

MEMORANDUM



Harris County
Flood Control District

9900 Northwest Freeway
Houston, Texas 77092
713 684-4000

DATE: December 9, 1998

TO: Distribution

FROM: Steve Fitzgerald *SF*
Chief Engineer

RE: Immediate Flood Report # 2
November 11-16, 1998 Storm and Flood Information

This is the second and final immediate report for the November 12-16, 1998 flood event. Please note this is the third flood in two months.

GENERAL FLOODING STATEMENT

On Thursday morning, November 12, 1998, rains began in western Harris County, moved slowly eastward, and continued through Saturday night, November 15, 1998. The predominant rainfall occurred Thursday afternoon and evening, and early Saturday morning. The rainfall was caused by a slow moving cold front that stalled along the Gulf Coast, an upper level low in west Texas that remained nearly stationary a few days, and moisture from both the Pacific Ocean and Gulf of Mexico.

Thursday afternoon and evening, heavy rainfall occurred primarily in the Cypress Creek watershed and northward into Montgomery County. Street flooding and overland sheet flow flooding occurred initially. Flooding began along Spring Creek and San Jacinto River on Friday. A few low houses flooded along Cypress Creek on Friday. Early Saturday morning, intense rainfall occurred again in the Cypress Creek watershed and northward. Flooding began along Cypress Creek Saturday morning and appears to be about 2 feet lower than the October 1998 flood.

Intense rainfall also occurred along Clear Creek in Friendswood Saturday morning. Galveston Bay and Clear Lake levels remained low, so the gates were not opened.

By Saturday night, all gages indicated the creeks were beginning to recede, except upper Cypress Creek and the San Jacinto River. The San Jacinto River peaked mid-day on Sunday at the U.S. 59 bridge and Monday morning near Banana Bend. At U.S. 59, the flood stage was about 5 feet higher than the October 1998 flood stage and 7 feet lower than October 1994.

RAINFALL

Duration - Thursday morning, November 12, 1998 through Saturday night November 15, 1998. The predominant rainfall periods were Thursday afternoon and evening and early Saturday morning.

Total Amounts

Numerical Range: 3" - 11"
Typical Range: 4" - 7"

The rainfall frequencies in the Cypress Creek and Willow Creek watersheds were in the 50% (2-year) to 20% (5-year) frequencies. Larger rainfall amounts occurred north of Harris County which resulted in higher flood elevations on the San Jacinto River than expected.

A county rainfall map dated December 9, 1998 covering the 4 day period from Thursday, November 11, 1998 to Saturday, November 15, 1998 is attached.

PROBLEM WATERSHEDS

- Cypress Creek
- Spring Creek
- Willow Creek
- San Jacinto River

HOUSE FLOODING ESTIMATES

A breakdown by watershed and subdivision is presented in the attached table. Flooding areas are shown on the attached map, as well.

SF:th
Attachment

Distribution: John Blount, HC Permits
Wayne Crull, HCFCD
Fred Garcia, HCFCD
George Grant, COHOEM
Gary Green, HCFCD
Clay Haynes, HCFCD
Herb Herndon, HCFCD
E.C. Kobs, HCFCD
Martha Juch, HCFCD
Diana Laird, Corps of Engineers
Joe Myers, HCFCD

Ed Shackelford, Precinct 4
Art Storey, HCPID
Mike Talbott, HCFCD
Brenda Trevino, HCFCD
Robert Van Hook, Corps of Engineers
Jim White, HCOEM
Terry Woodfin, HCFCD

**HOUSE FLOODING ESTIMATES FOR HARRIS COUNTY
NOVEMBER 11-16, 1998 FLOOD
REPORT DATE: DECEMBER 9, 1998**

SUMMARY BY WATERSHED

	<u>Estimated Houses</u>
Cypress Creek	70
San Jacinto River	200
Spring Creek	2
Willow Creek	<u>2</u>
TOTAL	274
SAY	290

NUMBER OF SUBDIVISIONS 29

Cypress Creek

<u>Subdivision</u>	<u>Estimate</u>	<u>Key Map</u>
Cypress Bend Area	4 ¹	367-L,M
Forest Lakes	1 ¹	333-H
Grantwood	28 ¹	369-E
Houston Hot Wells	7 ¹	367-K
Huffmeister Rd. Area	5 ¹	368-F
Lake Cypress Estates	12 ¹	368-F,G
Norchester	4 ¹	369-B
Pine Oak Forest	2 ¹	332-J
Riverwood	2 ¹	333-H
Saracen Park	1 ¹	368-G
Strack Rd.	3 ¹	331-K
Winnwood	<u>1¹</u>	368-H
TOTAL	70	

San Jacinto River

<u>Subdivision</u>	<u>Estimate</u>	<u>Key Map</u>
Banana Bend	8 ¹	458-H
Belleau Woods	29 ²	336-Q
East River Estates	16 ¹	258-Q
Forest Cove	29 ²	336-K
Highland Shores	2 ¹	459-J
Idle Glen/Idlewild	16 ¹	258-P
Magnolia Point	15 ²	298-X
Northshore	38 ²	336-L
Rio Villa	10 ¹	459-K
River Dale	7 ¹	419-S
Riverside Crest	12 ²	336-N,P
River Terrace	2 ¹	298-E
Sand Bar Estates	7 ¹	458-H
San Jacinto River Estates	5 ¹	459-X
Water Wonderland	<u>4¹</u>	338-D
TOTAL	200	

¹Estimate from Harris County Permits²Estimate from City of Houston

Spring Creek

<u>Subdivision</u>	<u>Estimate</u>	<u>Key Map</u>
Spring Creek Valley	<u>2¹</u>	288-A
TOTAL	2	

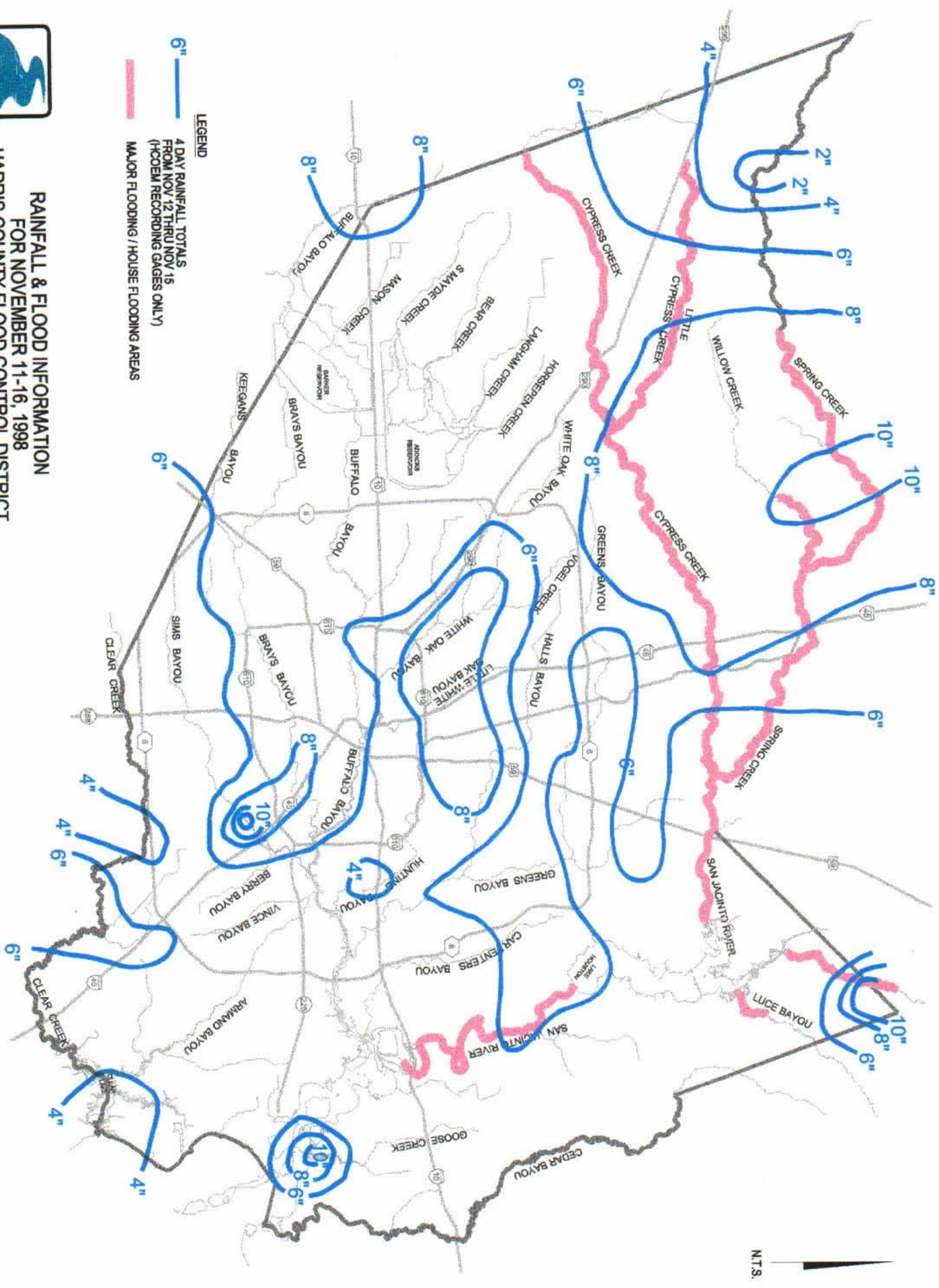
Willow Creek

<u>Subdivision</u>	<u>Estimate</u>	<u>Key Map</u>
Creekwood Acres	<u>2¹</u>	290-B
TOTAL	2	

¹Estimate from Harris County Permits
²Estimate from City of Houston



RAINFALL & FLOOD INFORMATION
FOR NOVEMBER 11-16, 1998
HARRIS COUNTY FLOOD CONTROL DISTRICT
UPDATED DECEMBER 9, 1998



LEGEND

4 DAY RAINFALL TOTALS
 FROM NOV 12 THRU NOV 15
 (HOEM RECORDING GAGES ONLY)

MAJOR FLOODING / HOUSE FLOODING AREAS

N.T.S.