

# Natural Disaster Year In Review Impact Report – 2019 Edition

## Overview of Selected Natural Disasters

Veros Real Estate Solutions Looks Back At Selected Natural Disaster Events  
January 1 – December 31, 2019 and The Impact on People and Properties.



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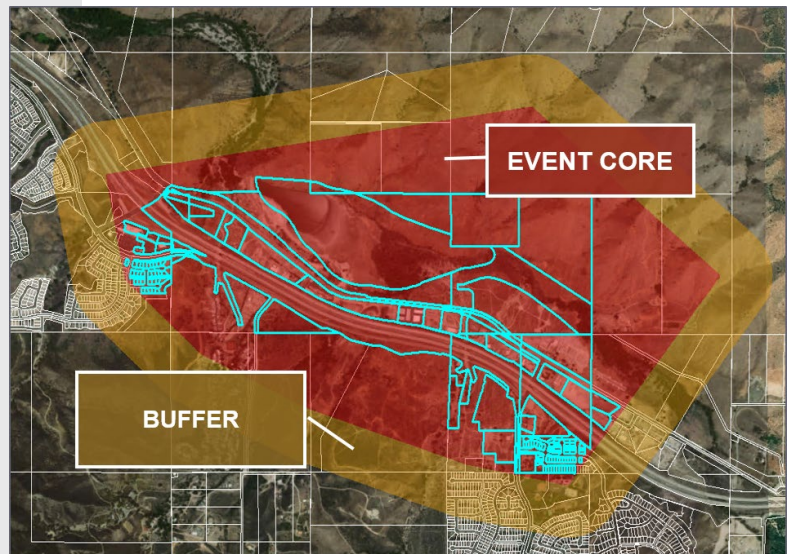
# 2019 Year In Review Report Overview

One thing is certain: natural disasters will strike each year. As the temperatures rise, and vegetation dries, wildfires ignite. Rain brings wind, floods and when the storm factors combine, tornadoes. 2019 was no different. Veros remained vigilant in its pursuit to provide the data and insight surrounding natural disasters, helping to gain a better understanding of the impact on the people, residential properties and lives impacted as a result of the events.

[This report highlights some of the natural disaster events Veros tracked throughout 2019.](#)

## Core and Buffer Zone Explained

The disaster data set from Veros combines data and satellite imagery from multiple sources in near real-time, indicating whether or not a specific parcel has been affected. This disaster data provides accuracy more precise than FEMA, which uses county boundaries for its designations. Using parcel boundaries, latitude and longitude, address information and more, Veros creates two geographic areas that pertain to a disaster event: residential properties in the Core (inside the event) and residential properties in the Buffer (typically within a ½ mile outside of the core). If a property is located within the core or the buffer, it is not implicit that there is damage, but rather, an indication of the likelihood that a property may have experienced damage. The total VeroVALUE is based on the total of the impacted properties calculated from the VeroVALUE AVM.






# Hurricane Barry

## Overview

Barry began as a tropical storm on July 11, originating in the Gulf of Mexico and strengthened to Category 1 hurricane status on July 13 as it moved toward the Louisiana coast. It made landfall later that day near Intracoastal City, Louisiana, bringing heavy rain and wind to the north-central Gulf Coast, and remained over Louisiana as it weakened into a tropical depression on July 14. Other areas impacted include Mississippi and Texas.

Veros Real Estate Solutions identified **352,874** residential properties in the core event area of Tropical Storm / Hurricane Barry, with an estimated market value of **\$85,320,682,000** billion based on the predictive analytics available through the VeroVALUE AVM.

## TROPICAL STORM / HURRICANE BARRY REPORT HIGHLIGHTS

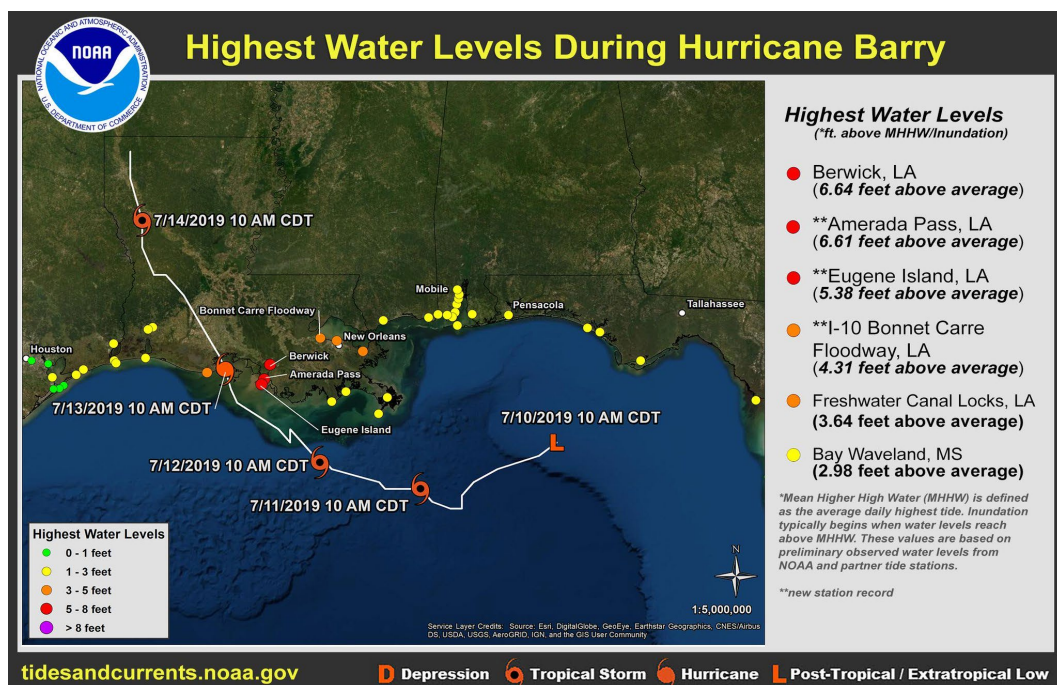
-  Potentially **413,913 properties** in the region were at stake, with approximately **352,874** in the direct core of the tropical storm/hurricane with the potential for more significant damage.
-  The total market value of potentially impacted properties in the core and buffer zones **exceeds \$99 Billion**.
-  **Orleans and Jefferson Counties** were the hardest hit counties in Louisiana.

## TROPICAL STORM / HURRICANE BARRY FACTS & FIGURES

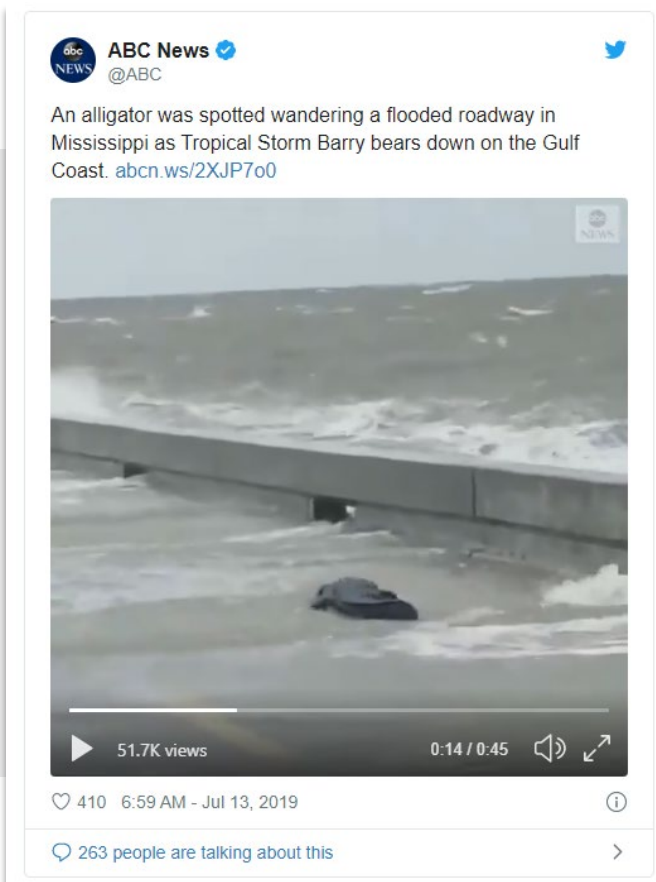
- **Tropical Storm/Hurricane Barry:** July 11 – 16, 2019
- **Storm Activity:** A tropical storm that made landfall as a category one hurricane
- **Unstable Conditions:** Rain, flooding, storm surge and winds
- **Louisiana Oil Rigs Evacuated:** Workers on 300+ oil rigs and platforms evacuated
- **Sand Left Behind:** Coastal flooding left behind 2-3 feet of sand in spots
- **FEMA Declaration:** 4458 DR on August 27, 2019 for Louisiana

## Flooding

While wind and rain were major factors, it was the threat of rising water that brought the effects of Hurricane Barry to the doorsteps of many homes.



The storm surge also brought an alligator into the street.



# Veros Predicted Tropical Storm/Hurricane Barry Damage Impact by County

Veros determined the potential property-level impact within the counties identified to have been affected by Tropical Storm/Hurricane Barry.

## Property Impact Within the Core of Tropical Storm/Hurricane Barry

HURRICANE BARRY		ESTIMATED INSIDE EVENT CORE		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Event
LA	ACADIA	\$121,000	1	0.00 %
LA	ASCENSION			
LA	ASSUMPTION	\$3,710,000	41	0.48 %
LA	CALCASIEU			
LA	CAMERON	\$624,400	4	0.11 %
LA	IBERIA	\$5,378,000	27	0.10 %
LA	IBERVILLE			
LA	JEFFERSON	\$29,632,792,200	127,131	86.77 %
LA	JEFFERSON DAVIS			
LA	LAFAYETTE			
LA	LAFOURCHE	\$1,281,166,000	7,254	21.18 %
LA	LIVINGSTON	\$782,800	5	0.01 %
LA	ORLEANS	\$37,087,798,000	122,553	89.63 %
LA	PLAQUEMINES	\$1,472,695,800	5,090	61.50 %
LA	SAINT BERNARD	\$2,401,979,000	14,206	93.31 %
LA	SAINT CHARLES	\$1,990,341,500	8,331	44.73 %
LA	SAINT JAMES			
LA	SAINT MARTIN			
LA	SAINT MARY	\$1,667,415,600	10,123	49.18 %
LA	SAINT TAMMANY	\$19,479,000	69	0.07 %
LA	ST JOHN THE BAPTIST	\$849,000	4	0.03 %
LA	TANGIPAHOA	\$1,888,000	8	0.02 %
LA	TERREBONNE	\$61,288,400	399	1.03 %
LA	VERMILION	\$3,769,600	18	0.08 %
MS	HANCOCK			
MS	HARRISON			
MS	JACKSON			
TX	BRAZORIA	\$2,392,183,900	13,175	10.30 %
TX	CHAMBERS			
TX	GALVESTON	\$2,131,342,400	13,758	9.96 %
TX	HARDIN			
TX	HARRIS	\$242,000	1	0.00 %
TX	JEFFERSON	\$5,118,108,000	30,400	34.09 %
TX	LIBERTY			
TX	MATAGORDA	\$46,727,400	276	1.60 %
TX	ORANGE			
<b>TOTAL</b>		<b>\$85,320,682,000</b>	<b>352,874</b>	

## Likely Property Impact In The Buffer Zone

This chart indicates the properties in the Buffer of the tropical storm/hurricane event.

HURRICANE BARRY		ESTIMATED INSIDE BUFFER		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Buffer
LA	ACADIA	\$17,448,400	99	0.43 %
LA	ASCENSION	\$218,984,800	878	1.90 %
LA	ASSUMPTION	\$395,124,000	2,400	28.26 %
LA	CALCASIEU	\$423,089,000	1,769	2.46 %
LA	CAMERON	\$336,832,000	1,486	39.65 %
LA	IBERIA	\$164,955,000	833	2.96 %
LA	IBERVILLE	\$49,786,000	293	2.57 %
LA	JEFFERSON	\$1,656,509,800	6,521	4.45 %
LA	JEFFERSON DAVIS	\$71,480,000	413	3.24 %
LA	LAFAYETTE	\$140,000	1	0.00 %
LA	LAFOURCHE	\$792,417,000	4,462	13.03 %
LA	LIVINGSTON	\$613,928,800	3,207	6.18 %
LA	ORLEANS	\$1,060,433,000	2,910	2.13 %
LA	PLAQUEMINES	\$241,388,000	1,100	13.29 %
LA	SAINT BERNARD	\$40,546,000	226	1.48 %
LA	SAINT CHARLES	\$188,630,000	899	4.83 %
LA	SAINT JAMES	\$2,999,000	19	0.25 %
LA	SAINT MARTIN	\$85,907,200	404	1.94 %
LA	SAINT MARY	\$349,247,600	2,200	10.69 %
LA	SAINT TAMMANY	\$1,405,353,000	4,786	4.64 %
LA	ST JOHN THE BAPTIST	\$13,917,600	87	0.57 %
LA	TANGIPAHOA	\$29,991,000	153	0.34 %
LA	TERREBONNE	\$1,643,997,800	10,193	26.28 %
LA	VERMILION	\$284,382,800	1,439	6.34 %
MS	HANCOCK	\$1,613,000	8	0.04 %
MS	HARRISON	\$52,570,600	211	0.27 %
MS	JACKSON	\$72,555,800	417	0.75 %
TX	BRAZORIA	\$554,957,500	2,523	1.97 %
TX	CHAMBERS	\$59,451,000	219	1.28 %
TX	GALVESTON	\$1,868,779,600	6,068	4.39 %
TX	HARDIN	\$3,273,000	21	0.09 %
TX	HARRIS	\$503,793,800	2,105	0.17 %
TX	JEFFERSON	\$388,118,000	2,054	2.30 %
TX	LIBERTY	\$376,000	2	0.01 %
TX	MATAGORDA	\$46,637,000	228	1.32 %
TX	ORANGE	\$67,096,400	405	1.13 %
<b>TOTAL</b>		<b>\$13,706,709,500</b>	<b>61,039</b>	

## Properties Outside of the Event

Here is a view of the properties likely to not have received any direct damage from the tropical storm/hurricane event.

HURRICANE BARRY		OUTSIDE OF EVENT & CORE	
STATE	COUNTY	Number of Properties	Percentage of County Not Affected
LA	ACADIA	23,161	99.57 %
LA	ASCENSION	45,292	98.10 %
LA	ASSUMPTION	6,051	71.26 %
LA	CALCASIEU	70,000	97.54 %
LA	CAMERON	2,258	60.25 %
LA	IBERIA	27,292	96.95 %
LA	IBERVILLE	11,104	97.43 %
LA	JEFFERSON	12,861	8.78 %
LA	JEFFERSON DAVIS	12,338	96.76 %
LA	LAFAYETTE	87,533	100.00 %
LA	LAFOURCHE	22,540	65.80 %
LA	LIVINGSTON	48,666	93.81 %
LA	ORLEANS	11,273	8.24 %
LA	PLAQUEMINES	2,087	25.21 %
LA	SAINT BERNARD	792	5.20 %
LA	SAINT CHARLES	9,394	50.44 %
LA	SAINT JAMES	7,648	99.75 %
LA	SAINT MARTIN	20,432	98.06 %
LA	SAINT MARY	8,262	40.14 %
LA	SAINT TAMMANY	98,268	95.29 %
LA	ST JOHN THE BAPTIST	15,171	99.40 %
LA	TANGIPAHOA	44,879	99.64 %
LA	TERREBONNE	28,196	72.69 %
LA	VERMILION	21,233	93.58 %
MS	HANCOCK	21,991	99.96 %
MS	HARRISON	76,896	99.73 %
MS	JACKSON	55,432	99.25 %
TX	BRAZORIA	112,155	87.72 %
TX	CHAMBERS	16,923	98.72 %
TX	GALVESTON	118,299	85.65 %
TX	HARDIN	23,668	99.91 %
TX	HARRIS	1,249,053	99.83 %
TX	JEFFERSON	56,724	63.61 %
TX	LIBERTY	37,899	99.99 %
TX	MATAGORDA	16,749	97.08 %
TX	ORANGE	35,586	98.87 %
TOTAL		2,458,106	

# Hurricane Dorian

Hurricane Dorian was the most powerful storm to hit the Bahamas since records began – leaving widespread destruction to property and businesses and a devastating impact on families as injuries and death were a direct result of this tragic event. Powerful winds, rain and surges of seawater caused by the category five storm pummeled the islands for three days as it slowly edged towards the United States. The tropical storm turned hurricane began August 24, 2019 and completed its devastating run on September 10, 2019.

After skirting the east coast of Florida and Georgia, the storm impacted South Carolina and North Carolina as well as Virginia. On Thursday, September 5, Dorian spawned more than a dozen tornadoes in North Carolina. The slow-moving storm made landfall on North Carolina's Cape Hatteras Friday morning, bringing heavy rain and high winds.

The storm then headed northwards, triggering warnings of high winds and storm surges in the Carolinas before battering Canada's Nova Scotia province as a post-tropical cyclone - still driving winds of 100mph.

Veros Real Estate Solutions identified **4,242,091** residential properties in the core event area of Hurricane Dorian's impact in the United States, with an estimated market value of **\$1,151,132,300,600** (trillion) based on the predictive analytics available through the VeroVALUE AVM.

## HURRICANE DORIAN REPORT HIGHLIGHTS

-  Potentially **4,267,725** properties in the region were at stake, with approximately **4,242,091** in the direct core of the hurricane with the potential for more significant damage.
-  The total market value of potentially impacted properties in the core and buffer zones exceeds **\$1.158 Trillion**.
-  **Palm Beach County, Florida** was the hardest hit county with an estimated market value property impact exceeding **\$173 Billion**.

## HURRICANE DORIAN FACTS & FIGURES

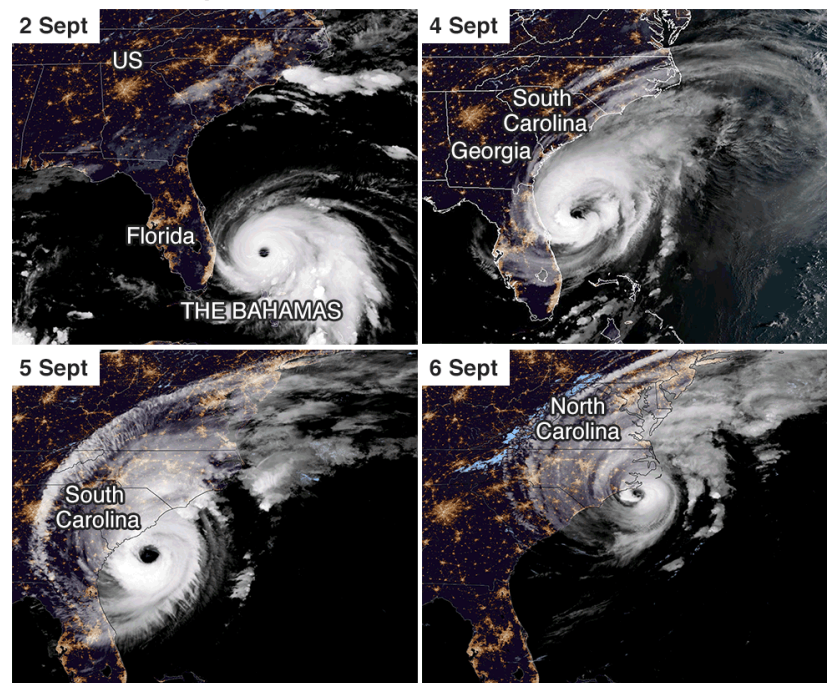
- **Strongest Winds of 2019:** 185 mph winds with 220 gusts were the strongest winds on the planet
- **Slow Mover:** 1.3 mph made Dorian the slowest moving major hurricane

- **Multiple Landfalls:** 6 landfalls, 3 in the Bahamas as a Category 5 hurricane
- **Fatalities:** At least 70 people died as a result in the Bahamas. No U.S. deaths reported
- **FEMA Declaration:** 4468 DR on October 21, 2019 for Florida
- **Dorian Retired:** Death and destruction results in the discontinued ongoing use of the name

## A Slow, Steady Hurricane Progression

Hurricane Dorian seemed to hover over the Bahamas, causing a relentless onslaught of destruction as it slowly traveled to the U.S., bringing strong winds, rain and storm surge that unleashed significant property damage and disruption to business and life.<sup>1</sup>

**Dorian's progression from Bahamas towards US**



Source: NOAA

BBC

<sup>1</sup> <https://www.bbc.com/news/world-latin-america-49553770>

# Veros Predicted Hurricane Dorian Damage Impact by U.S. County

Veros determined the potential property-level impact within the states and counties identified to have been affected by Hurricane Dorian.

## Property Impact Within the Core of Hurricane Dorian

HURRICANE DORIAN		ESTIMATED INSIDE EVENT CORE		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Event
FL	BREVARD	\$58,922,462,400	234,863	90.42 %
FL	BROWARD	\$82,312,536,200	256,062	31.73 %
FL	CLAY	\$8,712,338,600	36,520	45.99 %
FL	DUVAL	\$64,797,199,400	287,142	85.42 %
FL	FLAGLER	\$13,554,239,000	48,716	93.44 %
FL	GLADES	\$228,000	1	0.02 %
FL	INDIAN RIVER	\$20,430,350,000	69,196	90.49 %
FL	LAKE	\$812,451,400	5,185	3.68 %
FL	MARION	\$49,685,000	347	0.22 %
FL	MARTIN	\$22,622,508,000	65,735	84.17 %
FL	MIAMI-DADE	\$6,973,671,000	15,101	1.68 %
FL	NASSAU	\$10,274,974,000	28,623	70.74 %
FL	OKEECHOBEE	\$33,812,000	162	1.04 %
FL	ORANGE	\$36,282,405,000	121,906	28.36 %
FL	OSCEOLA	\$1,058,080,600	4,140	3.16 %
FL	PALM BEACH	\$173,072,031,400	497,837	75.54 %
FL	PUTNAM	\$3,095,185,400	21,615	56.80 %
FL	SAINT JOHNS	\$36,870,002,600	102,179	87.16 %
FL	SAINT LUCIE	\$27,227,194,600	119,587	86.11 %
FL	SEMINOLE	\$38,576,382,200	133,239	86.77 %
FL	VOLUSIA	\$48,311,138,600	204,854	87.93 %
GA	BRANTLEY	\$10,811,000	72	0.96 %
GA	BRYAN	\$3,277,836,000	12,611	74.55 %
GA	BULLOCH	\$16,355,600	88	0.37 %
GA	CAMDEN	\$3,282,514,200	16,682	83.49 %
GA	CHARLTON			
GA	CHATHAM	\$21,854,201,600	89,195	88.50 %
GA	EFFINGHAM	\$4,182,885,500	20,236	86.94 %
GA	GLYNN	\$11,689,989,000	38,554	88.02 %
GA	LIBERTY	\$2,523,956,800	17,370	80.19 %
GA	LONG	\$91,576,000	614	11.74 %
GA	MCINTOSH	\$888,599,900	4,375	68.28 %
GA	WAYNE	\$17,312,000	102	0.88 %

NC	BEAUFORT	\$3,783,898,700	18,196	92.59 %
NC	BERTIE	\$1,039,076,800	8,060	81.50 %
NC	BLADEN	\$1,742,585,000	9,764	90.18 %
NC	BRUNSWICK	\$22,976,210,200	81,766	81.03 %
NC	CAMDEN	\$1,004,128,800	4,133	82.23 %
NC	CARTERET	\$11,717,300,500	37,186	87.40 %
NC	CHOWAN	\$1,363,450,900	6,394	94.31 %
NC	COLUMBUS	\$2,806,700,800	18,223	93.76 %
NC	CRAVEN	\$6,181,788,600	34,802	90.19 %
NC	CUMBERLAND	\$7,952,197,000	47,255	40.89 %
NC	CURRITUCK	\$5,768,489,600	15,125	78.77 %
NC	DARE	\$10,973,317,000	27,865	69.40 %
NC	DUPLIN	\$2,245,310,200	15,139	91.42 %
NC	EDGECOMBE	\$2,153,516,800	15,911	81.34 %
NC	GATES	\$680,285,400	4,251	70.63 %
NC	GREENE	\$831,502,400	6,149	80.75 %
NC	HALIFAX	\$290,038,000	2,080	8.42 %
NC	HARNETT	\$29,964,600	190	0.36 %
NC	HERTFORD	\$1,002,266,600	7,324	76.59 %
NC	HOKE	\$119,572,400	798	3.83 %
NC	HYDE	\$385,608,400	1,977	70.21 %
NC	JOHNSTON	\$1,512,591,000	8,515	10.69 %
NC	JONES	\$566,713,500	3,435	77.63 %
NC	LENOIR	\$2,891,069,400	20,235	95.09 %
NC	MARTIN	\$1,303,287,800	9,039	95.91 %
NC	NASH	\$279,202,000	1,738	5.08 %
NC	NEW HANOVER	\$25,309,138,800	82,969	86.18 %
NC	NORTHAMPTON	\$590,084,000	2,243	16.69 %
NC	ONslow	\$10,539,232,800	58,293	90.51 %
NC	PAMLICO	\$1,634,491,000	6,484	83.62 %
NC	PASQUOTANK	\$2,939,347,000	15,107	94.60 %
NC	PENDER	\$5,258,454,000	21,064	75.53 %
NC	PERQUIMANS	\$1,584,429,200	6,624	84.74 %
NC	PITT	\$8,551,994,200	49,488	81.21 %
NC	ROBESON	\$3,425,516,200	29,918	84.59 %
NC	SAMPSON	\$3,442,280,800	20,646	80.49 %
NC	SCOTLAND	\$14,910,000	121	0.87 %
NC	TYRRELL	\$229,616,300	1,862	88.88 %
NC	WAKE	\$260,000	1	0.00 %
NC	WASHINGTON	\$730,694,800	5,186	97.03 %
NC	WAYNE	\$6,372,214,000	41,433	88.57 %
NC	WILSON	\$3,458,262,000	21,833	79.76 %
SC	BAMBERG	\$109,542,400	740	10.97 %
SC	BEAUFORT	\$33,600,384,000	83,240	78.99 %
SC	BERKELEY	\$14,849,053,400	61,671	83.55 %

SC	CALHOUN	\$225,672,200	1,109	19.19 %
SC	CHARLESTON	\$55,791,263,600	128,670	80.02 %
SC	CLARENDON	\$2,973,917,600	15,133	79.61 %
SC	COLLETON	\$3,476,502,200	16,924	85.98 %
SC	DARLINGTON	\$1,816,450,800	11,469	37.81 %
SC	DILLON	\$1,234,939,600	8,580	81.75 %
SC	DORCHESTER	\$11,775,916,400	51,846	78.53 %
SC	FLORENCE	\$6,440,098,500	37,105	84.71 %
SC	GEORGETOWN	\$9,320,903,200	29,024	72.62 %
SC	HAMPTON	\$531,162,000	4,731	60.14 %
SC	HORRY	\$32,136,073,600	152,536	58.86 %
SC	JASPER	\$2,273,103,000	10,038	83.30 %
SC	LEE	\$132,412,900	1,073	17.17 %
SC	MARION	\$1,736,816,800	10,533	88.56 %
SC	MARLBORO	\$94,056,200	835	7.07 %
SC	ORANGEBURG	\$1,465,621,000	11,884	29.74 %
SC	SUMTER	\$5,386,810,400	33,416	59.24 %
SC	WILLIAMSBURG	\$1,324,259,000	12,144	87.40 %
VA	CHESAPEAKE CITY	\$21,716,485,000	73,027	87.33 %
VA	FRANKLIN CITY	\$1,390,000	7	0.16 %
VA	NORFOLK CITY	\$13,980,899,000	58,410	95.73 %
VA	NORTHAMPTON	\$83,463,800	276	3.49 %
VA	PORTSMOUTH CIT	\$5,818,549,000	31,690	93.59 %
VA	SOUTHAMPTON	\$28,989,500	139	1.91 %
VA	SUFFOLK CITY	\$7,864,160,000	29,182	81.10 %
VA	VIRGINIA BEACH C	\$47,437,495,000	144,928	90.45 %
<b>TOTAL</b>		<b>\$1,151,132,300,600</b>	<b>4,242,091</b>	

## Likely Property Impact In The Buffer Zone of Hurricane Dorian

This chart indicates the properties in the Buffer of the hurricane event

HURRICANE DORIAN		ESTIMATED INSIDE BUFFER		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Buffer
FL	BREVARD			
FL	BROWARD	\$923,800,000	3,354	0.42 %
FL	CLAY	\$162,923,600	789	0.99 %
FL	DUVAL	\$280,121,000	1,640	0.49 %
FL	FLAGLER			
FL	GLADES	\$193,000	1	0.02 %
FL	INDIAN RIVER			
FL	LAKE	\$9,963,200	45	0.03 %
FL	MARION	\$230,000	1	0.00 %
FL	MARTIN			
FL	MIAMI-DADE	\$2,140,675,000	4,184	0.47 %
FL	NASSAU	\$58,424,000	250	0.62 %
FL	OKEECHOBEE	\$9,501,800	52	0.33 %
FL	ORANGE	\$1,213,554,000	3,594	0.84 %
FL	OSCEOLA	\$273,198,800	874	0.67 %
FL	PALM BEACH			
FL	PUTNAM	\$17,902,800	117	0.31 %
FL	SAINT JOHNS			
FL	SAINT LUCIE			
FL	SEMINOLE	\$353,805,600	1,187	0.77 %
FL	VOLUSIA			
GA	BRANTLEY	\$7,674,200	53	0.70 %
GA	BRYAN	\$23,584,600	124	0.73 %
GA	BULLOCH	\$2,966,200	15	0.06 %
GA	CAMDEN	\$21,424,000	124	0.62 %
GA	CHARLTON	\$3,147,000	20	0.56 %
GA	CHATHAM			
GA	EFFINGHAM	\$13,885,600	69	0.30 %
GA	GLYNN	\$562,000	2	0.00 %
GA	LIBERTY	\$71,184,000	460	2.12 %
GA	LONG	\$133,074,400	691	13.21 %
GA	MCINTOSH			
GA	WAYNE	\$691,200	6	0.05 %
NC	BEAUFORT			
NC	BERTIE			
NC	BLADEN			
NC	BRUNSWICK			
NC	CAMDEN			

NC	CARTERET			
NC	CHOWAN			
NC	COLUMBUS			
NC	CRAVEN			
NC	CUMBERLAND	\$408,169,000	2,412	2.09 %
NC	CURRITUCK			
NC	DARE			
NC	DUPLIN			
NC	EDGEcombe	\$53,011,000	387	1.98 %
NC	GATES			
NC	GREENE			
NC	HALIFAX	\$4,712,000	31	0.13 %
NC	HARNETT	\$11,487,000	71	0.13 %
NC	HERTFORD	\$2,635,800	15	0.16 %
NC	HOKE	\$38,861,600	235	1.13 %
NC	HYDE			
NC	JOHNSTON	\$81,386,600	459	0.58 %
NC	JONES			
NC	LENOIR			
NC	MARTIN			
NC	NASH	\$115,415,000	674	1.97 %
NC	NEW HANOVER			
NC	NORTHAMPTON	\$25,191,000	104	0.77 %
NC	ONslow			
NC	PAMLICO			
NC	PASQUOTANK			
NC	PENDER			
NC	PERQUIMANS			
NC	PITT			
NC	ROBESON	\$8,645,200	94	0.27 %
NC	SAMPSON	\$531,400	3	0.01 %
NC	SCOTLAND	\$10,760,000	82	0.59 %
NC	TYRRELL			
NC	WAKE			
NC	WASHINGTON			
NC	WAYNE			
NC	WILSON	\$9,739,000	69	0.25 %
SC	BAMBERG	\$14,967,200	150	2.22 %
SC	BEAUFORT			
SC	BERKELEY			
SC	CALHOUN	\$5,591,200	29	0.50 %
SC	CHARLESTON			
SC	CLARENDON			
SC	COLLETON	\$106,800	1	0.01 %
SC	DARLINGTON	\$34,115,800	220	0.73 %

SC	DILLON			
SC	DORCHESTER			
SC	FLORENCE			
SC	GEORGETOWN			
SC	HAMPTON	\$21,043,000	301	3.83 %
SC	HORRY			
SC	JASPER	\$722,400	6	0.05 %
SC	LEE	\$10,776,600	127	2.03 %
SC	MARION			
SC	MARLBORO	\$23,834,400	362	3.06 %
SC	ORANGEBURG	\$44,631,400	413	1.03 %
SC	SUMTER	\$185,478,000	976	1.73 %
SC	WILLIAMSBURG			
VA	CHESAPEAKE CITY			
VA	FRANKLIN CITY	\$1,075,000	5	0.12 %
VA	NORFOLK CITY			
VA	NORTHAMPTON	\$9,143,800	32	0.40 %
VA	PORTSMOUTH CIT	\$128,000	1	0.00 %
VA	SOUTHAMPTON	\$9,762,000	49	0.67 %
VA	SUFFOLK CITY	\$228,951,000	674	1.87 %
VA	VIRGINIA BEACH CITY			
<b>TOTAL</b>		<b>\$7,083,357,200</b>	<b>25,634</b>	

## Properties Outside of the Event

Here is a view of the properties likely to not have received any direct damage from the hurricane event.

HURRICANE DORIAN		OUTSIDE OF EVENT & CORE	
STATE	COUNTY	Number of Properties	Percentage of County Not Affected
FL	BREVARD	24,889	9.58 %
FL	BROWARD	547,527	67.85 %
FL	CLAY	42,105	53.02 %
FL	DUVAL	47,372	14.09 %
FL	FLAGLER	3,420	6.56 %
FL	GLADES	5,628	99.96 %
FL	INDIAN RIVER	7,272	9.51 %
FL	LAKE	135,720	96.29 %
FL	MARION	160,477	99.78 %
FL	MARTIN	12,367	15.83 %
FL	MIAMI-DADE	879,837	97.86 %
FL	NASSAU	11,590	28.64 %
FL	OKEECHOBEE	15,350	98.63 %
FL	ORANGE	304,418	70.81 %
FL	OSCEOLA	126,159	96.18 %
FL	PALM BEACH	161,176	24.46 %
FL	PUTNAM	16,323	42.89 %
FL	SAINT JOHNS	15,059	12.84 %
FL	SAINT LUCIE	19,295	13.89 %
FL	SEMINOLE	19,127	12.46 %
FL	VOLUSIA	28,125	12.07 %
GA	BRANTLEY	7,406	98.34 %
GA	BRYAN	4,182	24.72 %
GA	BULLOCH	23,882	99.57 %
GA	CAMDEN	3,176	15.89 %
GA	CHARLTON	3,521	99.44 %
GA	CHATHAM	11,595	11.50 %
GA	EFFINGHAM	2,970	12.76 %
GA	GLYNN	5,246	11.98 %
GA	LIBERTY	3,830	17.68 %
GA	LONG	3,927	75.06 %
GA	MCINTOSH	2,032	31.72 %
GA	WAYNE	11,440	99.06 %

NC	BEAUFORT	1,456	7.41 %
NC	BERTIE	1,830	18.50 %
NC	BLADEN	1,063	9.82 %
NC	BRUNSWICK	19,142	18.97 %
NC	CAMDEN	893	17.77 %
NC	CARTERET	5,362	12.60 %
NC	CHOWAN	386	5.69 %
NC	COLUMBUS	1,213	6.24 %
NC	CRAVEN	3,784	9.81 %
NC	CUMBERLAND	65,907	57.03 %
NC	CURRITUCK	4,076	21.23 %
NC	DARE	12,289	30.60 %
NC	DUPLIN	1,421	8.58 %
NC	EDGECOMBE	3,262	16.68 %
NC	GATES	1,768	29.37 %
NC	GREENE	1,466	19.25 %
NC	HALIFAX	22,589	91.45 %
NC	HARNETT	53,040	99.51 %
NC	HERTFORD	2,223	23.25 %
NC	HOKE	19,788	95.04 %
NC	HYDE	839	29.79 %
NC	JOHNSTON	70,691	88.74 %
NC	JONES	990	22.37 %
NC	LENOIR	1,045	4.91 %
NC	MARTIN	385	4.09 %
NC	NASH	31,826	92.96 %
NC	NEW HANOVER	13,302	13.82 %
NC	NORTHAMPTON	11,094	82.54 %
NC	ONslow	6,112	9.49 %
NC	PAMLICO	1,270	16.38 %
NC	PASQUOTANK	863	5.40 %
NC	PENDER	6,824	24.47 %
NC	PERQUIMANS	1,193	15.26 %
NC	PITT	11,448	18.79 %
NC	ROBESON	5,355	15.14 %
NC	SAMPSON	5,001	19.50 %
NC	SCOTLAND	13,640	98.53 %
NC	TYRRELL	233	11.12 %
NC	WAKE	365,565	100.00 %
NC	WASHINGTON	159	2.97 %






NC	WAYNE	5,349	11.43 %
NC	WILSON	5,470	19.98 %
SC	BAMBERG	5,858	86.81 %
SC	BEAUFORT	22,146	21.01 %
SC	BERKELEY	12,139	16.45 %
SC	CALHOUN	4,640	80.30 %
SC	CHARLESTON	32,129	19.98 %
SC	CLARENDON	3,876	20.39 %
SC	COLLETON	2,758	14.01 %
SC	DARLINGTON	18,641	61.46 %
SC	DILLON	1,916	18.25 %
SC	DORCHESTER	14,172	21.47 %
SC	FLORENCE	6,698	15.29 %
SC	GEORGETOWN	10,943	27.38 %
SC	HAMPTON	2,834	36.03 %
SC	HORRY	106,631	41.14 %
SC	JASPER	2,007	16.65 %
SC	LEE	5,050	80.80 %
SC	MARION	1,361	11.44 %
SC	MARLBORO	10,619	89.87 %
SC	ORANGEBURG	27,657	69.22 %
SC	SUMTER	22,018	39.03 %
SC	WILLIAMSBURG	1,751	12.60 %
VA	CHESAPEAKE CITY	10,599	12.67 %
VA	FRANKLIN CITY	4,261	99.72 %
VA	NORFOLK CITY	2,607	4.27 %
VA	NORTHAMPTON	7,601	96.11 %
VA	PORTSMOUTH CIT	2,168	6.40 %
VA	SOUTHAMPTON	7,098	97.42 %
VA	SUFFOLK CITY	6,125	17.02 %
VA	VIRGINIA BEACH C	15,306	9.55 %
<b>TOTAL</b>		<b>3,819,664</b>	

# Tropical Storm Imelda

Tropical Storm Imelda struck parts of Texas and Louisiana on September 17- 23 2019, with rain, flooding and wind damage recorded in more than 30 counties across the two states. Veros Real Estate Solutions determined the potential number of residential properties that may have sustained some level of damage.

Veros Real Estate Solutions identified over **172,896** residential properties in the core event area of Tropical Storm Imelda, with an estimated market value of **\$43.7 billion** based on the predictive analytics available through the VeroVALUE AVM.

## TROPICAL STORM IMELDA REPORT HIGHLIGHTS

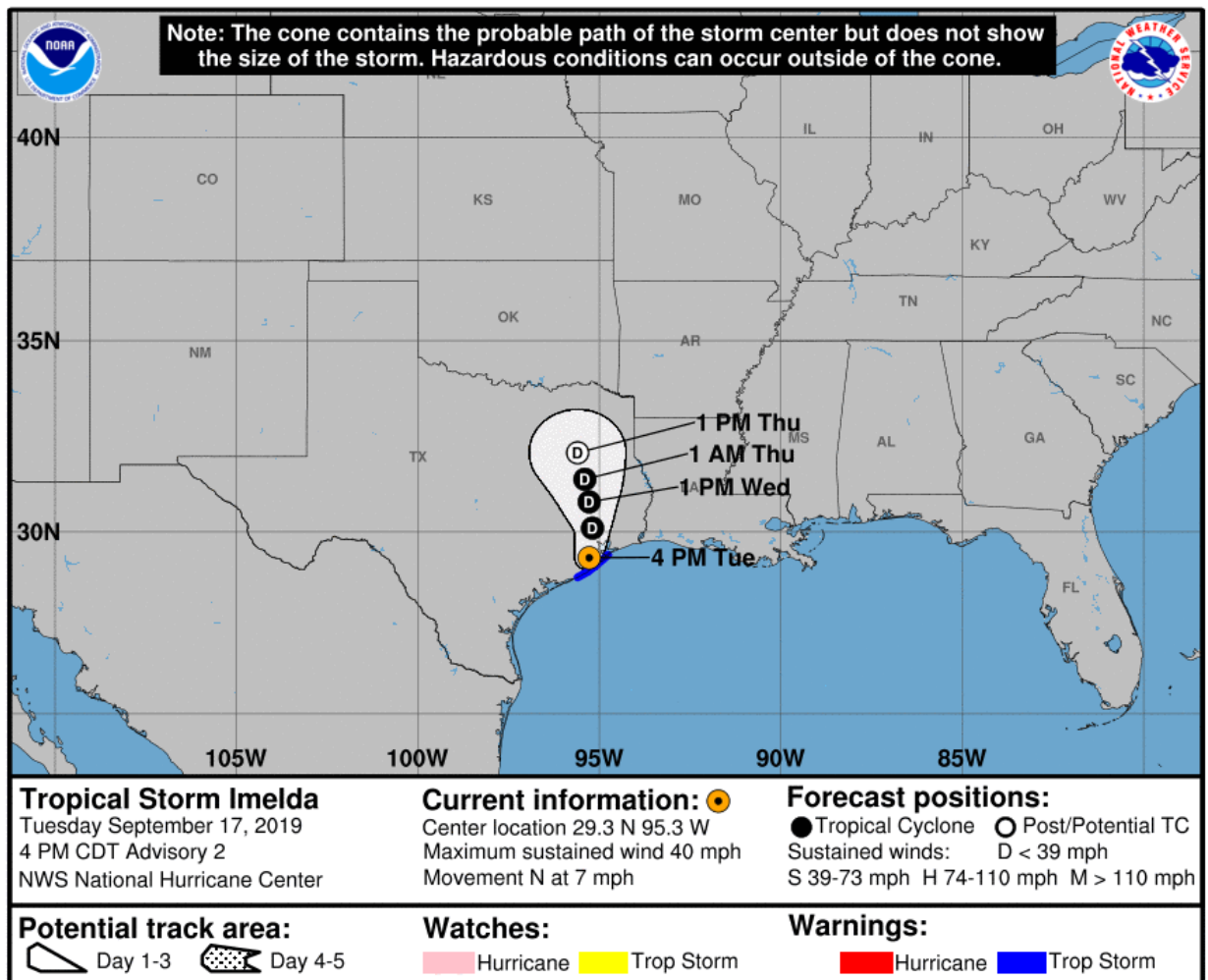
-  Potentially **822,275** properties in the region were at stake; with approximately **172,896** in the direct core of the storm with the potential for greater damage.
-  Total market value of potentially impacted properties in the core and buffer zones tops **\$204 Billion**.
-  Hardest hit counties in Texas were Harris, Galveston and Brazoria.
-  Vernon was the hardest hit county in Louisiana.
-  Over 25% of the residential properties in the hardest hit Texas counties are likely to have experienced some damage.

## TROPICAL STORM IMELDA FACTS & FIGURES

- **Tropical Storm Imelda:** September 17- September 23, 2019
- **5th Wettest:** Tropical depressions on record to impact the continental U.S.
- **Record-breaking Floods:** Southeast Texas experienced extreme flooding
- **Part of an Active Season:** 11th tropical depression of 2019 Atlantic Hurricane Season
- **Name Earning:** 9th named storm of the 2019 Atlantic Hurricane Season
- **Heavey Rain Impact:** Galveston & Beaumont counties received the most substantial rain
- **Strong Winds:** 40 MPH was the highest sustained wind speed

## Tropical Storm Imelda Path

Tropical Storm Imelda almost seemed to form out of nowhere, and once it made landfall along Texas' Gulf Coast, it unleashed both heavy rainfall and tropical-storm-force winds.



Source: [nhc.noaa.gov](http://nhc.noaa.gov) - NOAA image

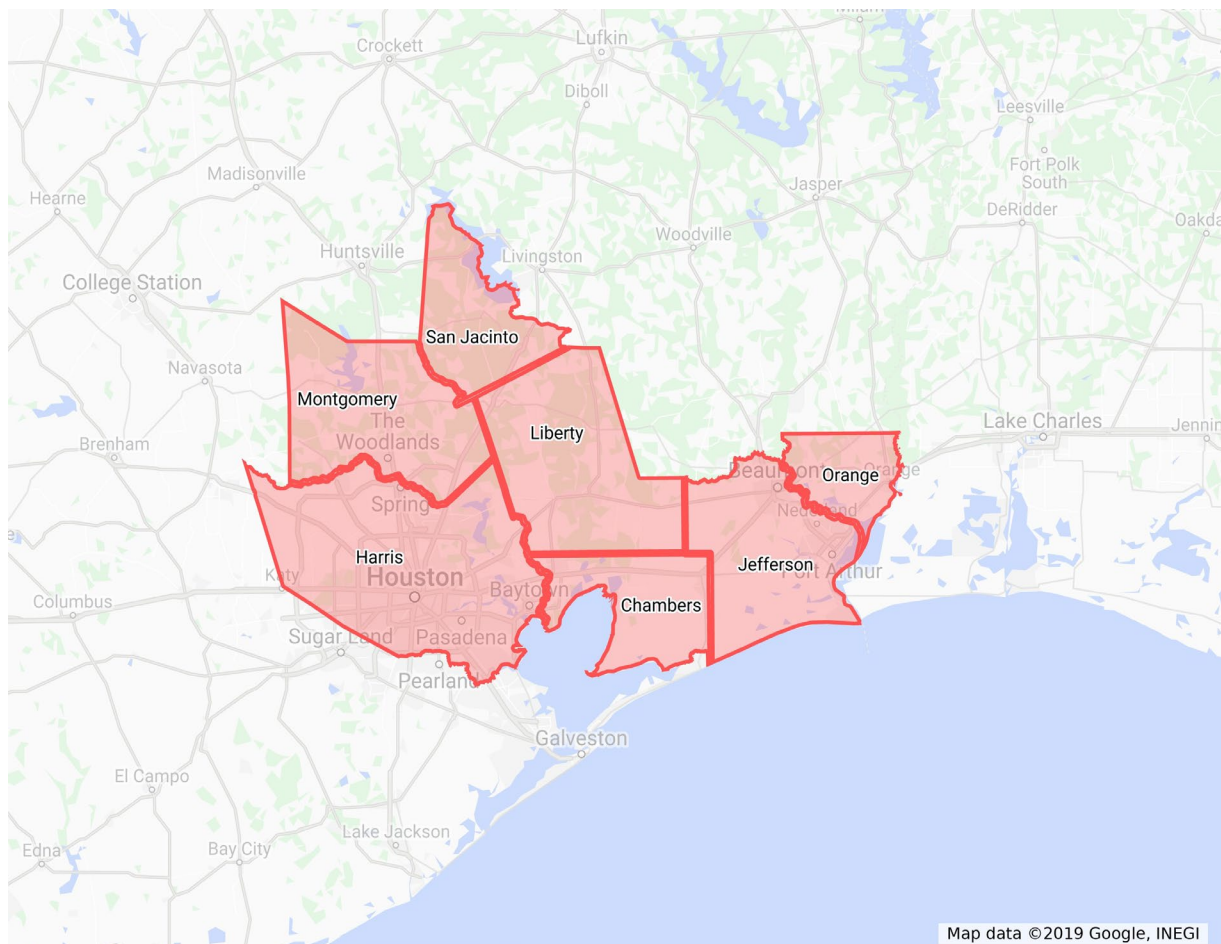
## FEMA Designated Counties

Despite Tropical Storm Imelda reaching both Texas and Louisiana, the Federal Emergency Management Agency (FEMA) ultimately designated seven Texas counties in its Disaster Declaration as of 10/24/2019.

### These counties include:

1. Chambers
2. Harris
3. Jefferson
4. Liberty
5. Montgomery
6. Orange
7. San Jacinto

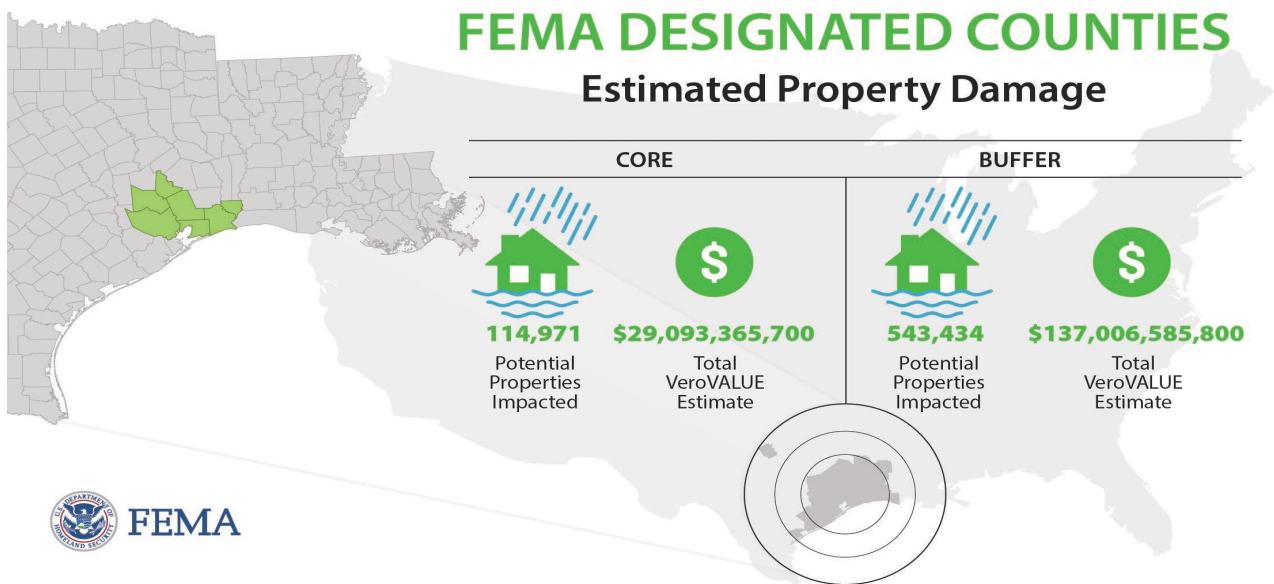
The below graphic shows the seven counties in the Texas Disaster Declaration as of 10/24/2019.



## VEROS Determined Properties Impacted In FEMA Designated Counties.

Based on the counties designated by FEMA, Veros determined the estimated number of properties and their value directly impacted by their proximity in the core and buffer zone of the event.

FEMA DESIGNATED IMELDA IMPACT		ESTIMATE INSIDE EVENT CORE			ESTIMATE INSIDE BUFFER			OUTSIDE OF EVENT & BUFFER	
Texas & Louisiana Counties		Total Market Value	Number of Properties	Percentage of Properties Inside Event	Total Market Value	Number of Properties	Percentage of Properties Inside Buffer	Number of Properties	Percentage of County Not Affected
CHAMBERS	TX	\$73,667,300	361	2.11 %	\$1,554,269,300	5,970	34.83 %	10,811	63.07 %
HARRIS	TX	\$25,638,909,000	95,569	7.64 %	\$100,874,701,600	400,388	32.00 %	755,202	60.36 %
JEFFERSON	TX	\$1,063,991,600	5,850	6.56 %	\$3,114,257,200	17,228	19.32 %	66,100	74.12 %
LIBERTY	TX	\$279,403,400	1,798	4.74 %	\$1,431,998,100	8,822	23.28 %	27,281	71.98 %
MONTGOMERY	TX	\$718,505,400	3,674	1.81 %	\$26,123,719,200	89,432	44.14 %	109,491	54.04 %
ORANGE	TX	\$1,218,256,600	7,171	19.92 %	\$2,678,580,800	15,666	43.53 %	13,154	36.55 %
SAN JACINTO	TX	\$100,632,400	548	3.45 %	\$1,229,059,600	5,928	37.36 %	9,390	59.18 %
<b>TOTAL</b>		<b>\$29,093,365,700</b>	<b>114,971</b>		<b>\$137,006,585,800</b>	<b>543,434</b>		<b>991,429</b>	



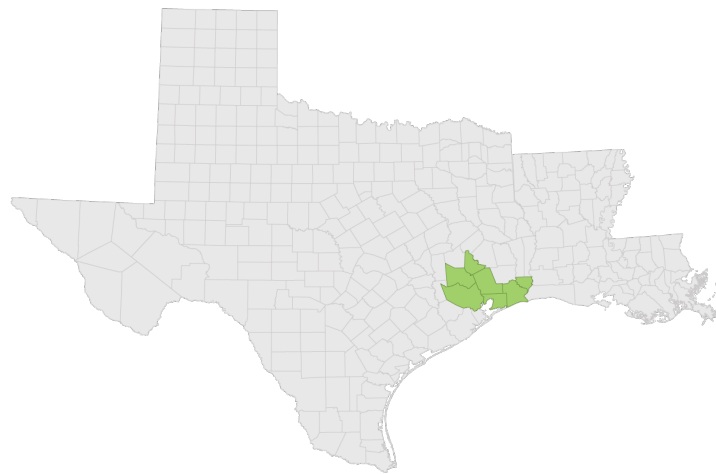
## Tropical Storm Imelda Actual County Impact

Through data collected via satellite imagery and multiple data sources, Veros determined the actual counties that were impacted was far greater than FEMA's designation, extending beyond Texas into four counties in Louisiana. Here is a visual comparison indicating the counties where damage occurred based on FEMA and the data collected by Veros.

### FEMA Declared County Map

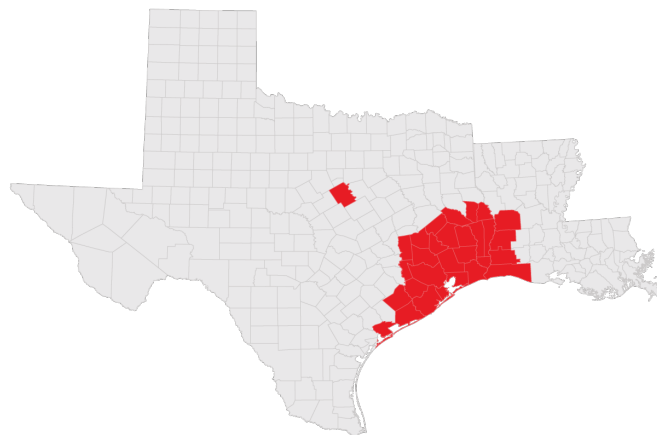
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FEMA—4466—DR, Texas Disaster Declaration as of 10/24/2019



### VEROS County Impact Map

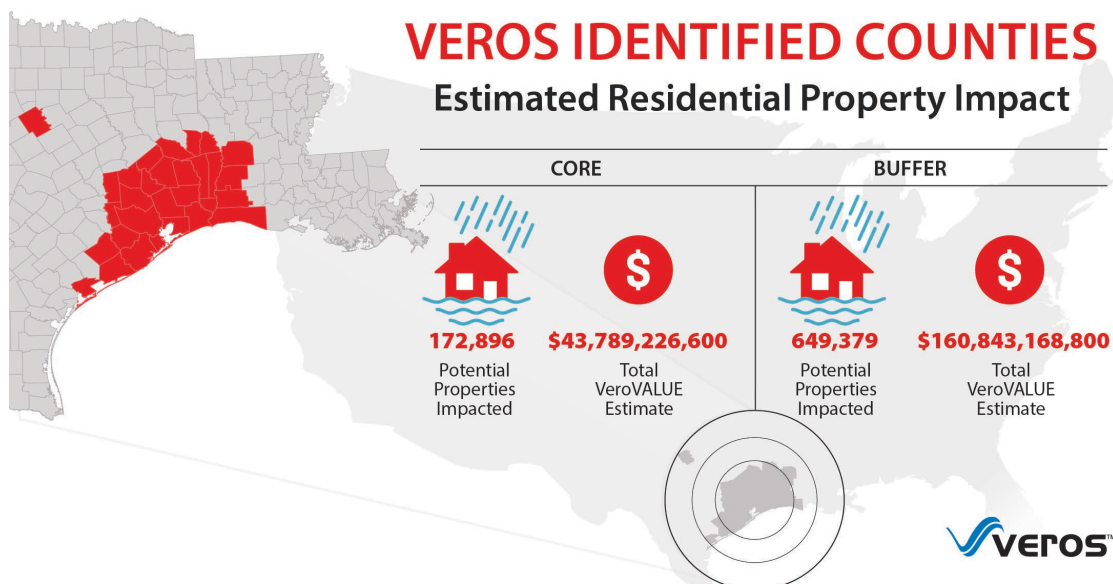
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## VEROS Predicted Tropical Storm Imelda Property Damage Impact by County

Veros has determined the potential property level impact within the counties identified by Veros to have been impacted by Tropical Storm Imelda.

VEROS PREDICTED IMELDA IMPACT		ESTIMATED INSIDE EVENT CORE			ESTIMATED INSIDE BUFFER			OUTSIDE OF EVENT & BUFFER	
Texas & Louisiana Counties		Total Market VALUE	Number of Properties	Percentage of Properties Inside Event	Total Market VALUE	Number of Properties	Percentage of Properties Inside Buffer	Number of Properties	Percentage of County Not Affected
BEAUREGARD	LA				\$6,892,800	43	0.26 %	16,375	99.74 %
CALCASIEU	LA				\$158,000	1	0.00 %	71,768	100.00 %
CAMERON	LA				\$3,418,400	17	0.45 %	3,731	99.55 %
SABINE	LA				\$78,000	1	0.01 %	13,779	99.99 %
VERNON	LA				\$46,312,000	281	1.97 %	13,983	98.03 %
ANGELINA	TX				\$4,965,000	47	0.16 %	29,666	99.84 %
BRAZORIA	TX	\$3,989,767,300	17,822	13.94 %	\$9,506,983,400	42,212	33.02 %	67,819	53.04 %
CALHOUN	TX				\$5,375,400	34	0.34 %	10,059	99.66 %
CHAMBERS	TX	\$73,667,300	361	2.11 %	\$1,554,269,300	5,970	34.83 %	10,811	63.07 %
DALLAS	TX				\$229,000	1	0.00 %	672,213	100.00 %
FORT BEND	TX	\$5,064,200	17	0.01 %	\$482,240,200	2,080	0.82 %	253,021	99.18 %
GALVESTON	TX	\$9,876,411,800	35,728	25.87 %	\$9,992,805,600	37,496	27.15 %	64,901	46.99 %
GRIMES	TX				\$33,290,000	248	2.05 %	11,858	97.95 %
HARDIN	TX	\$197,009,400	1,015	4.28 %	\$1,110,141,800	5,855	24.72 %	16,819	71.00 %
HARRIS	TX	\$25,638,909,000	95,569	7.64 %	\$100,874,701,600	400,388	32.00 %	755,202	60.36 %
JACKSON	TX	\$284,000	2	0.02 %	\$671,400	5	0.06 %	8,054	99.91 %
JASPER	TX	\$40,022,800	292	1.65 %	\$873,510,800	6,301	35.56 %	11,125	62.79 %
JEFFERSON	TX	\$1,063,991,600	5,850	6.56 %	\$3,114,257,200	17,228	19.32 %	66,100	74.12 %
LIBERTY	TX	\$279,403,400	1,798	4.74 %	\$1,431,998,100	8,822	23.28 %	27,281	71.98 %
MADISON	TX				\$202,000	1	0.02 %	4,753	99.98 %
MATAGORDA	TX	\$549,545,200	2,791	16.18 %	\$962,726,200	5,963	34.56 %	8,499	49.26 %
MONTGOMERY	TX	\$718,505,400	3,674	1.81 %	\$26,123,719,200	89,432	44.14 %	109,491	54.04 %
NACOGDOCHES	TX	\$80,000	1	0.00 %				21,600	100.00 %
NEWTON	TX	\$35,930,200	251	3.13 %	\$379,953,800	2,763	34.49 %	4,997	62.38 %
ORANGE	TX	\$1,218,256,600	7,171	19.92 %	\$2,678,580,800	15,666	43.53 %	13,154	36.55 %
POLK	TX				\$56,285,600	342	1.57 %	21,465	98.43 %
SABINE	TX				\$119,985,200	744	13.01 %	4,973	86.99 %
SAN AUGUSTINE	TX				\$22,070,000	162	5.17 %	2,974	94.83 %
SAN JACINTO	TX	\$100,632,400	548	3.45 %	\$1,229,059,600	5,928	37.36 %	9,390	59.18 %
TRINITY	TX				\$18,133,000	131	1.77 %	7,275	98.23 %
TYLER	TX				\$39,627,000	368	3.33 %	10,678	96.67 %
WALKER	TX	\$213,000	1	0.01 %	\$35,655,800	230	1.17 %	19,437	98.83 %
WALLER	TX	\$1,533,000	5	0.02 %	\$121,433,800	489	2.30 %	20,761	97.68 %
WHARTON	TX				\$13,439,000	130	0.77 %	16,701	99.23 %
<b>TOTAL</b>		<b>\$43,789,226,600</b>	<b>172,896</b>		<b>\$160,843,168,800</b>	<b>649,379</b>		<b>2,400,713</b>	






# Kincade Fire

The Kincade Fire started in Sonoma County on October 23, 2019 and was 100% contained on November 7, 2019. This fast-moving wildfire ignited in a remote, mountainous region. The fire put the wine country in a state of chaos as evacuations forced people out of their homes as wind, flames and smoke devastated the once calm, prosperous area.

Veros Real Estate Solutions identified **884** residential properties in the core event area of the Kincade Fire with an estimated market value of **\$798,605,400** (million) based on the predictive analytics available through the VeroVALUE AVM.

## KINCADE FIRE REPORT HIGHLIGHTS

-  Potentially **1,806 properties** in the region were at stake; with approximately 884 in the direct core of the wildfire with the potential for greater damage.
-  The total market value of potentially impacted properties in the core and buffer zones **exceeds \$1.5 Billion**.
-  **Sonoma County** was the hardest hit county.

## KINCADE FIRE FACTS & FIGURES

- **Cause of Fire:** Electrical transmission lines controlled by PG&E
- **Vegetation Destroyed:** 77,758 acres of brush, grass and trees
- **State of Emergency:** Governor Gavin Newsom issued a State of Emergency in Sonoma County October 25, 2019
- **People Evacuated:** More than 180,000 residents forced out of their homes
- **Fire Fighting Equipment:** 265 engines, 37 water tenders, 3 helicopters, 26 dozers and total personnel 3246
- **Fast Spread:** Wind and dry vegetation fueled the rapid-fire spread

## Fire Spanned A Wide Area of Wine Country

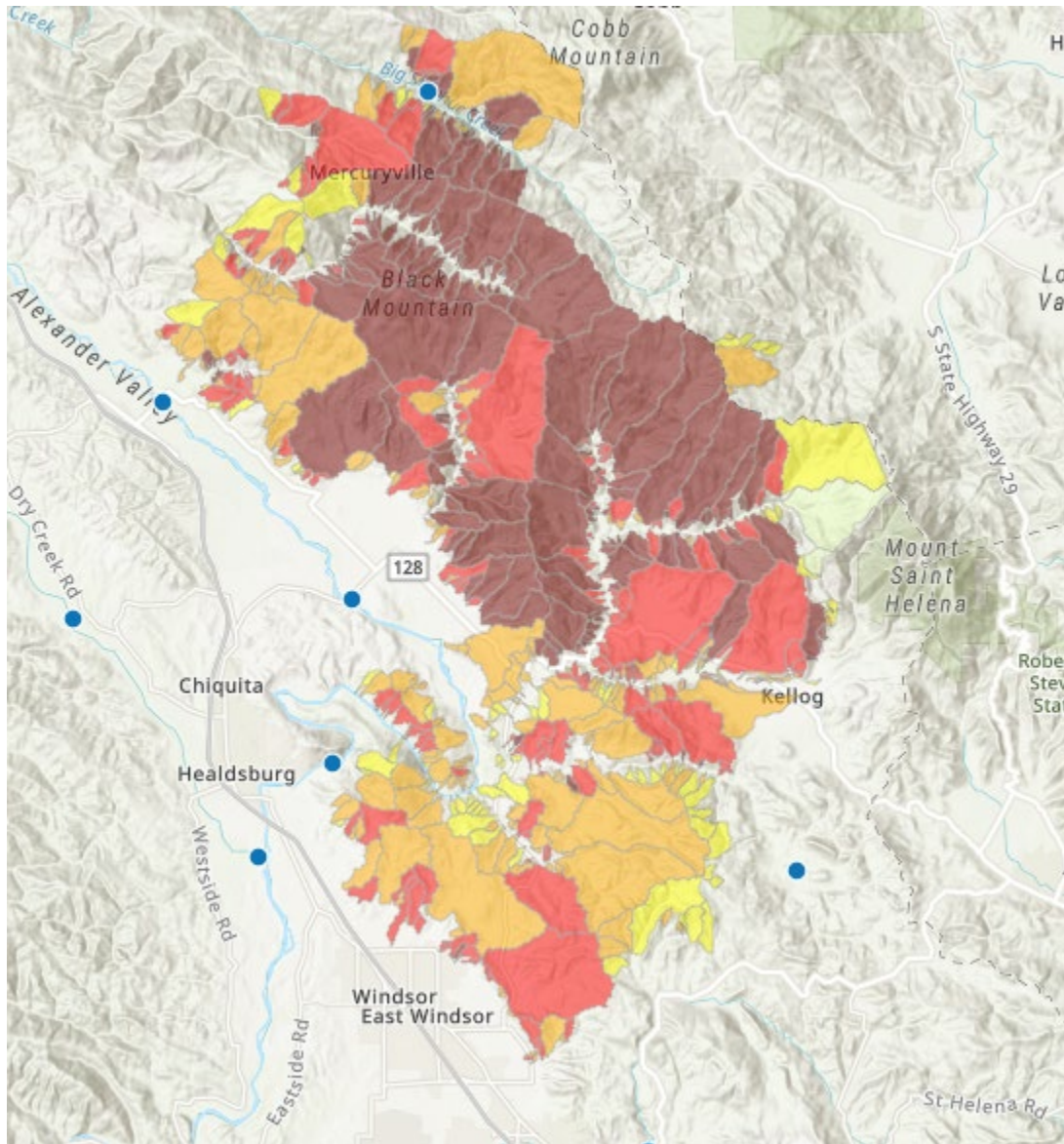


Image Source: [sonomacounty.maps.arcgis.com](https://sonomacounty.maps.arcgis.com)

Homes and properties were destroyed.



## Veros Predicted Kincade Fire Damage

Veros determined the potential property-level impact within the counties identified to have been affected by the Kincade Fire.

### Property Impact Within the Core of the Kincade Fire

KINCADE FIRE		ESTIMATED INSIDE EVENT CORE		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Event
CA	LAKE			
CA	NAPA	\$495,000	1	0.00 %
CA	SONOMA	\$798,110,400	883	0.54 %
TOTAL		\$798,605,400	884	

## Likely Property Impact In The Buffer Zone

This chart indicates the properties in the Buffer of the wildfire event.

KINCADE FIRE		ESTIMATED INSIDE BUFFER		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Buffer
CA	LAKE	\$852,000	3	0.01 %
CA	NAPA			
CA	SONOMA	\$780,160,800	919	0.56 %
TOTAL		\$781,012,800	922	

## Properties Outside of the Event

Here is a view of the properties likely to not have received any direct damage from the Kincade fire.

KINCADE FIRE		OUTSIDE OF EVENT & CORE	
STATE	COUNTY	Number of Properties	Percentage of County Not Affected
CA	LAKE	31,419	99.99%
CA	NAPA	43,151	100.00%
CA	SONOMA	160,882	98.89%
TOTAL		235,452	

## Severe Storms and Flooding – South Dakota, Iowa, Minnesota & Nebraska

Slow-moving, nearly constant thunderstorms produced widespread heavy rainfall across portions of South Dakota into Minnesota, Iowa and Nebraska beginning on September 9 and ending on September 26, 2019. This rainfall resulted in significant flash flooding, requiring evacuations in some communities and many water rescues. As the water moved into the river system, major to record flooding occurred at numerous locations. Many structures were inundated with water, and residents were forced to evacuate their homes.

Veros identified **9,842** residential properties in the core event area of the storms, with an estimated market value of **\$2,190,698,800** (billion) based on the predictive analytics available through the VeroVALUE AVM.

### SEVERE STORM & FLOODING REPORT HIGHLIGHTS



Potentially **17,293** properties in the region were at stake, with approximately **9,842** in the direct core of the storms and flood zones with the potential for more significant damage.



The total market value of potentially impacted properties in the core and buffer zones exceeds **\$3.7 Billion**.




**Minnehaha and Davison Counties** were the hardest hit counties in South Dakota.

### STORM FACTS & FIGURES

- **FEMA Declaration:** 4469 on November 18, 2019 for South Dakota
- **Major Rain:** 10-13 inches in a 48-hour period in Sioux Falls
- **RiverBanks Broken:** Rivers seeped through and over banks flooding neighborhoods
- **Boats to the Rescue:** Boats became the only way out by the time some residents decided to evacuate
- **Unstable Conditions:** Rain, flooding and winds
- **Tornadoes:** Several tornadoes caused even more damage

## Record Breaking River Levels

Constant rain resulted in record-breaking river levels, which in some areas, broke through the banks, causing damage to neighborhoods, homes and businesses.

 <b>NATIONAL WEATHER SERVICE</b> <small>OCEANIC AND ATMOSPHERIC ADMINISTRATION</small>		Highest Value So Far	Old Record
<b>New Record River Levels</b> (Data is preliminary and current as of 11 am 9/13)	Big Sioux Near Egan	1523.3 ft	1520.3 ft on 4/26/2019
	Big Sioux Above Dell Rapids	1489.9 ft	1487.5 ft on 3/24/2019
	Big Sioux Below Dell Rapids	16.7 ft	16.5 ft on 4/9/1969
	Big Sioux Near Trent	1501.4 ft	1500.0 ft on 3/24/2019
	Big Sioux Near Brandon	1310.9 ft	1310.8 ft on 3/15/2019
	Six Mile Creek Above Brookings	1635.7 ft	1635.6 ft on 3/28/2019
	Flandreau Creek Above Flandreau	15.3 ft	12.9 ft on 9/24/2010
	James Near Scotland	21.3 ft	20.5 ft on 6/23/1984
	Pipestone Below Pipestone	1596.7 ft	1595.6 ft on 4/6/2019
	Pipestone at Pipestone	21.5 ft	20.3 ft on 5/8/1993
	Skunk Creek Near Hartford	14.1 ft	13.3 ft on 3/14/2019
	Split Rock Creek Below Jasper	100.0 ft	98.5 ft on 6/16/2014
	Split Rock Creek at Corson	18.7 ft	17.6 ft on 5/8/1993
	Vermillion Near Parker	16.8 ft	16.1 ft on 3/14/2019

River levels in South Dakota to September 12 2019. Image: NWS Sioux Falls

# Veros Predicted Storm Damage Impact by County

Veros determined the potential property-level impact within the counties identified to have been affected by the storms.

## Property Impact Within the Core of the Storms and Flooding

SEVERE STORMS AND FLOODING – SOUTH DAKOTA, IOWA, MINNESOTA & NEBRASKA		ESTIMATED INSIDE EVENT CORE		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Event
IA	LYON	\$284,000	1	0.02 %
IA	PLYMOUTH			
IA	SIOUX			
MN	LINCOLN	\$1,069,000	4	0.18 %
MN	PIPESTONE			
MN	ROCK	\$245,000	1	0.03 %
NE	BOYD			
NE	CEDAR			
NE	HOLT			
NE	KNOX			
SD	BON HOMME			
SD	BROOKINGS	\$159,432,000	777	7.74 %
SD	BRULE			
SD	CHARLES MIX	\$10,867,000	46	1.57 %
SD	CLAY	\$333,400	3	0.07 %
SD	DAVISON	\$162,884,000	863	12.44 %
SD	DEUEL			
SD	DOUGLAS			
SD	GREGORY			
SD	HAMLIN			
SD	HANSON	\$3,297,000	14	1.59 %
SD	HUTCHINSON	\$13,237,400	70	3.07 %
SD	KINGSBURY	\$4,157,000	20	0.80 %
SD	LAKE	\$154,304,600	668	13.37 %
SD	LINCOLN	\$424,220,400	1,647	8.64 %
SD	MCCOOK	\$14,242,000	84	3.86 %
SD	MINNEHAHA	\$1,102,581,000	4,856	7.89 %
SD	MOODY	\$15,907,600	80	3.47 %
SD	SANBORN			
SD	TURNER	\$70,400	1	0.03 %
SD	YANKTON	\$123,567,000	707	9.56 %
TOTAL		\$2,190,698,800	9,842	

## Likely Property Impact In The Buffer Zone

This chart indicates the properties in the Buffer of the storm and flooding event.

SEVERE STORMS AND FLOODING – SOUTH DAKOTA, IOWA, MINNESOTA & NEBRASKA		ESTIMATED INSIDE BUFFER		
STATE	COUNTY	Total Market Value	Number of Properties	Percentage of Properties Inside Buffer
IA	LYON	\$1,659,000	7	0.14 %
IA	PLYMOUTH	\$146,000	1	0.01 %
IA	SIOUX	\$8,753,000	31	0.24 %
MN	LINCOLN	\$1,075,000	5	0.23 %
MN	PIPESTONE	\$218,000	1	0.03 %
MN	ROCK			
NE	BOYD	\$134,000	5	0.61 %
NE	CEDAR	\$383,000	1	0.04 %
NE	HOLT	\$367,000	1	0.02 %
NE	KNOX	\$5,248,200	68	2.24 %
SD	BON HOMME	\$330,200	3	0.18 %
SD	BROOKINGS	\$107,031,800	592	5.90 %
SD	BRULE	\$1,694,000	14	0.99 %
SD	CHARLES MIX	\$24,991,000	139	4.75 %
SD	CLAY	\$170,400	2	0.05 %
SD	DAVISON	\$101,227,200	472	6.80 %
SD	DEUEL	\$301,600	2	0.10 %
SD	DOUGLAS	\$302,000	2	0.15 %
SD	GREGORY	\$676,000	10	0.60 %
SD	HAMLIN	\$198,800	2	0.08 %
SD	HANSON	\$11,453,600	53	6.04 %
SD	HUTCHINSON	\$9,580,400	47	2.06 %
SD	KINGSBURY	\$733,000	3	0.12 %
SD	LAKE	\$90,525,600	485	9.71 %
SD	LINCOLN	\$234,827,800	938	4.92 %
SD	MCCOOK	\$16,031,000	71	3.26 %
SD	MINNEHAHA	\$787,339,000	3,586	5.83 %
SD	MOODY	\$28,010,600	127	5.51 %
SD	SANBORN	\$44,400	1	0.11 %
SD	TURNER	\$2,963,000	9	0.24 %
SD	YANKTON	\$143,465,600	773	10.46 %
<b>TOTAL</b>		<b>\$1,579,880,200</b>	<b>7,451</b>	

## Properties Outside of the Event

Here is a view of the properties likely to not have received any direct damage from the storm and flooding event.

SEVERE STORMS AND FLOODING – SOUTH DAKOTA, IOWA, MINNESOTA & NEBRASKA		OUTSIDE OF EVENT & CORE	
STATE	COUNTY	Number of Properties	Percentage of County Not Affected
IA	LYON	4,939	99.84%
IA	PLYMOUTH	10,521	99.99%
IA	SIOUX	12,853	99.76%
MN	LINCOLN	2,169	99.59%
MN	PIPESTONE	3,434	99.97%
MN	ROCK	3,415	99.97%
NE	BOYD	821	99.39%
NE	CEDAR	2,714	99.96%
NE	HOLT	4,252	99.98%
NE	KNOX	2,970	97.76%
SD	BON HOMME	1,640	99.82%
SD	BROOKINGS	8,671	86.36%
SD	BRULE	1,394	99.01%
SD	CHARLES MIX	2,744	93.68%
SD	CLAY	4,023	99.88%
SD	DAVISON	5,604	80.76%
SD	DEUEL	2,016	99.90%
SD	DOUGLAS	1,323	99.85%
SD	GREGORY	1,653	99.40%
SD	HAMLIN	2,384	99.92%
SD	HANSON	811	92.37%
SD	HUTCHINSON	2,160	94.86%
SD	KINGSBURY	2,485	99.08%
SD	LAKE	3,843	76.92%
SD	LINCOLN	16,483	86.44%
SD	MCCOOK	2,020	92.87%
SD	MINNEHAHA	53,117	86.29%
SD	MOODY	2,096	91.01%
SD	SANBORN	899	99.89%
SD	TURNER	3,693	99.73%
SD	YANKTON	5,912	79.98%
<b>TOTAL</b>		<b>173,059</b>	

## 2019 Year In Review Summary

The total impact of natural disaster events is never limited to the financial implications. People die, others are injured, homes damaged and lost, businesses interrupted and lives forever changed. Veros continues to monitor natural disaster events and their impact as they occur. Our thoughts are with the people and responders challenged with the effects following these events.

Natural Disasters	ESTIMATED INSIDE EVENT CORE		ESTIMATED INSIDE BUFFER	
	Total Market Value	Total Properties	Total Market Value	Total Properties
Tropical Storm Imelda	\$43,799,058,600	172,946	\$160,852,032,700	649,470
Hurricane Dorian	\$1,151,132,300,600	4,242,091	\$7,083,357,200	25,634
Hurricane Barry	\$85,320,682,000	352,874	\$13,706,709,500	61,039
Kincade Fire	\$798,605,400	884	\$781,012,800	922
Severe Storms & Flooding – South Dakota, Iowa, Minnesota & Nebraska	\$2,190,698,800	9,842	\$1,579,880,200	7,451
<b>2019 GRAND TOTAL</b>	<b>\$1,283,241,345,400</b>	<b>4,778,637</b>	<b>\$184,002,992,400</b>	<b>744,516</b>

### When Disaster Strikes, Veros Is There for You.

To request a complete list of potential properties and localized damage as a result of the natural disasters, visit: **[Veros.cc/Data](https://veros.cc/Data)** or call: **866.458.3767**.

### What Disaster Data Can Do for Your Business.



Identify damaged and high-risk properties



Determine risk rating and focus risk management efforts on high-risk properties



Streamline the property assessment process



Eliminate unnecessary property inspections



Accelerate clear-to-close time for unimpacted properties



Enhance borrower relations by proactively identifying at-risk loans and rapidly initiating contact

Find out more: **[Veros.cc/data](https://veros.cc/data)**



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