

**HAZARD MITIGATION TECHNICAL ASSISTANCE PROGRAM
CONTRACT NO. EMW-2000-CO-0247
TASK ORDER 345
HURRICANE JEANNE RAPID RESPONSE
FLORIDA RIVERINE HIGH WATER MARK (RHWM) COLLECTION
FEMA-1561-DR-FL**

**FINAL REPORT
FEBRUARY 28, 2005**

SUBMITTED TO:



FEMA

**FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION IV
ATLANTA, GA**

PREPARED BY:

URS

**URS GROUP, INC.
200 ORCHARD RIDGE DRIVE
SUITE 101
GAITHERSBURG, MD 20878**

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INTRODUCTION

Jeanne formed from a tropical wave on September 7, 2004, and moved into the eastern tropical Atlantic Ocean. Jeanne became a tropical depression on September 13 as it approached the Leeward Islands, and was upgraded to Tropical Storm Jeanne the next day. After crossing Puerto Rico it reached hurricane strength on September 16 near the eastern tip of the Dominican Republic. On September 18, while the system was being tracked near Great Inagua and Haiti, a new center formed well to the northeast and the previous circulation dissipated. The new center strengthened again, becoming a hurricane on September 20. Jeanne continued to meander for several days before beginning a steady westward motion toward the Bahamas and Florida.

Jeanne continued strengthening as it headed west, passing over Great Abaco Island in the Bahamas on the morning of September 25. Shortly thereafter, it reached Category 3 strength. It maintained this intensity as it passed Grand Bahama during the remainder of the day. At 11:50 pm EDT September 25, Jeanne made landfall on Hutchinson Island, just east of Stuart, Florida, at Category 3 strength. This is only about 2 miles (3 km) from Sewall's Point, where Hurricane Frances struck Florida three weeks earlier. According to the National Hurricane Center, at the time of landfall, Jeanne's eye diameter was approximately 60 miles, its maximum winds were 120 mph over a very small area north of the center of circulation, and movement was west-northwest at approximately 9 mph. The maximum storm surge was estimated to be 6 feet above normal tide levels. The track for Hurricane Jeanne is shown in Figure 1.

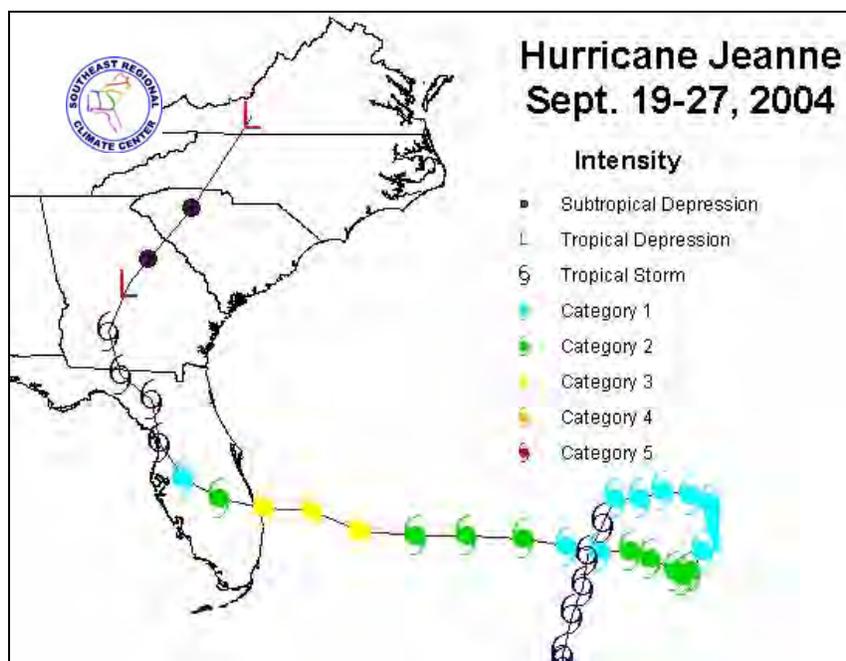


Figure 1: Hurricane Jeanne Track

Jeanne's track continued to follow within 20 miles of that of Frances until it reached Pasco County. It then swung more rapidly to the north, and the center remained over land all the way to the Georgia state line. Hurricane Jeanne produced widespread rainfall of up to 8 inches in eastern, central, and northern Florida, with up to 13 inches observed in the vicinity of the eyewall track. Jeanne became extratropical over Virginia on September 28 and the remnant returned to sea off the New Jersey coast the next day. The last advisory was issued when it was 200 miles (320 km) east of New York City and heading east-northeast over the Atlantic. Hurricane Jeanne caused catastrophic loss and property loss throughout its path.

Notice was given in the Federal Register, in a letter dated September 26, 2004, that the President declared a major disaster under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act for damage in certain areas in Florida resulting from Hurricane Frances (FEMA-1561-DR, Florida; <http://www.fema.gov/news/event.fema?id=3823>). The declaration provides the necessary Federal assistance to meet immediate needs and to help Florida recover as quickly as possible. Declared Florida counties under disaster declaration FEMA-1561-DR-FL are described below and shown on Figure 2.

Individual Assistance was provided to: Brevard, Hardee, Hernando, Highlands, Hillsborough, Indian River, Lake, Martin, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Seminole, St. Lucie, Sumter, and Volusia Counties with the September 26, 2004, declaration.

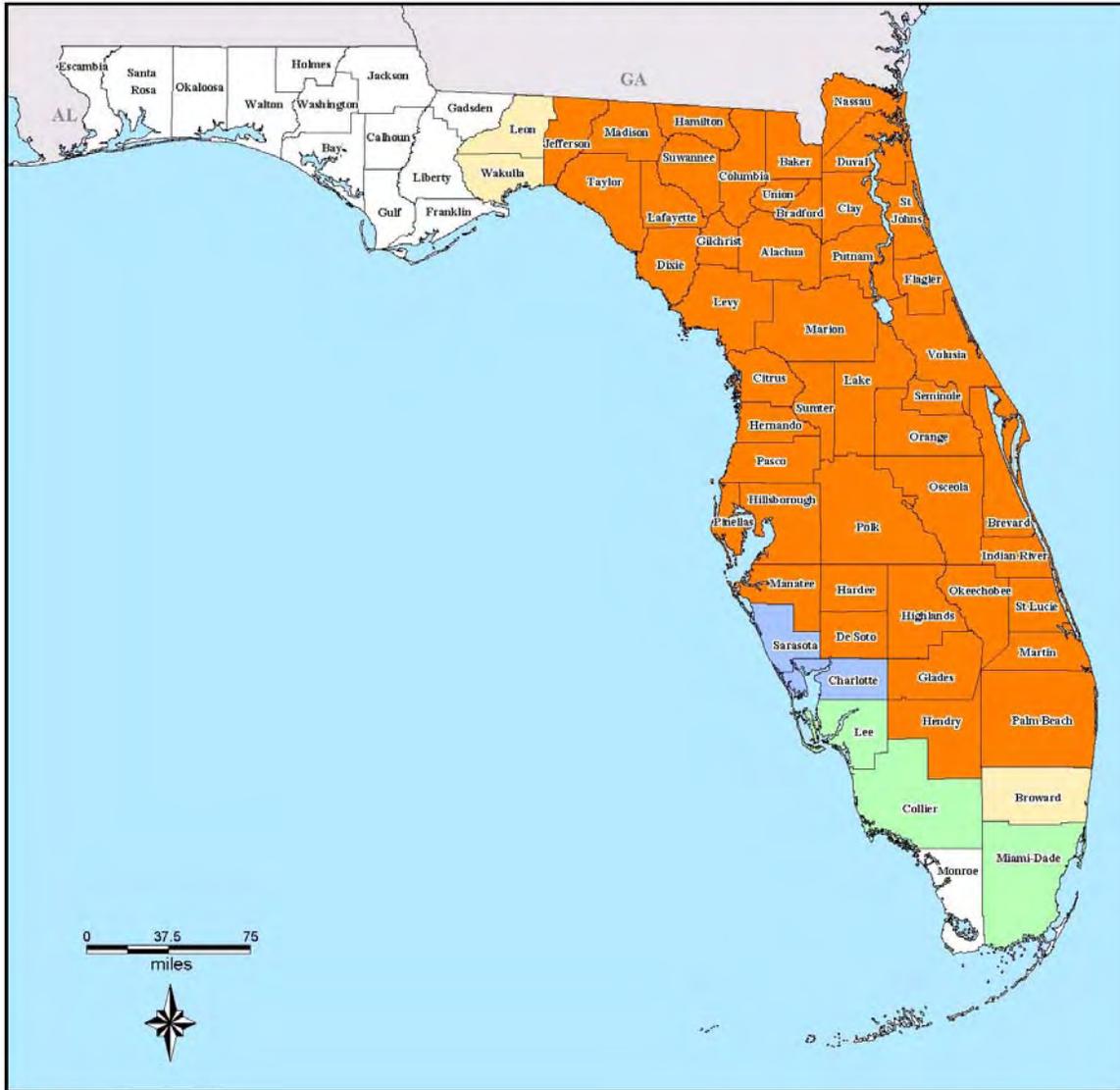
Amendment No. 1, September 27, 2004, included Marion County for Individual Assistance.

Amendment No. 2, September 30, 2004, included Alachua, Baker, Bradford, Charlotte, Citrus, Clay, Columbia, DeSoto, Dixie, Duval, Flagler, Gilchrist, Glades, Hamilton, Hendry, Jefferson, Lafayette, Levy, Madison, Manatee, Nassau, Putnam, Sarasota, St. Johns, Suwannee, Taylor, and Union counties for Individual Assistance.

Public Assistance was provided to: Brevard, Citrus, DeSoto, Glades, Hardee, Hendry, Hernando, Highlands, Hillsborough, Indian River, Lake, Levy, Manatee, Marion, Martin, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Seminole, St. Lucie, Sumter, and Volusia Counties within the State of Florida for assistance for debris removal and emergency protective measures, including direct Federal assistance, at 100 percent Federal funding of the total eligible costs of Categories A and B for a period of up to 72 hours. Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Public Assistance will be limited to 75 percent of the total eligible costs.

Amendment No. 4 to the Notice of a Major Disaster Declaration, October 14, 2004, included Brevard, Citrus, DeSoto, Glades, Hardee, Hendry, Hernando, Highlands, Indian River, Lake, Levy, Manatee, Marion, Martin, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Polk, Seminole, St. Lucie, Sumter, and Volusia Counties for Public Assistance (Categories C-G) under the Public Assistance program.

FEMA-1561-DR, Florida Disaster Declaration as of 11/05/2004



Legend

Designated Counties
(all counties are eligible for Hazard Mitigation)

- Individual Assistance
- Individual & Public Assistance (A - G)
- Individual & Public Assistance (A & B only)
- Individual & Public Assistance (B only)
- Public Assistance (A - G)
- Public Assistance (B only)



*ITS Mapping and Analysis Center
Washington, DC
11/08/2004 -- 10:15:47 EDT*

j:\2004\disaster\dr_1561_f\dec_1561.wor

Figure 2: Disaster Declaration Map

Amendment No. 5, October 14, 2004, included Charlotte, Collier, Lee, Miami-Dade, and Sarasota Counties for Category B under the Public Assistance program.

Amendment No. 6, October 14, 2004, included Alachua, Baker, Bradford, Broward, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Jefferson, Lafayette, Madison, Nassau, St. Johns, Suwanne, Taylor, and Union Counties for the Public Assistance program.

Amendment No. 7, October 20, 2004, included Hillsborough, Pinellas, and Putnam Counties for Categories C-G under the Public Assistance program.

Amendment No. 8, November 5, 2004, included Leon, Sarasota, and Wakulla Counties for Categories A and C-G under the Public Assistance program.

Hazard Mitigation Grant Program (HMGP): All counties in the State of Florida are eligible to apply for assistance under the HMGP.

Hurricane Jeanne resulted in both coastal and riverine flooding. URS Group, Inc. (URS) was contracted by the Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Technical Assistance Program (HMTAP) to assist in hurricane disaster recovery. Assistance provided under this Task Order included collection and survey of Riverine High Water Marks (RHWMs). The purpose of this report is to document the methodologies used to flag the RHWM locations and to present the data collected, including surveyed locations and elevations, in a concise format.

AREA OF STUDY

Hurricane Jeanne crossed the State of Florida on September 26, 2004, following the track illustrated on Figure 1. The system was relatively large with storm bands extending outward across most of the State. Jeanne produced significant amounts of precipitation throughout a large portion of the state, resulting in disaster declarations in many counties. According to the National Weather Service, Jeanne produced widespread rainfall of up to 8 inches across eastern, central, and northern Florida with a narrower band of up to 13 inches over Osceola, Broward, and Indian River Counties. A secondary rainfall maximum of around 11 inches was observed over northeast Florida in Duval and Nassau Counties. Figure 3 illustrates precipitation quantities within the State for an approximate 24-hour period. It is significant that Hurricane Jeanne followed Hurricane Frances by about three weeks because many of the river systems impacted by Frances were still well above normal stage when Jeanne occurred, which exacerbated flood conditions caused by Hurricane Jeanne.

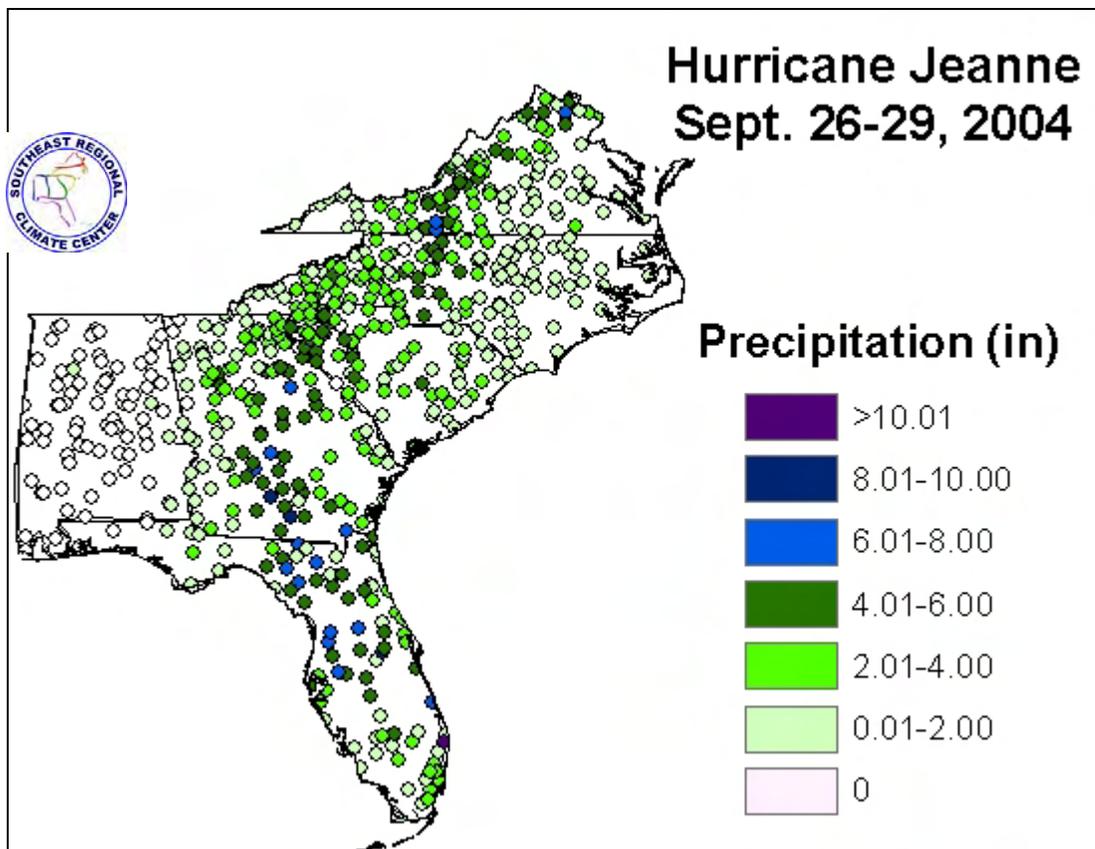


Figure 3: Hurricane Jeanne Rainfall

An initial review of the affected areas within the State of Florida was completed on October 11, 2004. The purpose of the review was: (1) to determine areas that were flooding and/or areas that were predicted to flood due to Hurricane Jeanne; (2) to develop a plan for the collection of RHWm data that would adequately cover the affected areas; and (3) to develop the Work Plan that was submitted to FEMA (for approval), detailing the scope of work, schedule, personnel requirements, and budget. The following discussion describes in detail the assessment conducted to determine critical flood areas (Area of Study) and the locations of required RHWms.

The critical flood assessment was conducted based upon data from several sources, which were used to prioritize flood locations with respect to severity and timing. Data sources used in this assessment included:

- State of Florida, Department of Community Affairs,
- Florida Water Management Districts (WMDs) – prioritized flood locations,
- National Weather Service (NWS) Southeast River Forecast Center (SRFC), Advanced Hydrologic Prediction Services (online) – observed and forecast stage hydrographs,
- U.S. Geological Survey (USGS) (online) – real-time and historical streamflow (gage) data, and
- Local media reports.

Each of the five WMDs in Florida was solicited for information regarding flooding due to Hurricane Jeanne. Two of the WMDs, Suwannee River and Southwest Florida Water Management Districts, provided prioritized lists of river systems that were experiencing flooding. The NWS' SRFC online resource was used in conjunction with the WMD data, USGS online data, local media reports of flooding, and direct knowledge of Florida's river systems to determine which river systems were experiencing flooding and, where possible, to determine specific areas, severity, and timing of that flooding. As part of this planning effort, consideration was given to the possible effects that Hurricane Frances-related flooding might have on Hurricane Jeanne water levels and data collection efforts.

Table 1 is a summary of the USGS and NWS stream gage stations within the study area. Many of these gages are used by the NWS SRFC to acquire real-time stream data and to predict flood peak and timing at these locations. Table 1 presents information on flood stage at each location as well as the maximum measured or predicted stage and timing at the station.

Information regarding the location and nature of flooding described above was plotted on maps to select RHWm locations within and adjacent to critical flood areas. Maps with the selected locations were reproduced for use by field personnel (flaggers).

The Area of Study covered as part of the Hurricane Jeanne RHWm assessment stretches from Lake Okeechobee in South Florida to an area just east of the City of Tallahassee in North Florida. The Area of Study comprises 16 river systems. Table 2 presents a summary by river system of the number of RHWms collected as part of this Task Order. The Area of Study is located within 21 counties, which are presented in Table 3 along with the number of RHWms within each county. As shown, a total of 76 RHWms were located.

Table 1: USGS and NWS Gage Stations Within the Study Area

Gage ID No.	Gage Location	Flood Stage ⁽¹⁾ (ft-gage)	Max. Stage ⁽²⁾ (ft-gage)	Date Max. Stage	Lat. (NAD 27*)	Long. (NAD 27)
02256500	Fisheating Creek at Palmdale	7	8.24	09/29/04	26°55'56"	81°18'54"
02303000	Hillsborough River nr. Zephyrhills	10	12.94	9/28/2004	28°08'59"	82°13'57"
02299950	Manatee River at Myakka Head	11	14.07	09/27/04	27°28'24"	82°12'41"
02300500	Little Manatee River at Wimauma	11	14.37	09/28/04	27°40'15"	82°21'10"
02301500	Alafia River at Lithia	13	18.88	9/28/2004	27°52'19"	82°12'41"
02310000	Anclote River at Elfers	20	19.53	9/29/2004	28°12'50"	82°40'00"
02313000	Withlacoochee River at Holder	8	11.2	10/13/04	28°59'19"	82°20'59"
02295637	Peace River at Zolfo Springs	16	21.09	9/29/2004	27°30'15"	81°48'04"
02313200	Withlacoochee River at Dunnellon	29	30.11	10/07/04	29°02'45"	82°27'53"
LIK1 ⁽³⁾	Suwannee River near Suwannee Springs	67	71.3 ⁽⁴⁾	10/06/04	30°23'34"	82°56'00"
02319500	Suwannee River at Ellaville	26.78	29.62	10/08/04	30°23'04"	83°10'19"
02312000	Withlacoochee River at Trilby	12	16.43	10/5/2004	28°28'47"	82°10'40"
02294650	Peace River at Bartow	8	10.83	9/30/2004	27°13'19"	81°52'34"
02322800	Santa Fe River near Hildreth	21	22.5	10/12/04	29°54'41"	82°51'38"
02298830	Myakka River near Sarasota, FL	7	8.49	10/11/2004	27°14'25"	82°18'50"
02312500	Withlacoochee River at Croom	9	11.59	9/30/2004	28°35'33"	82°13'20"
02322500	Santa Fe River near Fort White	3.14	8.89	10/2/2004	29°50'55"	82°42'55"
LAM1 ⁽³⁾	Aucilla River at Lamont	9	10.88 ⁽⁴⁾	9/11/2004	30°22'11"	83°48'25"
02323500	Suwannee River near Wilcox	14	14.29	10/16/04	29°35'22"	82°56'12"
02234500	St. Johns River near Sanford	5.8	7.48	10/7/2004	28°50'16"	81°19'28"
02315500	Suwannee River at White Springs	77	84.01	10/4/2004	30°19'32"	82°44'18"
02234000	St. Johns River above Lake Harney	8.5	10.07	10/2/2004	28°42'50"	81°02'08"
02320500	Suwannee River at Branford	24.19	25.56	10/12/04	29°57'20"	82°55'40"
02236000	St. Johns River near Deland	4.2	5.08	10/7/2004	29°00'29"	81°22'58"
TREF1 ⁽³⁾	Santa Fe River at Three Rivers Estates	19	25.79 ⁽⁴⁾	10/13/04	---	---

* NAD 27 = North American Datum of 1927

(1) Flood Stage from NWS-SRFC Advanced Hydrologic Prediction Service website (<http://www.srh.noaa.gov/serfc/ahps/>).

(2) Max Stage from USGS website (<http://waterdata.usgs.gov/fl/nwis/>), except where noted. Values represent actual maximum stage taken from historical data following the flood event.

(3) NWS gage.

(4) Max. Stage from NWS-SRFC Advanced Hydrologic Prediction Service website.

Table 2: Number of RHWL Locations by River System

River System	Number of RHWLs
Anclote River	1
Aucilla River	2
Cannon Creek	2
Fisheating Creek	1
Hillsborough River	1
Myakka River	2
New River	2
Olustee Creek	1
Peace Creek Canal	7
Peace River	6
Rose Creek	2
Saddle Creek	4
Santa Fe River	7
St. John's River	15
Suwannee River	11
Withlacoochee River	12
Total	76

Table 3: Number of RHWL Locations by County

County	Number of RHWLs
Brevard	2
Citrus	3
Columbia	11
Dixie	1
Gilchrist	3
Glades	1
Hamilton	3
Hardee	2
Hernando	5
Jefferson	2
Levy	1
Madison	1
Marion	2
Pasco	2
Polk	15
Sarasota	2
Seminole	9
Sumter	2
Suwannee	2
Union	3
Volusia	4
Total	76

MARKING AND SURVEY METHODOLOGY

The critical flood assessment described above resulted in the selection of a number of RHWMs (76) within the Area of Study and a prioritization of those points with respect to severity and timing. This information was used to develop a field program for the collection of data in the critical flood areas. Areas where flooding was most severe or where peak flood stage had most recently occurred were scheduled first for data collection, then areas with less severe flooding or where peak flood stage was forecast at a future time were scheduled next.

Hurricane Jeanne RHWm data collection was complicated by Hurricane Frances, which occurred only three weeks prior. Given the nature of Florida's hydrology, many of the rivers included in the study area, particularly the larger inland systems, were still experiencing elevated flows and levels from Frances at the time field work for Hurricane Jeanne was conducted. In certain geographic regions of the State, Hurricane Jeanne produced more precipitation than Frances did. Thus, higher river crest elevations were experienced in these areas due to Jeanne. The higher river crests had the potential to damage the markers placed for Frances and to erase or disrupt its flooding evidence. Field crews were made aware of this situation and instructed to take extra care in defining the high water marks for Jeanne.

Flagging crews from URS were dispatched to perform reconnaissance of the affected areas and flag RHWMs. Flaggers identified areas of concern in addition to the prescribed RHWm locations by speaking with residents and witnesses of the flood. Figure 4 is a sample flagger data collection form used for each RHWm. As part of the data collection effort, hand-held static global positioning system (GPS) units were used to determine preliminary coordinates (latitude and longitude) at each of the RHWm locations.

The flaggers' data was reviewed for accuracy and compiled into a concise format for use in the survey program. This effort included the development of a map showing the location and identification of each of the RHWMs and supporting tabular data. The RHWm locations were based on GPS data acquired as part of the field program. This information was supplied to the surveyor to facilitate implementation of the survey program.

The survey program was conducted by URS subconsultant, PBS&J, of Orlando, Florida. The field survey was conducted using static GPS methods to acquire more accurate horizontal location and elevation data for each of the RHWMs. Figure 5 is a sample of the surveyors' data form used to record field information. Since static GPS requires an area with no tree cover to return an accurate result, in some cases it was necessary perform a short level loop survey from the GPS point to the RHWm. Wherever possible, finished floor elevations of structures adjacent to the RHWm were collected. This information may be used later for possible damage assessments or HMGP applications. RHWm locations were surveyed horizontally in North American Datum of 1983 (NAD 83), State Plane feet, and vertically in North American Vertical Datum of 1988 (NAVD 88) US survey feet. RHWm locations have been surveyed to within accuracies of 0.25 foot vertically and 10 feet horizontally with a 95% confidence level.

Figure 4: Sample RHWL Flagger Form**HIGH WATER MARK (HWM) REPORT - FLAGGERS**

Page 1	
HWM ID	
Stream Name	
Unit Number	
Name of Crew / Interviewer	
Company	
Date of flagging / Interview	
Date of flood event	
Name of storm event	
Address of HWM	
Location / Description of Mark	
Vertical Distance from set point & description of set point	
HWM Object	
Type of Mark	
Type of HWM	
HWM Quality	
Flood Type	
City	
County	
State	
Witness Information:	Name: Address: Telephone Number How long lived there: Obtained permission to survey?

Page 2	
HWM ID (from first page)	
Photo ID	
Photo Location / Orientation	
Photo Description / Subject	
Flagger HWM Latitude	
Flagger HWM Longitude	
Comments	

Figure 5: High Water Mark (HWM) Report - Surveyor

HWM ID	
ADDRESS OF HWM	
Survey Date	
Surveyors	
Company	
Survey Accuracy (1)	
Projection	
Vertical Datum	NAVD 88
Horizontal Datum	NAD 83
Easting	
Northing	
HWM Elevation (2)	
First Floor Elevation (based on measurement from HWM)	

- (1) Indicate survey method / equipment (since different equipment / methods have different accuracy)
(2) Note that the HWM is the line at the bottom of the tape or paint

ELEVATION CONVERSION FROM NAVD 88 TO NGVD 29 USING VERTCON

All of the elevations acquired as part of this survey are in the latest NAVD 88 datum. Elevations reported in National Geodetic Vertical Datum of 1929 (NGVD 29) were derived using the VERTCON program with the NAVD 88 elevations as input. The VERTCON software was developed by the National Geodetic Survey (NGS) Office to convert data between different vertical data scales. VERTCON is available as an element of the NGS Geodetic Toolkit and can be downloaded from the NGS website: <http://www.ngs.noaa.gov/TOOLS/Vertcon/vertcon.html>.

VERTCON allows the user to compute the modeled difference in orthometric height for a given location specified by its latitude and longitude. Applying the VERTCON datum difference value to a specific elevation converts from one datum to another.

The following example illustrates how elevation data are converted from the NAVD 1988 datum to elevations in the NGVD 1929 datum. A point with an elevation of 5.33 feet NAVD along with its associated latitude and longitude are selected for use in this example. Using the associated latitude and longitude coordinates, VERTCON computes a datum shift of (-)1.171 feet. To convert to the NGVD 29 elevation, the datum shift is applied to the elevation in NAVD 1988 as follows: Elevation 5.33 feet NAVD minus (-)1.171 feet = elevation 6.50 feet NGVD.

FINDINGS AND OBSERVATIONS

Results of the RHWM data collection and associated land survey conducted under this task order are presented in appendices as part of this report. The RHWM information is presented by county in individual appendices, including a map illustrating the location and identification of the RHWM data points and RHWM data forms.

As described in the “Area of Study” section of this report, 76 RHWM points within 21 counties were flagged and surveyed. The surveyors located the data points and acquired a RHWM elevation for each location.

RECOMMENDATIONS

The following are recommendations of how FEMA can use the RHWL information to assist in the recovery effort from Hurricane Jeanne:

- Compare the Hurricane Jeanne RHWLs to the flood elevation data on the effective or preliminary Flood Insurance Rate Maps. These comparisons can help FEMA determine where the updated flood hazard data were supported by the flooding that occurred or where new detailed studies should be performed to update the maps, which can help illustrate deficiencies on the existing maps.
- Perform an evaluation of the recurrence interval of riverine flooding within the Area of Study.
- Compare the Jeanne RHWLs to those from other significant flood events. This will identify areas of repetitive flooding and assist FEMA in determining locations that would make good flood mitigation projects.
- Complete detail-engineering analysis to determine flood elevations in the areas where deficiencies have been identified on the existing FEMA maps, or on areas where property loss occurred where no previous studies have been prepared.
- Use information on the severity of flooding from the Jeanne RHWLs to help identify areas of concern for future FEMA mitigation projects when funding for such projects becomes available.
- Use the RHWLs to evaluate the performance of completed mitigation projects. The flood depths that occurred during Jeanne can be used to estimate potential damage that would have occurred to structures that were removed as part of previously completed mitigation projects. Documentation of the benefits incurred (damages avoided) can be used to support future mitigation efforts.
- Use the RHWLs to create inundation maps for Hurricane Jeanne. The maps can be delineated on best available base maps. If LIDAR maps were available for this task, the inundation maps would be a spatially correct GIS coverage that can be provided to community officials to assist in disaster recovery.
- Make this report available on the Internet to aid public officials and the community in the flood damage evaluation and recovery effort.

APPENDICES

Appendix A: Brevard County Data Sheets and Location Map

BREVARD COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks

-  High Water Marks
-  Limited Access Highway
-  US Highway
-  State Highway
-  Railroads
-  Streams
-  Water Bodies
-  Municipal Areas
-  County Boundary


NOT TO SCALE
 Date: 01-10-05



Due to the scale, High Water Marks may appear coincident.



H:\projects\15702334 - Hurricane Riverine_High_Water_Mark\Applications\leanne_Porrait.mxd



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12009C0350E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Brev-1

HWM ID: 5_SJR-11 **Type of Mark:** Nail/spray paint line
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: St. Johns River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 14.9 ft. **NGVD 29:** 16.2 ft. **HWM Object:** Wooden fence post
Flooding Type: Hurricane
HWM Address: John Wright Rec. Area - SR 520 bridge of St. Johns River
Location of HWM Object: From I-95 S. bound at Cocoa take SR 520 W. bound - enter John Wright Rec. Area N. of Hwy just before bridge - marker is on fence post NW of pkg lot - just W. of green bench.
HWM Type: Water/mud line
Closest Municipality: Cocoa **County:** Brevard **State:** FL
Name of Flagger/Interviewer: Sarah Peterson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/19/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 11/17/04
Survey Projection: FLORIDA EAST (0901) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 212597 **Easting (feet):** 697497
Survey Latitude: 28.37183 **Northing (Meters):** 447420 **Northing (feet):** 1467911
Survey Longitude: 80.87148 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-11_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12009C0500E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Brev-2

HWM ID: 5_SJR-12 **Type of Mark:** Measurement on yard stick
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: St. Johns River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 17.3 ft. **NGVD 29:** 18.6 ft. **HWM Object:** Yard stick attached to stair railing
Flooding Type: Hurricane
HWM Address: Camp Holly - 6901 US 192
Location of HWM Object: From I-95 S. bound at Melbourne take US 192 W. bound - enter Camp Holly just past bridge over St. Johns River - marker is on left railing of stairway at entrance of Camp Holly main bldg.
HWM Type: Personal account
Closest Municipality: Melbourne **County:** Brevard **State:** FL
Name of Flagger/Interviewer: Sarah Peterson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/20/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 11/17/04
Survey Projection: FLORIDA EAST (0901) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Survey Latitude: 28.08500 **Easting (Meters):** 224288 **Easting (feet):** 735851
Survey Longitude: 80.75287 **Northing (Meters):** 415653 **Northing (feet):** 1363689
Approx. First Floor Elevation: 18.8

Comments:

Dan mentioned there is survey base point on property.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-12_2

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 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix B: Citrus County Data Sheets and Location Map

CITRUS COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks

 **NOT TO SCALE**
Date: 01-10-05

 High Water Marks

 Limited Access Highway

 US Highway

 State Highway

 Railroads

 Streams

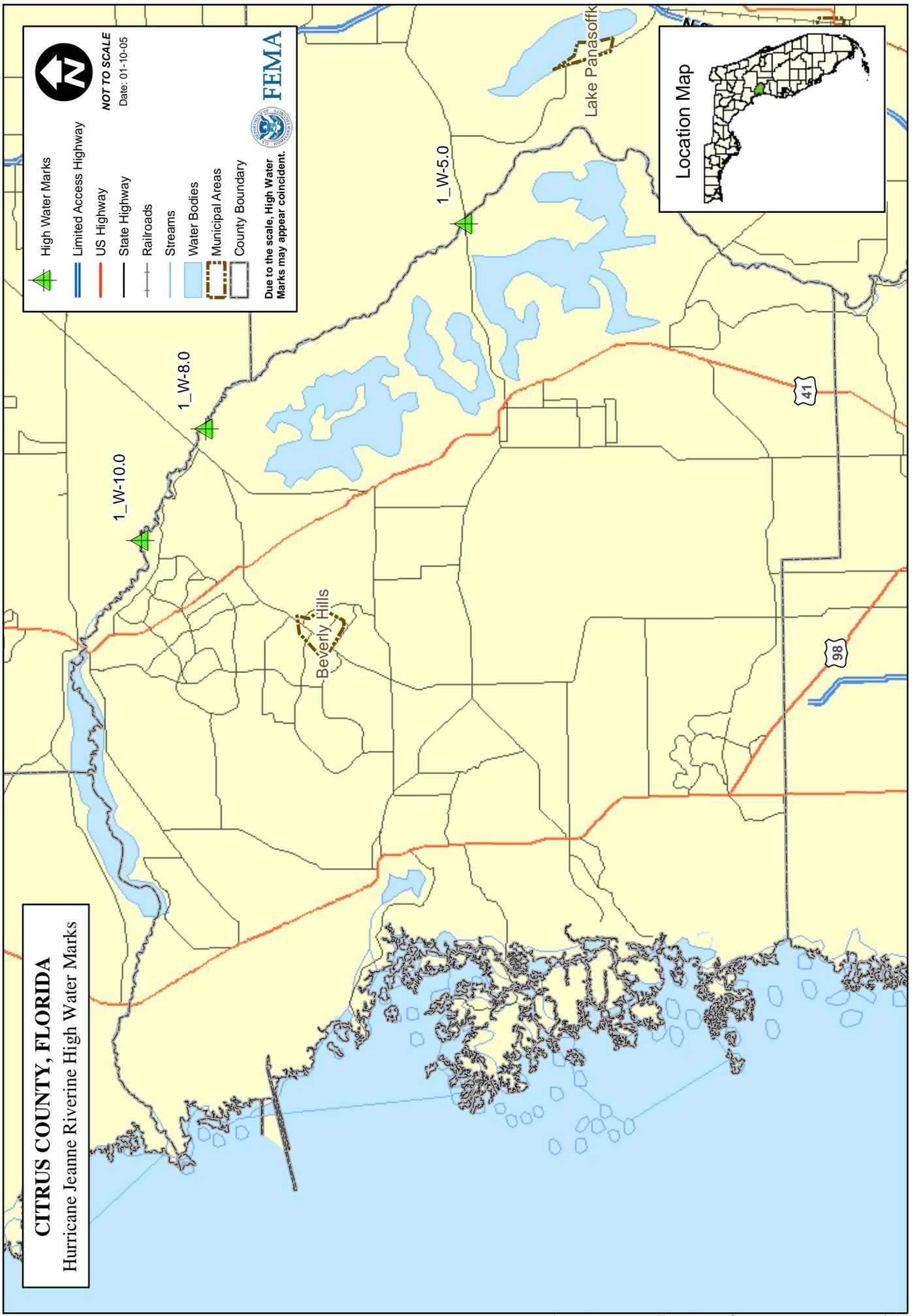
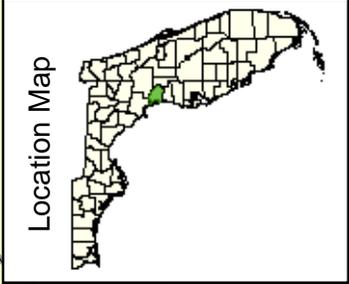
 Water Bodies

 Municipal Areas

 County Boundary



Due to the scale, High Water Marks may appear coincident.





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200630070B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Citr-1

HWM ID: 1_W-10.0 **Type of Mark:** Paint/flagging tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Withlacoochee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 34.1 ft. **NGVD 29:** 34.9 ft. **HWM Object:** Survey stake
Flooding Type: Hurricane
HWM Address: 10463 N. Silverlake Pt.
Location of HWM Object: I-75 N. to SR 200 - go SW to W. Withlacoochee Trail, turn right - take right on Tall Pines Terrace, then an add'l right on Black Forest Rd. - follow down to Silverlake Pt. and make left.
HWM Type: Water line
Closest Municipality: Dunnellon **County:** Citrus **State:** FL
Name of Flagger/Interviewer: Shelly E. Brooks **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: MR, RL, BH **Survey Company:** PBS&J
Survey Date: 11/16/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 160770 **Easting (feet):** 527459
Survey Latitude: 29.01645 **Northing (Meters):** 518920 **Northing (feet):** 1702490
Survey Longitude: 82.40270 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

W-10.0

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200630300B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Citr-2

HWM ID: 1_W-5.0 **Type of Mark:** Paint/flagging tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Withlacoochee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 40.4 ft. **NGVD 29:** 41.3 ft. **HWM Object:** Survey stake
Flooding Type: Hurricane
HWM Address: SR 44 north at Withlacoochee River Bridge
Location of HWM Object: I-75 N. to SR 44 - go W. At intersection of Withlacoochee River on N. side of SR 44 is trailer park. Stake is located to E. side near the river.
HWM Type: Water line
Closest Municipality: Webster **County:** Citrus **State:** FL
Name of Flagger/Interviewer: Shelly E. Brooks **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: MR, RL, BH **Survey Company:** PBS&J
Survey Date: 11/17/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Survey Latitude: 28.85176 **Easting (Meters):** 178180 **Easting (feet):** 584577
Survey Longitude: 82.22363 **Northing (Meters):** 500621 **Northing (feet):** 1642456
Approx. First Floor Elevation: Not Applicable

Comments:
None Noted



W-5.0

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1204220250B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Citr-3

HWM ID: 1_W-8.0 **Type of Mark:** Nail/paint/flagging tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Withlacoochee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 37.9 ft. **NGVD 29:** 38.8 ft. **HWM Object:** Tree
Flooding Type: Hurricane
HWM Address: River Road at Withlacoochee River Bridge
Location of HWM Object: I-75 N. to SR 200 - go SW to Stokes Ferry Rd., turn left. Follow around until River Rd. HWM is on tree at bend in River Rd. just past Spoor Cr.
HWM Type: Water line
Closest Municipality: Hernando **County:** Citrus **State:** FL
Name of Flagger/Interviewer: Shelly E. Brooks **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: MR, RL, BH **Survey Company:** PBS&J
Survey Date: 11/16/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 166932 **Easting (feet):** 547675
Survey Latitude: 28.98333 **Northing (Meters):** 515230 **Northing (feet):** 1690384
Survey Longitude: 82.33934 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



W-8.0

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix C: Columbia County Data Sheets and Location Map

COLUMBIA COUNTY, FLORIDA

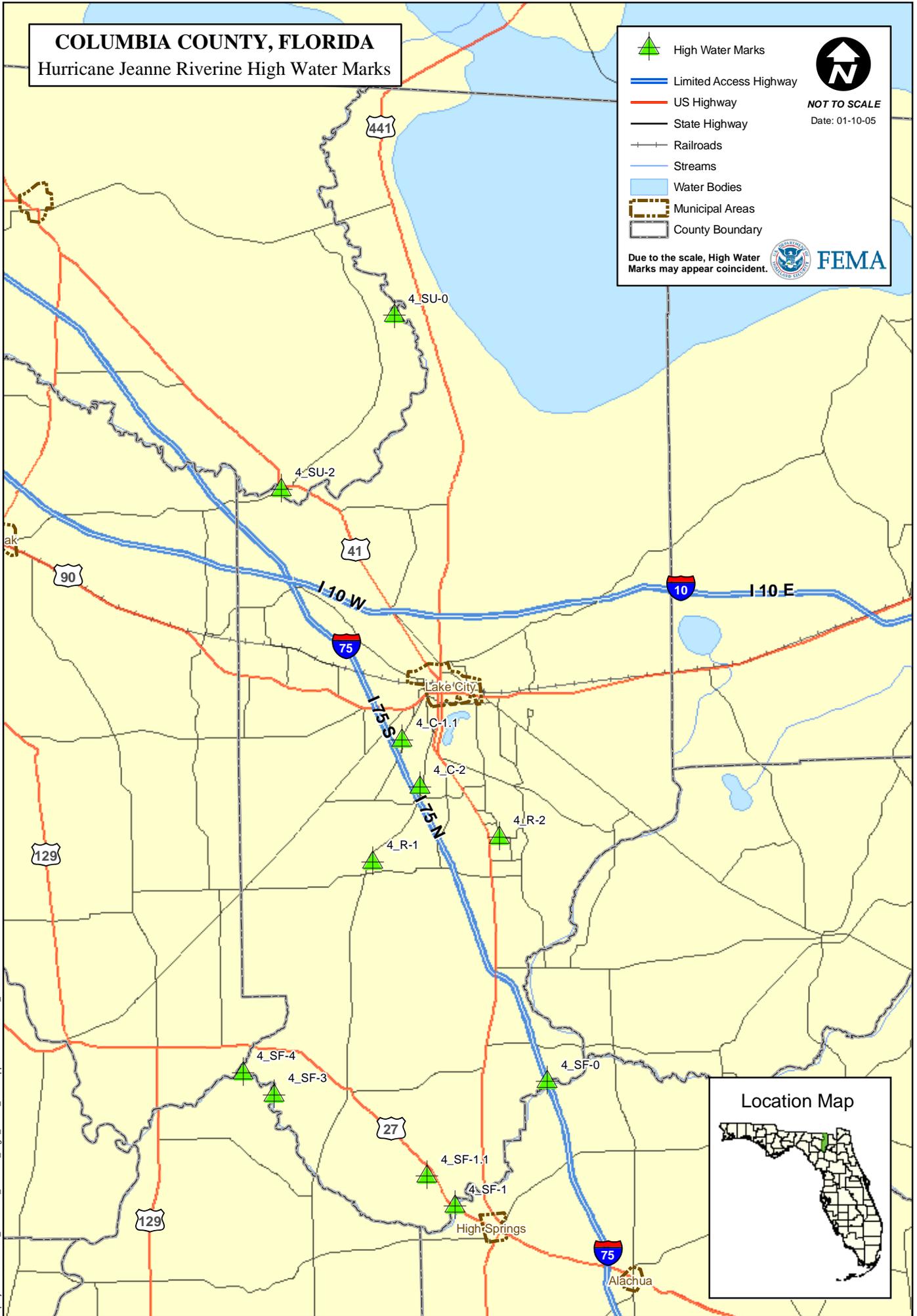
Hurricane Jeanne Riverine High Water Marks

-  High Water Marks
-  Limited Access Highway
-  US Highway
-  State Highway
-  Railroads
-  Streams
-  Water Bodies
-  Municipal Areas
-  County Boundary


NOT TO SCALE
 Date: 01-10-05



Due to the scale, High Water Marks may appear coincident.



H:\projects\15702334 - Hurricane Riverine_High_Water_Mark\Applications\Jeanne_Porrait.mxd



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700175B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-1

HWM ID: 4_C-1.1 **Type of Mark:** Ribbon tied around pole
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Cannon Creek **Quality of Mark:** Fair
Survey Elevation (NAVD 88): 125.6 ft. **NGVD 29:** 126.4 ft. **HWM Object:** Fence Pole
Flooding Type: Hurricane
HWM Address: Intersection of SW Sisters Welcome Rd. & Boone Gln
Location of HWM Object: From I-75; N. on CR 47 to left on Business Ppoint Dr. to rt. on SW Sisters Welcome Rd. to left on Boone Gln; marker is on fence post corner at intersection of rds.
HWM Type: Water line/debris on pole
Closest Municipality: Lake City **County:** Columbia **State:** FL
Name of Flagger/Interviewer: Jeff Henninger **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/19/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 12/9/04
Survey Projection: FLORIDA NORTH (0903) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 776458 **Easting (feet):** 2547428
Survey Latitude: 30.15828 **Northing (Meters):** 129810 **Northing (feet):** 425886
Survey Longitude: 82.66808 **Approx. First Floor Elevation:** 130.0

Comments:

Could not locate C-1 site. Could not tell if mark was from Frances or Jeanne.



C-1.1_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700175B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-2

HWM ID	4_C-2	Type of Mark:	Stake/paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Cannon Creek	Quality of Mark:	Good
Survey Elevation (NAVD 88):	76.0 ft.	NGVD 29:	76.9 ft.
Flooding Type:	Hurricane	HWM Object:	Survey stake
HWM Address:	Buisness Point Dr. at Cannon Creek Bridge		
Location of HWM Object	From I-75 to N. on SW SR 47 to left on Business Point Dr.; creek is approx. 70 yds from turn; mark is on left (N.) side of rd. next to creek concrete headwall.		
HWM Type:	Debris line		
Closest Municipality:	Lake City	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/9/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	777800
		Easting (feet):	2551833
Survey Latitude:	30.12671	Northing (Meters):	126332
		Northing (feet):	414473
Survey Longitude:	82.65472	Approx. First Floor Elevation:	Not Applicable

Comments:

Not positive mark is for Jeanne or Frances.



C-2_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700175B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-3

HWM ID	4_R-1	Type of Mark:	Stake in ground
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Rose Creek	Quality of Mark:	Fair
Survey Elevation (NAVD 88):	55.1 ft.	NGVD 29:	55.9 ft.
Flooding Type:	Hurricane	HWM Object:	Stake
HWM Address:	346 SW Brookwood Drive		
Location of HWM Object	North on CR 47 to rt. on Brookwood Dr.; residence 346 SW Brookwood Dr. is on rt. after crossing Rose Creek; Frances mark is on residence free standing garage - rt. side of garage door; Jeanne mark is in woods to rt. of driveway and marked with flags in trees & paint.		
HWM Type:	Debris line		
Closest Municipality:	Lake City	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/10/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	774319
		Easting (feet):	2540411
Survey Latitude:	30.07655	Northing (Meters):	120715
		Northing (feet):	396047
Survey Longitude:	82.69177	Approx. First Floor Elevation:	53.7

Comments:

Witness showed me both marks; Frances mark was much better (water line inside garage was visible).



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

R-1_2

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 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700200B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-4

HWM ID	4_R-2	Type of Mark:	Stake
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Rose Creek	Quality of Mark:	Good
Survey Elevation (NAVD 88):	95.9 ft.	NGVD 29:	96.7 ft.
Survey Elevation (NAVD 88):	95.9 ft.	HWM Object:	Ground
Flooding Type:	Hurricane		
HWM Address:	7113 SE Country Club Rd.		
Location of HWM Object	Southeast on CR 245 to rt. on SE Hopeful Dr. to rt. on SE April Lane to rt. on SE Country Club Rd. - mark is on edge of rd. approx. 50 yds from intersection (turn); pavement is marked with paint at mark.		
HWM Type:	Debris line		
Closest Municipality:	Lake City	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/8/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	783777
		Easting (feet):	2571442
Survey Latitude:	30.09223	Northing (Meters):	122607
		Northing (feet):	402254
Survey Longitude:	82.59335	Approx. First Floor Elevation:	Not Applicable

Comments:

Woman said previous mark on residences mailbox was higher (from Frances) than during Jeanne. Note, previous mark was still there on mailbox. Witness said water did cross road but wasn't as high as during Frances.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

R-2_1

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700280B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-5

HWM ID	4_SF-0	Type of Mark:	Stake/paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Santa Fe River	Quality of Mark:	Fair
Survey Elevation (NAVD 88):	47.5 ft.	NGVD 29:	48.3 ft.
Flooding Type:	Hurricane	HWM Object:	Ground
HWM Address:	I-75 at Santa Fe River Bridge		
Location of HWM Object	South I-75 to bridge; cross bridge over Santa Fe; marker is located on W. side (rt) of I-75 approx. 50 ft. W. down embankment off of SW corner of bridge.		
HWM Type:	Debris/bent grass line		
Closest Municipality:	High Springs	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/8/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	787434
		Easting (feet):	2583441
Survey Latitude:	29.92722	Northing (Meters):	104375
		Northing (feet):	342438
Survey Longitude:	82.55864	Approx. First Floor Elevation:	Not Applicable

Comments:

Located 50 ft. W. of SW corner of bridge.



SF-0_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700270B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-6

HWM ID	4_SF-1	Type of Mark:	Stake
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Santa Fe River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	36.8 ft.	NGVD 29:	37.6 ft.
Flooding Type:	Hurricane	HWM Object:	Ground
HWM Address:	US 27 at Santa Fe River Bridge		
Location of HWM Object	From High Springs, N. on US 27 to bridge over Santa Fe River, cross bridge; marker is at boat ramp located NE of bridge; on N. side of boat ramp approx. 25 yds from parking lot.		
HWM Type:	Debris line		
Closest Municipality:	High Springs	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/29/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	780599
		Easting (feet):	2561015
Survey Latitude:	29.84418	Northing (Meters):	95056
		Northing (feet):	311862
Survey Longitude:	82.63100	Approx. First Floor Elevation:	Not Applicable

Comments:

Located approx. 6' 10" N. of tree and 2" W. of tree. Tree is dead and cut off at approx. 20' high.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SF-1_1

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 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700270B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-7

HWM ID	4_SF-1.1	Type of Mark:	Stake
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Santa Fe River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	37.1 ft.	NGVD 29:	37.8 ft.
Flooding Type:	Hurricane	HWM Object:	Stake
HWM Address:	720 Bobcat Rd.		
Location of HWM Object	High Springs N. on US 27 to left on CR 138 to 1st rt on Bobcat Rd.; follow rd to low pt. & sharp rt turn up hill; marker is located on left (S) side of rd just before hill		
HWM Type:	Water line		
Closest Municipality:	High Springs	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/30/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	778504
		Easting (feet):	2554143
Survey Latitude:	29.86462	Northing (Meters):	97287
		Northing (feet):	319182
Survey Longitude:	82.65230	Approx. First Floor Elevation:	Not Applicable

Comments:

Witness said a spring had started to flow that hasn't flowed since the 1960's and was flooding Bobcat Rd. Witness said water appears to be still rising.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SF-1.1_1

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700255B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-8

HWM ID: 4_SF-3 **Type of Mark:** Nail/ribbon
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Santa Fe River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 25.9 ft. **NGVD 29:** 26.7 ft. **HWM Object:** Lattice on house
Flooding Type: Hurricane
HWM Address: 598 SW Manatee Terrace
Location of HWM Object: From US 27 S. on Culleen to Ft. White - S. on SW Wilson Springs to rt. on SW Iowa Dr., rt. on Manatee, house on left.
HWM Type: Water line
Closest Municipality: Fort White **County:** Columbia **State:** FL
Name of Flagger/Interviewer: Jeff Henninger **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/15/04
Survey Crew: SH, AL **Survey Company:** PBS&J
Survey Date: 12/30/04
Survey Projection: FLORIDA NORTH (0903) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Survey Latitude: 29.92043 **Easting (Meters):** 767035 **Easting (feet):** 2516513
Survey Longitude: 82.77006 **Northing (Meters):** 103294 **Northing (feet):** 338891
Approx. First Floor Elevation: 31.4

Comments:

Ben says he has all HWM's documented from previous floods.



SF-3_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700255B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-9

HWM ID	4_SF-4	Type of Mark:	Ribbon
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Santa Fe River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	25.2 ft.	NGVD 29:	26.0 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	2497 SW Riverside Ave.		
Location of HWM Object	From Ft. White W. (N.) US 27 to left on SW Riverside Ave; follow to intersection of Riverside & Santa Fe; mark is on left (N.) approx. 10' from rd. and approx. 30 yds before stop sign; pink painted arrow on side of rd. pointing to marked tree.		
HWM Type:	Water line		
Closest Municipality:	Fort White	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	SH, AL	Survey Company:	PBS&J
Survey Date:	12/29/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	764695
		Easting (feet):	2508836
Survey Latitude:	29.93538	Northing (Meters):	104917
		Northing (feet):	344215
Survey Longitude:	82.79404	Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



SF-4_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700060B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-10

HWM ID	4_SU-0	Type of Mark:	Ribbon around tree
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Fair
Survey Elevation (NAVD 88):	94.0 ft.	NGVD 29:	94.9 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	19118 SE 67 Pl.		
Location of HWM Object	North on CR 135 to rt. on SE 182th BL; cross bridge to rt. on SE 67 Pl. - turn left at utility pole with orange ribbon on it; marker is located behind cabin near the water (river).		
HWM Type:	Water mark		
Closest Municipality:	White Springs	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/29/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	775724
		Easting (feet):	2545020
Survey Latitude:	30.44426	Northing (Meters):	161504
Survey Longitude:	82.67042	Northing (feet):	529868
		Approx. First Floor Elevation:	100.7

Comments:

Mark may be from previous events to Jeanne; difficult to tell.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SU-0_1

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200700105B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Colu-11

HWM ID	4_SU-2	Type of Mark:	Paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	80.9 ft.	NGVD 29:	81.7 ft.
Flooding Type:	Hurricane	HWM Object:	Bridge embankment
HWM Address:	CR 136 at Suwannee River Bridge		
Location of HWM Object	From I-75; W. on CR 136 to bridge over Suwannee; marker is before bridge (W.) and on rt. (S.) on concrete embankment of bridge.		
HWM Type:	Debris/veg. line		
Closest Municipality:	White Springs	County:	Columbia
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/13/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	767322
		Easting (feet):	2517455
Survey Latitude:	30.32770	Northing (Meters):	148449
Survey Longitude:	82.75995	Northing (feet):	487036
		Approx. First Floor Elevation:	Not Applicable

Comments:

4'3" from line to bottom of concrete embankment. Hard to tell if mark was from recent (Jeanne flooding) or from past hurricanes.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SU-2_1

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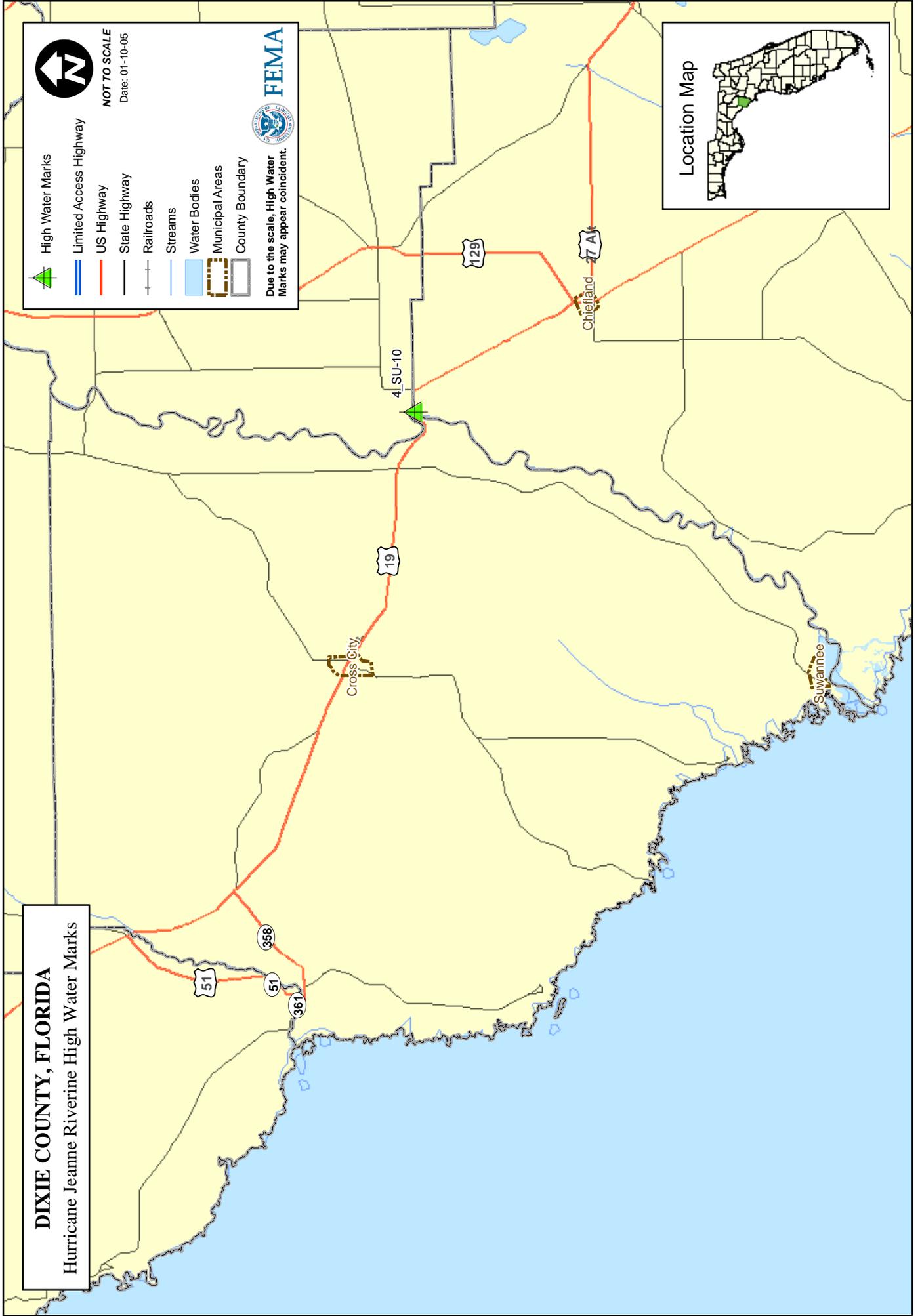
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix D: Dixie County Data Sheets and Location Map

DIXIE COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1203360330B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Dixi-1

HWM ID	4_SU-10	Type of Mark:	Nail & ribbon
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	13.4 ft.	NGVD 29:	14.1 ft.
Survey Elevation (NAVD 88):	13.4 ft.	HWM Object:	Fence post
Flooding Type:	Hurricane		
HWM Address:	SE 989 St.		
Location of HWM Object	From Fanning Springs headed W.; take US 19 Hwy W. across bridge over Suwannee River; take 1st rt. onto SE 989 St.; marker is on fence post on white fence approx. 80 yds on left after turn on SE 989 St.; also flagged a branch to help locate.		
HWM Type:	Water line		
Closest Municipality:	Fanning Springs	County:	Dixie
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	SH, AL	Survey Company:	PBS&J
Survey Date:	12/27/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	751125
		Easting (feet):	2464316
Survey Latitude:	29.59019	Northing (Meters):	66455
		Northing (feet):	218028
Survey Longitude:	82.94003	Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SU-10_1

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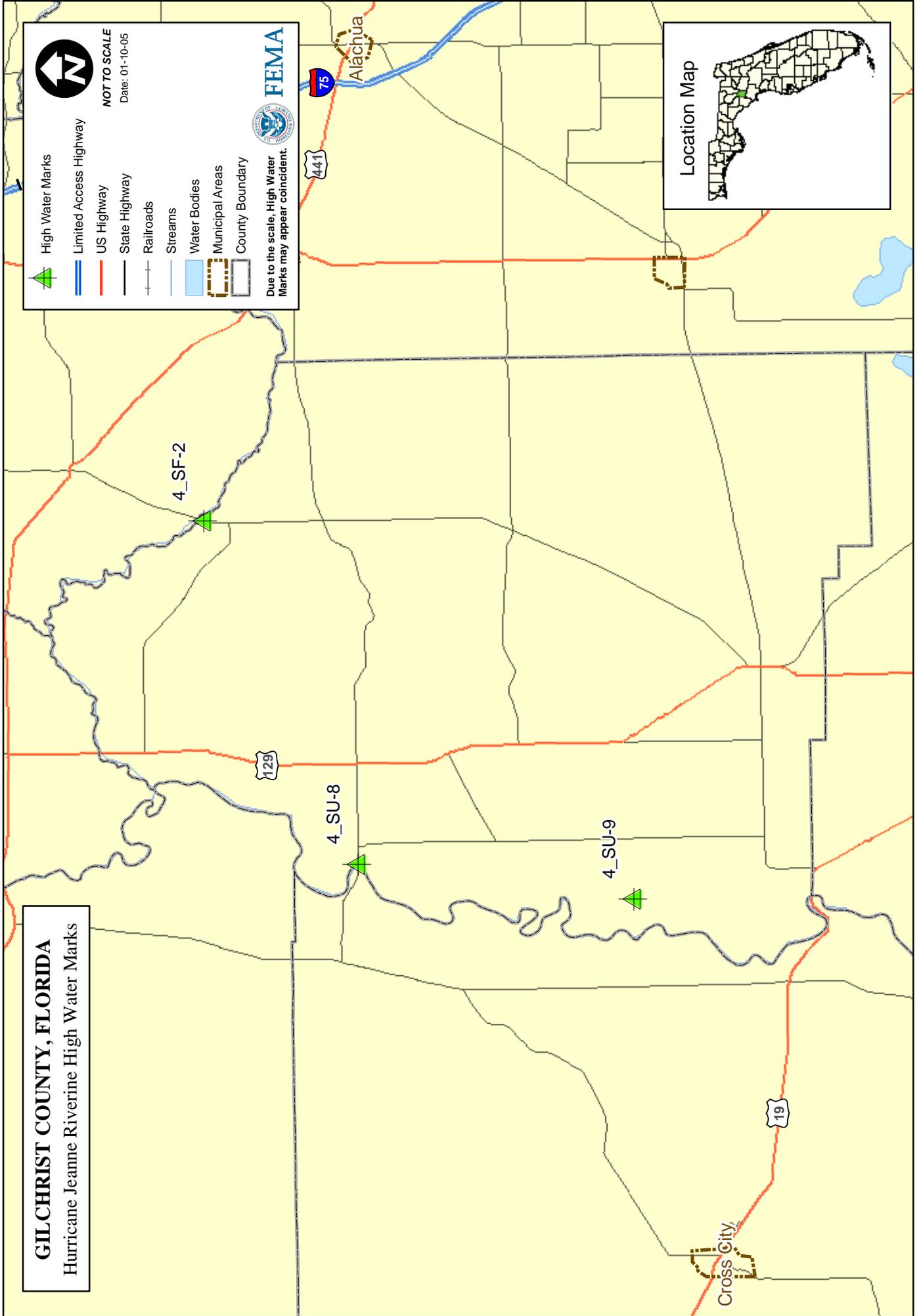
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix E: Gilchrist County Data Sheets and Location Map

GILCHRIST COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12041C0080C **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Gilc-1

HWM ID: 4_SF-2 **Type of Mark:** Nail & tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Santa Fe River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 27.7 ft. **NGVD 29:** 28.4 ft. **HWM Object:** Wooden pole
Flooding Type: Hurricane
HWM Address: SR 47 at Santa Fe River Bridge
Location of HWM Object: South on CR 47; cross bridge into Gilcrest Co; enter Santa Fe River Park on left; marker is located on 6th pole on rt. entering park (guard rail along rd. - marker on 2nd pole is from previous hurricane).
HWM Type: Water line on guard rail pole
Closest Municipality: High Springs **County:** Gilchrist **State:** FL
Name of Flagger/Interviewer: Jeff Henninger **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/15/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 12/30/04
Survey Projection: FLORIDA NORTH (0903) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 770018 **Easting (feet):** 2526301
Survey Latitude: 29.86345 **Northing (Meters):** 97024 **Northing (feet):** 318319
Survey Longitude: 82.74017 **Approx. First Floor Elevation:** Not Applicable

Comments:

Previous marker still at site; do not confuse with new.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SF-2_1

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12041C0045C **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Gilc-2

HWM ID	4_SU-8	Type of Mark:	Stake/paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	21.8 ft. NGVD 29: 22.5 ft.	HWM Object:	Ground
Flooding Type:	Hurricane		
HWM Address:	NW 67 Terrace Rd.		
Location of HWM Object	US 129 N. to W. on CR 340 to left on NW 67 Terrace Rd. (just before bridge); marker is adjacent to boat ramp (public) on rt. side; approx. 20 yds down boat ramp.		
HWM Type:	Debris line		
Closest Municipality:	Rock Bluff Springs	County: Gilchrist	State: FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	SH, AL	Survey Company:	PBS&J
Survey Date:	12/28/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum: NAVD 88	Horizontal Datum: NAD83(90)
		Easting (Meters): 752836	Easting (feet): 2469930
Survey Latitude:	29.79533	Northing (Meters): 89220	Northing (feet): 292717
Survey Longitude:	82.91911	Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



SU-8_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12041C0120C **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Gilc-3

HWM ID	4_SU-9	Type of Mark:	Stake/paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	15.8 ft.	NGVD 29:	16.5 ft.
Survey Elevation (NAVD 88):	15.8 ft.	HWM Object:	Ground
Flooding Type:	Hurricane		
HWM Address:	7900 SW CR 344		
Location of HWM Object	From Fanning Springs CR 26 to N. on CR 232 to left (W.) on CR 344; marker is on left side of rd. directly across from residence fence/driveway entrance; marked on pavement also (arrow) 7900 SW CR 344 (O'Grady).		
HWM Type:	Debris line		
Closest Municipality:	Fanning Springs	County:	Gilchrist
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	SH, AL	Survey Company:	PBS&J
Survey Date:	12/28/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	751163
		Easting (feet):	2464440
Survey Latitude:	29.67135	Northing (Meters):	75453
Survey Longitude:	82.93837	Northing (feet):	247549
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SU-9_1

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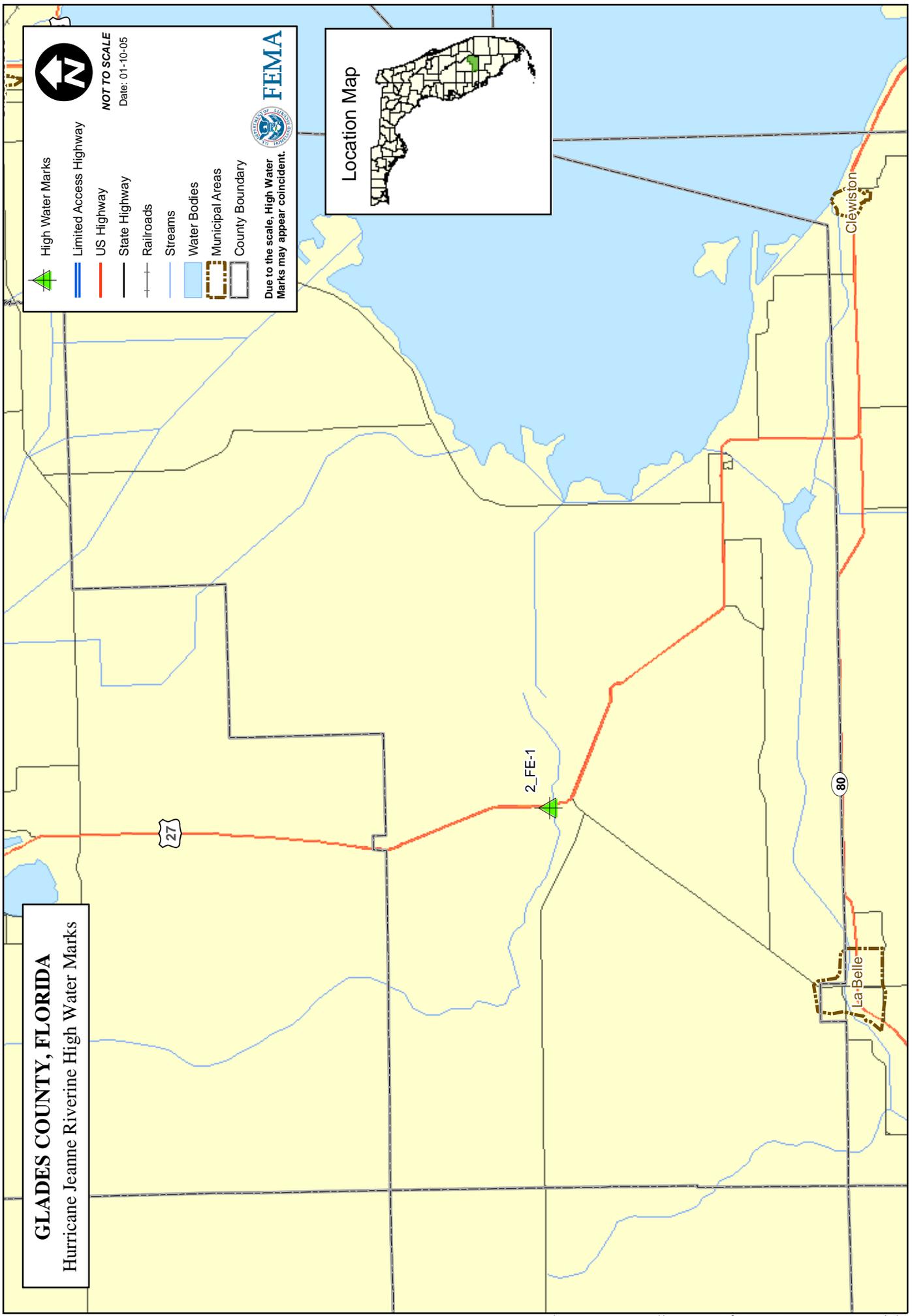
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix F: Glades County Data Sheets and Location Map

GLADES COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks



NOT TO SCALE
Date: 01-10-05

- High Water Marks
- Limited Access Highway
- US Highway
- State Highway
- Railroads
- Streams
- Water Bodies
- Municipal Areas
- County Boundary



Due to the scale, High Water Marks may appear coincident.

Location Map



2_FE-1

27

80

La Belle

Clewiston



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1200950200B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Glad-1

HWM ID: 2_FE-1 **Type of Mark:** Nail/orange paint/tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Fisheating Creek **Quality of Mark:** Good
Survey Elevation (NAVD 88): 35.1 ft. **NGVD 29:** 36.2 ft. **HWM Object:** Tree
Flooding Type: Hurricane
HWM Address: Fisheating Creek Campground, near US 27 bridge
Location of HWM Object: Enter campground off US 27 (N. of bridge) cross RR track - marker near camp store.

HWM Type: Water line
Closest Municipality: Palmdale **County:** Glades **State:** FL

Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04

Survey Crew: MR, JC, WR **Survey Company:** PBS&J
Survey Date: 12/1/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 267745 **Easting (feet):** 878428
Survey Latitude: 26.93727 **Northing (Meters):** 288637 **Northing (feet):** 946968
Survey Longitude: 81.31781 **Approx. First Floor Elevation:** Not Applicable

Comments:

Contact stated that water level higher after Jeanne than after Frances.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

FE-1_2

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 PBS & J License Business 24
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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix G: Hamilton County Data Sheets and Location Map

HAMILTON COUNTY, FLORIDA
Hurricane Jeanne Riverine High Water Marks

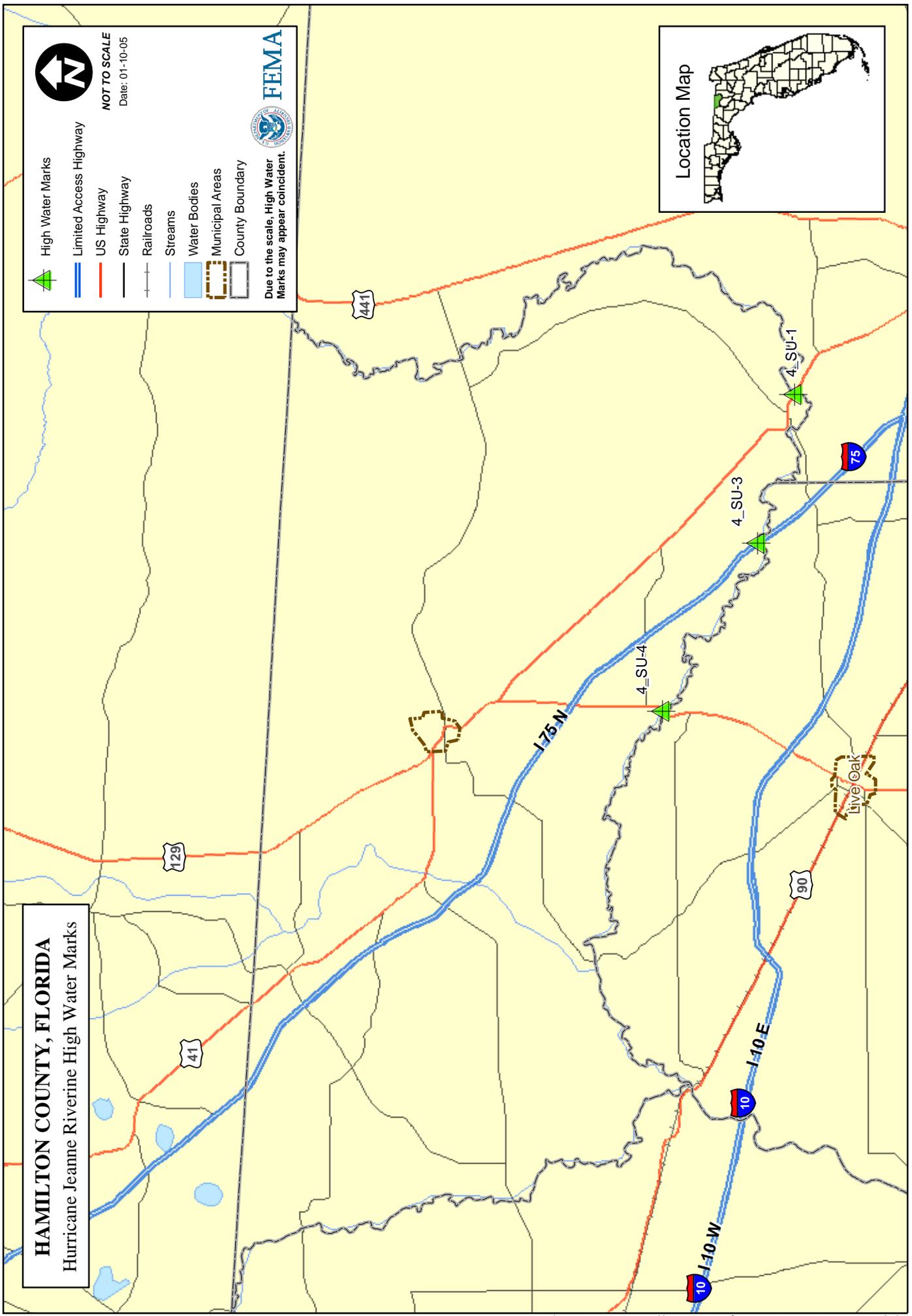
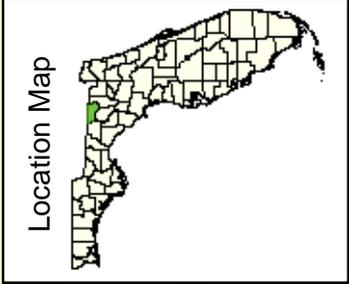


NOT TO SCALE
 Date: 01-10-05

-  High Water Marks
-  Limited Access Highway
-  US Highway
-  State Highway
-  Railroads
-  Streams
-  Water Bodies
-  Municipal Areas
-  County Boundary



 Due to the scale, High Water Marks may appear coincident.





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12047C0280B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hami-1

HWM ID	4_SU-1	Type of Mark:	Ribbon
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	74.9 ft.	NGVD 29:	75.8 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	US 41 at Suwannee River Bridge		
Location of HWM Object	From White Springs; S. on US 41 to bridge; just before bridge take rt. into park/boat ramp; marker is located on rt. of boat ramp (where road v's).		
HWM Type:	Water line		
Closest Municipality:	White Springs	County:	Hamilton
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/13/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	769295
		Easting (feet):	2523928
Survey Latitude:	30.32606	Northing (Meters):	148298
		Northing (feet):	486541
Survey Longitude:	82.73946	Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



SU-1_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12047C0260B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hami-2

HWM ID: 4_SU-3 **Type of Mark:** Nail & ribbon
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Suwannee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 78.1 ft. **NGVD 29:** 78.8 ft. **HWM Object:** Wooden steps over fence
Flooding Type: Hurricane
HWM Address: I-75 at Suwannee River Bridge
Location of HWM Object: White Springs to I-75 N. to bridge over Suwannee River; cross bridge; marker is on rt. (E.) of I-75 approx. 35 yds directly E. of N. bound I-75 bridge corner.
HWM Type: Water line
Closest Municipality: White Springs **County:** Hamilton **State:** FL
Name of Flagger/Interviewer: Jeff Henninger **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 12/13/04
Survey Projection: FLORIDA NORTH (0903) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 760297 **Easting (feet):** 2494409
Survey Latitude: 30.34693 **Northing (Meters):** 150477 **Northing (feet):** 493689
Survey Longitude: 82.83268 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



SU-3_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12047C0195B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hami-3

HWM ID	4_SU-4	Type of Mark:	Ribbon/paint line
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	70.3 ft.	NGVD 29:	71.0 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	US 129 at Suwannee River Bridge		
Location of HWM Object	From Live Oak; US 129 N. to Suwannee River Bridge; go across bridge & marker is on left side of bridge (NW corner); marker is down embankment of US 129 approx. 40 yds from corner of bridge.		
HWM Type:	Water line		
Closest Municipality:	Suwannee Springs	County:	Hamilton
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/14/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	750182
		Easting (feet):	2461222
Survey Latitude:	30.39919	Northing (Meters):	156127
Survey Longitude:	82.93708	Northing (feet):	512226
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



SU-4_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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 PBS & J License Business 24
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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix H: Hardee County Data Sheets and Location Map

HARDEE COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks

 **NOT TO SCALE**
Date: 01-10-05

 High Water Marks

 Limited Access Highway

 US Highway

 State Highway

 Railroads

 Streams

 Water Bodies

 Municipal Areas

 County Boundary

 **FEMA**

 **STATE OF FLORIDA**

Due to the scale, High Water Marks may appear coincident.

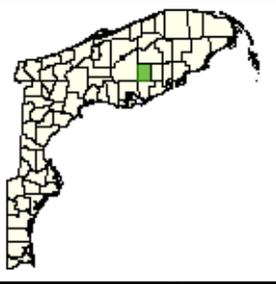
2_PR-5

Wauchuja

2_PR-6

17

Location Map





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12049C0195C **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hard-1

HWM ID	2_PR-5	Type of Mark:	Nail/tape/stake
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Peace River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	53.5 ft.	NGVD 29:	54.5 ft.
Survey Elevation (NAVD 88):	53.5 ft.	HWM Object:	Power pole
Flooding Type:	Hurricane		
HWM Address:	CR 636 at Peace River Bridge		
Location of HWM Object	CR 636 E. of town, N. of road at park - adj. to picnic shelters, S. of sliding board & restroom.		
HWM Type:	None Noted		
Closest Municipality:	Wauchula	County:	Hardee
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	MR, JC	Survey Company:	PBS&J
Survey Date:	12/2/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	220275
		Easting (feet):	722685
Survey Latitude:	27.55101	Northing (Meters):	356474
Survey Longitude:	81.79471	Northing (feet):	1169532
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PR-5_1

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12049C0195C **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hard-2

HWM ID: 2_PR-6 **Type of Mark:** Nail
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Peace River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 50.5 ft. **NGVD 29:** 51.5 ft. **HWM Object:** 4"x4" post
Flooding Type: Hurricane
HWM Address: US 17 at Peace River Bridge
Location of HWM Object: South of intersection of Gopher Lane & Main Rd. on east side of road. Orange stake & flagging with nail in base of 4x4.
HWM Type: Water line/interview with owner
Closest Municipality: Zolfo Springs **County:** Hardee **State:** FL
Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: MR, JC **Survey Company:** PBS&J
Survey Date: 12/2/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 219732 **Easting (feet):** 720904
Survey Latitude: 27.50554 **Northing (Meters):** 351434 **Northing (feet):** 1152996
Survey Longitude: 81.80029 **Approx. First Floor Elevation:** Not Applicable

Comments:
Check in at office before proceeding.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PR-6_1

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PBS & J License Business 24
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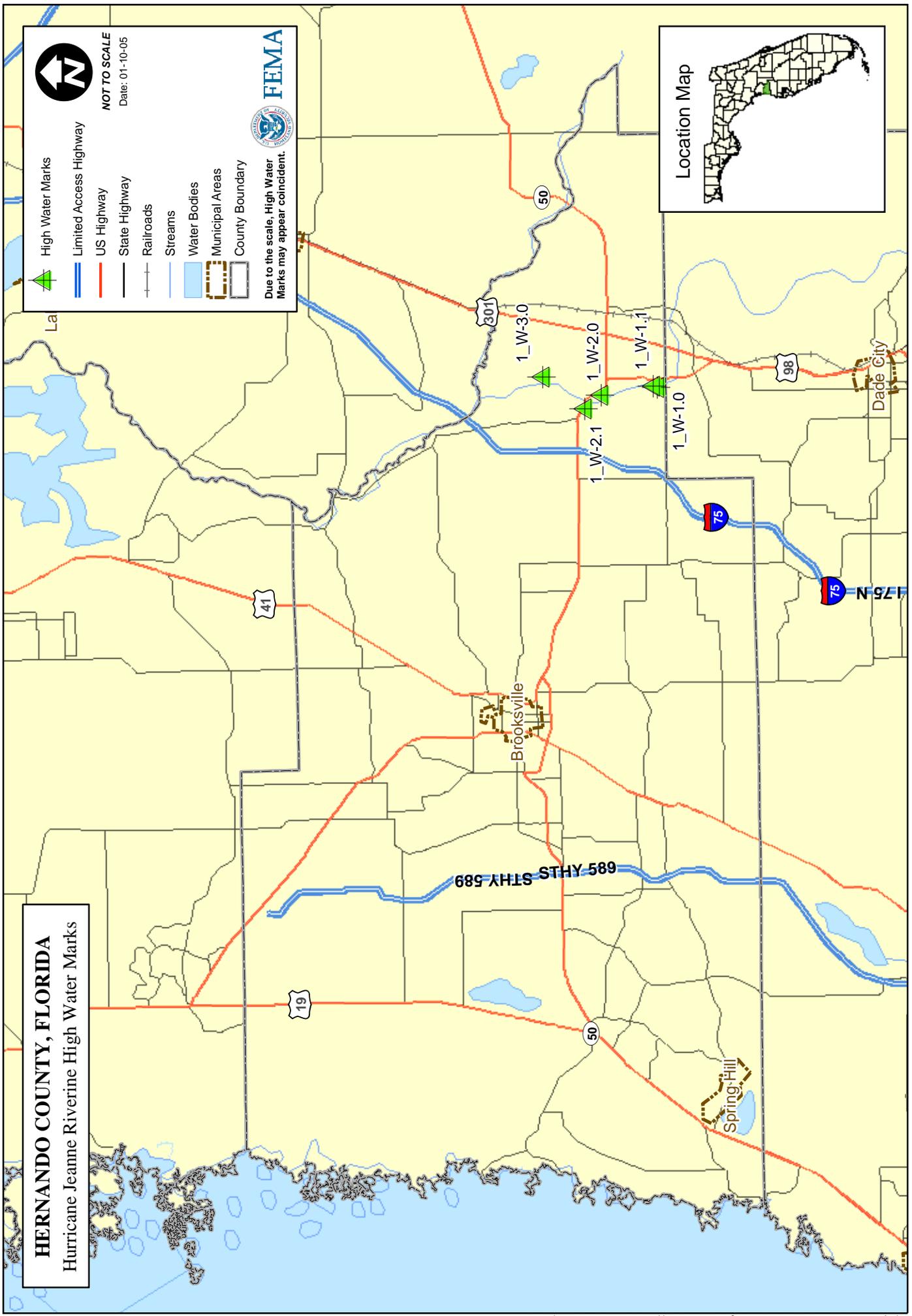
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix I: Hernando County Data Sheets and Location Map

HERNANDO COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201100375B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hern-1

HWM ID	1_W-1.0	Type of Mark:	Paint on street sign
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Withlacoochee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	64.0 ft.	NGVD 29:	64.8 ft.
Flooding Type:	Hurricane	HWM Object:	Street sign
HWM Address:	3288 Park Dr.		
Location of HWM Object	US 98 S. to Paulette Blvd., turn right. Make 1st right and then left on Cedonia Rd. Take Cedonia Rd. to intersection of Cedonia and Park Dr.		
HWM Type:	Water/Mud line		
Closest Municipality:	Dade City	County:	Hernando
		State:	FL
Name of Flagger/Interviewer:	Shelly E. Brooks	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	MR, RL, BH	Survey Company:	PBS&J
Survey Date:	11/17/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	180322
		Easting (feet):	591606
Survey Latitude:	28.48230	Northing (Meters):	459673
Survey Longitude:	82.20097	Northing (feet):	1508109
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

W-1.0

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 PBS & J License Business 24
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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201100375B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hern-2

HWM ID: 1_W-1.1 **Type of Mark:** Nail/paint/flagging tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Withlacoochee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 64.1 ft. **NGVD 29:** 65.0 ft. **HWM Object:** Power Pole
Flooding Type: Hurricane
HWM Address: 3383 Riderwood Dr.
Location of HWM Object: US 98 S. to Paulette Blvd., turn right. Make 1st right and then left on Cedonia Rd. Take Cedonia Rd. to Riderwood and take a left.
HWM Type: Water/Mud line
Closest Municipality: Dade City **County:** Hernando **State:** FL
Name of Flagger/Interviewer: Shelly E. Brooks **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/15/04
Survey Crew: MR, RL, BH **Survey Company:** PBS&J
Survey Date: 11/17/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Survey Latitude: 28.48451 **Easting (Meters):** 180413 **Easting (feet):** 591904
Survey Longitude: 82.20005 **Northing (Meters):** 459917 **Northing (feet):** 1508912
Approx. First Floor Elevation: Not Applicable

Comments:
None Noted



W-1.1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201100225B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hern-3

HWM ID	1_W-2.0	Type of Mark:	Paint/flagging tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Withlacoochee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	60.5 ft.	NGVD 29:	61.3 ft.
Flooding Type:	Hurricane	HWM Object:	Fence
HWM Address:	5301 Olivet Dr.		
Location of HWM Object	I-75 N. to SR 50 - take SR 50 E. to Olivet Dr. - turn right.		
HWM Type:	Water/Mud line		
Closest Municipality:	Dade City	County:	Hernando
		State:	FL
Name of Flagger/Interviewer:	Shelly E. Brooks	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	MR, RL, BH	Survey Company:	PBS&J
Survey Date:	11/17/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	179941
		Easting (feet):	590356
Survey Latitude:	28.51076	Northing (Meters):	462827
Survey Longitude:	82.20492	Northing (feet):	1518459
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

W-2.0

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 PBS & J License Business 24
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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201100225B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hern-4

HWM ID: 1_W-2.1 **Type of Mark:** Paint/flagging tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Withlacoochee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 58.9 ft. **NGVD 29:** 59.7 ft. **HWM Object:** Speed Limit sign
Flooding Type: Hurricane
HWM Address: Cyril Dr.
Location of HWM Object: I-75 N. to SR 50 - take SR 50 E. to Cyril Dr. - turn right on Cyril Dr.

HWM Type: Water/Mud line
Closest Municipality: Dade City **County:** Hernando **State:** FL

Name of Flagger/Interviewer: Shelly E. Brooks **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/15/04

Survey Crew: MR, RL, BH **Survey Company:** PBS&J
Survey Date: 11/17/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 179180 **Easting (feet):** 587859
Survey Latitude: 28.51928 **Northing (Meters):** 463773 **Northing (feet):** 1521561
Survey Longitude: 82.21271 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

W-2.1

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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201100225B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Hern-5

HWM ID	1_W-3.0	Type of Mark:	Nail/paint/flagging tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Withlacoochee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	55.7 ft.	NGVD 29:	56.6 ft.
Survey Elevation (NAVD 88):	55.7 ft.	HWM Object:	Utility pole
Flooding Type:	Hurricane		
HWM Address:	7371 Canal St.		
Location of HWM Object	I-75 N. to SR 50 - take SR 50 E. to US 301, turn left - make right onto Richardson Blvd. and take to Cackleberry Dr., make left - make 1st right onto Canal St.		
HWM Type:	Water/Mud line		
Closest Municipality:	Webster	County:	Hernando
		State:	FL
Name of Flagger/Interviewer:	Shelly E. Brooks	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	MR, RL, BH	Survey Company:	PBS&J
Survey Date:	11/17/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	181021
		Easting (feet):	593898
Survey Latitude:	28.54021	Northing (Meters):	466089
Survey Longitude:	82.19394	Northing (feet):	1529162
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



W-3.0

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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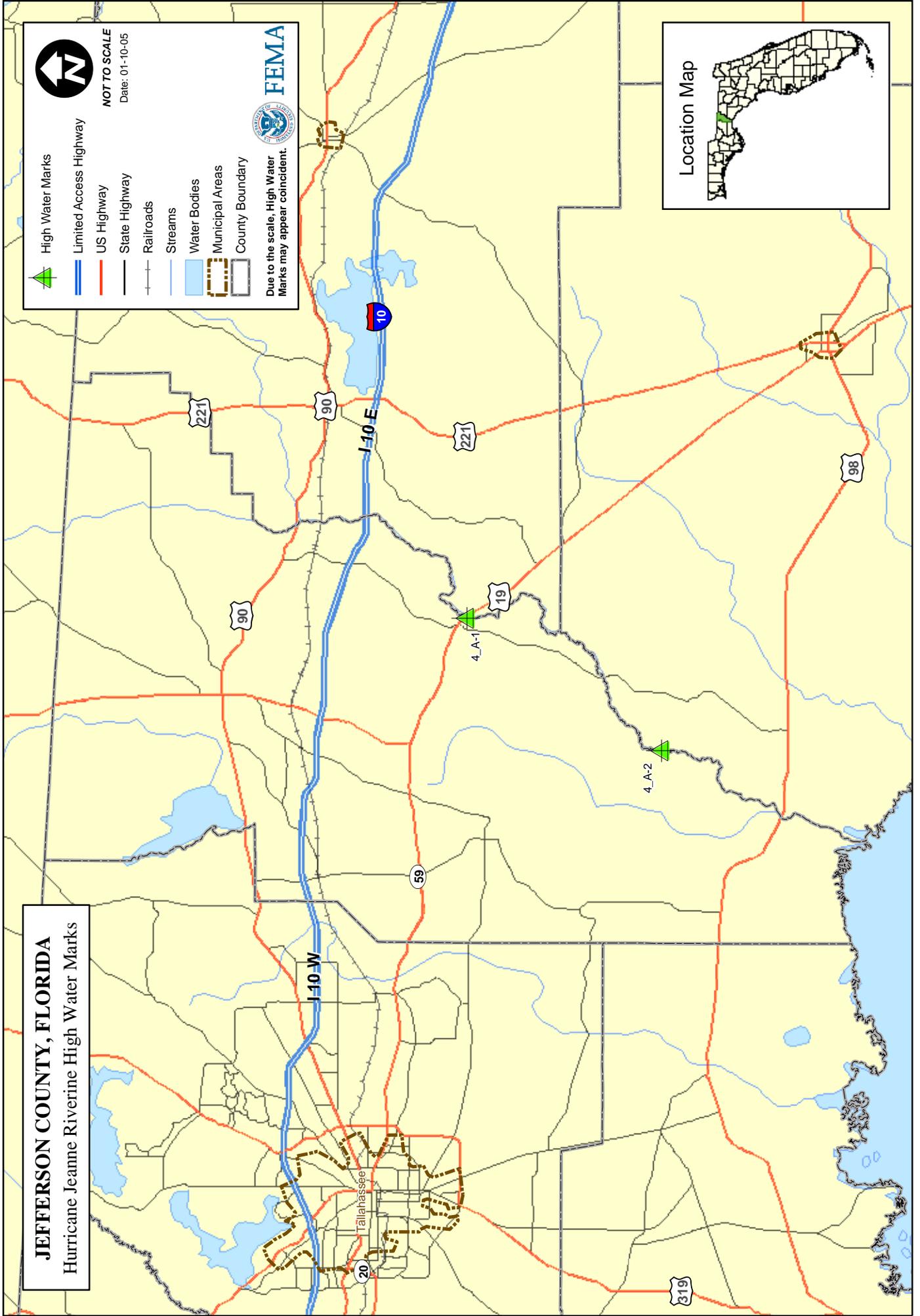
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix J: Jefferson County Data Sheets and Location Map

JEFFERSON COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1203310250B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Jeff-1

HWM ID	4_A-1	Type of Mark:	Paint		
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004		
Stream Name/Flood Source:	Aucilla River	Quality of Mark:	Good		
Survey Elevation (NAVD 88):	56.8 ft.	NGVD 29:	57.5 ft.	HWM Object:	Concrete column
Flooding Type:	Hurricane				
HWM Address:	US 27 at Aucilla River Bridge				
Location of HWM Object	From Lamont; S. on US 27 to access road just before bridge over Aucilla River (right).				
HWM Type:	Water stain/line				
Closest Municipality:	Lamont	County:	Jefferson	State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation		
Date of Flagging/Interview:	10/20/04				
Survey Crew:	GMB, CDR	Survey Company:	PBS&J		
Survey Date:	12/16/04				
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88	Horizontal Datum:	NAD83(90)
		Easting (Meters):	666560	Easting (feet):	2186872
Survey Latitude:	30.37086	Northing (Meters):	152159	Northing (feet):	499208
Survey Longitude:	83.80754	Approx. First Floor Elevation:	Not Applicable		

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

A-1_1

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PBS & J License Business 24
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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1203020125B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Jeff-2

HWM ID	4_A-2	Type of Mark:	Painted line
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Aucilla River	Quality of Mark:	Fair
Survey Elevation (NAVD 88):	21.7 ft.	NGVD 29:	22.3 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	O'neal side road at Aucilla River Bridgw		
Location of HWM Object	East US 98 to 2nd left after crossing Aucilla River; left on Power Line Rd.; rt. before river - follow dirt rd. closest to river; when rd. dead ends at river; take rt. on rd. with arrow pointing to river access pt # 37; follow rd. until it almost u-turns; mark is on rt. side of rd.		
HWM Type:	Water line on tree		
Closest Municipality:	Cabbage Grove	County:	Jefferson
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/20/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/16/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	656118
		Easting (feet):	2152613
Survey Latitude:	30.23214	Northing (Meters):	136723
		Northing (feet):	448567
Survey Longitude:	83.91699	Approx. First Floor Elevation:	Not Applicable

Comments:

Use GPS; very difficult to give directions, all adjacent roads are unidentified.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

A-2_1

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 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

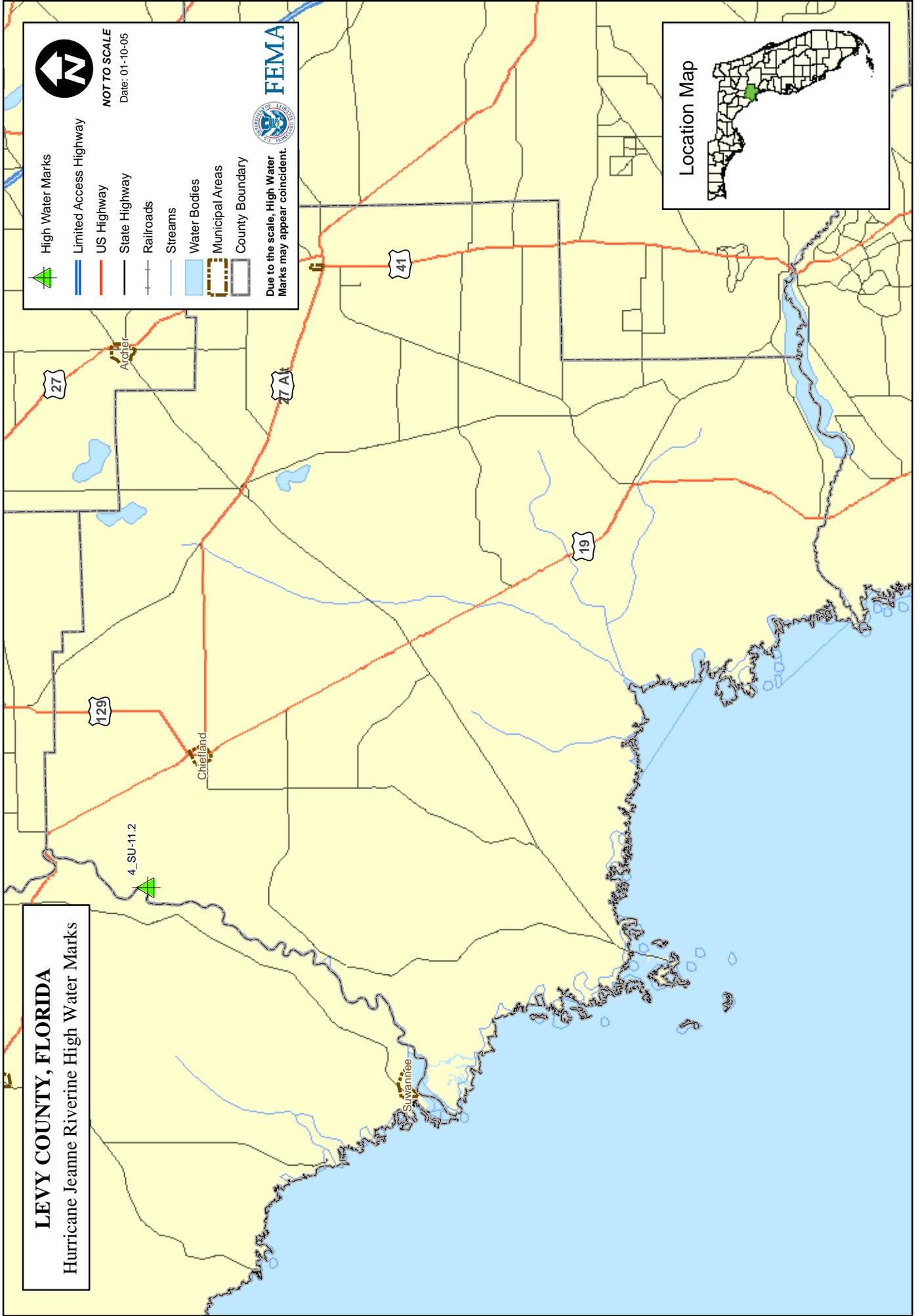
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix K: Levy County Data Sheets and Location Map

LEVY COUNTY, FLORIDA

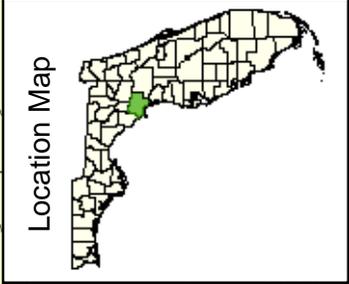
Hurricane Jeanne Riverine High Water Marks



NOT TO SCALE
Date: 01-10-05

- High Water Marks
- Limited Access Highway
- US Highway
- State Highway
- Railroads
- Streams
- Water Bodies
- Municipal Areas
- County Boundary

Due to the scale, High Water Marks may appear coincident.



Location Map



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201450025D **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Levy-1

HWM ID: 4_SU-11.2 **Type of Mark:** Nail & ribbon
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Suwannee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 4.0 ft. **NGVD 29:** 4.7 ft. **HWM Object:** Pole
Flooding Type: Hurricane
HWM Address: 11670 NW 130 St.
Location of HWM Object: SR 320 to rt. on NW 110 Ave. to left on NW 129 Pl. to left on NW 130 St. to boat ramp (public) marker is on pole (sign).
HWM Type: Water mark
Closest Municipality: Manatee Springs **County:** Levy **State:** FL
Name of Flagger/Interviewer: Jeff Henninger **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/19/04
Survey Crew: SH, AL **Survey Company:** PBS&J
Survey Date: 12/28/04
Survey Projection: FLORIDA NORTH (0903) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 748345 **Easting (feet):** 2455195
Survey Latitude: 29.51818 **Northing (Meters):** 58435 **Northing (feet):** 191715
Survey Longitude: 82.96984 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SU-11.2_1

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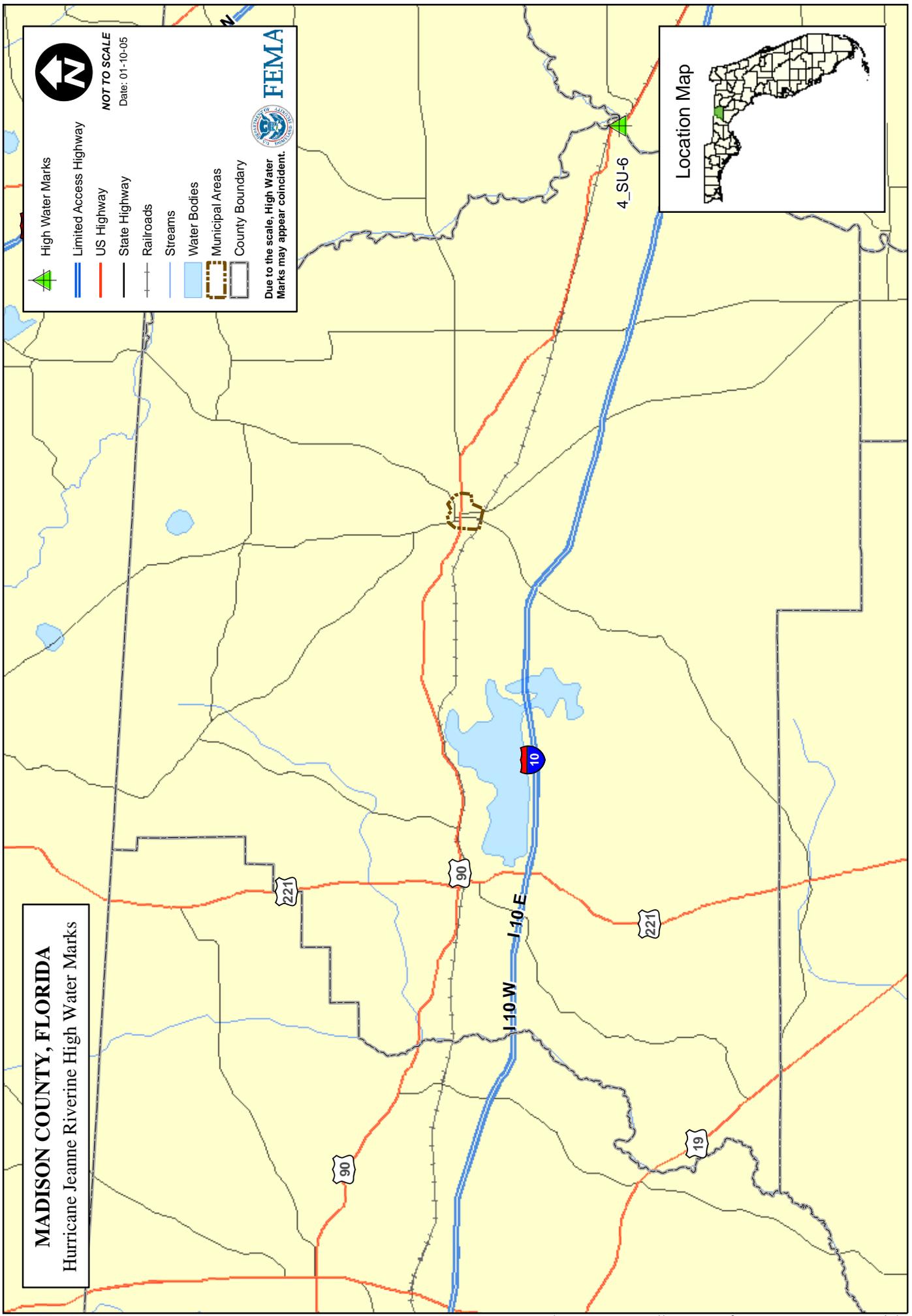
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix L: Madison County Data Sheets and Location Map

MADISON COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201490345B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Madi-1

HWM ID	4_SU-6	Type of Mark:	Ribbon
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Suwannee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	55.5 ft.	NGVD 29:	56.2 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	US 90 at Suwannee River Bridge		
Location of HWM Object	From Live Oak; W. on US 90 N. to bridge over Suwannee River; cross bridge to N. side; marker is on left side of bridge in group of trees near underside of bridge.		
HWM Type:	Water line		
Closest Municipality:	Ellasville	County:	Madison
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/14/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	727193
		Easting (feet):	2385798
Survey Latitude:	30.38541	Northing (Meters):	154308
Survey Longitude:	83.17652	Northing (feet):	506260
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



SU-6_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix M: Marion County Data Sheets and Location Map

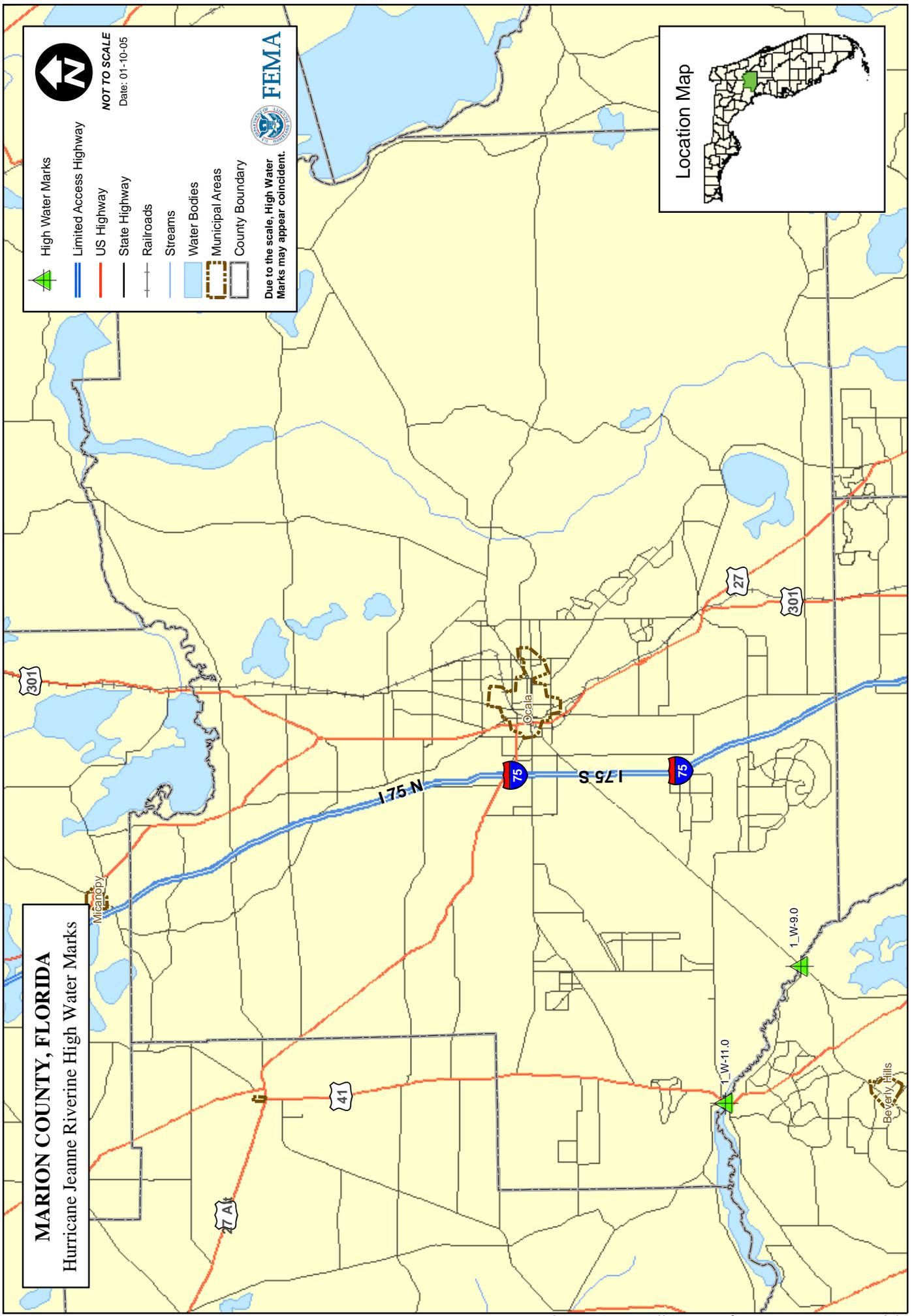
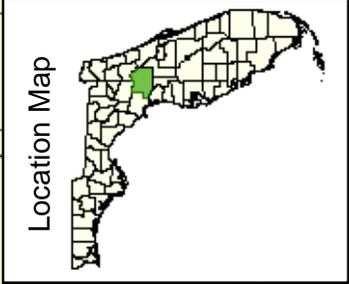
MARION COUNTY, FLORIDA
Hurricane Jeanne Riverine High Water Marks

NOT TO SCALE
Date: 01-10-05

FEMA

Due to the scale, High Water Marks may appear coincident.

- High Water Marks
- Limited Access Highway
- US Highway
- State Highway
- Railroads
- Streams
- Water Bodies
- Municipal Areas
- County Boundary





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1205740005B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Mari-1

HWM ID	1_W-11.0	Type of Mark:	Paint/flagging tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Withlacoochee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	29.2 ft. NGVD 29: 30.1 ft.	HWM Object:	Survey stake
Flooding Type:	Hurricane		
HWM Address:	US 41 at Withlacoochee River Bridge		
Location of HWM Object	I-75 N. to SR 44 - go W. to US 41, turn right. At intersection of US 41 and Withlacoochee turn right onto Water Way. Overpass is Britan Alexander Bridge. HWM is near oak tree next to boat slip.		
HWM Type:	Water line		
Closest Municipality:	Dunnellon	County: Marion	State: FL
Name of Flagger/Interviewer:	Shelly E. Brooks	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	MR, RL, BH	Survey Company:	PBS&J
Survey Date:	11/16/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum: NAVD 88	Horizontal Datum: NAD83(90)
		Easting (Meters): 154763	Easting (feet): 507753
Survey Latitude:	29.04620	Northing (Meters): 522240	Northing (feet): 1713382
Survey Longitude:	82.46449	Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



W-11.0

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1201600780B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Mari-2

HWM ID: 1_W-9.0 **Type of Mark:** Nail/flagging tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Withlacoochee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 37.6 ft. **NGVD 29:** 38.4 ft. **HWM Object:** Palm tree
Flooding Type: Hurricane
HWM Address: 13821 SW SR Hwy 200
Location of HWM Object: I-75 N. to SR 200 - go SW to Stumpknockers Restaurant.

HWM Type: Water line
Closest Municipality: Dunnellon **County:** Marion **State:** FL

Name of Flagger/Interviewer: Shelly E. Brooks **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04

Survey Crew: MR, RL, BH **Survey Company:** PBS&J
Survey Date: 11/16/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 165946 **Easting (feet):** 544441
Survey Latitude: 28.98925 **Northing (Meters):** 515889 **Northing (feet):** 1692544
Survey Longitude: 82.34947 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



W-9.0

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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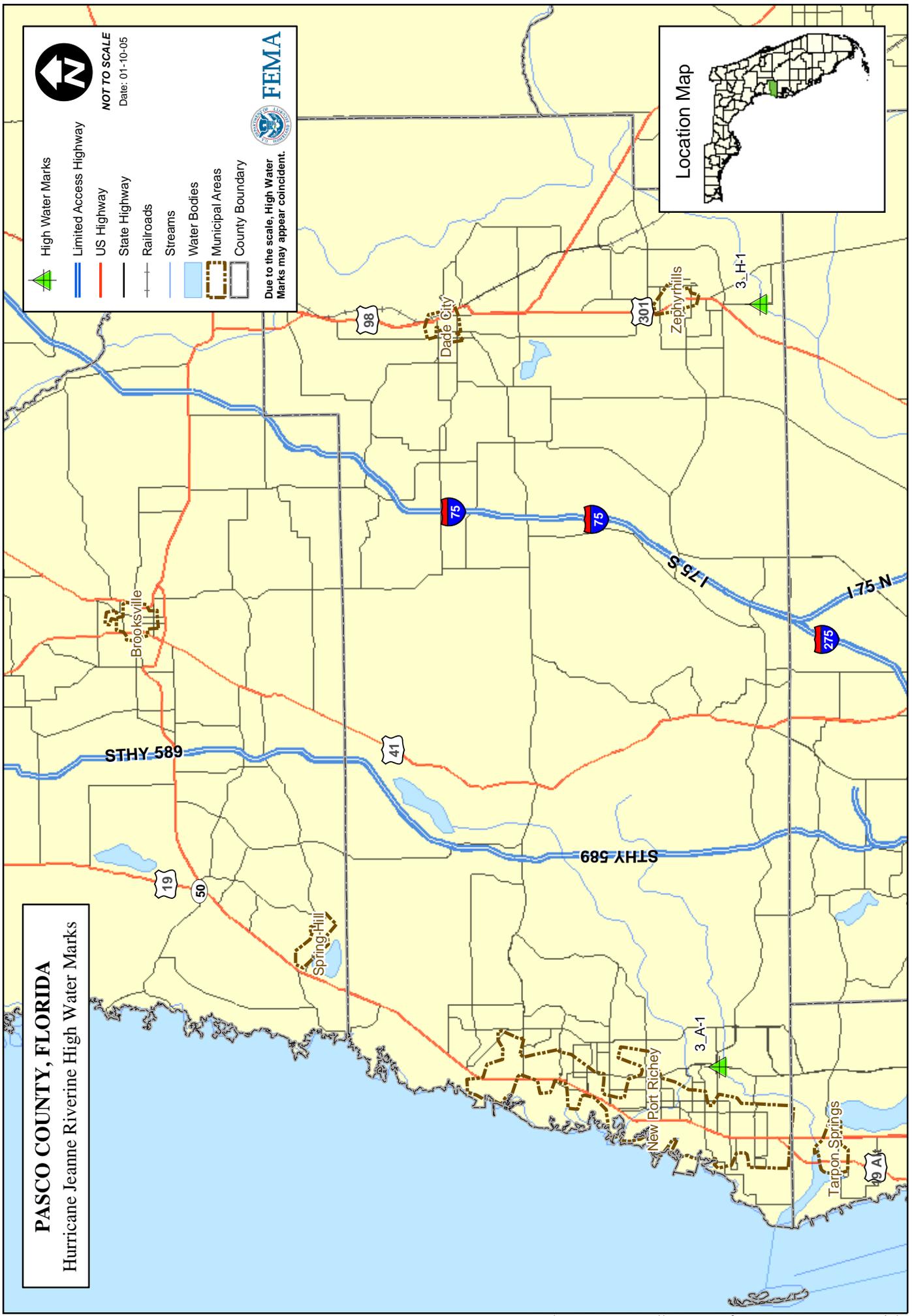
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix N: Pasco County Data Sheets and Location Map

PASCO COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks

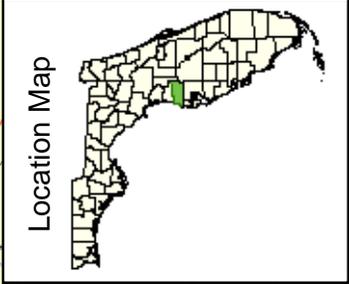


NOT TO SCALE
Date: 01-10-05

- High Water Marks
- Limited Access Highway
- US Highway
- State Highway
- Railroads
- Streams
- Water Bodies
- Municipal Areas
- County Boundary



Due to the scale, High Water Marks may appear coincident.





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1202300354D **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Pasc-1

HWM ID	3_A-1	Type of Mark:	Duct tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Anclote River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	8.2 ft.	NGVD 29:	9.0 ft.
Flooding Type:	Hurricane	HWM Object:	Bridge pier
HWM Address:	CR 54 at Anclote River Bridge		
Location of HWM Object	Southeast corner of bridge; 2nd set of bridge piers from S. - 6th pier from E. end.		
HWM Type:	Mud line/debris		
Closest Municipality:	Elfers	County:	Pasco
		State:	FL
Name of Flagger/Interviewer:	Chris Hodyl	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	MR, JF	Survey Company:	PBS&J
Survey Date:	11/19/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	132003
		Easting (feet):	433080
Survey Latitude:	28.21557	Northing (Meters):	430292
Survey Longitude:	82.69271	Northing (feet):	1411715
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

009

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1202300470B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Pasc-2

HWM ID	3_H-1	Type of Mark:	Nail
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Hillsborough River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	61.4 ft.	NGVD 29:	62.3 ft.
		HWM Object:	Tree
Flooding Type:	Hurricane		
HWM Address:	Crystal Springs Rd.		
Location of HWM Object	Northeast corner of bridge.		
HWM Type:	Stain line on tree		
Closest Municipality:	Crystal Springs	County:	Pasco
		State:	FL
Name of Flagger/Interviewer:	Chris Hodyl	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	MR, DF, BH	Survey Company:	PBS&J
Survey Date:	11/29/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	181940
		Easting (feet):	596916
Survey Latitude:	28.18598	Northing (Meters):	426832
		Northing (feet):	1400365
Survey Longitude:	82.18393	Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

007

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

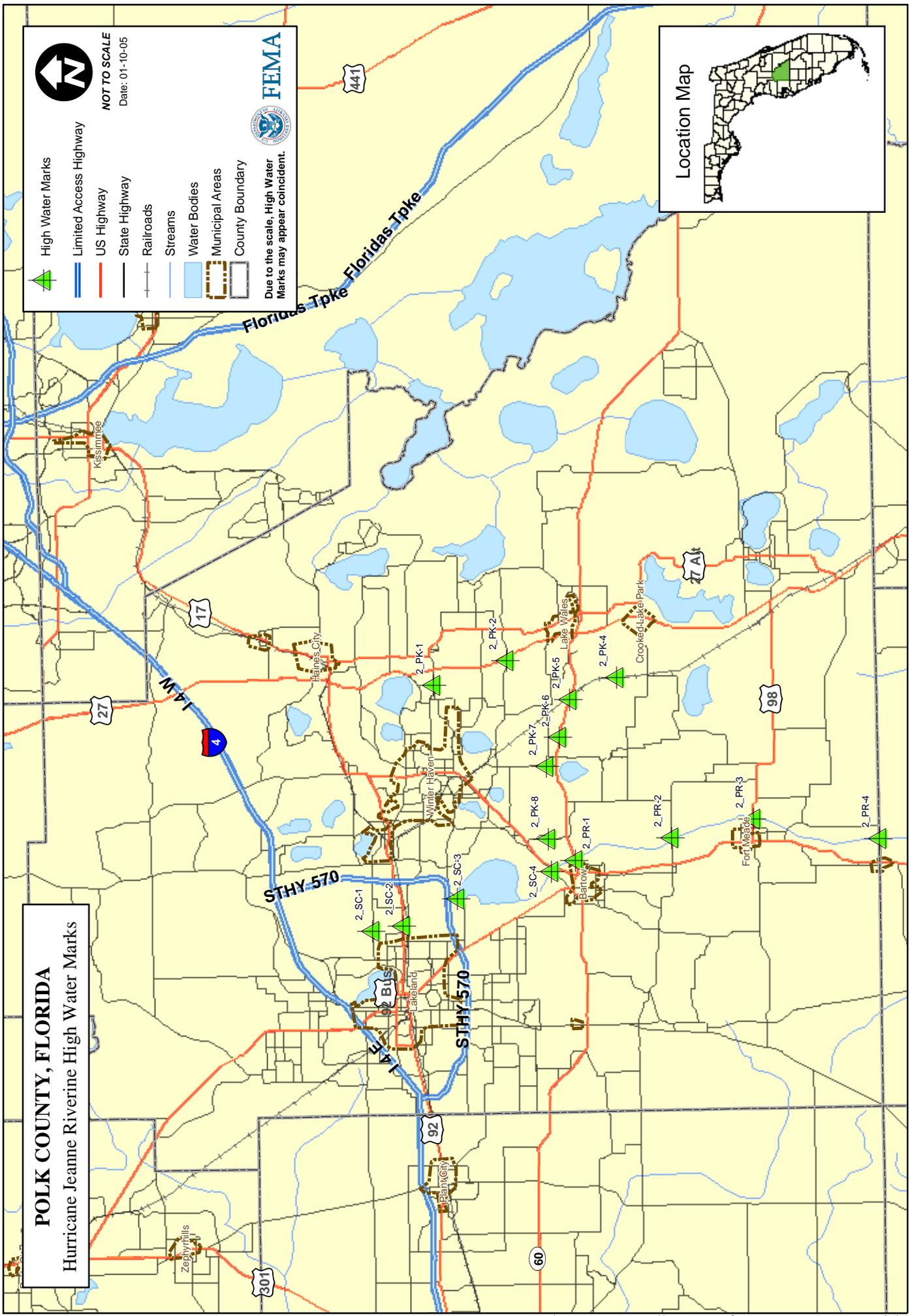
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix O: Polk County Data Sheets and Location Map

POLK COUNTY, FLORIDA

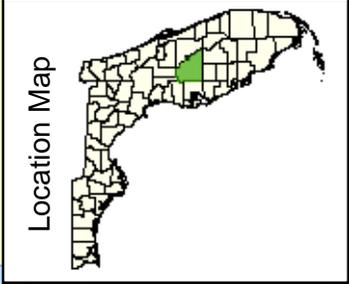
Hurricane Jeanne Riverine High Water Marks



NOT TO SCALE
Date: 01-10-05

- High Water Marks
- Limited Access Highway
- US Highway
- State Highway
- Railroads
- Streams
- Water Bodies
- Municipal Areas
- County Boundary

Due to the scale, High Water Marks may appear coincident.



Location Map



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0369F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-1

HWM ID	2_PK-1	Type of Mark:	Nail
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Peace Creek Canal	Quality of Mark:	Good
Survey Elevation (NAVD 88):	123.0 ft.	NGVD 29:	123.9 ft.
Flooding Type:	Hurricane	HWM Object:	Power pole
HWM Address:	CR 542		
Location of HWM Object	North side of CR 542, 0.3 mi. W. of Cypresswood C.C. - marked by flagging tape & orange marker stake at guardrail.		
HWM Type:	Water line		
Closest Municipality:	Dundee	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/16/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/10/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	234688
		Easting (feet):	769972
Survey Latitude:	28.01888	Northing (Meters):	408352
Survey Longitude:	81.64726	Northing (feet):	1339733
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PK-1_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0535G **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-2

HWM ID	2_PK-2	Type of Mark:	Nail
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Peace Creek Canal	Quality of Mark:	Good
Survey Elevation (NAVD 88):	118.8 ft.	NGVD 29:	119.8 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	CR 540A at Peace Creek Canal		
Location of HWM Object	HWM is approx. 4' N. of warning sign at E. end of bridge.		
HWM Type:	Mud/Water line		
Closest Municipality:	Lake Wales	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/16/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/10/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	236865
		Easting (feet):	777113
Survey Latitude:	27.95706	Northing (Meters):	401508
Survey Longitude:	81.62534	Northing (feet):	1317280
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PK-2_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0710F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-3

HWM ID	2_PK-4	Type of Mark:	Nail w/ orange paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Peace Creek Canal	Quality of Mark:	Good
Survey Elevation (NAVD 88):	114.0 ft.	NGVD 29:	114.9 ft.
Flooding Type:	Hurricane	HWM Object:	Fence post
HWM Address:	Crews Rd. Bridge at Peace Creek Canal		
Location of HWM Object	North end, W. side of bridge, orange painted fence post - HWM near base of post.		
HWM Type:	Water mark		
Closest Municipality:	Lake Wales	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/16/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/9/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	235135
		Easting (feet):	771439
Survey Latitude:	27.86475	Northing (Meters):	391272
Survey Longitude:	81.64322	Northing (feet):	1283699
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PK-4_2

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0545G **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-4

HWM ID	2_PK-5	Type of Mark:	Nail w/ orange line & tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Peace Creek Canal	Quality of Mark:	Good
Survey Elevation (NAVD 88):	110.5 ft.	NGVD 29:	111.4 ft.
Flooding Type:	Hurricane	HWM Object:	Fence post
HWM Address:	SR 60 Peace Creek Canal Bridge		
Location of HWM Object	On N. side of SR 60, W. end of bridge adjacent to powerline, 0.25 mi. W. of CSX RR.		
HWM Type:	Mud/Water line		
Closest Municipality:	Lake Wales	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/16/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/9/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	233145
		Easting (feet):	764909
Survey Latitude:	27.90458	Northing (Meters):	395681
Survey Longitude:	81.66331	Northing (feet):	1298162
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PK-5_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0540F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-5

HWM ID: 2_PK-6 **Type of Mark:** Wood lath/orange flagging
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Peace Creek Canal **Quality of Mark:** Fair
Survey Elevation (NAVD 88): 108.5 ft. **NGVD 29:** 109.4 ft. **HWM Object:** Orange stake
Flooding Type: Hurricane
HWM Address: SR 60 at Peace Creek Canal, 1.5 mi. E. of CR 655
Location of HWM Object: Orange arrow on roadway, points to orange marker stake, N. to HWM stake.

HWM Type: Mud/Trash line
Closest Municipality: Alturas **County:** Polk **State:** FL

Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/16/04

Survey Crew: MR, RL **Survey Company:** PBS&J
Survey Date: 11/9/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 229594 **Easting (feet):** 753260
Survey Latitude: 27.91368 **Northing (Meters):** 396680 **Northing (feet):** 1301441
Survey Longitude: 81.69935 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PK-6_2

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0540F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-6

HWM ID: 2_PK-7 **Type of Mark:** Painted line on riprap
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Peace Creek Canal **Quality of Mark:** Poor
Survey Elevation (NAVD 88): 106.2 ft. **NGVD 29:** 107.1 ft. **HWM Object:** Bridge revetment
Flooding Type: Hurricane
HWM Address: CR 655 at Peace Creek Canal Bridge
Location of HWM Object: Two orange marker stakes at NE end of bridge lead to riprap - orange painted mud line on riprap.

HWM Type: Mud/Water line
Closest Municipality: Wahneta **County:** Polk **State:** FL

Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/16/04

Survey Crew: MR, RL **Survey Company:** PBS&J
Survey Date: 11/9/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 226940 **Easting (feet):** 744551
Survey Latitude: 27.92517 **Northing (Meters):** 397948 **Northing (feet):** 1305600
Survey Longitude: 81.72629 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PK-7_2

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0520F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-7

HWM ID: 2_PK-8 **Type of Mark:** Nail
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Peace Creek Canal **Quality of Mark:** Good
Survey Elevation (NAVD 88): 101.9 ft. **NGVD 29:** 102.8 ft. **HWM Object:** Tree
Flooding Type: Hurricane
HWM Address: Connersville Rd. at Peace Creek Canal Bridge
Location of HWM Object: 100' S. of bridge on E. side of road 7' E. of orange marker stake.

HWM Type: Mud/Water line
Closest Municipality: Bartow **County:** Polk **State:** FL

Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/15/04

Survey Crew: MR, RL **Survey Company:** PBS&J
Survey Date: 11/12/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 220153 **Easting (feet):** 722285
Survey Latitude: 27.92458 **Northing (Meters):** 397868 **Northing (feet):** 1305339
Survey Longitude: 81.79524 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PK-8_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0515F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-8

HWM ID	2_PR-1	Type of Mark:	Nail w/ orange paint & tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Peace River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	97.8 ft.	NGVD 29:	98.7 ft.
Survey Elevation (NAVD 88):	97.8 ft.	HWM Object:	Tree
Flooding Type:	Hurricane		
HWM Address:	SR 60 at Peace River Bridge		
Location of HWM Object	North end of canoe launch pkg lot - cypress tree at NW corner - nail on E. side of tree, 12" above land with orange paint, tape.		
HWM Type:	Water/Mud line		
Closest Municipality:	Bartow	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/12/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	218062
		Easting (feet):	715425
Survey Latitude:	27.90221	Northing (Meters):	395386
Survey Longitude:	81.81653	Northing (feet):	1297195
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PR-1_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0685F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-9

HWM ID: 2_PR-2 **Type of Mark:** Nail w/orange paint/tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Peace River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 89.3 ft. **NGVD 29:** 90.2 ft. **HWM Object:** Tree
Flooding Type: Hurricane
HWM Address: CR 640 at Peace River Bridge
Location of HWM Object: East end of bridge, 50' S. of road, nail in one tree - orange marker stake, paint, tape.

HWM Type: Mud/Water line
Closest Municipality: Homeland **County:** Polk **State:** FL

Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04

Survey Crew: MR, RL **Survey Company:** PBS&J
Survey Date: 11/12/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 220032 **Easting (feet):** 721888
Survey Latitude: 27.82104 **Northing (Meters):** 386395 **Northing (feet):** 1267696
Survey Longitude: 81.79667 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PR-2_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0695F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-10

HWM ID	2_PR-3	Type of Mark:	Nail
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Peace River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	80.0 ft.	NGVD 29:	80.9 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	US 98 E. at Peace River Bridge		
Location of HWM Object	Approx. 60' N. of E. end of bridge, at group of 4 trees - nail in tree, approx. 10" above ground.		
HWM Type:	Water mark		
Closest Municipality:	Ft. Meade	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/12/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	221640
		Easting (feet):	727164
Survey Latitude:	27.75208	Northing (Meters):	378756
Survey Longitude:	81.78048	Northing (feet):	1242636
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PR-3_2

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0895F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-11

HWM ID: 2_PR-4 **Type of Mark:** Nail/orange paint/tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Peace River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 65.2 ft. **NGVD 29:** 66.2 ft. **HWM Object:** Fence post
Flooding Type: Hurricane
HWM Address: Co. Line Rd. at Peace River Bridge
Location of HWM Object: East of bridge, N. of road at FDOT mitigation area access gate - 1st. wood fence post W. of iron gate - nail in post, marked by orange paint, stake, tape.
HWM Type: Water mark
Closest Municipality: Bowling Green **County:** Polk **State:** FL
Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: MR, JC **Survey Company:** PBS&J
Survey Date: 12/2/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Survey Latitude: 27.64635 **Easting (Meters):** 219669 **Easting (feet):** 720696
Survey Longitude: 81.80067 **Northing (Meters):** 367037 **Northing (feet):** 1204186
Approx. First Floor Elevation: Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

PR-4_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0310F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-12

HWM ID	2_SC-1	Type of Mark:	Nail
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Saddle Creek	Quality of Mark:	Good
Survey Elevation (NAVD 88):	113.0 ft.	NGVD 29:	113.8 ft.
Flooding Type:	Hurricane	HWM Object:	Electric pole
HWM Address:	3924 Saddle Creek Rd. at bridge		
Location of HWM Object	Front yard of trailer home E. of bridge over Saddle Creek - power pole.		
HWM Type:	Mud line		
Closest Municipality:	Lakeland	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/05		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/10/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	211762
		Easting (feet):	694757
Survey Latitude:	28.07368	Northing (Meters):	414379
Survey Longitude:	81.88033	Northing (feet):	1359509
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SC-1_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0320F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-13

HWM ID	2_SC-2	Type of Mark:	Nail
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Saddle Creek	Quality of Mark:	Good
Survey Elevation (NAVD 88):	107.2 ft.	NGVD 29:	108.1 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	US 92 at Saddle Creek Bridge		
Location of HWM Object	Approx. 40' N. of roadway, E. of bridge on W. bound lanes of US 92.		
HWM Type:	Mud/Water line		
Closest Municipality:	Lakeland	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/10/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	212202
		Easting (feet):	696200
Survey Latitude:	28.04809	Northing (Meters):	411545
Survey Longitude:	81.87588	Northing (feet):	1350210
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SC-2_2

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0340F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-14

HWM ID	2_SC-3	Type of Mark:	Nail/orange paint & tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Saddle Creek	Quality of Mark:	Good
Survey Elevation (NAVD 88):	100.7 ft.	NGVD 29:	101.6 ft.
Flooding Type:	Hurricane	HWM Object:	Tree
HWM Address:	Winter Lake Rd. at Saddle Creek Bridge		
Location of HWM Object	Turn out on bridge on S. side of Winter Lake Rd. - tree is approx. 50' S. of road & S. of orange marker - stake with orange tape.		
HWM Type:	Mud/Water line		
Closest Municipality:	Lakeland	County:	Polk
		State:	FL
Name of Flagger/Interviewer:	Roger Dawson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	MR, RL	Survey Company:	PBS&J
Survey Date:	11/10/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	214653
		Easting (feet):	704240
Survey Latitude:	28.00201	Northing (Meters):	406441
Survey Longitude:	81.85102	Northing (feet):	1333465
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SC-3_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12105C0515F **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Polk-15

HWM ID: 2_SC-4 **Type of Mark:** Nail w/orange tape
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Saddle Creek **Quality of Mark:** Fair
Survey Elevation (NAVD 88): 99.4 ft. **NGVD 29:** 100.3 ft. **HWM Object:** Tree
Flooding Type: Hurricane
HWM Address: Old Bartow - Eagle Lake Rd. at Saddle Creek Bridge
Location of HWM Object: Fifteen feet N. of orange wood stake, on N. side of Old Bartow - Eagle Lake Rd. and W. of Saddle Creek Bridge.

HWM Type: Mud/Water line
Closest Municipality: Bartow **County:** Polk **State:** FL

Name of Flagger/Interviewer: Roger Dawson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/15/04

Survey Crew: MR, RL **Survey Company:** PBS&J
Survey Date: 11/12/04
Survey Projection: FLORIDA WEST (0902) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 217057 **Easting (feet):** 712129
Survey Latitude: 27.92243 **Northing (Meters):** 397625 **Northing (feet):** 1304542
Survey Longitude: 81.82670 **Approx. First Floor Elevation:** Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SC-4_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

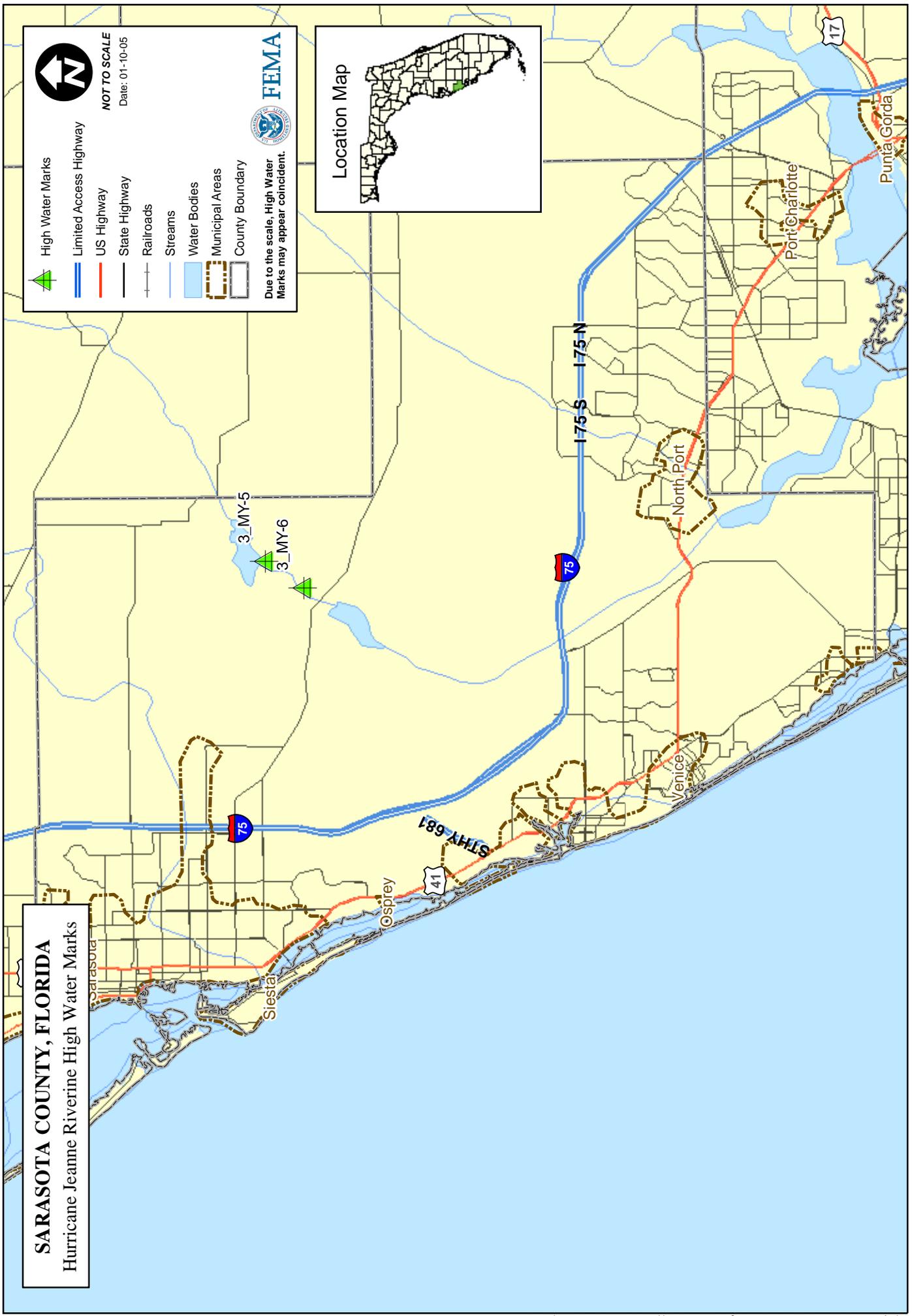
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix P: Sarasota County Data Sheets and Location Map

SARASOTA COUNTY, FLORIDA

Hurricane Jeanne Riverine High Water Marks





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1251440200D **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Sara-1

HWM ID	3_MY-5	Type of Mark:	Marked line		
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004		
Stream Name/Flood Source:	Myakka River	Quality of Mark:	Good		
Survey Elevation (NAVD 88):	17.3 ft.	NGVD 29:	18.4 ft.	HWM Object:	Fence on wood deck
Flooding Type:	Hurricane				
HWM Address:	Myakka State Park, near dam				
Location of HWM Object	Myakka State Park near dam				
HWM Type:	Debris line				
Closest Municipality:	Sarasota	County:	Sarasota	State:	FL
Name of Flagger/Interviewer:	Chris Hodyl	Flagger Company:	URS Corporation		
Date of Flagging/Interview:	10/15/04				
Survey Crew:	MR, BH	Survey Company:	PBS&J		
Survey Date:	11/30/04				
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88	Horizontal Datum:	NAD83(90)
		Easting (Meters):	171169	Easting (feet):	561576
Survey Latitude:	27.26581	Northing (Meters):	324889	Northing (feet):	1065907
Survey Longitude:	82.29118	Approx. First Floor Elevation:	Not Applicable		

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

003

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
PBS & J License Business 24
482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1251440275D **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Sara-2

HWM ID	3_MY-6	Type of Mark:	Paint line
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Myakka River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	16.4 ft.	NGVD 29:	17.5 ft.
		HWM Object:	Bridge revetment
Flooding Type:	Hurricane		
HWM Address:	Myakka State Park access road bridge		
Location of HWM Object	Within park at bridge on access road.		
HWM Type:	Debris line		
Closest Municipality:	Sarasota	County:	Sarasota
		State:	FL
Name of Flagger/Interviewer:	Chris Hodyl	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	MR, BH	Survey Company:	PBS&J
Survey Date:	11/30/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	169572
		Easting (feet):	556338
Survey Latitude:	27.24575	Northing (Meters):	322671
Survey Longitude:	82.30725	Northing (feet):	1058628
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

002

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix Q: Seminole County Data Sheets and Location Map

SEMINOLE COUNTY, FLORIDA
Hurricane Jeanne Riverine High Water Marks

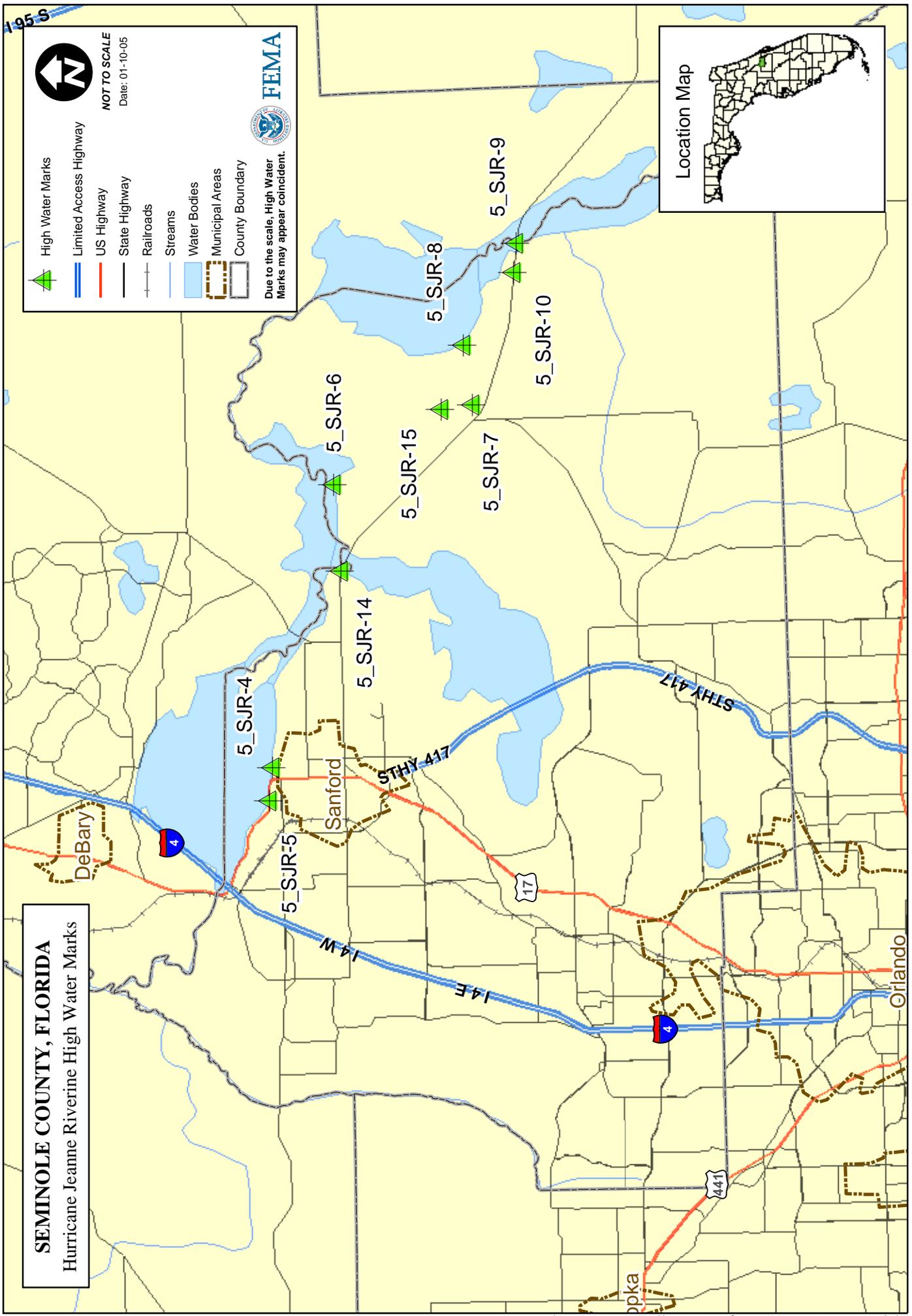
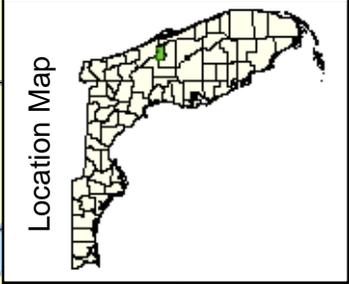


NOT TO SCALE
 Date: 01-10-05

 High Water Marks
 Limited Access Highway
 US Highway
 State Highway
 Railroads
 Streams
 Water Bodies
 Municipal Areas
 County Boundary



 Due to the scale, High Water Marks may appear coincident.





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0185E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-1

HWM ID: 5_SJR-10 **Type of Mark:** Spray paint line
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: St. Johns River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 9.1 ft. **NGVD 29:** 10.1 ft. **HWM Object:** Timber pole
Flooding Type: Hurricane
HWM Address: Orlando Rd. overpass of St. Johns River - C.S. Lee Park
Location of HWM Object: From I-95 S. bound at Indian River City take SR 50 W. bound - enter C.S. Lee Park - marker on timber pole N. of boat ramp - closest to water.
HWM Type: Water/mud line
Closest Municipality: Indian River City **County:** Seminole **State:** FL
Name of Flagger/Interviewer: Sarah Peterson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/19/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 11/17/04
Survey Projection: FLORIDA EAST (0901) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 196484 **Easting (feet):** 644631
Survey Latitude: 28.71460 **Northing (Meters):** 485401 **Northing (feet):** 1592519
Survey Longitude: 81.03599 **Approx. First Floor Elevation:** 9.4

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-10_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
PBS & J License Business 24
482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0070E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-2

HWM ID: 5_SJR-14 **Type of Mark:** Spray paint line
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: St. Johns River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 6.1 ft. **NGVD 29:** 7.2 ft. **HWM Object:** Pkg lot/boat ramp
Flooding Type: Hurricane
HWM Address: Cameron Wright Park/Catfish Cover
Location of HWM Object: I-4 to Sanford - SE on US 17/92 - S. on CR 15 - W. on SR 46A turns into SR 46 - turn into Cameron Wright Park on Old Geneva Rd just before SR 46 bends SE - marker on ground NW of boat ramp next to picnic shelter.
HWM Type: Moss line
Closest Municipality: Sanford **County:** Seminole **State:** FL
Name of Flagger/Interviewer: Sarah Peterson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/19/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 11/15/04
Survey Projection: FLORIDA EAST (0901) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 182355 **Easting (feet):** 598277
Survey Latitude: 28.78628 **Northing (Meters):** 493358 **Northing (feet):** 1618624
Survey Longitude: 81.18073 **Approx. First Floor Elevation:** 6.5

Comments:
None Noted



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-14_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
PBS & J License Business 24
482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0180E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-3

HWM ID: 5_SJR-15 **Type of Mark:** Flag
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: St. Johns River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 25.2 ft. **NGVD 29:** 26.2 ft. **HWM Object:** Tree stump
Flooding Type: Hurricane
HWM Address: Lake Geneva Rd.
Location of HWM Object: From Geneva Intersection of SR 46 and CR 426 - N. on 1st St - rt. (E.) on Lake Geneva Rd - at N. shore of lake, there are five consecutive tree stumps at waters edge - flag around 2nd one in.
HWM Type: Water line/personal account
Closest Municipality: Geneva **County:** Seminole **State:** FL
Name of Flagger/Interviewer: Sarah Peterson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/19/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 11/16/04
Survey Projection: FLORIDA EAST (0901) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Easting (Meters): 189302 **Easting (feet):** 621069
Survey Latitude: 28.74555 **Northing (Meters):** 488835 **Northing (feet):** 1603786
Survey Longitude: 81.10953 **Approx. First Floor Elevation:** 37.2

Comments:

Elevated lake levels were observed.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-15_2

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0035E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-4

HWM ID	5_SJR-4	Type of Mark:	Flag around stake
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	6.1 ft.	NGVD 29:	7.1 ft.
Survey Elevation (NAVD 88):	6.1 ft.	HWM Object:	Metal stake
Flooding Type:	Hurricane		
HWM Address:	Park Ave.		
Location of HWM Object	I-4 to Sanford - SE on US HWY 17/92 - marker on US 17/92 on N. side between two yellow diamond shape street signs across from end of Mangoustine Dr.		
HWM Type:	Erosion line		
Closest Municipality:	Sanford	County:	Seminole
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/15/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	172411
		Easting (feet):	565652
Survey Latitude:	28.81629	Northing (Meters):	496702
Survey Longitude:	81.28266	Northing (feet):	1629597
		Approx. First Floor Elevation:	10.4

Comments:

Marker cattycorner from hospital. Elevation of water covering 1/3 of hospital parking lot.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-4_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0035E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-5

HWM ID	5_SJR-5	Type of Mark:	Orange spray paint X
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	5.9 ft.	NGVD 29:	7.0 ft.
Survey Elevation (NAVD 88):	5.9 ft.	HWM Object:	Concrete sidewalk
Flooding Type:	Hurricane		
HWM Address:	Park Ave.		
Location of HWM Object	I-4 to Sanford - SE on US Hwy 17/92 - continue straight onto Seminole Blvd - at round-about intersection of Seminole Blvd. & Park Ave marker is at sidewalk to N just S. of Memorial Park.		
HWM Type:	Debris line - personal account		
Closest Municipality:	Sanford	County:	Seminole
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/15/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	173836
		Easting (feet):	570325
Survey Latitude:	28.81481	Northing (Meters):	496535
Survey Longitude:	81.26806	Northing (feet):	1629049
		Approx. First Floor Elevation:	10.0

Comments:

Carl said his survey crew has established points and measured highest water level.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-5_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0070E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-6

HWM ID	5_SJR-6	Type of Mark:	Orange spray paint line
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	6.9 ft.	NGVD 29:	7.9 ft.
Flooding Type:	Hurricane	HWM Object:	Street sign
HWM Address:	Corner of Shady Ln & Mullet Lake Park Pl.		
Location of HWM Object	I-4 to Sanford - SE on US Hwy 17/92 - S. on CR 15 - W. on SR 46A turns into SR 46 - turn onto Osceola Rd & take left on Lake Park Rd - rd. turns into Mullet Lake Park Rd. & winds around into Shady Ln - marker on intersection of street signs.		
HWM Type:	Tanin (?) mark - sign discoloration		
Closest Municipality:	Palm Shadows	County:	Seminole
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/15/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	186124
		Easting (feet):	610643
Survey Latitude:	28.78849	Northing (Meters):	493597
		Northing (feet):	1619409
Survey Longitude:	81.14212	Approx. First Floor Elevation:	10.6

Comments:

Entire end of street under water. Unable to continue down Mullet Lake Park Rd. Some trailers/houses may still have standing water.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-6_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0180E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-7

HWM ID	5_SJR-7	Type of Mark:	Flag/stake
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	26.4 ft.	NGVD 29:	27.4 ft.
Survey Elevation (NAVD 88):	26.4 ft.	HWM Object:	Tree
Flooding Type:	Hurricane		
HWM Address:	Lake Proctor Rd.		
Location of HWM Object	I-4 to Sanford - SE on US 17/92 - S. on CR 15 - W. on SR 46A turns into SR 46 - N. on 1st St - E. on Cemetery Rd. - S. on Lake Proctor Rd. - dead ends into property - drive in front of last house - marker on N. side of water in front of house.		
HWM Type:	Water line - personal account		
Closest Municipality:	Geneva	County:	Seminole
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/16/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	189474
		Easting (feet):	621634
Survey Latitude:	28.73325	Northing (Meters):	487471
		Northing (feet):	1599312
Survey Longitude:	81.10775	Approx. First Floor Elevation:	33.9

Comments:

Witness may be leaving for Ireland before surveyors arrive. Still ok to get point, just open white picket gate, but be sure to close again after finished. Please call ahead & remove any markers when finished. No flooding from lake.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-7_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0180E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-8

HWM ID	5_SJR-8	Type of Mark:	Nail at water elevation
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	8.6 ft.	NGVD 29:	9.7 ft.
Survey Elevation (NAVD 88):	8.6 ft.	HWM Object:	Electrical pole
Flooding Type:	Hurricane		
HWM Address:	201 Whitcomb Rd.		
Location of HWM Object	From Geneva W. on SR 46 - N. on Jungle Rd. - rt. (NE) on Crossover St. - at intersection of Crossover St. and Whitcomb Rd. - electrical pole just to SE of driveway. at 201 Whitcomb Dr.		
HWM Type:	Water/mud line		
Closest Municipality:	Geneva	County:	Seminole
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/16/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	192091
		Easting (feet):	630219
Survey Latitude:	28.73635	Northing (Meters):	487813
Survey Longitude:	81.08097	Northing (feet):	1600432
		Approx. First Floor Elevation:	12.2

Comments:

Roadway completely covered in both directions on Whitman. Additional photo/point marked on Lake Harney Rd, with spray paint. Point not as definitive, photo labeled & added to page.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-8_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12117C0185E **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Semi-9

HWM ID	5_SJR-9	Type of Mark:	Spray paint line
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	9.7 ft.	NGVD 29:	10.8 ft.
Flooding Type:	Hurricane	HWM Object:	Gravel Rd./stake
HWM Address:	Intersection of Prevatt Rd and SR 46		
Location of HWM Object	From Geneva W. on SR 46 - Prevatt Rd. on rt. (N.) at S. end of Lake Harney - marker at entrance - NE of mailboxes.		
HWM Type:	Mud line - personal account		
Closest Municipality:	Geneva	County:	Seminole
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/19/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/16/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	195201
		Easting (feet):	640422
Survey Latitude:	28.71596	Northing (Meters):	485551
		Northing (feet):	1593013
Survey Longitude:	81.04912	Approx. First Floor Elevation:	Not Applicable

Comments:

Witness will not be available at given number until mid November, when able to move back into house. Lives at end of Prevatt Dr., water completely covered Prevatt Dr. all the way to SR 46.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-9_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix R: Sumter County Data Sheets and Location Map

SUMTER COUNTY, FLORIDA

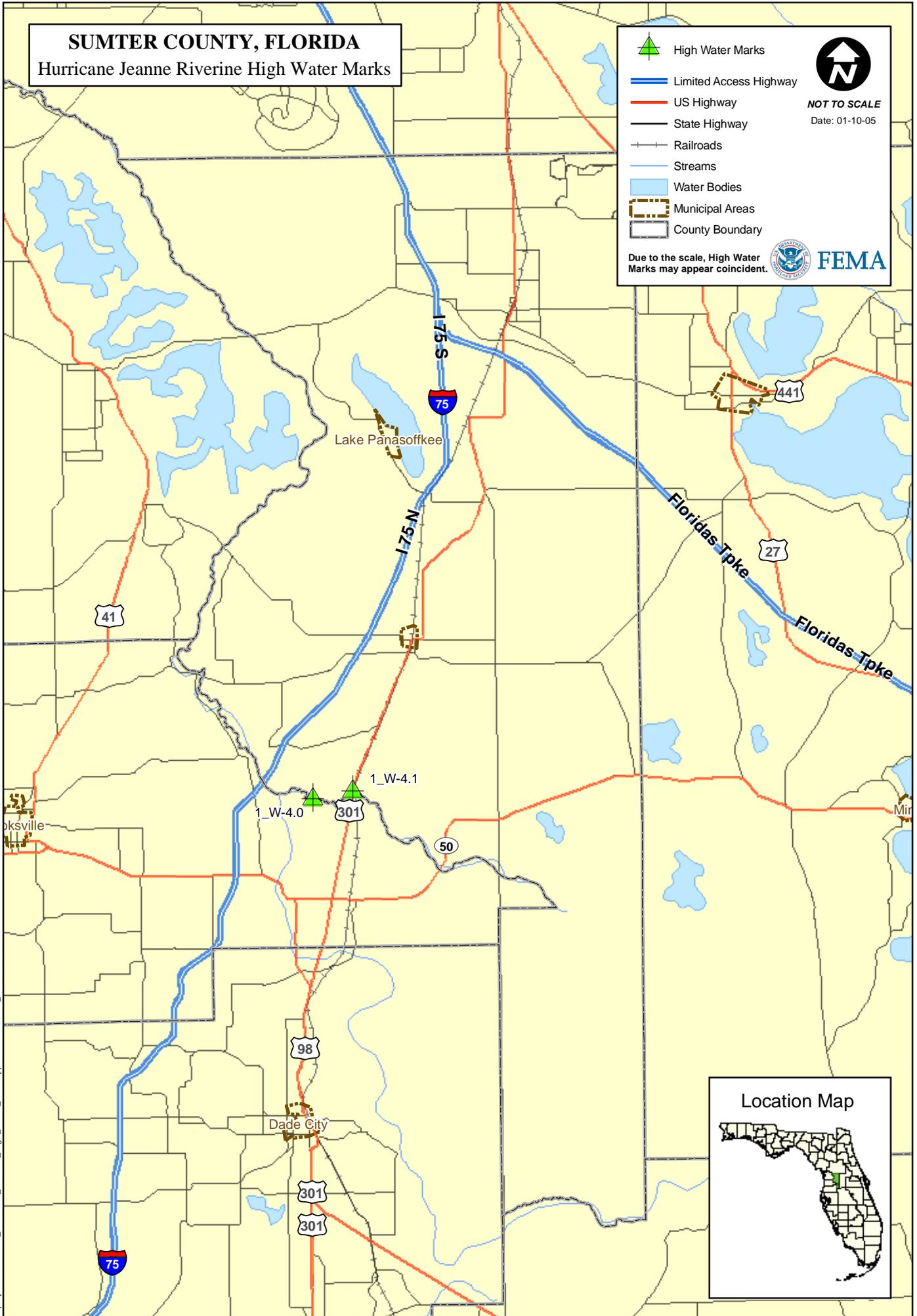
Hurricane Jeanne Riverine High Water Marks



NOT TO SCALE
Date: 01-10-05

-  High Water Marks
-  Limited Access Highway
-  US Highway
-  State Highway
-  Railroads
-  Streams
-  Water Bodies
-  Municipal Areas
-  County Boundary

Due to the scale, High Water Marks may appear coincident.

H:\projects\15702334 - Hurricane Riverine - High Water - Mark\Applications\Jeanne_Porrait.mxd



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1202960200B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Sumt-1

HWM ID	1_W-4.0	Type of Mark:	Nail/ paint/flagging tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Withlacoochee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	57.7 ft.	NGVD 29:	58.5 ft.
Survey Elevation (NAVD 88):	57.7 ft.	HWM Object:	Fence
Flooding Type:	Hurricane		
HWM Address:	SW 128th Pl.		
Location of HWM Object	I-75 N. to CR 673. Go E. Take CR 683D S. to CR 683 - follow around to CR 656. Go left on CR 656 to CR 684 turn left. At corner of CR 684 and SW 128th find HWM.		
HWM Type:	Water/Mud line		
Closest Municipality:	Webster	County:	Sumter
		State:	FL
Name of Flagger/Interviewer:	Shelly E. Brooks	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	MR, WR	Survey Company:	PBS&J
Survey Date:	11/18/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	182135
		Easting (feet):	597555
Survey Latitude:	28.56924	Northing (Meters):	469304
Survey Longitude:	82.18260	Northing (feet):	1539708
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



W-4.0

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1202960200B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Sumt-2

HWM ID	1_W-4.1	Type of Mark:	Nail/paint/flagging tape
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Withlacoochee River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	68.5 ft.	NGVD 29:	69.4 ft.
Flooding Type:	Hurricane	HWM Object:	Utility pole
HWM Address:	US 301 at Withlacocchee River Bridge		
Location of HWM Object	I-75 N. to SR 50. Take SR 50 E. to US 301, turn left. Utility pole is located on E. side of US 301 at intersection of Little Withlacoochee River.		
HWM Type:	Water/Mud line		
Closest Municipality:	Webster	County:	Sumter
		State:	FL
Name of Flagger/Interviewer:	Shelly E. Brooks	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	MR, WR	Survey Company:	PBS&J
Survey Date:	11/18/04		
Survey Projection:	FLORIDA WEST (0902)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	184825
		Easting (feet):	606381
Survey Latitude:	28.57354	Northing (Meters):	469778
Survey Longitude:	82.15511	Northing (feet):	1541262
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



W-4.1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

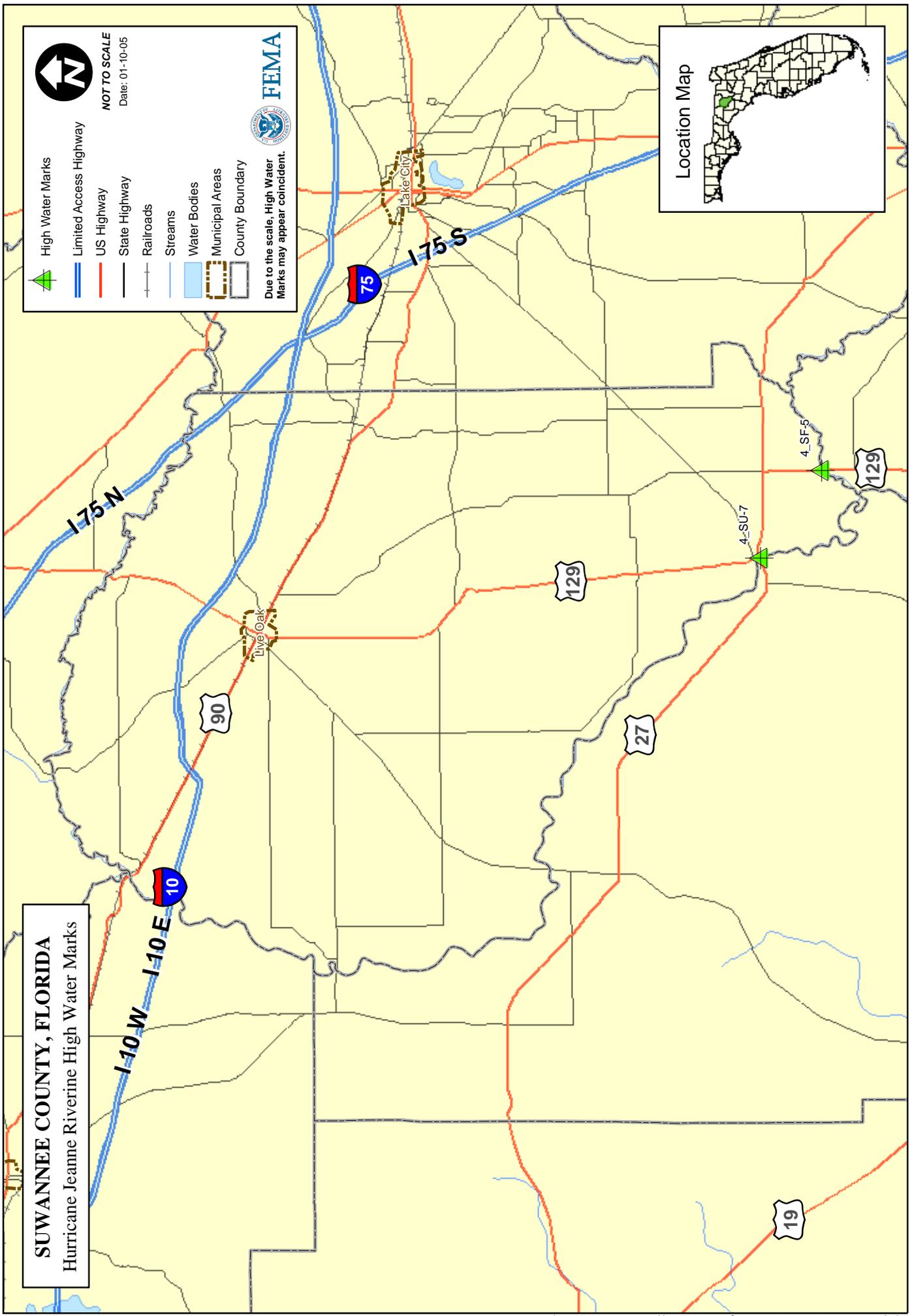
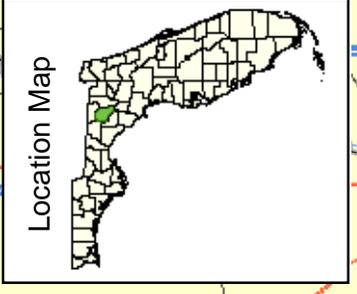
Appendix S: Suwannee County Data Sheets and Location Map

SUWANNEE COUNTY, FLORIDA
Hurricane Jeanne Riverine High Water Marks

 **NOT TO SCALE**
 Date: 01-10-05
FEMA

 Due to the scale, High Water Marks may appear coincident.

	High Water Marks
	Limited Access Highway
	US Highway
	State Highway
	Railroads
	Streams
	Water Bodies
	Municipal Areas
	County Boundary





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1203000415A **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Suwa-1

HWM ID	4_SF-5	Type of Mark:	Nail & ribbon
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	Santa Fe River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	25.3 ft.	NGVD 29:	26.1 ft.
Survey Elevation (NAVD 88):	25.3 ft.	HWM Object:	Utility pole
Flooding Type:	Hurricane		
HWM Address:	William Guy Lemmon Memorial Park		
Location of HWM Object	South on US 129 to rt on 296 St. to left into William Guy Lemmon Memorial Park; marker is on utility pole adjacent to picnic building		
HWM Type:	Debris line		
Closest Municipality:	Branford	County:	Suwannee
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	SH, AL	Survey Company:	PBS&J
Survey Date:	12/29/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	758326
		Easting (feet):	2487942
Survey Latitude:	29.91296	Northing (Meters):	102338
Survey Longitude:	82.86038	Northing (feet):	335754
		Approx. First Floor Elevation:	Not Applicable

Comments:
None Noted



SF-5_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

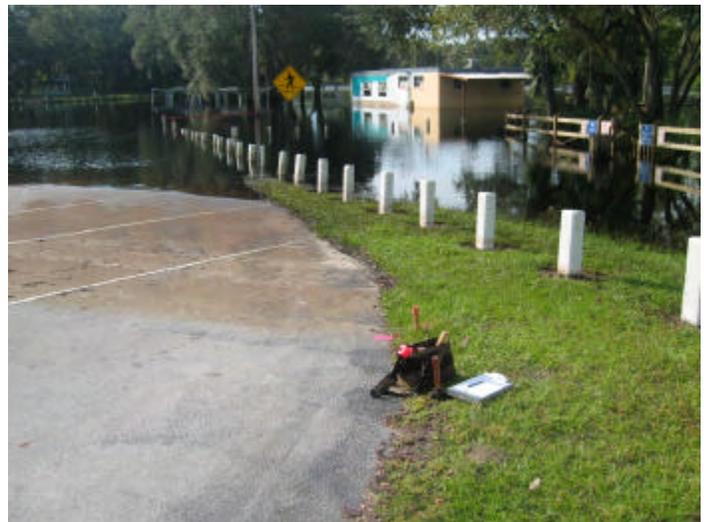
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1203000385A **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Suwa-2

HWM ID: 4_SU-7 **Type of Mark:** Stake/paint
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: Suwannee River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 29.8 ft. **NGVD 29:** 30.6 ft. **HWM Object:** Concrete/ground
Flooding Type: Hurricane
HWM Address: SW Ivey Memorial Park Dr.
Location of HWM Object: SW US 27 to right on SW Ivey Memorial Park Dr.; marker is on rt. side in 1st parking spot on rt. after entering park; approx. 40 yds from US 27 and on SW Ivey Memorial Park Dr.
HWM Type: Water mark & debris line
Closest Municipality: Branford **County:** Suwannee **State:** FL
Name of Flagger/Interviewer: Jeff Henninger **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: SH, AL **Survey Company:** PBS&J
Survey Date: 12/29/04
Survey Projection: FLORIDA NORTH (0903) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Survey Latitude: 29.95503 **Easting (Meters):** 751711 **Easting (feet):** 2466237
Survey Longitude: 82.92823 **Northing (Meters):** 106908 **Northing (feet):** 350746
Approx. First Floor Elevation: Not Applicable

Comments:
None Noted



SU-7_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix T: Union County Data Sheets and Location Map

UNION COUNTY, FLORIDA

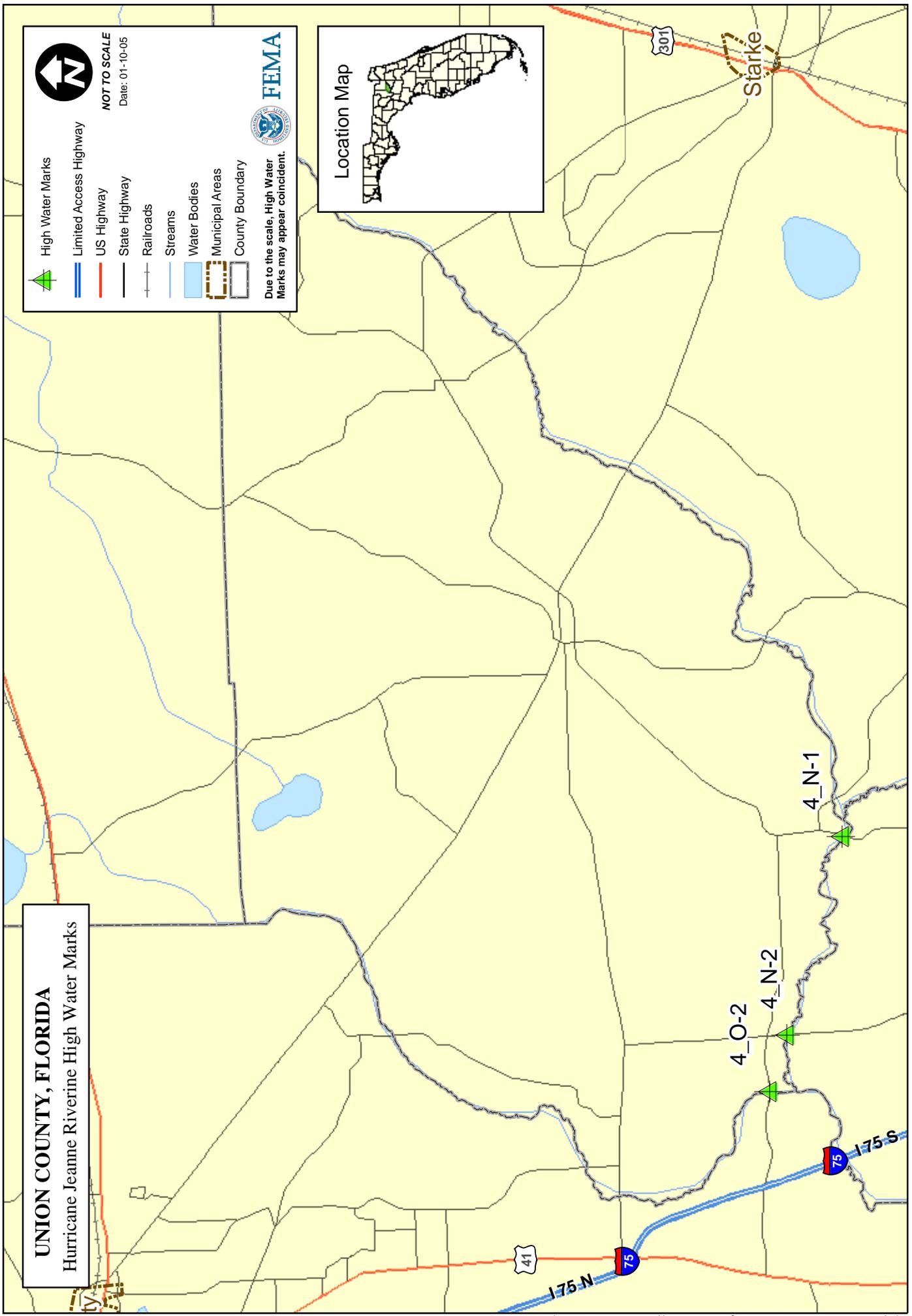
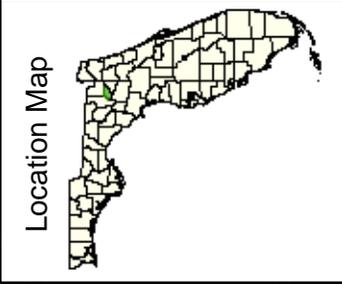
Hurricane Jeanne Riverine High Water Marks

 **NOT TO SCALE**
Date: 01-10-05

- High Water Marks
- Limited Access Highway
- US Highway
- State Highway
- Railroads
- Streams
- Water Bodies
- Municipal Areas
- County Boundary

 **FEMA**

Due to the scale, High Water Marks may appear coincident.





PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 120595B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Unio-1

HWM ID	4_N-1	Type of Mark:	Stake		
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004		
Stream Name/Flood Source:	New River	Quality of Mark:	Good		
Survey Elevation (NAVD 88):	58.7 ft.	NGVD 29:	59.5 ft.	HWM Object:	Ground
Flooding Type:	Hurricane				
HWM Address:	CR 121 at New River Bridge				
Location of HWM Object	North on CR 121, cross over bridge into Bradford Co.; marker located E. side of CR 121 approx. 24 yds directly E. of end of guard rail from bridge.				
HWM Type:	Dead/bent grass line				
Closest Municipality:	Brooker	County:	Union	State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation		
Date of Flagging/Interview:	10/15/04				
Survey Crew:	GMB, CDR	Survey Company:	PBS&J		
Survey Date:	12/3/04				
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88	Horizontal Datum:	NAD83(90)
		Easting (Meters):	800292	Easting (feet):	2625624
Survey Latitude:	29.92337	Northing (Meters):	104175	Northing (feet):	341780
Survey Longitude:	82.42553	Approx. First Floor Elevation:	Not Applicable		

Comments:

Approx. 24 yds. directly E. from guard rail.



N-1_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
PBS & J License Business 24
482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1204220185B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Unio-2

HWM ID	4_N-2	Type of Mark:	Stake/paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	New River	Quality of Mark:	Good/Fair
Survey Elevation (NAVD 88):	50.8 ft.	NGVD 29:	51.6 ft.
Flooding Type:	Hurricane	HWM Object:	Ground
HWM Address:	CR 121 at New River Bridge		
Location of HWM Object	North CR 241 from Alachua to Santa Fe River; cross bridge to NW side of bridge; marker is located down embankment approx. 40' from rd. & 40 yds from corner of bridge		
HWM Type:	Stake in ground with paint - debris line		
Closest Municipality:	Alachua	County:	Union
		State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/15/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	12/3/04		
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	792404
		Easting (feet):	2599746
Survey Latitude:	29.94393	Northing (Meters):	106313
		Northing (feet):	348796
Survey Longitude:	82.50682	Approx. First Floor Elevation:	Not Applicable

Comments:

6' 6" directly E. (towards road.) from post.



N-2_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 1204220185B **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Unio-3

HWM ID	4_O-2	Type of Mark:	Stake/flag/paint		
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004		
Stream Name/Flood Source:	Olustee River	Quality of Mark:	Good		
Survey Elevation (NAVD 88):	52.8 ft.	NGVD 29:	53.6 ft.	HWM Object:	Ground/embankment
Flooding Type:	Hurricane				
HWM Address:	CR 18 at Olustee River Bridge				
Location of HWM Object	North CR 241 to W. on SR 18 to bridge over Olustee Creek; marker located N. side of bridge just before crossing bridge (E. side) approx. 19' down embankment from rd. and corner of bridge				
HWM Type:	Debris/dead grass line				
Closest Municipality:	High Springs	County:	Union	State:	FL
Name of Flagger/Interviewer:	Jeff Henninger	Flagger Company:	URS Corporation		
Date of Flagging/Interview:	10/15/04				
Survey Crew:	GMB, CDR	Survey Company:	PBS&J		
Survey Date:	12/2/04				
Survey Projection:	FLORIDA NORTH (0903)	Vertical Datum:	NAVD 88	Horizontal Datum:	NAD83(90)
		Easting (Meters):	790172	Easting (feet):	2592424
Survey Latitude:	29.95032	Northing (Meters):	106983	Northing (feet):	350993
Survey Longitude:	82.52982	Approx. First Floor Elevation:	Not Applicable		

Comments:

North 19' from survey bench mark located on NE corner of bridge.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

O-2_1

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
PBS & J License Business 24
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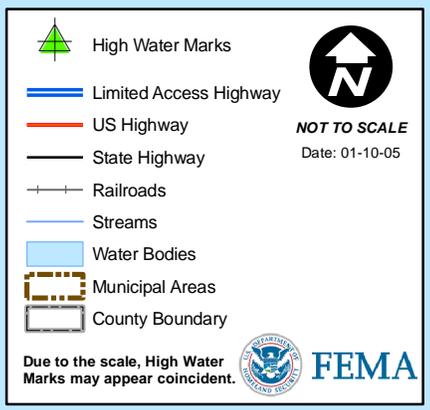
PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:

APPENDICES

Appendix U: Volusia County Data Sheets and Location Map

VOLUSIA COUNTY, FLORIDA

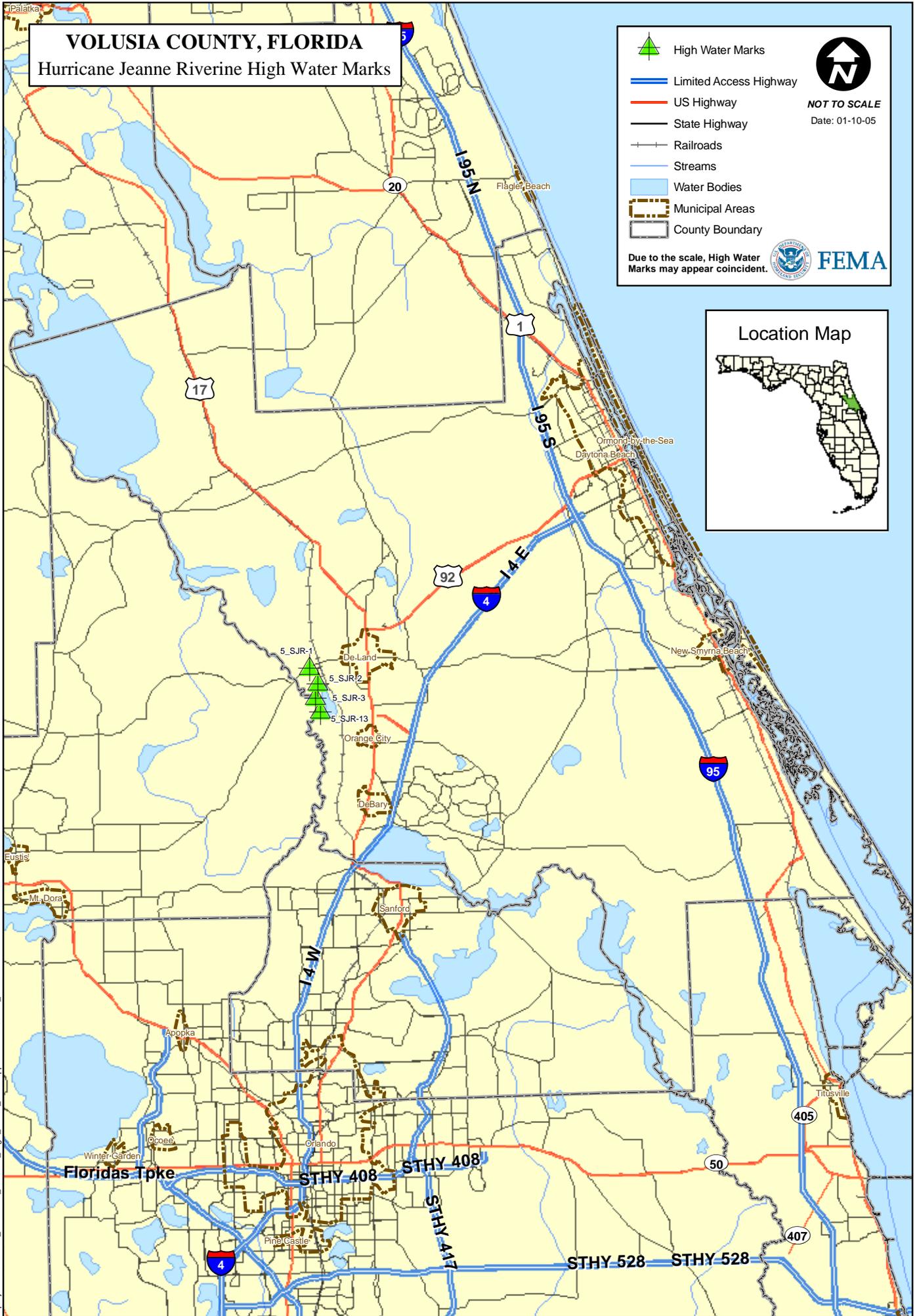
Hurricane Jeanne Riverine High Water Marks



- High Water Marks
- Limited Access Highway
- US Highway
- State Highway
- Railroads
- Streams
- Water Bodies
- Municipal Areas
- County Boundary

NOT TO SCALE
Date: 01-10-05

Due to the scale, High Water Marks may appear coincident.

H:\projects\15702334 - Hurricane Riverine High Water Mark Applications\leanne_Porrait.mxd



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12127C0465G **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Volu-1

HWM ID	5_SJR-1	Type of Mark:	Flag/orange spray paint
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Fair
Survey Elevation (NAVD 88):	17.2 ft.	NGVD 29:	18.3 ft.
Survey Elevation (NAVD 88):	17.2 ft.	HWM Object:	Log in ditch
Flooding Type:	Hurricane		
HWM Address:	225 S. Shell Rd.		
Location of HWM Object	From DeLand - W. on New York Ave.; S. on Shell Rd S. - E. on Murray Ave. (small dirt rd.) marker will be approx. 200 ft. on rt. in ditch.		
HWM Type:	Mudline/Personal account		
Closest Municipality:	DeLand	County:	Volusia
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/12/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	164362
		Easting (feet):	539244
Survey Latitude:	29.01960	Northing (Meters):	519257
Survey Longitude:	81.36584	Northing (feet):	1703597
		Approx. First Floor Elevation:	19.0

Comments:

Heather mentioned that damage was caused by Frances (only rain from Jeanne).



SJR-1_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12127C0605G **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Volu-2

HWM ID	5_SJR-13	Type of Mark:	Stake
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	4.8 ft.	NGVD 29:	5.8 ft.
Flooding Type:	Hurricane	HWM Object:	Survey stake
HWM Address:	Holly Bluff Marina		
Location of HWM Object	From DeLand - W. on Old New York Ave - S. on Hontoon Rd - approx 500 ft. before dead end just across from Holly Bluff Marina and to N. of witness property.		
HWM Type:	Water mark / personal account		
Closest Municipality:	DeLand	County:	Volusia
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/12/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	165391
		Easting (feet):	542620
Survey Latitude:	28.97841	Northing (Meters):	514689
Survey Longitude:	81.35513	Northing (feet):	1688609
		Approx. First Floor Elevation:	7.2

Comments:
None Noted



SJR-13_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

Glenn D. Bryan - Professional Land Surveyor, No. 3700, State of Florida
 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12127C0465G **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Volu-3

HWM ID	5_SJR-2	Type of Mark:	PVC pipe
Name of Storm Event:	Hurricane Jeanne	Date of Flood Event:	9/26/2004
Stream Name/Flood Source:	St. Johns River	Quality of Mark:	Good
Survey Elevation (NAVD 88):	5.1 ft.	NGVD 29:	6.1 ft.
Survey Elevation (NAVD 88):	5.1 ft.	HWM Object:	PVC pipe on light pole
Flooding Type:	Hurricane		
HWM Address:	1563 Lakeside		
Location of HWM Object	From DeLand - W. on Old New York Ave. S. on Hontoon Rd. - E. on Palm Dr.- dead end into Lakeside Dr. - marker behind witness home; in middle of property at edge of lake there's light pole next to large willow tree - marker on pole.		
HWM Type:	Water mark/Personal account		
Closest Municipality:	DeLand	County:	Volusia
		State:	FL
Name of Flagger/Interviewer:	Sarah Peterson	Flagger Company:	URS Corporation
Date of Flagging/Interview:	10/18/04		
Survey Crew:	GMB, CDR	Survey Company:	PBS&J
Survey Date:	11/12/04		
Survey Projection:	FLORIDA EAST (0901)	Vertical Datum:	NAVD 88
		Horizontal Datum:	NAD83(90)
		Easting (Meters):	165165
		Easting (feet):	541880
Survey Latitude:	29.00471	Northing (Meters):	517605
		Northing (feet):	1698176
Survey Longitude:	81.35754	Approx. First Floor Elevation:	9.2

Comments:

Allowed to survey point if home or not. Call to let know when coming.



Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

SJR-2_1

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 PBS & J License Business 24
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PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL:



PROJECT: Hurricane Jeanne: FEMA-1561DR-FL
CONTENTS: Individual Historical High Water Mark Survey Report
TYPE: Rapid Response Riverine High Water Marks
COMM. NO. 12069C0300D **PREL.** 1/14/2005 **FINAL** 2/28/2005 **SHEET** Volu-4

HWM ID: 5_SJR-3 **Type of Mark:** Flag and spraypaint
Name of Storm Event: Hurricane Jeanne **Date of Flood Event:** 9/26/2004
Stream Name/Flood Source: St. Johns River **Quality of Mark:** Good
Survey Elevation (NAVD 88): 4.8 ft. **NGVD 29:** 5.9 ft. **HWM Object:** Trash can post
Flooding Type: Hurricane
HWM Address: 1968 Quail Hollow Dr.
Location of HWM Object: From DeLand - W. on Old New York Ave. - S. on Hontoon Rd - S. on Cardinal Village - loop around to Quail Hollow Dr. and turn into Quail Hollow on the River (community clubhouse) pkg lot - marker on trash can post behind swimming pool & N. of boat ramp.
HWM Type: Water mark
Closest Municipality: DeLand **County:** Volusia **State:** FL
Name of Flagger/Interviewer: Sarah Peterson **Flagger Company:** URS Corporation
Date of Flagging/Interview: 10/18/04
Survey Crew: GMB, CDR **Survey Company:** PBS&J
Survey Date: 11/12/04
Survey Projection: FLORIDA EAST (0901) **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD83(90)
Survey Latitude: 28.99103 **Easting (Meters):** 164877 **Easting (feet):** 540933
Survey Longitude: 81.36045 **Northing (Meters):** 516090 **Northing (feet):** 1693205
Approx. First Floor Elevation: 12.1

Comments:
None Noted



SJR-3_1

Survey Certification: Coastal High Water Mark Location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

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 PBS & J License Business 24
 482 South Keller Road, Orlando, Florida. 32810 PH. 407-647-7275

PROJECT: Hurricane Jeanne: FEMA-1561-DR-FL: