



		Time	Path Path Numb			ner of	Estimated	November 1998		
Location	Date	Time Local/ Standard	Length (Miles)	Path Width (Yards)		sons Injured	Damage Property Crops			
TEXAS, Central Souther	<u>east</u>									
AUSTIN County										
NORTH PORTION	12	1020CST 1025CST			0	0		FLASH FLOOD		
	Portio	ons of FM 109 flo	oded.							
AUSTIN County	10	1022 CCT					1077	FY A GW FY OOD		
NORTH PORTION	12 EM 1	1032CST 1330CST 09 flooded.			0	0	10K	FLASH FLOOD		
MONTGOMERY County	F IVI I	09 1100ded.								
NORTHWEST PORTIO	12	1045CST 1430CST			0	0	10K	FLASH FLOOD		
	Many	farm-to-market r	oads flooded i	including FM	1 149.					
GRIMES County										
SOUTH PORTION	12	1210CST 1400CST			0	0	10K	FLASH FLOOD		
AUGEING	Many	farm-to-market r	oads closed di	ue to high wa	iter.					
AUSTIN County NORTH PORTION	12	1334CST			0	0	5K	FLASH FLOOD		
	Many	1630CST roads flooded act	oss northern	portion of the	e county.					
MONTGOMERY County										
COUNTYWIDE	12	1334CST 1900CST			0	0	10K	FLASH FLOOD		
	Wide	spread street flood	ling.							
AUSTIN County COUNTYWIDE	12	1641CST			0	0	10K	FLASH FLOOD		
COCKTTWIDE		1940CST t flooding countyv	vide. FM 275	4 & FM 137		v	1011	I LAGH I LOOD		
WASHINGTON County										
COUNTYWIDE	12	1720CST 1940CST			0	0	3K	FLASH FLOOD		
	Mino	r street flooding o	n the side road	ds.						
HARRIS County NORTH PORTION	12	1920CCT			0	0	21V	FLASH FLOOD		
NORTH PORTION	12 Straat	1830CST 1910CST t flooding in the W	/illovybrook o	****	0	0	3K	FLASH FLOOD		
SAN JACINTO County	Succ	t Hooding in the v	illoworook a	ica.						
EAST PORTION	12	1858CST			0	0	3K	FLASH FLOOD		
	Street	1910CST t flooding across to	he region, esp	ecially near	the Shell O	il Field.				
LIBERTY County										
CLEVELAND	12	1901CST 1910CST			0	0	3K	FLASH FLOOD		
WALLER County	Stree	t flooding.								
WALLER County WALLER	12	1908CST 1910CST			0	0	1K	FLASH FLOOD		
	Mino	r street flooding.								
LIBERTY County										
COUNTYWIDE	12 13	1945CST 0055CST			0	0	5K	FLASH FLOOD		
MONTGONERRY	Mino	r street flooding c	ountywide, es	pecially in the	ne Clevelan	d area.				
MONTGOMERY County COUNTYWIDE	12	1945CST			0	0	20K	FLASH FLOOD		
· · - · · - ·	12 13 Nume	1945CST 0055CST erous roads closed	across the res	gion includin			. 			
SAN JACINTO County				_						
COUNTYWIDE	12 13	1945CST 0055CST			0	0	10K	FLASH FLOOD		
		erous roads floode	d.							





Time Local/ Length Width Persons Damage
Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

TEXAS.	Central	Southeast

199>200-210-213-

226>227-235>237

FORT BEND County					
COUNTYWIDE	12 2145CST 2155CST	0	0	3K	FLASH FLOOD
	Minor street flooding across the area, especially	y in the Peca C	Frove Sub	division.	
JACKSON County					
COUNTYWIDE	12 2147CST 13 0055CST	0	0	20K	FLASH FLOOD
	Numerous roads closed across the area includir	ng CR's 112, 2	82, 462, 3	19, and 320.	
AUSTIN County					
COUNTYWIDE	12 2154CST 13 0055CST	0	0	20K	FLASH FLOOD
	Major street flooding with numerous road close	ures.			
COLORADO County					
COUNTYWIDE	12 2154CST 13 0055CST	0	0	5K	FLASH FLOOD
	13 0055CST Minor street flooding across the region.				
GRIMES County					
COUNTYWIDE	12 2154CST	0	0	15K	FLASH FLOOD
	13 0055CST Numerous road closures due to flooding.				
HARRIS County					
COUNTYWIDE	12 2154CST 13 0055CST	0	0	5K	FLASH FLOOD
	13 0055CST Secondary roads flooded.				
WALLER County	Secondary roads moded.				
COUNTYWIDE	12 2154CST	0	0	3K	FLASH FLOOD
	13 0055CST Minor street flooding.				
WACHINGTON C	winor street mooting.				
WASHINGTON County COUNTYWIDE	12 2154CST	0	0	5K	FLASH FLOOD
COUNTIVIDE	13 0055CST	U	Ū	JK.	FEASHTEOOD
WW . PEON G	Many secondary roads closed due to flooding.				
WHARTON County COUNTYWIDE	12 2154CST	0	0	3K	FLASH FLOOD
COUNTIWIDE	13 0055CST	U	U	3K	FLASH FLOOD
	Minor street flooding across the county.				
POLK County COUNTYWIDE	13 33.45CCT	0	0	3K	FLASH FLOOD
COUNTYWIDE	12 2245CST 13 0055CST	U	U	3K	FLASH FLOOD
	Minor street flooding countywide.				
WALKER County	40 000 CCT				W
SOUTH PORTION	12 2300CST 13 0055CST	0	0	5K	FLASH FLOOD
	HWY 150 from New Waverly to San Jacinto C	County line is c	losed due	to flooding.	
TXZ176-178>179-196-	MADISON - SAN JACINTO - POLK - BRA	ZOS - MONT	GOMER	Y - LIBERTY -	COLORADO - HARRIS

MADISON - SAN JACINTO - POLK - BRAZOS - MONTGOMERY - LIBERTY - COLORADO - HARRIS - WHARTON - FORT BEND - JACKSON - MATAGORDA - BRAZORIA

12 1200CST 0 0 RIVER FLOODING

Major flooding visited southeast Texas yet again in November. On November 12th upper level moisture from the Pacific Ocean interacting with low level moisture from the Gulf of Mexico and an approaching upper level storm system from the west produced widespread heavy rainfall over the region during the afternoon and evening hours. Rainfall amounts across the area averaged 5 to 7 inches with large areas receiving 7 to 9 inches and isolated amounts in excess of 10 inches of rain. The underlying soil moisture was still very high from the heavy rains in October so considerable runoff was produced. Significant rises occurred on most rivers and streams within the Houston/Galveston HSA beginning during the late night and early morning hours of November 12th and 13th.

As in October, significant rises were observed on several rivers and streams within the HSA. Four to six inches of rain over the Trinity River basin produced rapid rises during the early morning hours of November 13th. Moderate lowland flooding occurred on the Trinity River main stem for several days. Long King Creek in Livingston experienced major flooding with water levels in





Time Path Path Number of Estimated November 1998
Local/ Length Width Persons Damage
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TEXAS, Central Southeast

excess of 30 feet, flooding begins at 19 feet. Moderate flooding also occurred on Menard Creek near Rye as well as Bedias Creek near Madisonville. Flooding on these tributaries lasted for a few days. Residents of several subdivisions along the Trinity River above Liberty were advised to evacuate.

Major flooding began on Cypress Creek during the evening hours of November 12th with significant rise observed on the West and East Forks of the San Jacinto River, Spring Creek, Caney Creek, and Luce Bayou during the morning hours of November 13th. Flooding continued for several days. Over 200 homes were flooded along Cypress and Spring Creeks and the West Fork of the San Jacinto River. Numerous roads in Montgomery and Harris County were inundated and closed during this event. Along the East Fork of the San Jacinto River the community of Plum Grove in Liberty County was severely impacted with several homes flooded and two major roads into the community closed for more than 24 hours. The community of Patton Village in Montgomery County also experienced major flooding. Significant flooding also occurred below Lake Houston in the communities of Magnolia Gardens, Banana Bend, Highland Shores.

During the early morning hours of November 14th 3 to 5 inches of rain over Clear Creek, along the Harris/Galveston County line produced a rapid rise. Moderate flooding occurred during the afternoon and evening hours of November 14th. The creek was within banks by the morning of November 15th. Several homes in Friendswood were flooded.

Moderate lowland flooding occurred on the Lower Brazos River below Rosharon to Below West Columbia. Significant backwater flooding was observed on Varner Creek in Brazoria County. No homes were flooded but several minor roads were inundated. Moderate flooding was also observed on East and Middle Yegua Creeks with minor lowland flooding on the Navasota River near Normangee. Significant flooding occurred on Mill Creek in Austin County with several roads inundated and closed.

Major lowland flooding occurred once again on the San Bernard River above Highway 60 near Wallis to below Sweeny. No homes were flooded, but several major roads were closed. Evacuation of the El Lobo Subdivision in Wharton County was recommended. Barge traffic to the Phillips Petroleum facility near Sweeny was halted for several days. In Fort Bend County FM 2919 near the Tierra Grande subdivision had water to the bottom of the bridge.

Minor flooding also occurred on Chocolate Bayou near Alvin, on the Tres Palacios River in Matagorda County, on East Mustang Creek in Wharton County.

Significant rises were also observed on the Brazos River in the channel above Bryan to below Richmond and on the Colorado River above Columbus to below Bay City. However, flood stages were not exceeded and only minor inundation of low areas along these rivers was reported.

Fortunately no deaths were reported in this flood event, however it was the second major flood event on many of these watersheds in less than one month.

AUSTIN County						
COUNTYWIDE	13	0100CST	0	0	10K	FLASH FLOOD
	Nume	0500CST crous roads flooded.				
COLORADO County						
COUNTYWIDE	13	0100CST	0	0	5K	FLASH FLOOD
	Minor	0500CST street flooding.				
GRIMES County						
COUNTYWIDE	13	0100CST	0	0	10K	FLASH FLOOD
	Nume	0500CST crous roads flooded.				
HARRIS County						
COUNTYWIDE	13	0100CST	0	0	5K	FLASH FLOOD
	Secon	0500CST adary roads flooded.				
JACKSON County						
COUNTYWIDE	13	0100CST	0	0	10K	FLASH FLOOD
	Nume	0500CST crous roads flooded.				
LIDEDTY Combo	1 (01110	1000100001				
LIBERTY County						
COUNTYWIDE	13	0100CST 0500CST	0	0	3K	FLASH FLOOD
	Minor	r street flooding.				





		Time	Path	Path	Numl	per of	Estin	nated	November	1998
		Local/	Length	Width	Per	sons	Dan	nage		
Location	Date	Standard	(Miles)	(Yards)	Killed	Injured	Property	Crops	Character of Storm	

Location	Date	Standard	(Miles)	(Yards)	Killed	Injured	Property Crops	Character of Storm	
TEXAS, Central Southeast									
MONTGOMERY County COUNTYWIDE	13 HWY	0100CST 0500CST 105 near Grimes C	County line c	losed. Minor	0 r flooding e	0 lsewhere.	10K	FLASH FLOOD	
POLK County COUNTYWIDE	13	0100CST 0500CST street flooding.	•		0	0	3K	FLASH FLOOD	
SAN JACINTO County COUNTYWIDE	13 Street	0100CST 0500CST flooding.			0	0	5K	FLASH FLOOD	
TRINITY County COUNTYWIDE	13 Wides	0100CST 0500CST pread street flooding	ng.		0	0	10K	FLASH FLOOD	
WALKER County COUNTYWIDE	13 HWY	0100CST 0500CST 150 from New Wa	verly to San	Jacinto Cou	0 nty line clos	0 sed. Mino	7K or flooding elsewhere.	FLASH FLOOD	
WALLER County COUNTYWIDE	13 Minor	0100CST 0500CST street flooding.			0	0	3K	FLASH FLOOD	
WASHINGTON County COUNTYWIDE	13 Many	0100CST 0500CST secondary roads cl	osed due to	flooding.	0	0	10K	FLASH FLOOD	
WHARTON County COUNTYWIDE	13 Minor	0100CST 0500CST street flooding.			0	0	5K	FLASH FLOOD	
HARRIS County COUNTYWIDE	13 Numer	0502CST	osed or impa	assable due to	0 of flooding.	0	10K	FLASH FLOOD	
LIBERTY County COUNTYWIDE	13 Numer	0502CST	osed or impa	assable due to	0 of flooding.	0	10K	FLASH FLOOD	
MONTGOMERY County COUNTYWIDE	13 Numer	0502CST	osed or impa	assable due to	0 of flooding.	0	10K	FLASH FLOOD	
POLK County COUNTYWIDE	13 Numer	0502CST	osed or impa	assable due to	0 of flooding.	0	10K	FLASH FLOOD	
SAN JACINTO County COUNTYWIDE	13 Numer	0502CST	osed or impa	assable due to	0 o flooding.	0	10K	FLASH FLOOD	
TRINITY County COUNTYWIDE	13 Numer	0502CST	osed or impa	assable due to	0 of flooding.	0	10K	FLASH FLOOD	
WALKER County COUNTYWIDE	13	0502CST	r		0	0	10K	FLASH FLOOD	

Numerous roads either closed or impassable due to flooding.





		Time Local/	Path	Path	Numbe		Estimated	November 1998
Location	Date	Standard	Length (Miles)	Width (Yards)	Perso Killed	ns Injured	Damage Property Crops	Character of Storm
TEXAS, Central South	<u>east</u>							
LIBERTY County								
COUNTYWIDE	13 Nume	0915CST 1200CST erous roads either	closed or imp	assable due t	0 o flooding.	0	5K	FLASH FLOOD
MONTGOMERY County					C			
COUNTYWIDE	13	0915CST 1200CST			0	0	5K	FLASH FLOOD
	Nume	erous roads either	closed or imp	assable due t	o Hooding.			
POLK County COUNTYWIDE	13	0915CST			0	0	5K	FLASH FLOOD
	Nume	1200CST erous roads either	closed or imp	assable due t	o flooding.			
SAN JACINTO County			•					
COUNTYWIDE	13	0915CST			0	0	5K	FLASH FLOOD
	Nume	1200CST erous roads either	closed or imp	assable due t	o flooding			
TRINITY County	1 (01110	orous rouds crimer	orosou or imp	abbabie dae t	o noounig.			
COUNTYWIDE	13	0915CST			0	0	5K	FLASH FLOOD
	Nume	0915CST 1200CST erous roads either	closed or imp	accable due t	o flooding	-		
ALICEPALC	Nullic	rous roads citier	crosca or imp	assable due t	o noounig.			
AUSTIN County COUNTYWIDE	14	0530CST			0	0	5K	FLASH FLOOD
COUNTIWIDE		0530CST 0700CST			U	U	3K	FLASH FLOOD
	Wides	spread street flood	ling.					
COLORADO County	1.4	0520 CCT			0	0	FIZ	EL ACH EL COD
COUNTYWIDE	14	0530CST 0700CST			0	0	5K	FLASH FLOOD
	Wides	spread street flood	ling.					
JACKSON County								
COUNTYWIDE	14	0530CST 0700CST			0	0	5K	FLASH FLOOD
	Wides	spread street flood	ling.					
WALLER County								
COUNTYWIDE	14	0530CST 0700CST			0	0	5K	FLASH FLOOD
	Wides	spread street flood	ling.					
WASHINGTON County								
COUNTYWIDE	14	0530CST 0700CST			0	0	5K	FLASH FLOOD
	Wides	spread street flood	ling.					
WHARTON County								
COUNTYWIDE	14	0530CST			0	0	5K	FLASH FLOOD
	Wides	0700CST spread street flood	ling.					
		-r	٠.					