	0	$0	$0

2) Likelihood of Future Events

Based on historic weather data, extreme heat in Kenedy County is highly likely, meaning an event is probable in the next year.

[26] Source: National Centers for Environmental Information, https://www.ncdc.noaa.gov/cdo-web/datasets

3) Extent

The magnitude or intensity of an extreme heat event is measured according to temperature in relation to the percentage of humidity. According to the National Oceanic Atmospheric Administration (NOAA), this relationship is referred to as the "Heat Index," and is depicted in Figure 9. This index measures how hot it feels outside when humidity is combined with high temperatures.

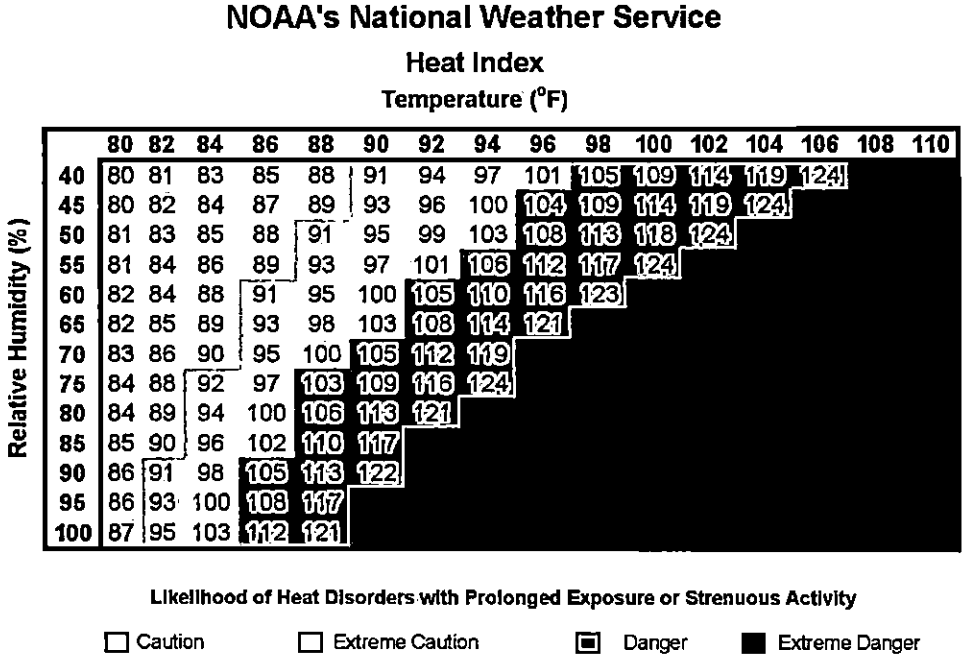

Figure 9: NOAA's NWS Heat Index Chart[27]

The extent scale in Figure 9 displays varying degrees of caution depending on the relative humidity combined with the temperature. For example, when the temperature is below 90°F, caution should be exercised if the humidity level is at or above 40 percent.

The shaded zones on the chart indicate varying symptoms or disorders that could occur depending on the magnitude or intensity of the event. "Caution" is the first level of intensity where fatigue due to heat exposure is possible. "Extreme Caution" indicates that sunstroke, muscle cramps or heat exhaustion are possible, whereas a "Danger" level means that these symptoms are likely. "Extreme Danger" indicates that heat stroke is likely.

[27] http://www.nws.noaa.gov/om/heat/ht-images/heatindexchart.png

The National Weather Service (NWS) initiates alerts based on the Heat Index Intensity as shown in Table 32.

Table 33: Heat Index Intensity

Intensity	Description
Heat Advisory	Extreme heat index making it feel hot, typically between 105°F to 110°F for 3 hours or more during the day and at or above 75°F at night.
Excessive Heat Warning	Extreme heat index making it feel very hot, typically above 105°F for 3 hours or more during the day and at or above 80°F at night.

Given an estimated daily average relative humidity level of 75%[28], highs as low as 89°F can produce a heat index temperature of 106°F. The combination of high humidity and moderate temperatures creates an environment that reaches the Danger Zone on NOAA's Heat Index Chart and may trigger an NWS Heat Advisory.

Between 2020 and 2024 Kenedy County and the participating jurisdictions experienced 46 days with highs of 89°F or hotter and overnight lows of 75°F or hotter. Based on the NWS descriptions in Table 32 above, and the average daily humidity level, these days likely warranted a heat advisory.

The hottest temperature recorded in Kenedy County in the recent past, 111°F, was reached on June 22, 2023. Future extreme heat events may meet the heat index requirements for issuing an Excessive Heat Warning as described in the Heat Intensity scale in Table 32 above. The hottest temperatures in Kenedy County may meet or exceed the current record temperature of 111°F. Future extreme heat events may be as intense, long-lasting, and dangerous as previous ones.

4) Location and Impact

A) Location

Extreme heat has no distinct geographic boundary. Extreme heat can occur across the entire County.

[28] Used Houston Average, closest to County - https://www.currentresults.com/Weather/Texas/humidity-annual.php

B) Impact

The potential impact of excessive summer heat is normally minor, resulting in few, if any, injuries. No property or crop damage specifically tied to extreme heat events has been recorded. No deaths related to extreme heat have ever been reported in the County. However, based on the hazard's potential, in the worst cases, especially if combined with drought conditions, the hazard may inflict property or crop damage, and it can even be deadly. Electrical grid failure, power outages, and damage to critical roadways are potential impacts. Any shutdown of facilities due to extreme heat is expected to be temporary.

5) Vulnerability

A) Population

As described in Section 3 of Chapter 3 above, Kenedy County is home to vulnerable residents. Vulnerable populations may feel greater impacts from extreme heat due to these populations' limited ability to properly address the hazard due to deficiencies including but not limited to lack of air conditioning in their homes or vehicles, lack of access to air-conditioned public spaces during the hottest part of the day, insufficient numbers of box or ceiling fans, or lack of access to other means of cooling. The consequences for these populations' exposure to extreme heat can include but are not limited to heat cramps, sunburn, dehydration, fatigue, heat exhaustion, heat stroke, or death.

B) Critical Facilities

While the County is exposed to extreme temperatures, existing buildings, infrastructure, and critical facilities were historically not considered vulnerable to damage significant enough to interrupt or stop normal operations. However, all critical facilities are potentially vulnerable to the impacts noted in section 4b.

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 34: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

11. Hailstorm

Hail is a form of solid precipitation. Hailstones are formed when raindrops are carried upward by thunderstorm updrafts into extremely cold areas of the atmosphere and freeze. Hailstones then grow by colliding with liquid water drops that freeze onto the hailstone's surface. The hail falls when the thunderstorm's updraft can no longer support the weight of the hailstone, which can occur if the stone becomes large enough or the updraft weakens. The fall speed of hail primarily depends on the size of the hailstone, the friction between the hailstone and surrounding air, the local wind conditions (both horizontal and vertical), and the degree of melting of the hailstone. For small hailstones smaller than 1-inch in diameter, the expected fall speed is between 9 and 25 mph. Hailstones 1-inch to 1.75 inches in size typically associated with a severe thunderstorm can have an expected fall speed between 25 and 40 mph. In the strongest supercells 2 to 4-inch hail can be produced with an anticipated fall speed between 44 and 72 mph. However, fall speeds fluctuate due to variations in the hailstone's shape, degree of melting, fall orientation, and the environmental conditions. It is possible for very large hailstones, exceeding 4-inches in diameter, to fall at over 100 mph.[29]

1) Hailstorm History

The 2018 Kenedy County HMAP recorded 57 hailstorm events between 1995 – 2016. There have been no recorded events since the 2018 HMAP.

2) Likelihood of Future Events

Based on the history of hailstorms, a hailstorm in Kenedy County and each of the participating jurisdictions is likely, meaning that an event is probable within the next three years.

3) Extent

The severity of hail events ranges based on the size of the hail, wind speed, and the number and types of structures in the path of the hailstorm. Storms that produce high winds in addition to hail are most damaging and can result in numerous broken windows and damaged siding.

When hail breaks windows, water damage from accompanying rain can also be significant. A major hailstorm can easily cause damage running into millions of dollars. Nationwide hail is responsible for over $1 billion in property and crop damage per year. The scale showing intensity categories in

Table 33 was developed by combining data from National Climatic Data Center (NCDC) and the Tornado and Storm Research Organization (TORRO).

[29] NOAA National Severe Storms Laboratory: https://www.nssl.noaa.gov/education/svrwx101/hail/

Table 35: Hailstorm Intensity[30,31]

Size Code	Intensity Category	Size (Diameter in inches)	Descriptive Term	Typical Damage
H0	Hard Hail	Up to 0.33	Pea	No damage
H1	Potentially Damaging	0.33-.060	Mothball	Slight damage to plants and crops
H2	Significant	.060-.080	Penny	Significant damage to fruit, crops, and vegetation
H3	Severe[32]	0.80-1.20	Nickel – Half dollar	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	1.2-1.6	Half dollar – Ping pong ball	Widespread glass damage and vehicle bodywork damage
H5	Destructive	1.6-2.0	Ping pong ball – hen egg	Wholesale destruction of glass, damage to tiled roofs, and significant risk of injuries
H6	Destructive	2.0-2.4	Hen egg – tennis ball	Bodywork of grounded aircraft dented, and brick walls pitted
H7	Destructive	2.4-3.0	Tennis ball – Baseball	Severe roof damage and risk of serious injuries
H8	Destructive	3.0-3.5	Hockey puck	Severe damage to aircraft bodywork
H9	Super Hailstorms	3.5-4.0	Softball	Extensive structural damage could cause fatal injuries
H10	Super Hailstorms	4.0+	Greater than softball-sized	Extensive structural damage could cause fatal injuries

According to NCEI data, the worst hailstorms in Kenedy County have produced hail up to 2.75" in diameter, H7 on the Hailstorm Intensity Scale.

Future hailstorms may meet or exceed previous worst-case H7 storms in terms of strength, intensity, hailstone size, damage dollars inflicted, and the number of residents injured or killed.

[30] http://www1.ncdc.noaa.gov/pub/data/cmb/extremes/scec/reports/SCEC-Hail-Guide.pdf
[31] http://www.torro.org.uk/hscale.php
[32] Hail must be 1" or larger to be classified as severe.

4) Location and Impact

A) Location

Hailstorms vary in terms of size, location, intensity, and duration but are considered frequent occurrences in the planning area. The County is uniformly exposed to hail events just as it is uniformly exposed to the thunderstorms that typically produce the hail events.

B) Impact

The severity of a hailstorm's impact is considered limited since they generally result in injuries treatable with first aid, shut down critical facilities and services for 24 hours or less, and less than ten percent of affected properties are destroyed or suffer major damage. All existing and future buildings, facilities, and populations in the participating jurisdictions are considered exposed to this hazard and could potentially be impacted.

5) Vulnerability

A) Population

As described in Section 3 of Chapter 3 above, Kenedy County is home to vulnerable residents. Increased vulnerability may be due to many factors including but not limited to age, ability, financial means, housing type, and housing condition. Many of these vulnerabilities often overlap.

Since hailstorms arise with little to no warning, the participating jurisdictions recognize that vulnerable populations may primarily need additional help recovering from a hailstorm. Residents of sub-standard structures are of particular concern. Structures in sub-standard condition ahead of a hailstorm, whether due to structural damage, missing windows or doors, holes in exterior walls or the roof, may sustain more damage than structures in standard condition.

Existing weaknesses, especially those related to the condition of a structure's roof, due to housing type or existing damage, may lead to compounded damage, injuries, or loss of life.

B) Critical Facilities

Table 36: Critical Facilities Vulnerable to Hailstorms and Potential Impacts

Jurisdiction	Critical Facilities	Potential Hailstorm Impacts		
		Damaged or Destroyed Roof	Damaged Windows	Water damage due to Physical Damages
Kenedy County	Kenedy County Courthouse	X	X	X
	Justice of the Peace Building / Hurricane Shelter	X	X	X
	Kenedy County Sheriff's Office	X	X	X
	Water Collection Treatment – Tower & Distribution	X	X	X
	Wastewater Collection & Treatment	X	X	X
	Emergency Services District #1	X	X	X
	Texas Gulf Wind Substation			X
	Penascal Substation			X
	Baffin Wind Substation			X
	Stella Wind Electrical Substation			X
	Kenedy County Tax Office	X	X	X
	Kenedy County Appraisal District / GWD	X	X	X
	Kenedy County Elections Office	X	X	X
	Kenedy County AG Building	X	X	X
	Maintenance "Ed Lopez" Facility	X	X	X
	Maintenance Barn Facility	X	X	X
	Sheriff's Office Substation			X
	Garcia Street Pump House	X	X	X

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 37: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

12. Winter Storms

Winter storms include heavy snow and blizzards, sleet, ice storms (or freezing rain), frost/freeze or a mix of these. Winter storms can down trees, cause widespread power outages, damage property, and cause fatalities and injuries. The effect of winter storms on Texas is quite disruptive compared to other regions that normally experience winter storms.

A heavy snowfall for the State is an accumulation of four or more inches of snow in a 12-hour period. This amount of snow accumulation usually occurs in the northern half of the state and in the higher elevations of West Texas. South of the line from Del Rio to Port Arthur snow is rare.

Blizzards are the most perilous of all winter storms, characterized by low temperatures and strong winds in excess of 35 mph, bearing large amounts of blowing or drifting snow. Blizzards take a terrible toll on livestock and people caught in the open. In Texas, blizzards are most likely to occur in the Panhandle and South Plains Regions.

An ice storm occurs when rain falls out of the warm upper layers of the atmosphere into a cold and dry layer near the ground. The rain freezes on contact with the cold ground and accumulates on exposed surfaces. Damage can occur with half an inch of rain freezing on trees and utility wires; the damage increases if there are high winds. Based on this, an icing event is categorized an ice storm at half an inch.[33]

1) Winter Storm History

The 2018 Kenedy County HMAP did not report any winter storms, rather it reported extreme cold days which is covered in the extreme cold section of this plan.

Table 38: Kenedy County Winter Storm History

Location	Date Range	Number of Winter Storms	Winter Storm Types	Fatalities	Injuries	Property Damage $2025	Crop Damage $2025
Countywide	1/1/2018 – 1/17/2024	43	Winter Storm, Freeze	0	0	$216,000	$0

2) Likelihood of Future Events

Future winter storms in Kenedy County are considered highly likely, meaning an event is probable in the next year.

[33] 2023 State of Texas Hazard Mitigation Plan

3) Extent

The table below displays the magnitude of ice accumulation. Although snow and sleet storms are possible in Texas, the primary concern is ice accumulation.

Table 39: Winter Storm Extent Scale

The Sperry-Piltz Ice Accumulation Index, or "SPIA Index" – Copyright, February, 2009

ICE DAMAGE INDEX	DAMAGE AND IMPACT DESCRIPTIONS
0	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
2	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
4	Prolonged & widespread utility interruptions with extensive damage to main distribution feeder lines & some high voltage transmission lines/structures. Outages lasting 5 – 10 days.
5	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.

(Categories of damage are based upon combinations of precipitation totals, temperatures and wind speeds/directions.)

Based on previous winter storm events, specifically Winter Storm Uri in 2021, future events in Kenedy County may see ice accumulation of up to 2" or a category 3 on the Sperry-Piltz Index.

4) Location and Impact

A) Location

Winter storms have no distinct geographic boundary. Winter storms can occur across the entire planning area and uniformly affect all participating jurisdictions.

B) Impact

The potential impact of winter storms is normally minor, resulting in few, if any, injuries. Drivers, especially those unfamiliar with or unable to drive in icy conditions, may be at the highest risk of crashing their vehicle and sustaining injuries.

Beyond accidents caused by icy conditions, winter storms have the potential to cause widespread power outages. Trees and other vegetation that grow along or near power lines and utility lines can become overburdened by ice and snow accumulation. Falling limbs or trees

can easily take down power and utility lines. Neglected vegetation is especially at risk of failure due to increased weight loads. Power outages can create a cascading effect depending on residents' ability to heat their homes without electricity, especially for those young, elderly, and low-income residents as identified in Section 3 of Chapter 3 above. Although no deaths related to winter storms have been reported in the County, in the worst cases, the hazard has the potential to be deadly.

Winter storms will likely cause only minor property damage and minimal disruption to the quality of life in the participating jurisdictions.

Depending on when the event happens, winter storms may damage or destroy crops.

5) Vulnerability

A) Population

As described in Section 3 of Chapter 3 above, Kenedy County is home to vulnerable residents. Areas with concentrations of young, elderly, and low-income residents may feel greater impacts from winter storms due to those populations' limited ability to properly address the hazard. Deficiencies may include but aren't limited to lack of heating in their homes or vehicles, lack of access to heated public spaces during the coldest part of the day or night, and frozen pipes that may jeopardize access to drinking water, and in the worst cases, lead to severe structural damage that can render a home unlivable. The consequences for these populations' exposure to winter storms can include but are not limited to complications for those suffering from hypertension, hypothyroidism, and diabetes, as well as exhaustion, hypothermia, trench foot, or death.

B) Critical Facilities

Any shutdown of critical facilities due to winter storms is expected to be temporary. However, based on the proximity of trees and powerlines on their properties, the following critical facilities may be at a higher risk of losing power due to falling limbs.

Table 40: Critical Facilities Vulnerable to Winter Storms

Jurisdiction	Critical Facilities	Potential Winter Storm Impacts
		Falling Tree Limbs
Kenedy County	Kenedy County Courthouse	X
	Justice of the Peace Building / Hurricane Shelter	X
	Kenedy County Sheriff's Office	X
	Water Collection Treatment – Tower & Distribution	X

	Wastewater Collection & Treatment	X
	Emergency Services District #1	X
	Texas Gulf Wind Substation	X
	Penascal Substation	X
	Baffin Wind Substation	X
	Stella Wind Electrical Substation	X
	Kenedy County Tax Office	X
	Kenedy County Appraisal District / GWD	X
	Kenedy County Elections Office	X
	Kenedy County AG Building	X
	Maintenance "Ed Lopez" Facility	X
	Maintenance Barn Facility	X
	Sheriff's Office Substation	X
	Garcia Street Pump House	X

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 41: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

13. Windstorms

Windstorms are classified as any wind that is strong enough to cause at least light damage to trees and buildings, which may or may not be accompanied by precipitation. Wind speeds during a windstorm typically exceed 41 knots. Damage can be attributed to gusts or longer periods of sustained winds. Although tornados and tropical cyclones also produce wind damage, they are usually classified separately.

Windstorms may last for just a few minutes when caused by downbursts from thunderstorms, or they may last for hours (and even several days) when they result from large-scale weather systems. A windstorm that travels in a straight line and is caused by the gust front (the boundary between descending cold air and warm air at the surface) of an approaching thunderstorm is called a derecho. Derechos are capable of causing widespread damage and landscape devastation.[34]

1) Windstorm History

The 2018 Kenedy County HMAP recorded 37 windstorm events between 1968 – 2016. There have been no recorded events since the 2018 HMAP, though it is likely that some events may have gone unreported or were associated with other hazard events mentioned in this plan.

2) Likelihood of Future Events

Given the frequency of past events, a damaging windstorm event in the future is likely, meaning that an event is probable in the next three years.

3) Extent

The generally accepted extent scale for wind events is the Beaufort Wind Scale. The following table lists categories, measurement, classification, and appearance descriptions.

Table 42: Beaufort Wind Scale[35]

Beaufort Wind Scale				
Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects	
			On the Water	On Land
0	Less than 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-3	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	Light Breeze	Small wavelets, crests glassy, no breaking	Wind felt on face, leaves rustle, vanes begin to move

[34] https://www.britannica.com/science/windstorm
[35] Source: www.spc.noaa.gov/faq/tornado/beaufort.html

3	7-10	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	11-16	Moderate Breeze	Small waves 1-4 feet becoming longer, numerous whitecaps	Dust, leaves, and loose paper lifted, small tree branches move
5	17-21	Fresh Breeze	Moderate waves 4-8 feet taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	22-27	Strong Breeze	Larger waves 8-13 feet, whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	28-33	Near Gale	Sea heaps up, waves 13-20 feet, white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	Gale	Moderately high (13-20 feet) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Whole trees in motion, resistance felt walking against wind
9	41-47	Strong Gale	High waves (20 feet), sea begins to roll, dense streaks of foam, spray may reduce visibility	Slight structural damage occurs, slate blows off roofs
10	48-55	Storm	Very high waves (20-30 feet) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	56-63	Violent Storm	Exceptionally high (30-45 feet) waves, foam patches cover sea, visibility more reduced	
12	64+	Hurricane	Air filled with foam, waves over 45 feet, sea completely white with driving spray, visibility greatly reduced	

The worst windstorm events in Kenedy County and the participating jurisdictions have ranged up to 10 on the Beaufort Wind Scale. Future windstorm events may meet previous worst-case Force 10 events in terms of strength and intensity of wind speed.

4) Location and Impact

A) Location

Windstorms are not constrained by any distinct geographic boundary. Windstorms can occur across the County.

B) Impact

Impacts from a windstorm may include but are not limited to damaged or destroyed personal property including vehicles, damaged or destroyed agricultural, residential, commercial, and industrial buildings. Crops may be damaged or destroyed. Pets and livestock may be injured or killed by flying debris. Pets and livestock may escape due to damaged or destroyed structures and fences.

In the worst cases, windstorms may cause injuries and/or be deadly.

5) Vulnerability

Windstorms have the potential to impact the entire County. Therefore, the County is uniformly exposed to the hazard. Improved property, critical facilities, critical infrastructure, and the entire population are considered vulnerable to windstorms.

Based on windstorm data collected, windstorms primarily damage physical structures. However, there is no uniformity with respect to the type of structures that have been damaged by windstorms in the County. Windstorm damage can be directly caused by the wind itself, flying debris, and falling trees, or indirectly by damage like power outages.

A) Population

As described in Section 3 of Chapter 3 above, Kenedy County is home to vulnerable residents. Increased vulnerability may be due to many factors including but not limited to: age, physical ability, financial means, housing type, and housing condition. Many of these vulnerabilities often overlap.

The County recognizes that vulnerable populations may need additional help preparing for and recovering from a windstorm.

Residents of mobile / manufactured homes are of particular concern. These structures may not be safe during a windstorm.

Residents of sub-standard structures are also of particular concern. Structures in sub-standard condition ahead of a windstorm, whether due to structural damage, missing windows or doors, holes in exterior walls or the roof, may be less safe during a windstorm than structures in standard condition.

Existing structural weaknesses, due to housing type or existing damage, may lead to compounded damage, injuries, or loss of life.

B) Critical Facilities

Certain critical facilities and infrastructure may be particularly vulnerable to windstorms, similar to hurricane and tornado events. These facilities have been identified for reasons including: the

number of people who use the facility or infrastructure, the facility's role in providing basic services to begin the cleanup process and get the jurisdictions running again, and the facility's ability to offer goods and materials residents will need to resume normalcy as quickly as possible. The selected critical facilities are built from a variety of materials with varying levels of resistance to wind damage. Additionally, their varying ages mean they weren't constructed to uniform building standards. Given wind's potentially violent nature, these facilities may experience increased levels of vulnerability to the hazards. Damage to any of these facilities may have a disproportionately negative impact on each jurisdiction's recovery from a windstorm if that damage affects the facility's ability to reopen and resume normal business right away.

Table 43: Critical Facilities Vulnerable to Windstorms and Potential Impacts

Jurisdiction	Critical Facilities	Potential Windstorm Impacts							
		Loss of Power	Flying Debris	Uprooted Trees	Damaged or Destroyed Roofs	Damaged or Broken Windows	Wind Damage	Injuries	Death
Kenedy County	Kenedy County Courthouse	X	X	X	X	X	X	X	X
	Justice of the Peace Building / Hurricane Shelter	X	X	X	X	X	X	X	X
	Kenedy County Sheriff's Office	X	X	X	X	X	X	X	X
	Water Collection Treatment – Tower & Distribution	X	X	X	X	X	X	X	X
	Wastewater Collection & Treatment	X	X	X	X	X	X	X	X
	Emergency Services District #1	X	X	X	X	X	X	X	X
	Texas Gulf Wind Substation	X	X						
	Penascal Substation	X	X						
	Baffin Wind Substation	X	X						
	Stella Wind Electrical Substation	X	X						
	Kenedy County Tax Office	X	X	X	X	X	X	X	X
	Kenedy County Appraisal District / GWD	X	X	X	X	X	X	X	X
	Kenedy County Elections Office	X	X	X	X	X	X	X	X
	Kenedy County AG Building	X	X	X	X	X	X	X	X
	Maintenance "Ed Lopez" Facility	X	X	X	X	X	X	X	X
	Maintenance Barn Facility	X	X	X	X	X	X	X	X
	Sheriff's Office Substation	X	X						
	Garcia Street Pump House	X	X	X	X	X	X		

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 44: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

14. Lightning

Lightning occurs as a rapid discharge of electrical energy in the atmosphere between clouds, the air, or the ground. A bolt of lightning can reach temperatures approaching 50,000 degrees Fahrenheit, a temperature five times hotter than the sun's surface. Lightning rapidly heats the sky as it flashes, but the surrounding air quickly cools following the bolt. This rapid heating and cooling of the surrounding air causes the thunder which often accompanies lightning strikes. While most often affiliated with severe thunderstorms, lightning often strikes outside of heavy rain and might occur as far as 10 miles away from any rainfall.[36]

Lightning damage can result in electrocution of humans and animals; vaporization of materials along the path of the strike; fire caused by the high temperature produced by the strike; and sudden power surges that can damage electrical and electronic equipment. Millions of dollars of direct and indirect damages result from lightning strikes on electric utility substations and distribution lines. While property damage is the major hazard associated with lightning, it should be noted that lightning strikes kill nearly 49 people [37] each year in the United States.

1) Lightning History

The 2018 Kenedy County HMAP recorded 3 events between 1969 – 2016. There have been no reported lightning events since the 2018 HMAP, however, it is common that many lightning events go unreported. It is likely that many events have occurred and gone unreported.

2) Likelihood of Future Events

Lightning is especially associated with thunderstorms. Despite the lack of officially reported instances of lightning-caused damage, a lightning event is highly likely, meaning an event affecting any of the participating jurisdictions is probable in the next year. According to information from VAISALA[38], most of Kenedy County can expect about 2 to 5 lightning flashes per square mile per year.

3) Extent

The extent for lightning can be expressed in terms of the number of strikes within an interval. Given the lack of lightning history data, it is expected that Kenedy County and all participating jurisdictions may experience lightning events between LAL 1 and LAL 5. Dry thunderstorms, LAL 6, are not expected.

[36] 2023 State of Texas Hazard Mitigation Plan
[37] https://www.weather.gov/safety/lightning-victims
[38] Vaisala Xweather Annual Lightning Report 2023 (adobe.com)

Table 45: Lightning Activity Levels[39]

Lightning Activity Level (LAL)		
Activity levels are valuable guidance tools to aid in the preparation for possible fire initiation from cloud-to-ground lightning.		
LAL	Cloud and Storm Development	Lightning Strikes per 15 Minutes
1	No thunderstorms.	-
2	Cumulus clouds are common but only a few reaches the towering cumulus stage. A single thunderstorm must be confirmed in the observation area. The clouds produce mainly virga, but light rain will occasionally reach the ground. Lightning is very infrequent.	1-8
3	Towering cumulus covers less than two-tenths of the sky. Thunderstorms are few, but two to three must occur within the observation area. Light to moderate rain will reach the ground, and lightning is infrequent.	9-15
4	Towering cumulus covers two to three-tenths of the sky. Thunderstorms are scattered and more than three must occur within the observation area. Moderate rain is common, and lightning is frequent.	16-25
5	Towering cumulus and thunderstorms are numerous. They cover more than three-tenths and occasionally obscure the sky. Rain is moderate to heavy and lightning is frequent and intense.	25+
6	Similar to LAL 3 except thunderstorms are dry.	

4) Location and Impact

A) Location

Lightning strikes have no distinct geographic boundary. Lightning can occur across the entire County.

B) Impact

Impacts from lightning in all jurisdictions may include but are not limited to loss of power due to electrical surges, damaged or destroyed personal property including computers and other

[39] Source: http://www.prh.noaa.gov/hnl/pages/LAL.php

electronics, damaged or destroyed agricultural, residential, commercial, and industrial buildings. Crops may be damaged or destroyed. Livestock may be injured or killed by lightning. In the worst cases, lightning may cause injuries or even loss of life.

5) Vulnerability

According to the Lightning Protection Institute, it is a myth[40] that lightning always strikes the tallest objects. Given lightning's indiscriminate nature, it is impossible to identify buildings that are at an increased risk of being struck by lightning. All existing and future buildings, critical facilities, critical infrastructure, improved property, and the population are exposed to this hazard. However, structures without adequate lightning protection and those with large concentrations of electronic equipment like computers, servers, and printers, are most vulnerable, as are locations that may have outside crowds during a lightning event.

A) Critical Facilities

Table 46: Critical Facilities Vulnerable to Lightning and Potential Impacts

Jurisdiction	Critical Facilities	Potential Lightning Impacts			
		Physical Damage	Electrical Damage	Data Damage or Loss	Fire
Kenedy County	Kenedy County Courthouse	X	X	X	X
	Justice of the Peace Building / Hurricane Shelter	X	X	X	X
	Kenedy County Sheriff's Office	X	X	X	X
	Water Collection Treatment – Tower & Distribution	X	X		X
	Wastewater Collection & Treatment	X	X		X
	Emergency Services District #1	X	X	X	X
	Texas Gulf Wind Substation	X	X		X
	Penascal Substation	X	X		X
	Baffin Wind Substation	X	X		X
	Stella Wind Electrical Substation	X	X		X
	Kenedy County Tax Office	X	X	X	X
	Kenedy County Appraisal District / GWD	X	X	X	X
	Kenedy County Elections Office	X	X	X	X
	Kenedy County AG Building	X	X	X	X
	Maintenance "Ed Lopez" Facility	X	X	X	X
	Maintenance Barn Facility	X	X	X	X
	Sheriff's Office Substation	X	X		X
	Garcia Street Pump House	X	X		X

[40] http://lightning.org/wp-content/uploads/2015/06/LPI_lightning_infographic_2015.jpg

C) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 47: Estimated Potential Damage Values by Jurisdiction

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	539	$1,069,932,450

15. Coastal Erosion

Coastal erosion is a hydrologic hazard defined as the wearing away of land and loss of beach, shoreline, or dune material because of natural coastal processes or manmade influences. Erosion is measured as a rate of change in the position or displacement of a shoreline over a period of time. Short-term erosion typically results from periodic natural events, such as wave action, storm surges and wind. Long-term erosion is a result of repetitive occurrences of this type and of severe storm and flooding events.

Erosion can affect natural and built environments. Impacts depend on topography, soils, building types and construction materials. Coastal erosion can affect natural systems, coastal food supplies, tourism industry, and small-town viability. When sea water infiltrates freshwater wetlands, they can die, removing key habitats for animals and a protective buffer for nearby communities.

At 367 miles, Texas has one of the longest coastlines in the United States. It also has some of the highest rates of coastal erosion.[41]

1) Coastal Erosion History

Individual occurrences of coastal erosion are not recorded, rather, annual rates are estimated as shown below under Section 3. According to the Texas Shoreline Change Project of the Bureau of Economic Geology,[42] between 2000 – 2018 Kenedy County experienced between 6.6' - 9.2' loss along their coastline per year.

The planning team has determined that at least one coastal erosion event occurs annually in Kenedy County.

2) Probability

Given the ongoing nature of coastal erosion, the probability of an event in Kenedy County is highly likely, meaning ongoing coastal erosion is probable in the next year.

3) Extent

Coastal erosion is measured by feet of shoreline lost in any given year. Texas has some of the highest coastal erosion rates in the country. Research shows that 64%[43] of the Texas Gulf Coast is eroding at an average rate of about 6' per year. As a whole the Texas coast is eroding at an average rate of 2.3' per year. In the worst cases, areas may lose 30' or more per year.

[41] 2018 State of Texas Hazard Mitigation Plan
[42] https://coastal.beg.utexas.edu/shorelinechange2019/
[43] http://www.glo.texas.gov/coast/coastal-management/coastal-erosion/index.html

Ongoing coastal erosion may meet or exceed the highest average of 9.2' of loss in Kenedy County per year.

4) Location and Impact

A) Location

Direct impacts from coastal erosion are expected to primarily affect the areas along the shoreline depicted below:

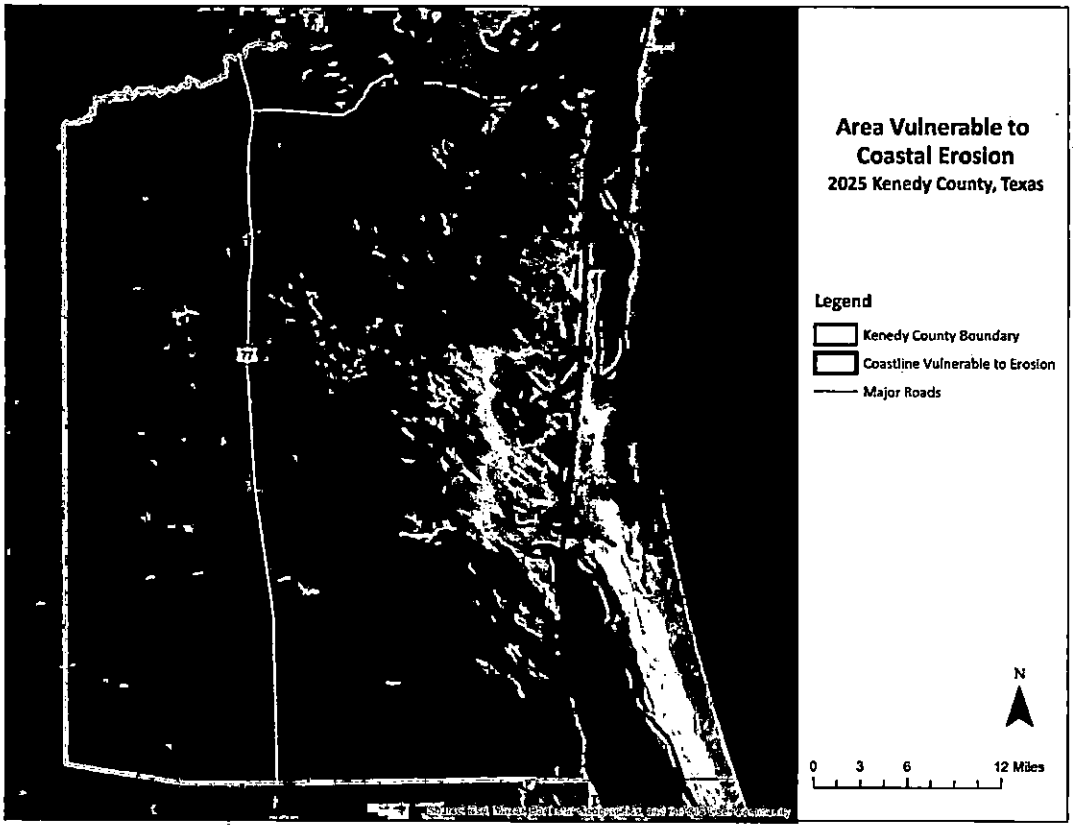

Figure 10: Areas Subject to Coastal Erosion in Kenedy County

B) Impact

The impacts of erosion may include but are not limited to decreasing property values, the partial or complete loss of structures adjacent to the coast, economic losses to agricultural operations, damage to local infrastructure including roads, bridges, and piers, and increased damage from tropical storms and hurricanes.

5) Vulnerability

A) Critical Facilities

There are 18 critical facilities in Kenedy County. None of the critical facilities are located on the coast and therefore are not vulnerable to erosion.

B) Vulnerable Parcels

Central Appraisal District data was used to estimate potential damage values.

Table 48: Parcels Vulnerable to Coastal Erosion

Jurisdiction	Parcel Count	Estimated Potential Damage Value
Kenedy County	5	$355,886,150

16. Mitigation Strategy

1) Capability Assessment

In addition to reviewing previous actions and the steps taken to implement them, the planning team reviewed existing regulatory capabilities and opportunities for establishing new capabilities and enhancing existing ones. At this time, the County could improve their hazard mitigation capabilities through the following efforts: budgeting for mitigation actions and support, passing policies and procedures to implement mitigation actions, adopting, and implementing stricter mitigation regulations, approving the hiring, and training of staff for mitigation activities, and approving mitigation updates and additions to existing plans as new needs are recognized. The County could further improve their capabilities by creating and adopting regularly updated comprehensive plans.

Table 49: Capability Assessment by Jurisdiction

Kenedy County Administrative, Financial, Regulatory, and Technical Abilities
Emergency Management
Floodplain Management
Substandard Structures Abatement
Comprehensive Planning
Grant Writing
General Budgeting
State and Federal Grant Funding

A) Building Codes

Table 50: Building Codes Per Jurisdiction

Jurisdiction	Codes	Description
Kenedy County	N/A	Kenedy County does not follow or enforce building codes.

2) Incorporation and Integration of Existing Capabilities and Hazard Mitigation

As previously outlined, the planning team reviewed a range of codes, ordinances, and other planning mechanisms that have been adopted by the County. The planning team's goal was to understand how these existing capabilities might affect mitigation actions in terms of implementation and enforcement as well as to identify opportunities for future plan integration.