GILCHRIST COUNTY, FLORIDA

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
GILCHRIST COUNTY (UNINCORPORATED AREAS)	120094
BELL, TOWN OF	120280
FANNING SPRINGS, CITY OF	120146
TRENTON, CITY OF	120354

Preliminary March 3, 2015

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER

12041CV000B

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Part or all of this FIS may be revised and republished at any time. In addition, part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

Initial Countywide FIS Effective Date: September 29, 2006

Preliminary Date: March 3, 2015

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FLOOD INSURANCE STUDY
GILCHRIST COUNTY, FLORIDA AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) investigates the existence and severity of flood hazards in, or revises and updates previous FISs/Flood Insurance Rate Maps (FIRMs) for the geographic area of Gilchrist County, Florida, including: the Cities of Fanning Springs and Trenton, the Town of Bell and the unincorporated area of Gilchrist County (hereinafter referred to collectively as Gilchrist County).

This FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the county that will be used to establish actuarial flood insurance rates. This information will also be used by Gilchrist County to update existing floodplain regulations as part of the Regular Phase of the National Flood Insurance Program (NFIP), and will also be used by local and regional planners to further promote sound land use and floodplain development. Minimum floodplain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this FIS are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

September 29, 2006 Countywide Revision

This FIS was prepared to include the unincorporated areas of, and incorporated communities within, Gilchrist County in a countywide format. Information on the authority and acknowledge for each jurisdiction included in this countywide FIS, as compiled from their previously printed FIS reports, is shown below.

Fanning Springs, City of	The hydrologic and hydraulic analyses for the FIS report dated August 16, 1988, were performed by the U.S. Army Corps of Engineers (USACE), Jacksonville District, for the Federal Emergency Management Agency (FEMA) under Inter-Agency

Agreement No. EMW-85-E-1822. That work was completed in October 1986.

Gilchrist County (Unincorporated Areas) The hydrologic and hydraulic analyses for the FIS report dated August 16, 1988, were performed by the USACE, Jacksonville District, for FEMA under Inter-Agency Agreement No. EMW-85-E-1822. That work was completed in October 1986.

The authority and acknowledgements for the Town of Bell are not available since they previously were a non-participating community in the NFIP and therefore, have no previous FIS report.

The authority and acknowledgements for the City of Trenton are not available because no FIS report was ever published for this community.

The hydrologic and hydraulic analyses for this study were performed by the USACE, Jacksonville District (the study contractor) for FEMA, under Inter-Agency Agreement No. EMW-85-E-1822, Project Order No. 1. This study was completed in October 1986.

In 2006, revised hydrologic and hydraulic analyses were prepared for FEMA by Dewberry & Davis LLC, as a subcontractor to URS Corporation under contract with the Suwannee River Water Management District (SRWMD), a FEMA Cooperating Technical Partner (CTP).

Physical Map Revision, Preliminary March 3, 2015

For this physical map revision (PMR), hydrologic and hydraulic analyses were prepared by Jones Edmunds & Associates, Inc., under contract with the SRWMD. Zone A Special Flood Hazard Areas (SFHA) was replaced with Zone AE for several areas around the City of Trenton on panels 0185, 0186, 0195, 0196, 0197, 0198, 0205, 0215, 0216, 0217, 0220, 0255, 0256, 0261, 0262, 0280, and 0285.

Additionally, as part of the FEMA Risk MAP Project for the Lower Suwannee Watershed (HUC 03110205), AMEC Environment & Infrastructure, Inc. (AMEC) and North Florida Professional Services (NFPS), under contract with SRWMD, revised this Countywide FIS and DFIRM for Gilchrist County. More specifically, AMEC and NFPS revised the Zone AE SFHA on panels 0152, 0154, 0156, 0158, 0162, 0166, 0227, 0229, 0231, and 0233.

The digital base map files consisted of 2009 1-foot resolution aerial photography from the Florida Department of Transportation.

The coordinate system used for the production of the digital FIRM is State Plane in the Florida North projection zone, referenced to the North American Datum of 1983.

1.3 Coordination

Consultation Coordination Officer's (CCO) meetings may be held for each jurisdiction in this countywide FIS. An initial CCO meeting is held typically with representatives of FEMA, the community, and the study contractor to explain the nature and purpose of a FIS and to identify the streams to be studied by detailed methods. A Preliminary DFIRM Coordination Meeting (PDCC) or final CCO meeting is held typically with representatives of FEMA, the community, the CTP and the study contractor to review the results of the study.

Previous Revisions

The dates of the initial and final CCO or PDCC meetings held for Gilchrist County and the incorporated communities within its boundaries are shown in Table 1, "Initial and Final or PDCC Meetings."

TABLE 1 – INITIAL AND FINAL OR PDCC MEETINGS

Community	For FIS Dated	Initial CCO Date	Final CCO or PDCC Date
Trenton, City of	N/A	N/A	N/A
Fanning Springs, City of	August 16, 1988	May 6, 1983	September 15, 1987
Bell, Town of	NA	NA	NA
Gilchrist County (Unincorporated Areas)	August 16, 1988	May 6, 1983	September 15, 1987
Gilchrist County (and Incorporated Areas)	September 29, 2006	N/A	November 17, 2005

Physical Map Revision, Preliminary March 3, 2015

For this PMR, a Risk MAP Discovery Meeting was held on September 8, 2011. A combined Flood Risk Review and Risk MAP Resilience Meeting was held on November 20, 2013. Preliminary DFIRM Community Coordination was held on ____________________________.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Gilchrist County, Florida.

All or portions of the Suwannee River and the Santa Fe River were previously studied by detailed methods. Limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

Areas having low development potential or minimal flood hazards were previously studied using approximate analyses. The results were shown on the Flood Hazard Boundary Map for Gilchrist County, Florida (U.S. Department of Housing and Urban Development, 1977) and are incorporated into this FIS.

The areas studied were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction. The scope and methods of study were proposed to, and agreed upon by, FEMA, the SRWMD, and Gilchrist County.

Physical Map Revision, Preliminary March 3, 2015

As part of this PMR, updated analyses were included for the flooding sources shown in Table 2, "Scope of Revision." In addition, SFHA delineations were revised on panels listed in the Authority and Acknowledgements Section.

TABLE 2 – SCOPE OF REVISION

Flooding Source	Limits of Revised or New Detailed Study
Unnamed Flooding Sources (City of Trenton)	Northeast portion of the City (north of SR 26 and east of SR 47).
Waters Lake	Drainage area contributing to Waters Lake.
Christmas Lake	Drainage area contributing to Christmas Lake.
Waccasassa Lake	Drainage area contributing to Waccasassa Lake.

2.2 Community Description

Gilchrist County is in north-central Florida, 75 miles southwest of the City of Jacksonville. Gilchrist County is bordered on the west by the Suwannee River, which separates it from Dixie County; on the north by the Santa Fe River, which separates it from Suwannee County; on the east by Alachua County; and on the south by Levy County. Gilchrist County is served by the CSX railroad; State Roads 26, 47, and 129. The 1980 population of Gilchrist County was reported to be 5,767, an increase of 62 percent over the 1970 population of 3,551. According to the 2000 Census, the population of Gilchrist was 14,437, an increase of 49.3 percent from 1990 to 2000.

The City of Trenton is the county seat and the major industries in Gilchrist County are hog raising and watermelon farming.

The county is in the Gulf Coastal lowlands physiographic area with topography ranging from 10 feet to about 75 feet.

On the Suwannee River from river mile 34.0 to river mile 42.0, from river mile 61.0 to the mouth of the Santa Fe River, and along the Santa Fe to the Alachua county line, the Fresh Water Swamp association is adjacent to the river. This association consists of nearly level, very poorly drained soils subject to prolonged flooding.

Adjacent to the Suwannee River from river mile 42.0 to 61.0 is the Chipley-Blanton-Swamp association, which consists of nearly level to gently sloping moderately well drained soils, sandy throughout and moderately well drained soils with thick sandy layers over loamy subsoil and very poorly drained soils (Florida Bureau of Comprehensive Planning, 1975).

The climate of Gilchrist County is semi-tropical, characterized by long, hot summers and mild winters. The average annual rainfall is 54.76 inches, while the average temperatures vary from 56.2 degrees Fahrenheit (°F) in January to 81.2°F in August.

2.3 Principal Flood Problems

The most severe floods in the Suwannee River basin are associated with storms, or sequences of storms, that produce widespread distribution of rainfall for a duration of several days. Flooding occurs in all seasons, but maximum annual stages occur most frequently from February through April as a result of a series of frontal-type rainfall events over the basin.

A number of major floods have occurred on the Suwannee River with the largest flood occurring at Wilcox in April 1948. These floods are shown below in Table 3, "Historical Flood Data."

TABLE 3 - HISTORICAL FLOOD DATA

LOCATION	PEAK DISCHARGE (cfs)				
SUWANNEE RIVER	1948	1928	1973	1984	1998
near Branford	83,900	65,000	54,700	41,400	46,900
near Wilcox	84,700	71,500	55,100	48,400	47,700
SANTA FE RIVER	1964	1998	1948	1934	1993
At State Route 27	17,000	13,500	12,300	11,400	10,800

2.4 Flood Protection Measures

Flood protection measures are not known to exist within the study area.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the county, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this FIS. Flood events of a magnitude which are expected to be equaled or exceeded once on average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the county at the time of completion of this FIS. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the runoff hydrographs for each subbasin in the watershed for the newly studied area.

Precountywide Analyses

The U.S. Geological Survey (USGS) has monitored flows in the Suwannee River basin at two selected gaging stations since 1928 and flow in the Santa Fe River basin since 1934. Regression analyses were used to fill in missing data and to extend records at each gaged location on the Suwannee and the Santa Fe Rivers.

Flood recurrence frequencies were determined by log-Pearson Type III statistical analysis in accordance with procedures found in Water Resources Council Bulletin No. 17B (U.S. Department of the Interior, 1982). On the Santa Fe River, a rainfall runoff model was developed using the standard Soil Conservation Service procedure and the HEC-1 runoff model. The model was calibrated to the Hurricane Dora flood of 1964 and verified by statistical analysis of discharge records from four long-term gages on the Santa Fe River.

A summary of the drainage area-peak discharge relationships for the streams studied by detailed methods is shown in Table 4, “Summary of Discharges.”

TABLE 4 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES(cfs)			
		10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
SUWANNEE RIVER					
Near the Town of Wilcox	7,880	34,800	54,000	62,900	85,300
SANTA FE RIVER					
At State Route 27	1,017	9,192	13,791	16,717	22,200

September 29, 2006 Countywide Revision

The hydrologic analysis was revised for the countywide update that occurred in 2006. A hydrologic analysis was performed on 7 USGS stream gaging stations on the Suwannee River and one stream gaging station on the Santa Fe River. In accordance with the Federal Emergency Management Agency Flood Hazard Mapping Program Map Modernization Guidelines and Specifications for Flood Hazard Mapping Partners Appendix C: Guidance for Riverine Flooding Analyses and Mapping(Appendix C) (FEMA, 2003), the analysis was performed using the USGS PEAKFQ program, Annual Flood Frequency Analysis Using Bulletin 17B Guidelines (USGS, 1998). The PEAKFQ computer program was downloaded from the USGS web site http://water.usgs.gov/software/peakfq.html and the peak flow data was acquired from http://nwis.waterdata.usgs.gov/fl/nwis/peak.

As specified in *C.1.2.1 Preliminary Hydrologic Analysis of Appendix C*, the results for the PEAKFQ analysis for those gaging stations with a systemic record of less than 50 years were weighted with the results of the USGS regional regression equation developed for the Suwannee River Water Management District in their 1996 report titled Regional RegressionEequation for the Suwannee River Water Management District from U.S. Geological Survey Water-Resource Investigations Report 96-4176(Report 96-4176) (Giese, G.L., Franklin, M.A., 1996). The regional regression equation is presented below:

$$Q_T = C_T DA^{B1}{}_T (LK+.6)^{B2}{}_T$$

where

Q_T is the discharge for a recurrence interval of T-years, in cubic feet per second.

C_T is the regression constant for the recurrence interval, T.

DA is the drainage area, in square miles.

LK is the percentage of the drainage area covered by lakes.

$B1_T$ and $B2_T$ are exponents for various recurrence intervals.

For the recurrence interval of 100 years (T)

$C_T = 584$

$B1_T = .543$

$B2_T = -.591$

Drainage area and percentage of drainage area covered by lake values for the individual stream gaging stations were taken from Appendix 1 of Report 96-4176.

The weighting equation from Report 96-4176 used for the analysis is presented below:

$$\text{Log}Q_{wt}=(N\log Q_g+EY\log Q_r)/(N+EY)$$

where

Q_{wt} is the weighted estimate of the T-year flood at gaged site, in cubic feet per second.

Q_g is the T-year flood estimate for log-Pearson Type III frequency distribution of annual peaks at gaged site, in cubic feet per second.

Q_r is the regional flood estimate for the gaged site, in cubic feet per second.

N is the number of annual peaks used to compute Q_g in years.

EY is the accuracy of the regional flood estimate, in equivalent years.

It should be noted that USGS stream gaging station 0232000 Suwannee River at Luraville, Florida, was not included as part this analysis due to temporal nature of the peak flow data. The data provided by the USGS website gives a total of 22 peak flows values. The data consists of records from 1928 through 1937, 1948, 1959, 1964, 1966, 1973, 1997, 1998, and 2000 through 2003. With 10 pre-1940 data points and only 7 data points for the past 38 years, it was not possible to determine if the systemic records for stream gaging station 2320000 constituted an unbiased and representative sample of the population of all possible annual peaks for the site.

A review of the PEAKFQ analysis found that all of the previous computed flood discharges (as shown in Table 4) fall within the PEAKFQ 95- and 5 percent confidence limits of the recent estimates. In accordance with Appendix C of FEMAs Map Modernization Guidelines and Specifications for Flood Hazard

Mapping Partners, it is recommended that the previous flood discharge as shown in Table 4 remain unchanged. Therefore, the discharges listed in Table 4 will be utilized for this FIS.

Physical Map Revision, Preliminary March 3, 2015

A watershed model was developed for a region of Gilchrist County encompassing the City of Trenton and the areas surrounding Waters Lake, Christmas Lake, and Waccasassa Lake. The USGS collected digital topographic information for the study area using Light Detection and Ranging (LiDAR) technology. This topographic data was used to develop the watershed model. A small portion of the watershed was not covered by the new LiDAR data. For these areas, the terrain model was supplemented with information available from the USGS 5- and 10-foot contour data to help better delineate the outer edges of the subbasins affected. Subbasin boundaries were delineated based on the existing physical characteristics of the project area such as topography, storage areas, and conveyance features (e.g., channels, pipes, etc.).

The Environmental Protection Agency's (EPA) SWMM5 modeling software was used to simulate the hydrologic conditions of the watershed using the Green-Ampt method. This method calculates the rainfall runoff by estimating the amount of infiltration into the soils from a rain storm. Information required (at the subbasin level) to run this method in SWMM5 include the storm duration (e.g., 24 hours, etc.), depth, and distribution as well as the specific properties of each subbasin (i.e., average width and slope, impervious area, infiltration parameters, etc.). Infiltration parameters include the soil suction head, saturated hydraulic conductivity and initial deficit.

The soil data was obtained from the United States Department of Agriculture's (USDA) Soil Survey Geographic (SSURGO) database for Gilchrist County. The majority of the soils in the study area are fine sands. The Green-Ampt parameters (i.e., hydraulic conductivity, soil suction head, and initial moisture deficit) were derived from the soil information. The soil data was intersected with the subbasin features in order to determine the amount of each soil within a subbasin. The soil parameters were then aggregated for each subbasin using area-weighted averages.

The rainfall depths for the 10-, 50-, 100-, and 500-year storm events were derived from the Florida Department of Transportation's (FDOT) rainfall Intensity-Duration-Frequency (IDF) curves in their drainage manual. The 500-year rainfall amount was estimated from extrapolation using the other rainfall amounts. The storm events were distributed over time using the Natural Resource Conservation Service (NRCS) Florida Modified Type II rainfall distribution.

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods for the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS report. For construction and/or floodplain management purposes, users are encouraged to use the flood elevation data resented in this FIS in conjunction with the data shown on the FIRM.

Precountywide Analyses

Cross-section data were obtained by aerial photography for the floodplain areas and from field measurements for the main channel and immediate overbanks (Suwannee River Water Management District, Stream Cross Sections; USACE, Stream Cross Sections). All bridges were field surveyed to obtain elevation data and structural geometry. Cross sections are located on the Suwannee and Santa Fe Rivers with respect to river miles. The distance between river miles is only approximate.

Water-surface elevations of floods of the selected recurrence intervals were computed through use of the USACE HEC-2 step-backwater computer program (USACE, 1976). Roughness coefficients (Manning's"n") used in the hydraulic computations were determined by analyzing known flood events in the Gilchrist County reaches of the Suwannee and Santa Fe Rivers. The roughness coefficients for the main channels ranged from 0.035 to 0.045. For the overbanks, the values ranged from 0.15 to 0.20 on the Suwannee River and from 0.2 to 0.28 on the Santa Fe River.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 2- and1-percent annual chance flood elevations are close together, due to limitations of the profile scale, only the 1-percent profile has been shown.

The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations in the precountywide analysis are referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29).

September 29, 2006 Countywide Revision

In 2006, the HEC-2 computer files for the Suwannee River and the Santa Fe River were converted to HEC-RAS files by the SRWMD. The HEC-RAS files for both rivers incorporated new field survey at the following road crossings:

Suwannee River

- US Route 19
- CSX Railroad
- County Highway 340

Santa Fe River

- US Route 129
- State Route 47

The bridge surveys above were conducted to verify the structure geometry and update the adjacent cross sections for any physical changes that have occurred since the original study. The setup of the bridges in the model was also updated to conform to the recommended bridge modeling approaches presented in the HEC-RAS User's Manual.

All of the above field surveys were established with vertical control in the NAVD 1988 datum. Also all of the NGVD 1929 elevation data in the original HEC-2 models were converted to NAVD 88. Therefore, the input and output of the *revised HEC-RAS files reflect elevations in NAVD 88.*

Physical Map Revision, Preliminary March 3, 2015

A watershed model was developed for a region of Gilchrist County encompassing the City of Trenton and the areas surrounding Waters Lake, Christmas Lake, and Waccasassa Lake. The USGS collected digital topographic information for the study area using LiDAR technology. This topographic data was used to develop the watershed model. A small portion of the watershed was not covered by the new LiDAR data. For these areas, the terrain model was supplemented with information available from the USGS 5- and 10-foot contour data to help better characterize the hydraulic storage and conveyances within the watershed.

The EPA SWMM5 modeling software was used to simulate the flooding potential within the watershed. The SWMM5 hydraulic network was developed from information compiled from field and survey data. The LiDAR data was also used to supplement the hydraulic information, including parameterization of the storage facilities and overland weir connections.

Hydraulically significant channels were identified using information from available hydrography datasets, aerial photography, and the LiDAR data. These channels were generally located in undeveloped areas that were not readily accessible. The channel geometry was approximated using the aerial photography and LiDAR data.

Data for the culverts were derived from the field and survey data. Manning's roughness values were assigned based on material type and assuming a clear, well-maintained pipe. The data for entrance, exit, and bend losses were derived from the typical values reported in the FDOT Drainage Manual.

Roadway overtopping was represented by broad-crested weirs. Weir crest elevations for these roads were obtained from survey or plan sets. Natural overland flow weirs were simulated between subbasins using irregular cross sections derived from the LiDAR data. These natural overland weirs were represented as short channels in SWMM5, since the model does not allow irregular cross sections for weirs.

Initial water surface elevations were estimated using several methodologies. Initially, starting elevations in the vicinity of channels and pipes were evaluated based on the channel bottom or pipe inverts so that the system provided zero flow at the start of the simulation, which is consistent with observed field conditions. Additionally, the model was run with zero rainfall to obtain the static water level conditions. Initial conditions for wet depressions, such as natural ponds and wetlands, were evaluated on a case-by-case basis using the available topographic data, aerial photography, and an evaluation of the soil properties, such as depth to high water table.

There were no nearby gages or existing models to reference boundary conditions. Therefore, boundary conditions were evaluated on a case-by-case basis using the available topographic data, aerial photography, and wetlands data. In addition, the county's mix of wetland areas, uplands, and areas of coniferous plantations is characterized by significant variation in elevation. The study area was delineated to the outermost high ridge elevations where there is little hydraulic interaction with adjacent watersheds.

Several storm events were simulated, including the 10-, 50-, 100-, and 500-year events. Various storm durations and temporal distributions were used, including the Modified Florida Type II (FLMOD), and the Florida Department of Transportation's rainfall distributions for the 24-, 72-, 168-, and 240-hour durations. Results of the simulation indicated that, on average, the FLMOD simulation produced peak stages at or above other simulations.

TABLE 5 - SUMMARY OF STILLWATER ELEVATIONS

	ELEVATION (feet NAVD)			
FLOODING SOURCE	10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
CLOSED BASIN AREA 1	52.7	53.3	53.7	54.2
CLOSED BASIN AREA 2	55.0	55.8	55.8	55.8
CLOSED BASIN AREA 3	55.0	55.8	55.8	55.8
CLOSED BASIN AREA 4	56.1	56.3	56.3	56.4
CLOSED BASIN AREA 5	74.6	74.7	74.7	74.7
CLOSED BASIN AREA 6	69.3	69.3	69.3	69.3
CLOSED BASIN AREA 7	70.4	70.5	70.5	70.5
CLOSED BASIN AREA 8	83.0	83.1	83.2	83.3
CLOSED BASIN AREA 9	68.9	69.2	69.4	69.7
CLOSED BASIN AREA 10	82.0	82.3	82.4	82.7
CLOSED BASIN AREA 11	74.9	75.7	76.0	76.5
CLOSED BASIN AREA 12	76.2	76.5	76.6	76.8
CLOSED BASIN AREA 13	62.6	63.6	64.0	64.8
CLOSED BASIN AREA 14	76.3	76.5	76.6	76.8
CLOSED BASIN AREA 15	80.0	80.2	80.3	80.5
CLOSED BASIN AREA 16	85.7	85.9	86.0	86.2
CLOSED BASIN AREA 17	52.7	53.0	53.1	53.3
CLOSED BASIN AREA 18	82.6	82.9	83.0	83.1
CLOSED BASIN AREA 19	53.2	53.3	53.7	54.2
CLOSED BASIN AREA 20	52.6	52.9	53.0	53.3
CLOSED BASIN AREA 21	55.1	55.2	55.2	55.3

TABLE 5 - SUMMARY OF STILLWATER ELEVATIONS (cont'd)

FLOODING SOURCE	ELEVATION (feet NAVD) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
CLOSED BASIN AREA 22	55.1	55.2	55.2	55.3
CLOSED BASIN AREA 23	69.0	69.0	69.0	69.0
CLOSED BASIN AREA 24	80.3	80.5	80.5	80.6
CLOSED BASIN AREA 25	85.0	85.0	85.1	85.1
CLOSED BASIN AREA 26	82.3	82.8	82.9	83.1
CLOSED BASIN AREA 27	85.8	86.0	86.1	86.2
CLOSED BASIN AREA 28	79.3	79.7	79.9	80.2
CLOSED BASIN AREA 29	88.5	88.7	88.8	89.0
CLOSED BASIN AREA 30	60.1	60.2	60.2	60.2
CLOSED BASIN AREA 31	62.1	62.1	62.1	62.1
CLOSED BASIN AREA 32	74.7	75.6	76.0	76.8
CLOSED BASIN AREA 33	78.3	78.5	78.6	78.8
CLOSED BASIN AREA 34	78.5	78.9	79.1	79.4
CLOSED BASIN AREA 35	85.7	85.8	85.8	85.9
CLOSED BASIN AREA 36	62.1	62.2	62.3	62.5
CLOSED BASIN AREA 37	83.5	83.8	83.9	84.2
CLOSED BASIN AREA 38	82.6	83.0	83.2	83.5
CLOSED BASIN AREA 39	62.2	62.3	62.3	62.3
CLOSED BASIN AREA 40	55.6	56.4	57.0	59.2
CLOSED BASIN AREA 41	58.5	58.6	58.7	58.8
CLOSED BASIN AREA 42	47.6	47.9	48.0	48.4
CLOSED BASIN AREA 43	62.1	62.2	62.3	62.5
CLOSED BASIN AREA 44	60.6	60.7	60.7	60.9
CLOSED BASIN AREA 45	63.7	63.8	63.8	63.8
CLOSED BASIN AREA 46	65.4	65.6	65.6	65.7
CLOSED BASIN AREA 47	63.2	63.5	63.7	63.9
CLOSED BASIN AREA 48	61.0	61.1	61.1	61.2
CLOSED BASIN AREA 49	61.5	61.6	61.6	61.7
CLOSED BASIN AREA 50	61.8	62.2	62.3	62.5
CLOSED BASIN AREA 51	61.7	62.0	62.1	62.3
CLOSED BASIN AREA 52	62.1	62.2	62.3	62.5
CLOSED BASIN AREA 53	62.9	63.0	63.0	63.1
CLOSED BASIN AREA 54	62.2	62.3	62.4	62.5
CLOSED BASIN AREA 55	62.2	62.3	62.4	62.5
CLOSED BASIN AREA 56	62.6	62.7	62.7	62.8
CLOSED BASIN AREA 57	62.2	62.3	62.4	62.5
CLOSED BASIN AREA 58	61.8	62.2	62.3	62.5
CLOSED BASIN AREA 59	62.1	62.2	62.3	62.5
CLOSED BASIN AREA 60	51.4	51.6	51.8	52.1
CLOSED BASIN AREA 61	52.8	53.1	53.3	53.5
CLOSED BASIN AREA 62	54.2	54.3	54.3	54.5
CLOSED BASIN AREA 63	53.9	54.3	54.4	54.7
CLOSED BASIN AREA 64	53.1	53.2	53.3	53.4
CLOSED BASIN AREA 65	55.0	55.1	55.2	55.4
CLOSED BASIN AREA 66	83.2	83.3	83.4	83.5

TABLE 5 - SUMMARY OF STILLWATER ELEVATIONS (cont'd)

FLOODING SOURCE	ELEVATION (feet NAVD) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
CLOSED BASIN AREA 67	74.9	75.0	75.1	75.2
CLOSED BASIN AREA 68	69.3	69.3	69.4	69.4
CLOSED BASIN AREA 69	74.9	75.0	75.1	75.2
CLOSED BASIN AREA 70	69.7	69.8	69.8	69.9
CLOSED BASIN AREA 71	54.6	54.7	54.8	54.8
CLOSED BASIN AREA 72	55.9	56.1	56.1	56.3
CLOSED BASIN AREA 73	57.0	57.0	57.1	57.1
CLOSED BASIN AREA 74	55.0	55.8	55.8	55.8
CLOSED BASIN AREA 75	74.4	74.4	74.4	74.5
CLOSED BASIN AREA 76	74.4	74.4	74.4	74.5
CLOSED BASIN AREA 77	83.5	83.7	83.8	84.0
CLOSED BASIN AREA 78	74.8	74.9	75.0	75.1
CLOSED BASIN AREA 79	84.3	84.5	84.6	84.8
CLOSED BASIN AREA 80	85.2	85.4	85.5	85.6
CLOSED BASIN AREA 81	78.9	79.3	79.5	79.8
CLOSED BASIN AREA 82	78.3	78.5	78.6	78.8
CLOSED BASIN AREA 83	82.5	82.6	82.7	82.8
CLOSED BASIN AREA 84	81.4	81.6	81.7	81.8
CLOSED BASIN AREA 85	80.5	80.8	80.9	81.1
CLOSED BASIN AREA 86	55.9	57.6	57.8	58.1
CLOSED BASIN AREA 87	56.0	56.3	56.3	56.5
CLOSED BASIN AREA 88	56.3	56.5	56.5	56.6
CLOSED BASIN AREA 89	56.5	56.6	56.7	56.8
CLOSED BASIN AREA 90	54.7	54.9	54.9	55.0
CLOSED BASIN AREA 91	54.1	54.1	54.1	55.3
CLOSED BASIN AREA 92	55.9	56.1	56.1	56.3
CLOSED BASIN AREA 93	55.3	55.4	55.5	55.6
CLOSED BASIN AREA 94	54.5	54.6	54.7	54.7
CLOSED BASIN AREA 95	55.9	56.1	56.1	56.3
CLOSED BASIN AREA 96	55.5	55.8	55.9	55.9
CLOSED BASIN AREA 97	51.8	52.2	52.4	52.9
CLOSED BASIN AREA 98	55.5	55.7	55.7	55.9
CLOSED BASIN AREA 99	57.5	57.7	57.7	57.9
CLOSED BASIN AREA 100	56.5	56.6	56.6	56.6
CLOSED BASIN AREA 101	57.5	57.7	57.7	57.9
CLOSED BASIN AREA 102	51.6	51.6	51.6	51.6
CLOSED BASIN AREA 103	50.9	50.9	51.0	51.0
CLOSED BASIN AREA 104	47.5	47.8	47.9	48.1
CLOSED BASIN AREA 105	54.0	54.1	54.1	54.2
CLOSED BASIN AREA 106	63.1	63.2	63.3	63.5
CLOSED BASIN AREA 107	67.6	67.6	67.7	67.7
CLOSED BASIN AREA 108	65.2	65.3	65.3	65.4
CLOSED BASIN AREA 109	62.8	63.0	63.0	63.2
CLOSED BASIN AREA 110	63.8	63.9	64.0	64.0
CLOSED BASIN AREA 111	86.2	86.4	86.4	86.5

TABLE 5 - SUMMARY OF STILLWATER ELEVATIONS (cont'd)

FLOODING SOURCE	ELEVATION (feet NAVD)			
	10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
CLOSED BASIN AREA 112	86.2	86.4	86.4	86.5
CLOSED BASIN AREA 113	86.5	86.6	86.7	86.8
CLOSED BASIN AREA 114	83.3	83.4	83.4	83.5
CLOSED BASIN AREA 115	77.2	77.5	77.6	77.8
CLOSED BASIN AREA 116	66.9	67.1	67.1	67.3
CLOSED BASIN AREA 117	81.5	81.8	82.0	82.2
CLOSED BASIN AREA 118	87.3	87.4	87.5	87.7
CLOSED BASIN AREA 119	87.9	88.1	88.2	88.3
CLOSED BASIN AREA 120	84.8	84.9	84.9	85.0
CLOSED BASIN AREA 121	86.3	86.5	86.5	86.6
CLOSED BASIN AREA 122	85.7	85.8	85.9	86.0
CLOSED BASIN AREA 123	85.4	85.6	85.7	85.8
CLOSED BASIN AREA 124	85.5	85.6	85.7	85.8
CLOSED BASIN AREA 125	86.9	87.1	87.2	87.3
CLOSED BASIN AREA 126	85.5	85.6	85.7	85.8
CLOSED BASIN AREA 127	87.6	87.8	87.9	88.0
CLOSED BASIN AREA 128	68.7	68.9	68.9	69.0
CLOSED BASIN AREA 129	86.6	86.7	86.8	86.8
CLOSED BASIN AREA 130	85.0	85.1	85.2	85.3
CLOSED BASIN AREA 131	57.4	57.7	57.8	58.1
CLOSED BASIN AREA 132	52.5	52.7	52.8	52.9
CLOSED BASIN AREA 133	61.2	61.3	61.4	61.5
CLOSED BASIN AREA 134	60.5	60.7	60.8	61.1
CLOSED BASIN AREA 135	61.1	61.6	61.7	62.0
CLOSED BASIN AREA 136	62.0	62.2	62.3	62.4
CLOSED BASIN AREA 137	62.0	62.2	62.3	62.4
CLOSED BASIN AREA 138	62.1	62.2	62.3	62.5
CLOSED BASIN AREA 139	62.9	63.0	63.0	63.1
CLOSED BASIN AREA 140	62.9	63.0	63.0	63.1
CLOSED BASIN AREA 141	58.2	58.3	58.5	59.2
CLOSED BASIN AREA 142	61.7	62.0	62.1	62.3
CLOSED BASIN AREA 143	60.7	62.0	62.1	62.3
CLOSED BASIN AREA 144	58.5	60.6	61.3	61.4
CLOSED BASIN AREA 145	62.4	62.4	62.4	62.4
CLOSED BASIN AREA 146	62.3	62.3	62.3	62.3
CLOSED BASIN AREA 147	84.5	84.6	84.6	84.7
CLOSED BASIN AREA 148	83.6	83.7	83.7	83.8
CLOSED BASIN AREA 149	62.2	62.3	62.4	62.5
CLOSED BASIN AREA 150	62.2	62.3	62.4	62.5
CLOSED BASIN AREA 151	63.4	63.4	63.5	63.5
CLOSED BASIN AREA 152	63.0	63.3	63.4	63.5
CLOSED BASIN AREA 153	59.0	59.0	59.0	59.0
CLOSED BASIN AREA 154	83.7	83.9	84.0	84.2
CLOSED BASIN AREA 154	83.7	83.9	84.0	84.2
CLOSED BASIN AREA 155	70.8	70.8	70.9	70.9

TABLE 5 - SUMMARY OF STILLWATER ELEVATIONS (cont'd)

FLOODING SOURCE	ELEVATION (feet NAVD) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
CLOSED BASIN AREA 156	85.4	85.6	85.7	85.8
CLOSED BASIN AREA 157	86.7	86.9	87.0	87.2
CLOSED BASIN AREA 158	62.2	62.4	62.5	62.6
CLOSED BASIN AREA 159	64.4	64.5	64.6	64.7
CLOSED BASIN AREA 160	64.3	64.5	64.5	64.6
CLOSED BASIN AREA 161	64.3	64.4	64.5	64.6
CLOSED BASIN AREA 162	64.4	64.5	64.6	64.7
CLOSED BASIN AREA 163	62.0	62.1	62.2	62.3
CLOSED BASIN AREA 164	64.6	64.7	64.8	64.8
CLOSED BASIN AREA 165	61.7	61.9	62.0	62.1
CLOSED BASIN AREA 166	61.7	61.9	61.9	62.1
CLOSED BASIN AREA 167	62.8	63.0	63.1	63.2
CLOSED BASIN AREA 168	62.1	62.3	62.3	62.5
CLOSED BASIN AREA 169	62.8	63.0	63.1	63.2
CLOSED BASIN AREA 170	57.8	57.9	58.0	58.1
CLOSED BASIN AREA 171	62.9	63.1	63.1	63.2
CLOSED BASIN AREA 172	62.2	62.3	62.4	62.5
CLOSED BASIN AREA 173	62.0	62.2	62.3	62.4
CLOSED BASIN AREA 174	61.7	61.8	61.9	62.1
CLOSED BASIN AREA 175	74.9	75.0	75.1	75.2
CLOSED BASIN AREA 176	62.1	62.3	62.3	62.5
CLOSED BASIN AREA 177	63.1	63.1	63.2	63.2
CLOSED BASIN AREA 178	62.4	62.5	62.5	62.7

3.3 Vertical Datum

All FISs and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FISs and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FIS reports and FIRMs are being prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD 88. Structure and ground elevations in the community must, therefore, be referenced to NAVD 88. It is important to note that adjacent communities may be referenced to NGVD 29. This may result in differences in base flood elevations across the corporate limits between the communities.

For more information on NAVD 88, see Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, FEMA Publication FIA-20/June 1992, or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. Therefore, each FIS provides 1-percent-annual-chance flood elevations and delineations of the 1- and 0.2-percent-annual-chance floodplain boundaries and 1-percent-annual-chance floodway to assist communities in developing floodplain management measures. This information is presented on the FIRM and in many components of the FIS, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance flood is employed to indicate additional areas of flood risk in the community. For the stream studied in detail, the 1- and 0.2-percent annual chance floodplains have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:2,000 with a contour interval of 2 feet (USGS, 1968, et cetera).

The 1- and 0.2-percent annual chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent annual-chance floodplain boundaries are close together, only the 1-percent- annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM (Exhibit 2).

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent annual chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1-percent-annual-chance flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as a minimum standard that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodway presented in this FIS report and on the FIRM were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (Table 5). The computed floodways are shown on the FIRM (Exhibit 2). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 1-percent-annual-chance flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

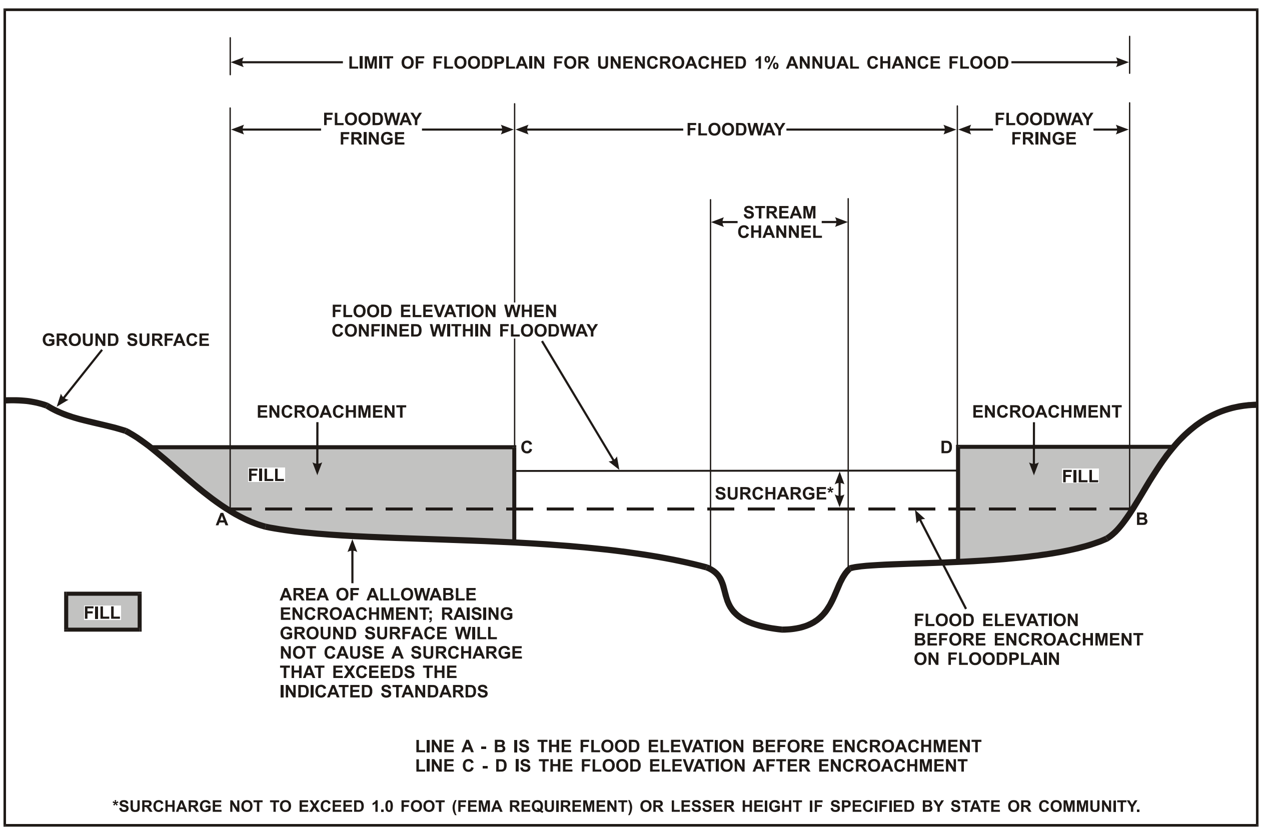


Figure 1 - FLOODWAY SCHEMATIC

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SANTA FE RIVER								
A	1.61	1,370/995	22,719	0.7	31.7	31.7	32.5	0.8
B	2.88	1,760/1 ,327	29,329	0.6	32.0	32.0	32.8	0.7
C	3.60	1,610/660	26,505	0.6	32.2	32.2	32.9	0.8
D	4.73	1,452/613	24,845	0.7	32.5	32.5	33.3	0.8
E	6.46	1,601/977	29,834	0.6	32.9	32.9	33.7	0.8
A	35.90	6,736/204	57,686	3.8	19.5	19.5	20.2	0.7
B	36.10	5,835/5,311	78,795	0.9	20.5	20.5	21.3	0.8
F	7.64	1,694/1,287	23,748	0.7	33.2	33.2	34.0	0.8
G	8.43	2,099/811	24,866	0.7	33.4	33.4	34.2	0.8
H	10.06	1,217/720	17,765	0.9	33.9	33.9	34.7	0.8
I	11.30	1,615/782	28,340	0.6	34.2	34.2	35.0	0.8
J	13.03	1,832/980	27,981	0.6	34.6	34.6	35.4	0.8
K	14.08	1,883/1 ,267	25,312	0.7	34.9	34.9	35.7	0.8
L	15.08	1,643/1,391	22,253	0.7	35.3	35.3	36.1	0.8
M	16.53	1,668/631	25,150	0.7	35.9	35.9	36.7	0.8
N	17.78	1,615/346	21,303	0.8	36.5	36.5	37.4	0.9
O	18.49	1,587/379	18,187	0.9	36.9	36.9	37.9	0.9
P	19.62	1,224/805	18,148	0.9	37.5	37.5	38.5	0.9
Q	20.44	1,368/1,009	19,172	1.0	37.9	37.9	38.8	0.9
R	21.59	541/196	7,915	2.5	39.0	39.0	39.8	0.8

[1]Miles above mouth

[2]Width/Width Within Corporate (County) Limits

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

GILCHRIST COUNTY, FL
AND INCORPORATED AREAS

FLOODWAY DATA

SANTA FE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SUWANNEE RIVER								
A	35.90	760/220	35,724	1.9	19.5	19.5	20.2	0.7
B	36.10	5,907/5,211	78,605	0.9	20.5	20.5	21.2	0.7
C	38.90	4,330/4,000	53,938	2.0	21.1	21.1	22.0	0.9
D	39.76	5,888/3,596	78,788	0.9	22.1	22.1	23.0	0.9
E	41.97	4,100/2,108	65,250	1.0	22.6	22.6	23.6	1.0
F	44.31	4,185/3,801	62,896	1.1	23.3	23.3	24.2	0.9
G	47.35	4,624/1,588	65,427	1.0	24.2	24.2	25.1	0.9
H	50.53	6,161/2,260	76,832	0.9	25.1	25.1	26.0	0.9
I	52.03	7,711/895	80,665	0.8	25.5	25.5	26.5	1.0
J	53.94	6,679/4,592	98,065	0.7	26.1	26.1	27.0	0.9
K	55.31	4,513/1,905	68,139	1.0	26.4	26.4	27.3	0.9
L	56.53	5,756/228	67,209	1.0	26.7	26.7	27.6	0.9
M	58.20	6,223/5,168	57,231	1.2	27.6	27.6	28.5	0.9
N	59.56	2,863/2,863	65,330	1.0	28.1	28.1	29.0	0.9
O	62.24	8,011/1,730	91,800	0.7	29.0	29.0	30.0	1.0
P	62.67	7,371/1,753	77,868	0.9	29.2	29.2	30.1	0.9
Q	63.27	5,630/1,097	40,855	1.7	29.4	29.4	30.3	0.9
R	65.66	7,019/328	84,707	0.8	30.9	30.9	31.7	0.8

[1]Miles above mouth
[2]Width/Width Within Corporate (County) Limits

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

GILCHRIST COUNTY, FL
AND INCORPORATED AREAS

FLOODWAY DATA

SUWANNEE RIVER

Portions of the floodways for the Suwannee River and the Santa Fe River lie outside the county boundary.

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. The zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent annual chance floodplain, areas within the 0.2-percent annual chance floodplain, and areas of 1-percent annual chance flooding where average depths are less than 1 foot, areas of 1-percent annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent annual chance flood by levees. No base flood elevations or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The current FIRM presents flooding information for the entire geographic area of Gilchrist County. Previously, separate Flood Hazard Boundary Maps and/or FIRMs were prepared for each identified flood-prone incorporated community and the unincorporated areas of the county. This countywide FIRM also includes flood hazard information that was presented separately on Flood Boundary and Floodway Maps (FBFMs), where applicable. Historical data relating to the maps prepared for each community up to and including this countywide FIS are presented in Table 6, "Community Map History."

7.0 OTHER STUDIES

FISs have been prepared for Dixie County (FEMA, 1988) and the City of Fanning Springs, Florida (FEMA, 1988).

This FIS report either supersedes or is compatible with all previous studies on streams studied and should be considered authoritative for purposes of the NFIP...

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this FIS can be obtained by contacting FEMA, Federal Insurance and Mitigation Division, Koger Center - Rutgers Building, 3003 Chamblee Tucker Road, Atlanta, Georgia 30341.

9.0 BIBLIOGRAPHY AND REFERENCES

Federal Emergency Management Agency. (January 1987). Flood Insurance Study, Lafayette County, Florida (Unincorporated Areas).

Federal Emergency Management Agency. (November 1983). Flood Insurance Study, Dixie County, Florida (Unincorporated Areas).

Federal Emergency Management Agency. (In Progress). Suwannee County, Florida (Unincorporated Areas).

Federal Emergency Management Agency. (In Progress). Columbia County, Florida (Unincorporated Areas).

Florida Bureau of Comprehensive Planning. (July 1975). Florida General Soils, Atlas.

Suwannee River Water Management District. Stream Cross Sections, Woolpert Consultants, Dayton, Ohio, compiled by photogrammetric methods for aerial photography.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (November 1976). Generalized Computer Program HEC-2, Water-Surface Profiles. Davis, California.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Bell, Town of	N/A	N/A	September 29, 2006	N/A
Fanning Springs, City of	November 29, 1974	June 27, 1980	September 5, 1984 August 16, 1988	September 29, 2006
Gilchrist County (Unincorporated Areas)	March 19, 1976 January 28, 1977	March 18, 1977	August 16, 1988	September 29, 2006
Trenton, City of	April 16, 1976	N/A	August 16, 1988	September 29, 2006

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

GILCHRIST COUNTY, FL
AND INCORPORATED AREAS

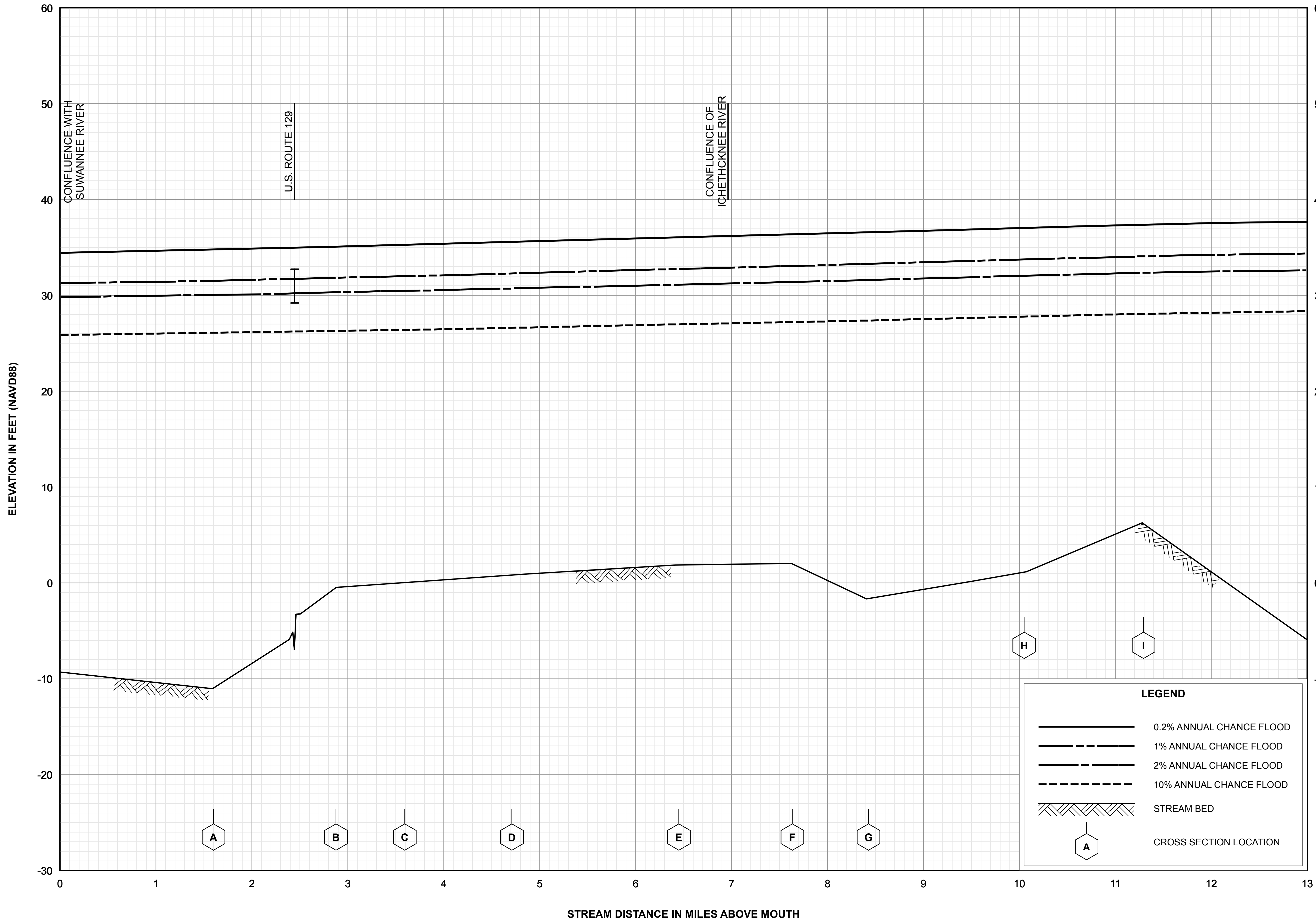
COMMUNITY MAP HISTORY

U.S. Army Corps of Engineers, Jacksonville District. Stream Cross Sections, Southern Resource Mapping, Ormond Beach, Florida, compiled by photogrammetric methods from aerial photography.

U.S. Department of Housing and Urban Development, Federal Insurance Administration. (March 1977). Flood Hazard Boundary Map, Gilchrist County, Florida (Unincorporated Areas).

U.S. Department of the Interior, Geological Survey, Interagency Advisory Committee on Water Data, Office of Water Data Coordination, Hydrology Subcommittee. (September 1981, revised March 1982). Bulletin No. 17B, Guidelines for Determining Flood Flow Frequency.

U.S. Geological Survey. (Bell, 1968; Branford, 1968; Fort White, 1969; Four Mile Lake, 1968; Hatchbend, 1968; High Springs SW, 1969; Hildreth, 1968; Newberry SW, 1968; Suwannee River, 1968; Trenton, 1968; Wannee, 1968; Waters Lake, 1968). 7.5-Minute Series Topographic Maps, Scale 1:2,000, Contour Interval 2 feet.



FLOOD PROFILES

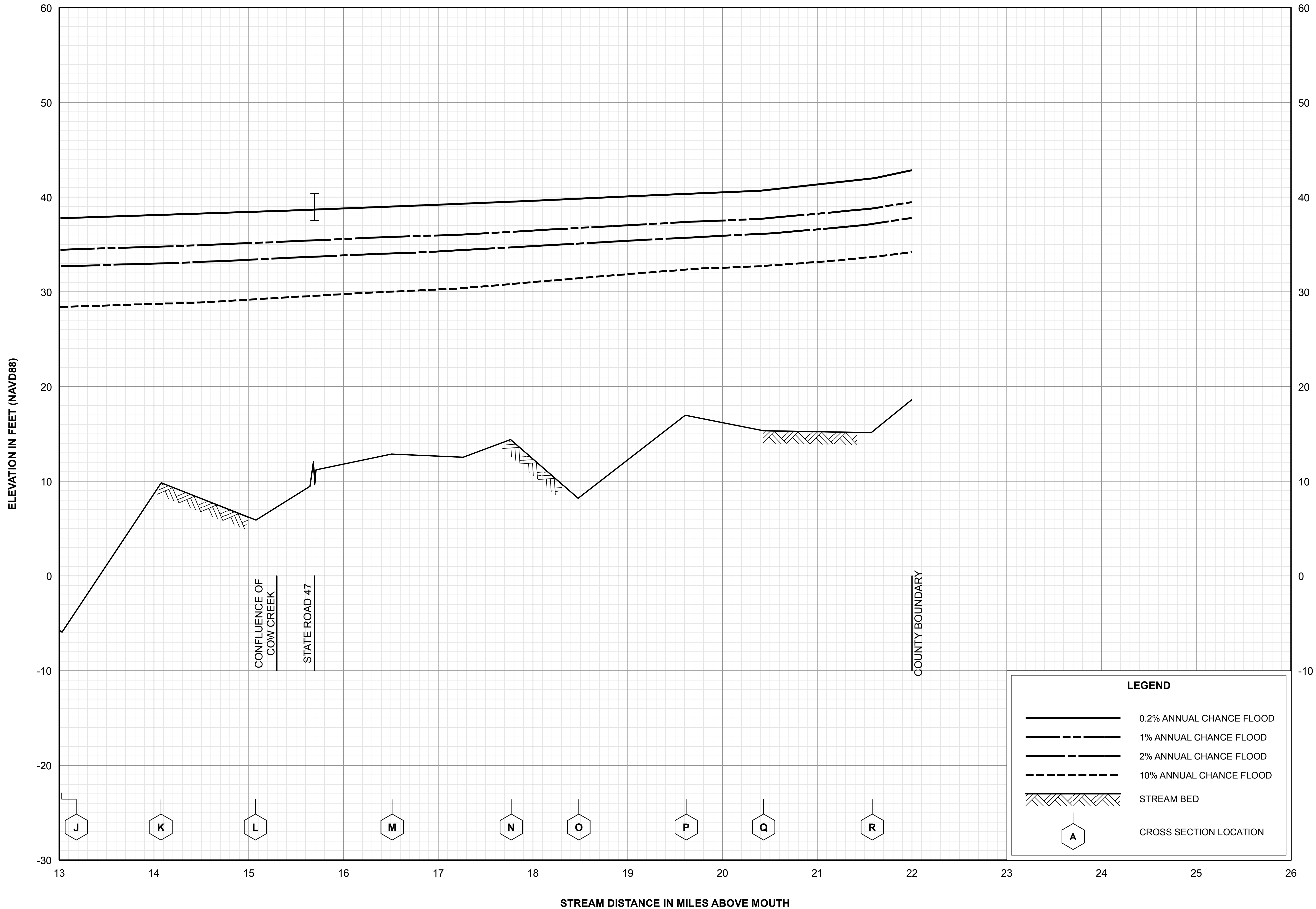
SANTA FE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GILCHRIST COUNTY, FL

AND INCORPORATED AREAS

01P



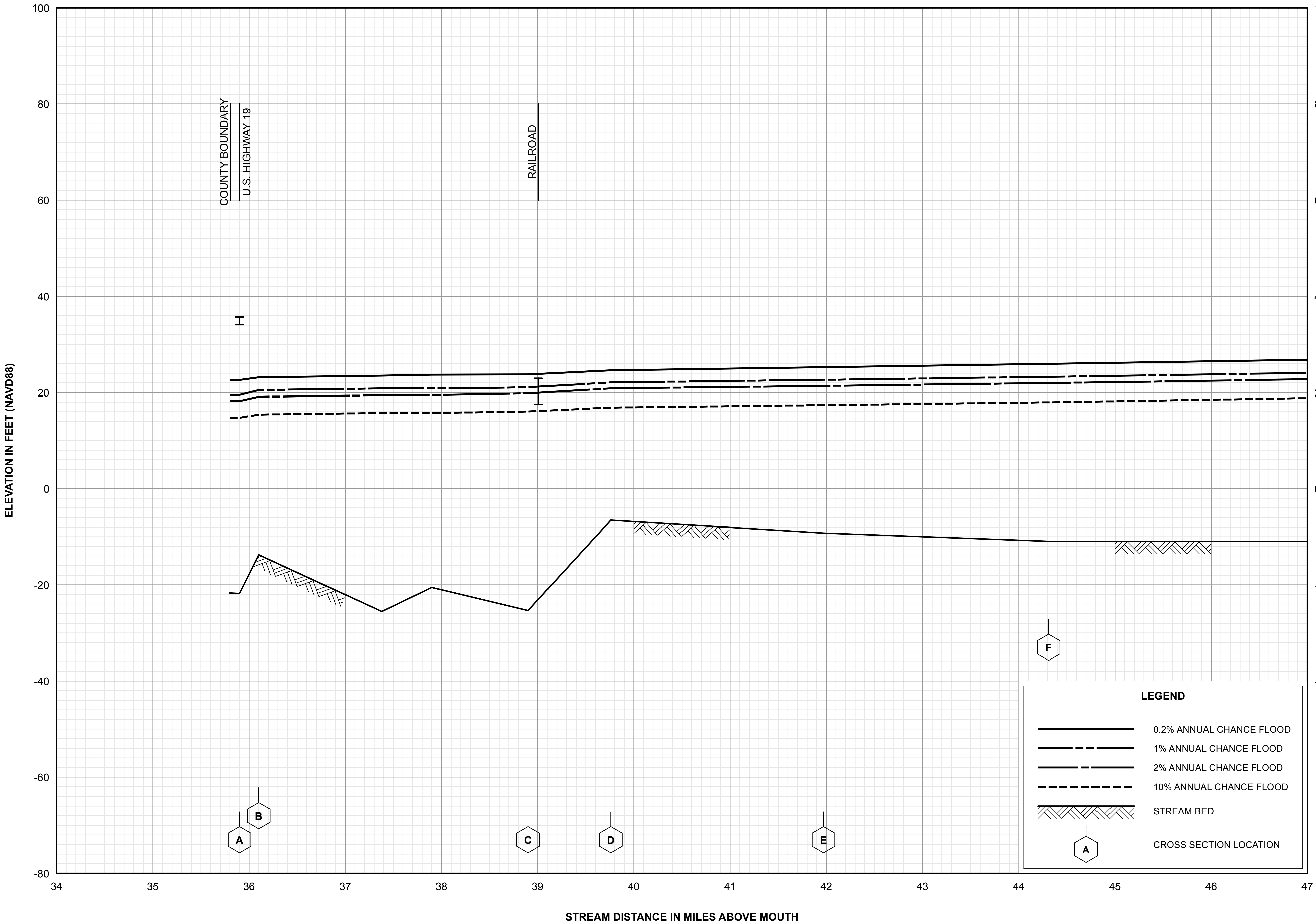
FLOOD PROFILES

SANTA FE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GILCHRIST COUNTY, FL
AND INCORPORATED AREAS

02P



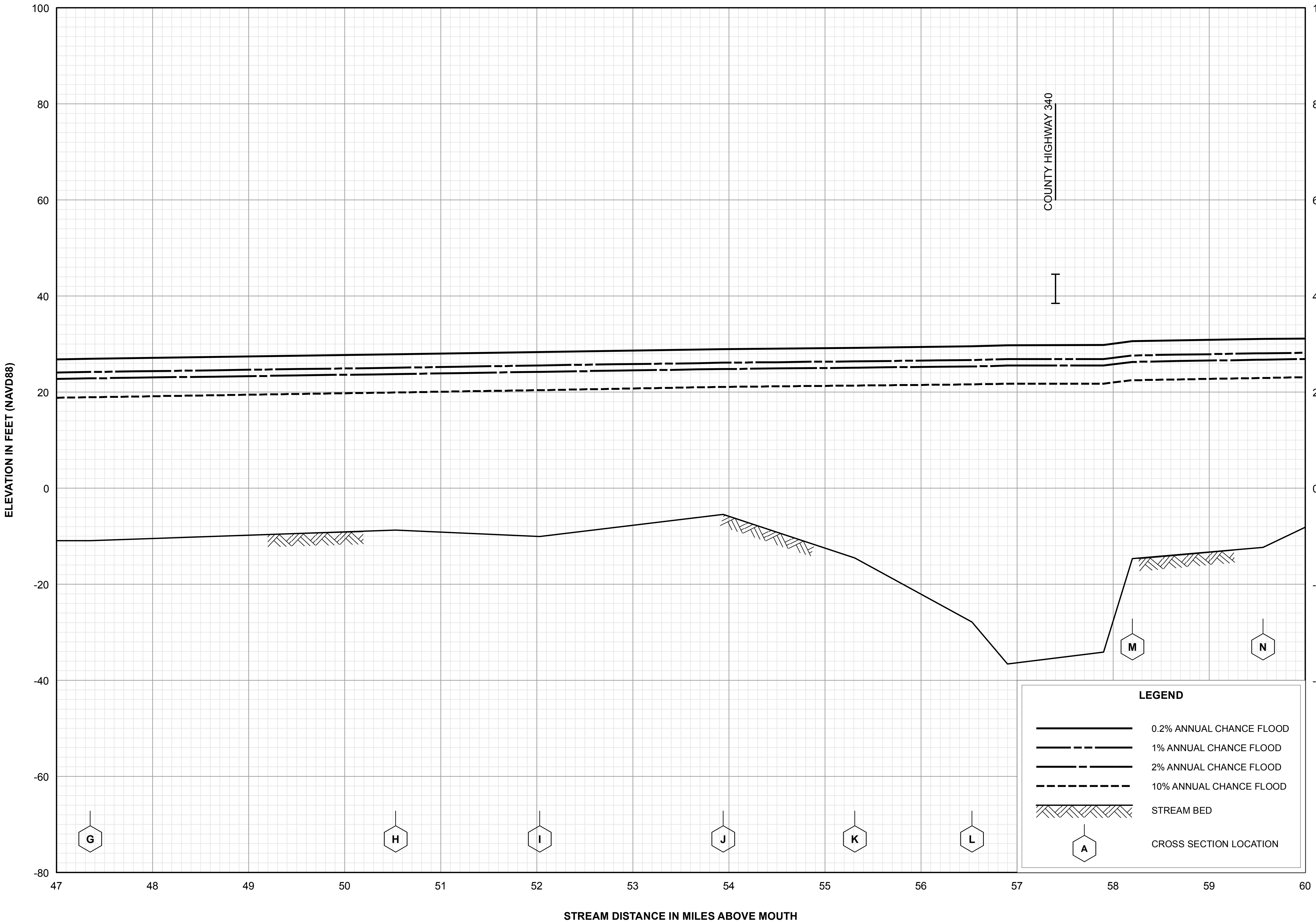
FLOOD PROFILES

SUWANNEE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GILCHRIST COUNTY, FL

AND INCORPORATED AREAS



FLOOD PROFILES

SUWANNEE RIVER

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GILCHRIST COUNTY, FL

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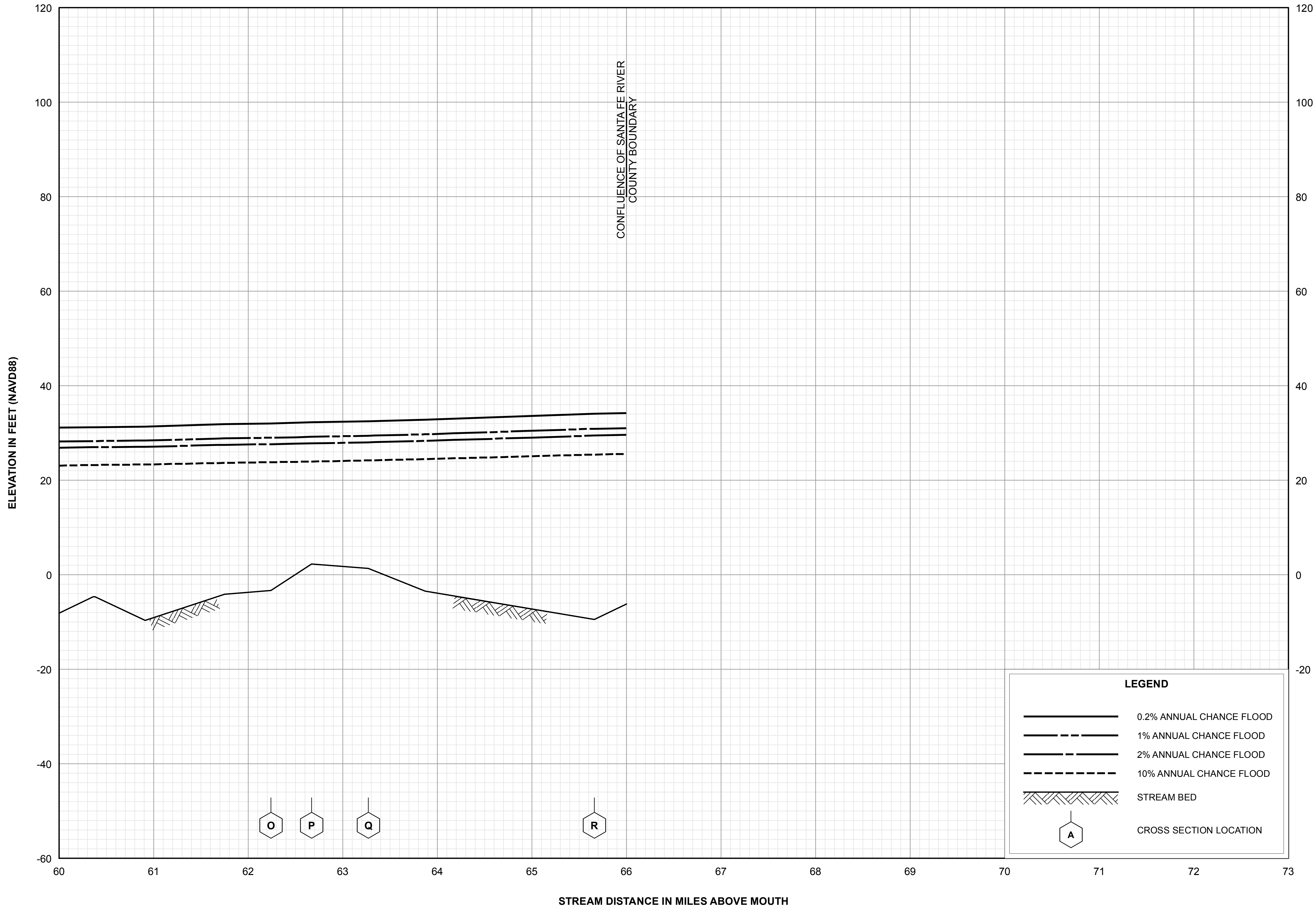
04P



FLOOD PROFILES

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05P