

FLOOD INSURANCE STUDY



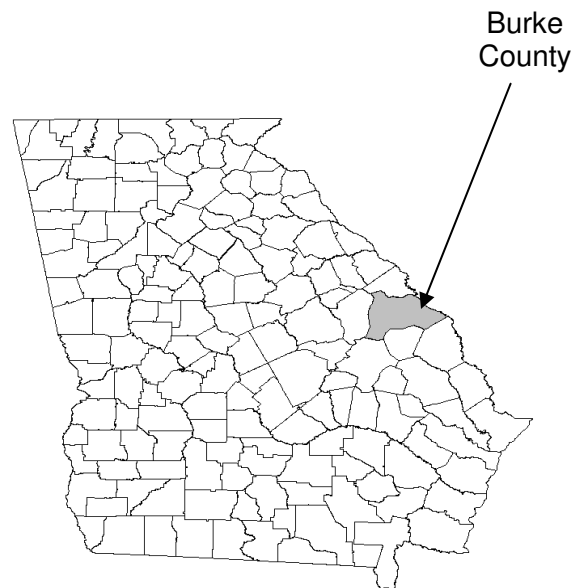
BURKE COUNTY, GEORGIA AND INCORPORATED AREAS

COMMUNITY NAME

COMMUNITY NUMBER

BURKE COUNTY
(UNINCORPORATED AREAS)
GIRARD, TOWN OF
KEYSVILLE, TOWN OF
MIDVILLE, CITY OF
SARDIS, TOWN OF
VIDETTE, TOWN OF
WAYNESBORO, CITY OF

130022
130023
130104
130024
130455
130282
130025



Effective: December 17, 2010



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
13033CV000A

**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) report may not contain all data available within the Community Map Repository. Please contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Selected Flood Insurance Rate Map panels for this community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways, cross sections). In addition, former flood hazard zone designations have been changed as follows:

<u>Old Zone(s)</u>	<u>New Zone</u>
C	X

Initial Countywide FIS Effective Date: December 17, 2010

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Purpose of Study	1
1.2	Authority and Acknowledgments	1
1.3	Coordination	2
2.0	AREA STUDIED	3
2.1	Scope of Study	3
2.2	Community Description.....	4
2.3	Principal Flood Problems.....	4
2.4	Flood Protection Measures	4
3.0	ENGINEERING METHODS	4
3.1	Hydrologic Analyses.....	5
3.2	Hydraulic Analyses.....	6
3.3	Vertical Datum.....	7
4.0	FLOODPLAIN MANAGEMENT APPLICATIONS	9
4.1	Floodplain Boundaries	9
4.2	Floodways.....	10
5.0	INSURANCE APPLICATIONS	12
6.0	FLOOD INSURANCE RATE MAP	13
7.0	OTHER STUDIES	15
8.0	LOCATION OF DATA	15
9.0	BIBLIOGRAPHY AND REFERENCES	15

TABLE OF CONTENTS (Continued)

FIGURES

Figure 1 - Floodway Schematic 12

TABLES

Table 1 – Summary of Discharges 6
Table 2 – Vertical Datum Conversion 8
Table 3 – Floodway Data 11
Table 4 – Community Map History 14

EXHIBITS

Exhibit 1 - Flood Profiles

McIntosh Creek
Savannah River

Panels 01P- 02P
Panels 03P- 06P

Exhibit 2 - Flood Insurance Rate Map Index
Flood Insurance Rate Map

**FLOOD INSURANCE STUDY
BURKE COUNTY, GEORGIA AND INCORPORATED AREAS**

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and updates information on the existence and severity of flood hazards in the geographic area of Burke County, including the Cities of Midville, and Waynesboro; the Towns of Girard, Keysville, Sardis, and Vidette; and the unincorporated areas of Burke County (referred to collectively herein as Burke County), and 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 community that will be used to establish actuarial flood insurance rates and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

Please note that the City of Blythe is geographically located in Richmond and Burke Counties. The City of Blythe is not included in this FIS report. Also note that the Town of Keysville is geographically located in Jefferson and Burke Counties. Only the Burke County portion of the Town of Keysville is included in this FIS Report. See the separately published FIS Reports and Flood Insurance Rate Maps (FIRMs) for flood-hazard information.

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.

The Digital Flood Insurance Rate Map (DFIRM) and FIS report for this countywide study have been produced in digital format. Flood hazard information was converted to meet the Federal Emergency Management Agency (FEMA) DFIRM database specifications and Geographic Information System (GIS) format requirements. The flood hazard information was created and is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community.

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.

Precountywide Analyses

Information on the authority and acknowledgements for each jurisdiction included in this countywide FIS, as compiled from their previously printed FIS reports, is shown below:

Burke County (Unincorporated Areas):	The hydrologic and hydraulic analyses for the September 15, 1989 FIS report (FEMA, 1989) were performed for McIntosh Creek and Savannah River by Mayes, Sudderth, and Etheredge Inc, for FEMA, under Contract No. Contract No, EMA-86-C-0111 The work was completed in September 1987.
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The Cities of Midville, Waynesboro, and the Towns of Girard, Keysville, Sardis and Vidette have no previously printed FIS reports.

This Countywide FIS Report

The hydrologic and hydraulic analyses for this study were performed by Post, Buckley, Schuh, and Jernigan, Inc. (PBS&J), for FEMA, under Contract No. EMA-2008-CA-5870. The work was completed in June 2009.

The hydrologic and hydraulic analyses for the Savannah River were performed by The United States Army Corps of Engineers (USACE), Savannah District for the Federal Insurance Administration (FIA) under Interagency Agreement. IAA-H-7-76, Project Order No. 23 and Interagency Agreement IAA-H-10-77, Project orders No. 2. The work was completed in February of 1978 (FEMA, 1994a).

Base map information shown on the Flood Insurance Rate Map (FIRM) was derived from Ariel photography dated 2007 and captured at a resolution of one foot. The projection used in the preparation of this map is State Plane Georgia East, and the horizontal datum used is the North American Datum of 1983 (NAD83).

1.3 Coordination

Precountywide Analyses

An initial meeting is held with representatives from FEMA, the community, and the study contractor to explain the nature and purpose of a FIS, and to identify the streams to be studied or restudied. A final meeting is held with representatives from FEMA, the community, and the study contractor to review the results of the study.

The initial and final meeting dates for previous FIS reports for Burke County and its communities are listed in the following table:

<u>Community</u>	<u>FIS Date</u>	<u>Initial Meeting</u>	<u>Final Meeting</u>
Burke County	September 15, 1989	January 22, 1986	November 2, 1988

Countywide FIS Report

An initial meeting is held with representatives from FEMA, the community, and the study contractor to explain the nature and purpose of a FIS, and to identify the streams to be studied or restudied. A final meeting is held with representatives from FEMA, the community, and the study contractor to review the results of the study.

The initial meeting was held on July 9, 2008 and attended by representatives of FEMA, Burke, Lincoln, Jenkins, McDuffie, Taliaferro, and Wilkes Counties, Georgia Department of Natural Resources (DNR) and the URS Corporation.

The results of the study were reviewed at the final meeting held on October 7, 2009, and attended by representatives of PBS&J, FEMA, Georgia DNR, and the communities. All issues raised at that meeting were addressed.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Burke County, including the incorporated communities listed in Section 1.1. The areas studied by detailed methods were selected with priority given to all known flood hazards and areas of projected development or proposed construction through December 18, 2009.

The following streams are studied by detailed methods in this FIS report:

McIntosh Creek
Savannah River

The limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

For this countywide FIS, the FIS report and FIRM were converted to countywide format, and the flooding information for the entire county, including both incorporated and unincorporated areas, is shown. Also, the vertical datum was converted from the National Geodetic Vertical Datum of 1929 (NGVD) to the North American Vertical Datum of 1988 (NAVD). In addition, the Transverse Mercator, State Plane coordinates, previously referenced to the North American Datum of 1927 (NAD27), are now referenced to the NAD83.

Approximate analyses were used to study those areas having low development potential or minimal flood hazards. The scope and methods of study were proposed to and agreed upon by FEMA and URS Corporation.

2.2 Community Description

Burke County, one of Georgia's original eight counties, is located in central eastern Georgia and is bordered on the south by Screven, Jenkins, and Emanuel Counties, Georgia; on the west by Jefferson County, Georgia; on the north by Richmond County, Georgia; and on the east by Aiken, Barnwell, and Allendale Counties, South Carolina, which lie across the Savannah River. The county is served by U.S. Route 25, State Routes 21, 23, 24, 56, 80, and 305, and the Norfolk Southern Railway. The county seat is the City of Waynesboro, approximately 159 miles east of the City of Atlanta. Burke County is the second largest county in Georgia; Burke County is the second largest county in Georgia covering approximately 835 square miles. The population count, in 2000 was reported to be 22,759 (U.S. Census Bureau, 2009).

2.3 Principal Flood Problems

Burke County has experienced major floods caused by frontal activity or hurricanes. The worst recorded flooding in Burke County occurred between September 30 and October 3, 1929, as a result of a hurricane that came ashore at the City of Pensacola, Florida, on September 30 and moved northeasterly across northern Florida and southeastern Georgia before turning up the Atlantic coastline.

Low-lying areas near the Savannah River and McIntosh Creek are subject to flooding when those waterways overflow their banks. Of particular note is flooding in the City of Waynesboro caused by the overflow of the McIntosh Creek.

2.4 Flood Protection Measures

Flood protection measures are not known to exist in Burke County.

3.0 **ENGINEERING METHODS**

For the flooding sources studied by detailed methods in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded once on the 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 that equals or exceeds the 1-percent-annual-chance (100-year) flood in any 50-year period is approximately 40 percent (4 in 10); 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 community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

Precountywide Analyses

The hydrologic analysis for McIntosh Creek, an ungaged stream, was based on U.S. Geological Survey (USGS) regional regression equations (FEMA, 1989). The equations relate the stream discharge to the watershed drainage area. Flows for developed areas were adjusted using an urbanization factor, which defines urbanization as a function of percentage of impervious watershed area and percentage of watershed area served by storm sewers. These equations were developed by synthesizing 75 years of flood record from short- and long-term stream flow and rainfall data, applying the log-Pearson Type III distribution with regional skew coefficients as recommended by the Water Resources Council (WRC, 1976) and regionalizing by multiple regression techniques. Backwater effects from Brier Creek were determined using gage data from the Cates Bridge gage near the confluence with McIntosh Creek. The backwater effects are reflected in the flood profiles.

Flood-flow frequencies for the Savannah River were calculated by the USACE using procedures described in a USGS report of the Savannah River flood frequencies (USGS, 1990). Technical data subsequently submitted by the City of North Augusta, South Carolina, in support of an appeal to the hydrologic analysis were reviewed and accepted by FEMA (FEMA, 1994c).

Peak discharge-drainage area relationships for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

Table 1 – Summary of Discharges

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	Peak Discharges (cubic feet per second)			
		<u>10-Percent-Annual-Chance</u>	<u>2-Percent-Annual-Chance</u>	<u>1-Percent-Annual-Chance</u>	<u>0.2-Percent-Annual-Chance</u>
MCINTOSH CREEK					
At confluence with Brier Creek	17.9	1,290	2,004	2,369	3,300
Thomson Bridge Road	17.0	1,252	1,943	2,296	3,100
Tributary No. 1	11.7	1,042	1,599	1,878	2,900
Sewage Disposal Station	9.3	935	1,423	1,664	2,250
SAVANNAH RIVER					
At Butler Creek Dam	7,508	55,000	175,000	250,000	500,000

This Countywide FIS Report

Discharges for approximate analysis streams were estimated using the published USGS regional regression equations for rural areas in Georgia (Stamey and Hess, 1993). Regression equations estimate the peak discharges for ungauged streams based on the characteristics of nearby gauged streams. Drainage areas were developed from USGS 30-meter Digital Elevation Models (DEMs).

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 of 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 Table in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS report in conjunction with the data shown on the FIRM.

Precountywide Analyses

Cross-section data for McIntosh Creek and Savannah River were obtained by field surveys or estimated from adjacent surveyed sections and topographic maps (USGS, various dates). All bridges and culverts were surveyed to obtain elevations and structural geometry.

For McIntosh Creek and Savannah River, water-surface elevations of (WSELs) floods of the selected recurrence intervals were computed using the USACE Hydrologic Engineering Center's (HEC) HEC-2 step backwater program (HEC, 1984).

Channel roughness factors (Manning’s “n”) used in the hydraulic computations were chosen by engineering judgment and based on field observations of the channel and floodplain areas. The Manning’s “n” values for all detailed studied streams are listed in the following table:

Manning's "n" Values

<u>Stream</u>	<u>Channel “n”</u>	<u>Overbank “n”</u>
McIntosh Creek	0.045	0.025-0.175
Savannah River	0.045	0.025-0.175

This Countywide FIS Report

For the streams studied by approximate methods, cross section data was obtained from the USGS 10-meter DEMs. Hydraulically significant roads were modeled as bridges, with opening data approximated from available inventory data or approximated from the imagery. Top of road elevations were estimated from the best available topography. The studied streams were modeled using the computer program, HEC-RAS, version 4.0.0 (HEC, 2008).

For the streams studied by approximate methods, floodplains were delineated using the 1-percent-annual-chance-WSEL’s and the USGS 10-meter DEMS (USGS, 2009).

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the FIRM (Exhibit 2).

The profile baselines depicted on the FIRM represent the hydraulic modeling baselines that match the flood profiles on this FIS report. As a result of improved topographic data, the profile baseline may deviate significantly from the channel centerline or appear outside the Special Flood Hazard Area in some cases.

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the Flood Profiles (Exhibit 1) are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

3.3 Vertical Datum

All FIS reports 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 FIS reports and FIRMs was NGVD. With the finalization of NAVD, many FIS reports and FIRMs are being prepared using NAVD as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD. Structure and ground elevations in the community must, therefore, be referenced to NAVD. It is important to note that adjacent communities may be referenced to NGVD. This may result in differences in Base Flood Elevations (BFEs) across the corporate limits between the communities. Some of the data used in this study were taken from the prior effective FIS reports and adjusted to NAVD. The average conversion factor that was used to convert the data in this FIS report to NAVD was calculated using the National Geodetic Survey's (NGS) VERTCON online utility (NGS, 2009). The data points used to determine the conversion are listed in Table 2.

Table 2 – Vertical Datum Conversion

<u>Quad Name</u>	<u>Corner</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Conversion from NGVD to NAVD</u>
Avondale	SE	33.250	-82.250	-0.646
Blythe	SE	33.250	-82.125	-0.682
Hephzibah	SE	33.250	-82.000	-0.741
Mechanic Hill	SE	33.250	-81.250	-0.797
Matthews	SE	33.125	-82.250	-0.604
Keysville	SE	33.125	-82.125	-0.689
Storys Millpond	SE	33.125	-82.000	-0.761
McBean	SE	33.125	-81.875	0.774
Shell Bluff Landing	SE	33.125	-81.750	-0.827
Girard NW	SE	33.125	-81.625	-0.876
Kellys Pond	SE	33.000	-82.250	-0.627
Gough	SE	33.000	-82.125	-0.705
Waynesboro	SE	33.000	-82.000	-0.764
Idlewood	SE	33.000	81.875	-0.787
Alexander	SE	33.000	-81.750	-0.787
Girard	SE	33.000	-81.625	-0.814
Old Town	SE	32.875	-82.250	-0.663
Scotts Corner	SE	32.875	-82.125	-0.689
			Average:	-0.733

For additional information regarding conversion between NGVD and NAVD, visit the NGS website at www.ngs.noaa.gov, or contact the NGS at the following address:

Vertical Network Branch, N/CG13
National Geodetic Survey, NOAA
Silver Spring Metro Center 3
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks shown on this map, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their website at 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 (100-year) flood elevations and delineations of the 1- and 0.2-percent-annual-chance (500-year) 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 report, including Flood Profiles, Floodway Data Table, and Summary of Stillwater Elevations Table. Users should reference the data presented in the FIS report as well as additional information that may be available at the local 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 each stream studied by detailed methods, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using USGS 10-meter DEMs (USGS, 2009).

For the streams studied by approximate methods, between modeled cross sections, the boundaries were interpolated using USGS 10-meter DEMs (USGS, 2009).

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 (Zone 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 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards 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 was 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 have been tabulated for selected cross sections (Table 3). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANGE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH ² (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SAVANNAH RIVER								
A	866,976	13,583 / 419	148,325	0.9	107.2	107.2	108.2	1.0
B	875,688	13,194 / 0	156,108	0.9	108.0	108.0	109.0	1.0

¹Feet above confluence with Atlantic Ocean

²Total width / width within County

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BURKE COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

SAVANNAH RIVER

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 WSEL of the 1-percent-annual-chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

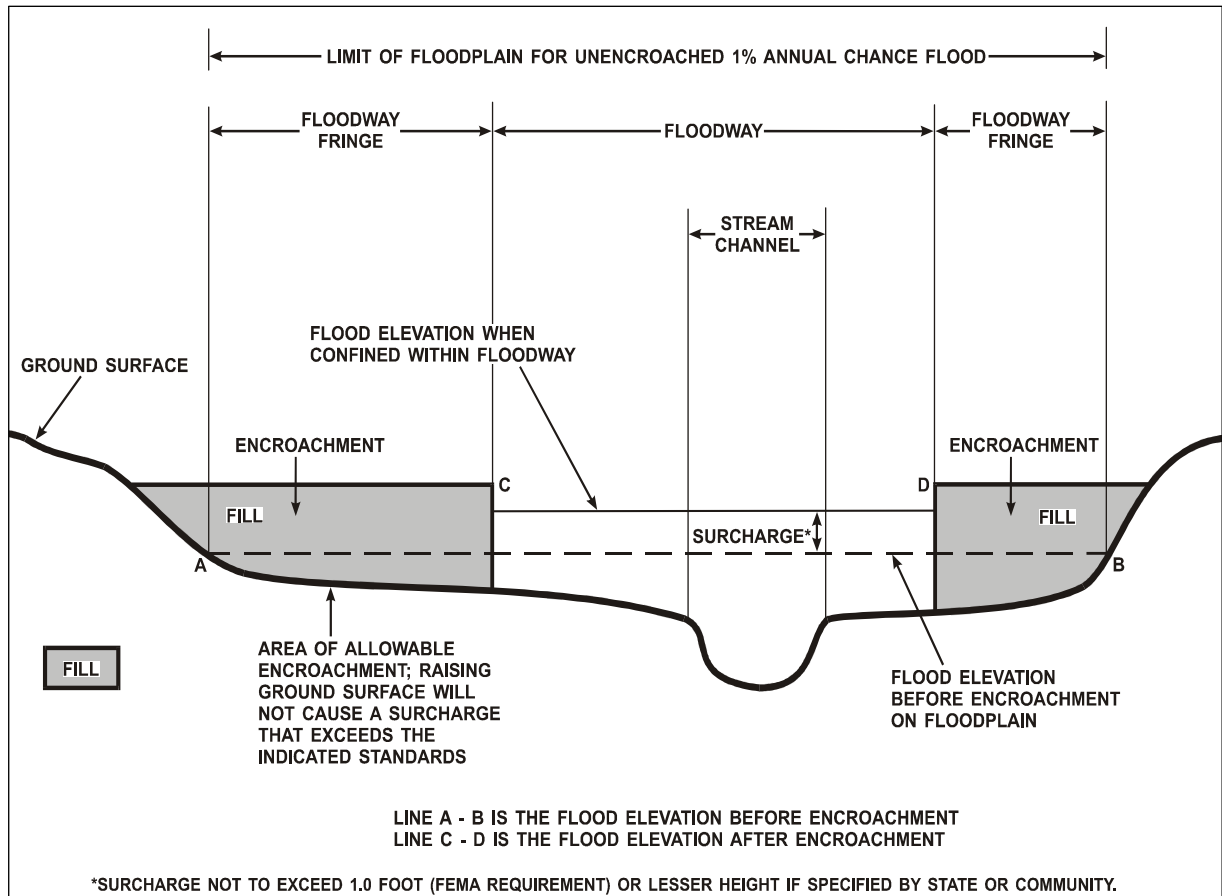


Figure 1 - Floodway Schematic

No floodways were computed for McIntosh Creek.

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. These zones are as follows:

Zone A

Zone A is the flood insurance risk 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 BFEs or base flood depths are shown within this zone.

Zone AE

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

Zone X

Zone X is the flood insurance risk zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, 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 BFEs or base flood 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 risk 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 BFEs or average depths. Insurance agents use the zones and BFEs 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 countywide FIRM presents flooding information for the entire geographic area of Burke County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps, where applicable. Historical data relating to the maps prepared for each community are presented in Table 4.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE	FIRM EFFECTIVE DATE	FIRM REVISION DATE
Burke County (Unincorporated Areas)	March 10, 1978	None	September 15, 1989	None
Girard, Town of	September 6, 1974	January 23, 1976 November 9, 1979	December 17, 2010	None
Keysville, Town of	December 17, 2010	None	December 17, 2010	None
Midville, City of	July 11, 1975	July 21, 1978	July 3, 1986	None
Sardis, Town of	December 17, 2010	None	December 17, 2010	None
Vidette, Town of	December 17, 2010	None	December 17, 2010	None
Waynesboro, City of	June 14, 1974	March 26, 1976	August 1, 1987	None

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

**BURKE COUNTY, GA
AND INCORPORATED AREAS**

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

A previous report has been prepared for the Unincorporated Areas of Richmond County, Georgia (FEMA, 1987).

This report either supersedes or is compatible with all previous studies on streams studied in this report 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 study 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, Flood Insurance Study, Richmond County, Georgia (Unincorporated Areas), February 1987.

Federal Emergency Management Agency, Flood Insurance Study, County of Burke, Georgia, September 16, 1989.

Federal Emergency Management Agency, Flood Insurance Study, Aiken County, South Carolina, Unincorporated Areas, Flood Insurance Study Report, November 2, 1994a; Flood Insurance Rate Map, November 2, 1994b.

Federal Emergency Management Agency, Savannah River Appeal Resolution Summary of Technical Issues, Washington, D.C., February 16, 1994c.

Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Computer Program 723-X6-L202A, U.S. Army Corps of Engineers, Davis, California, April 1984.

Hydrologic Engineering Center, HEC-RAS River Analysis System, Version 4.0, U.S. Army Corps of Engineers, Davis, California, March 2008.

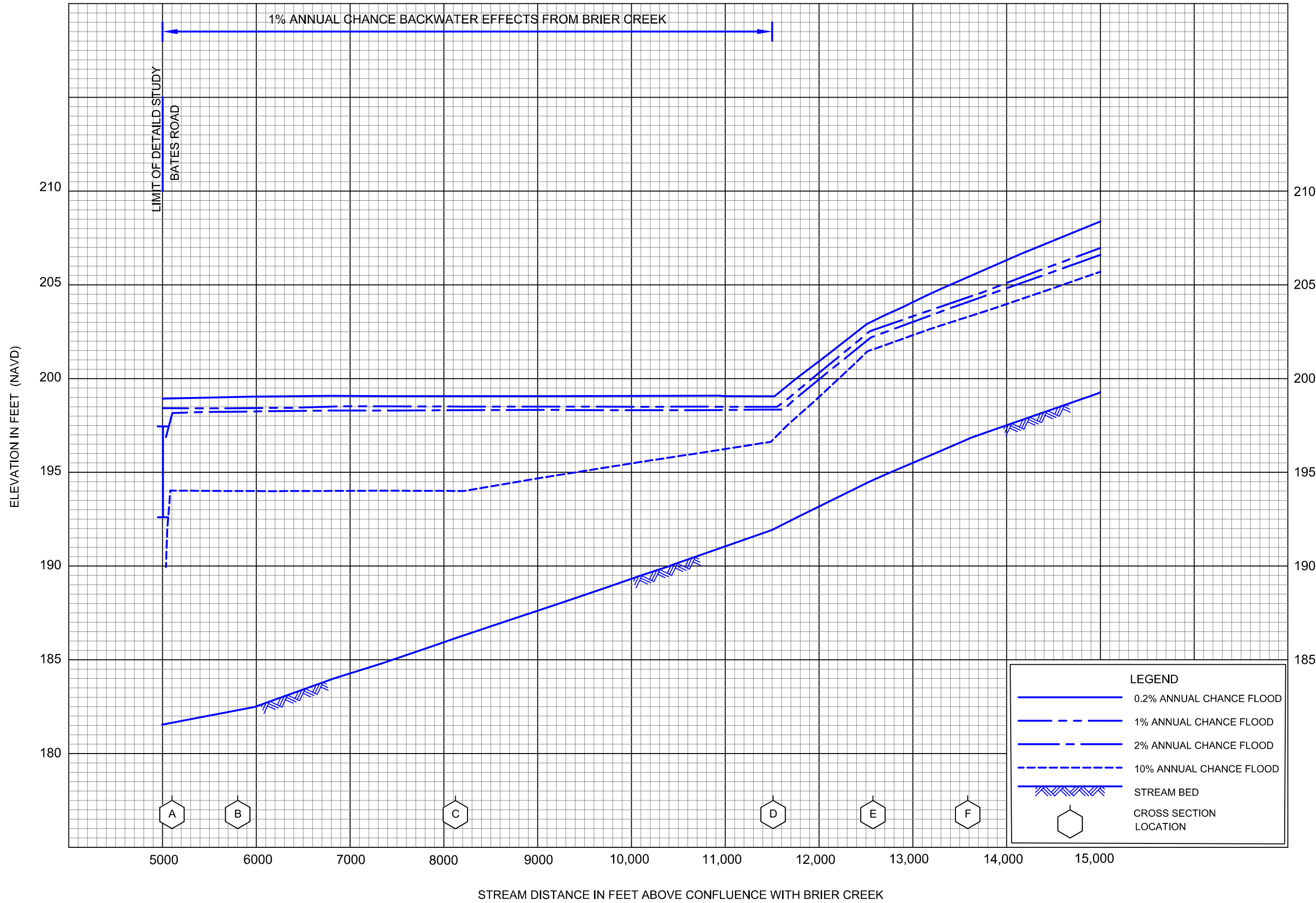
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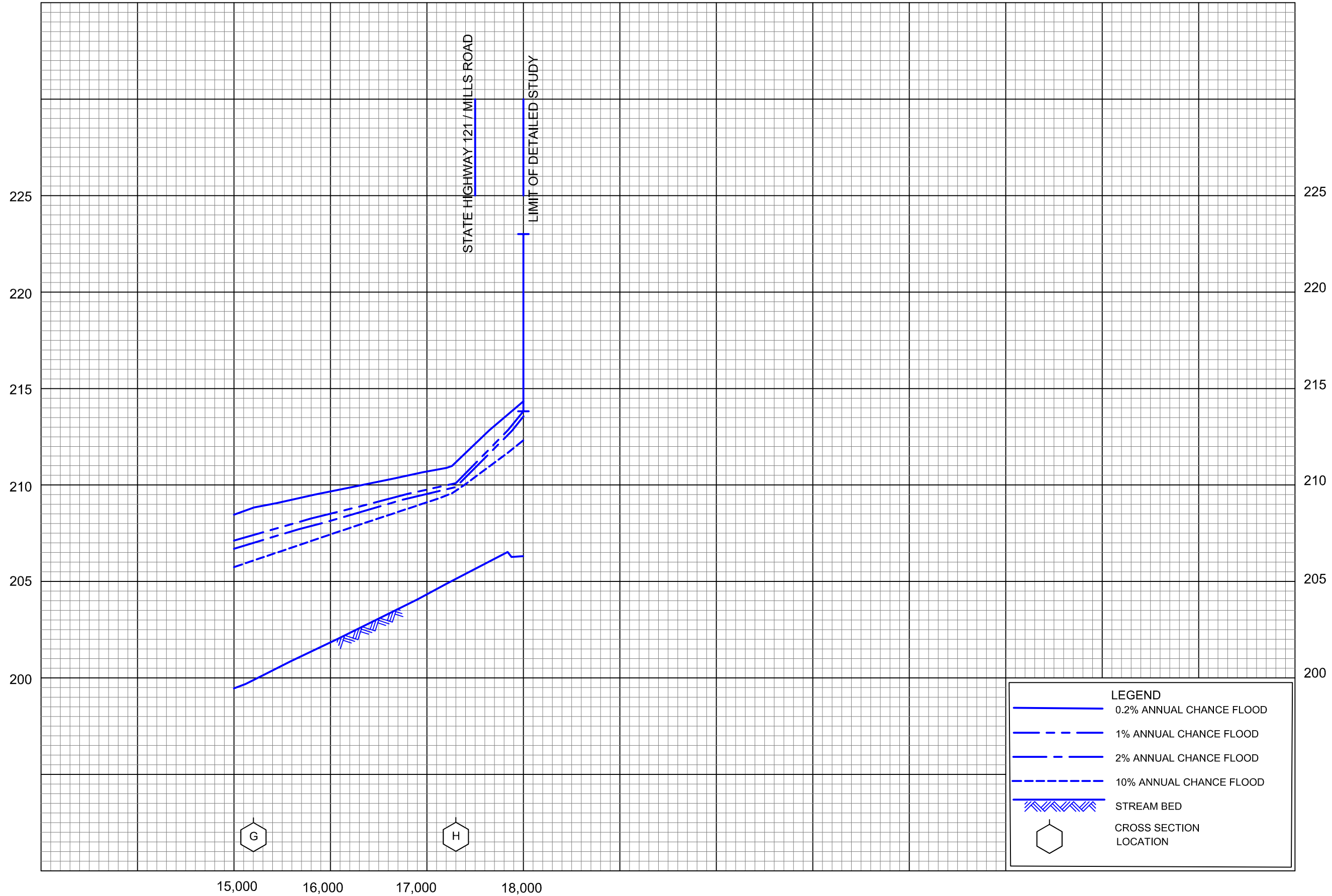
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FLOOD PROFILES
MCINTOSH CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
BURKE COUNTY, GA
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD)



15,000

16,000

17,000

18,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRIER CREEK

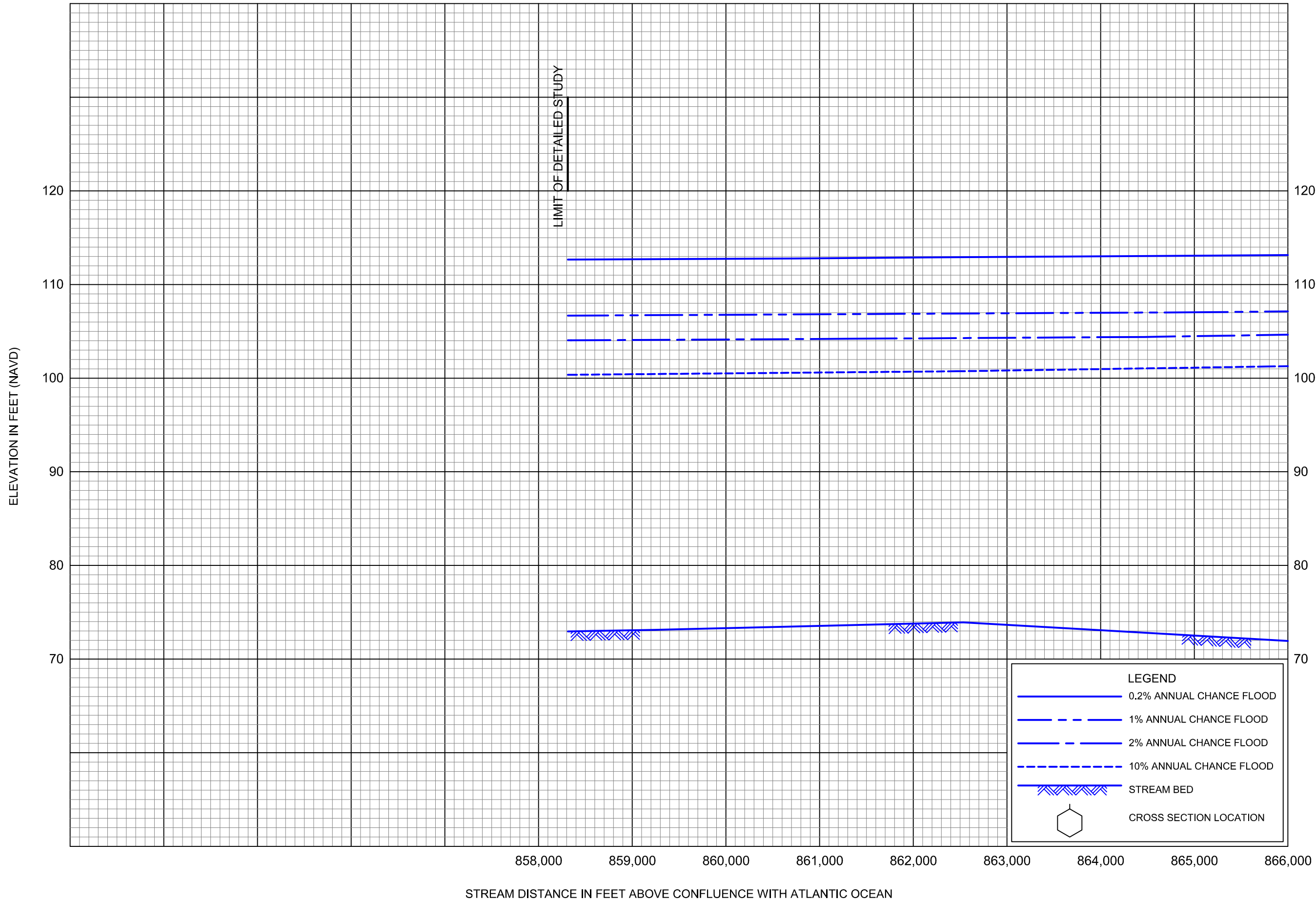
FLOOD PROFILES

MCINTOSH CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BURKE COUNTY, GA
AND INCORPORATED AREAS

02P

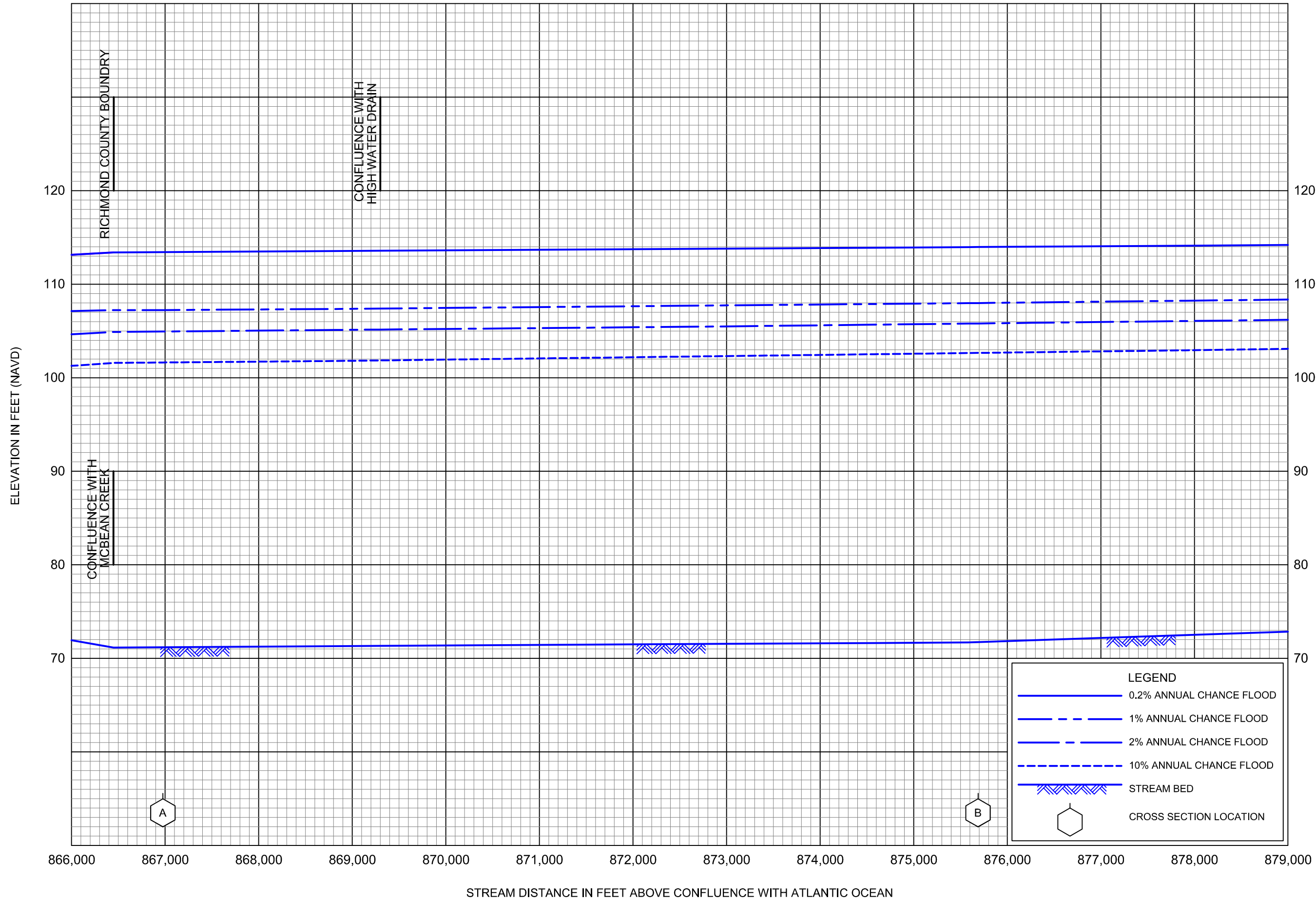


FLOOD PROFILES

SAVANNAH RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BURKE COUNTY, GA
AND INCORPORATED AREAS

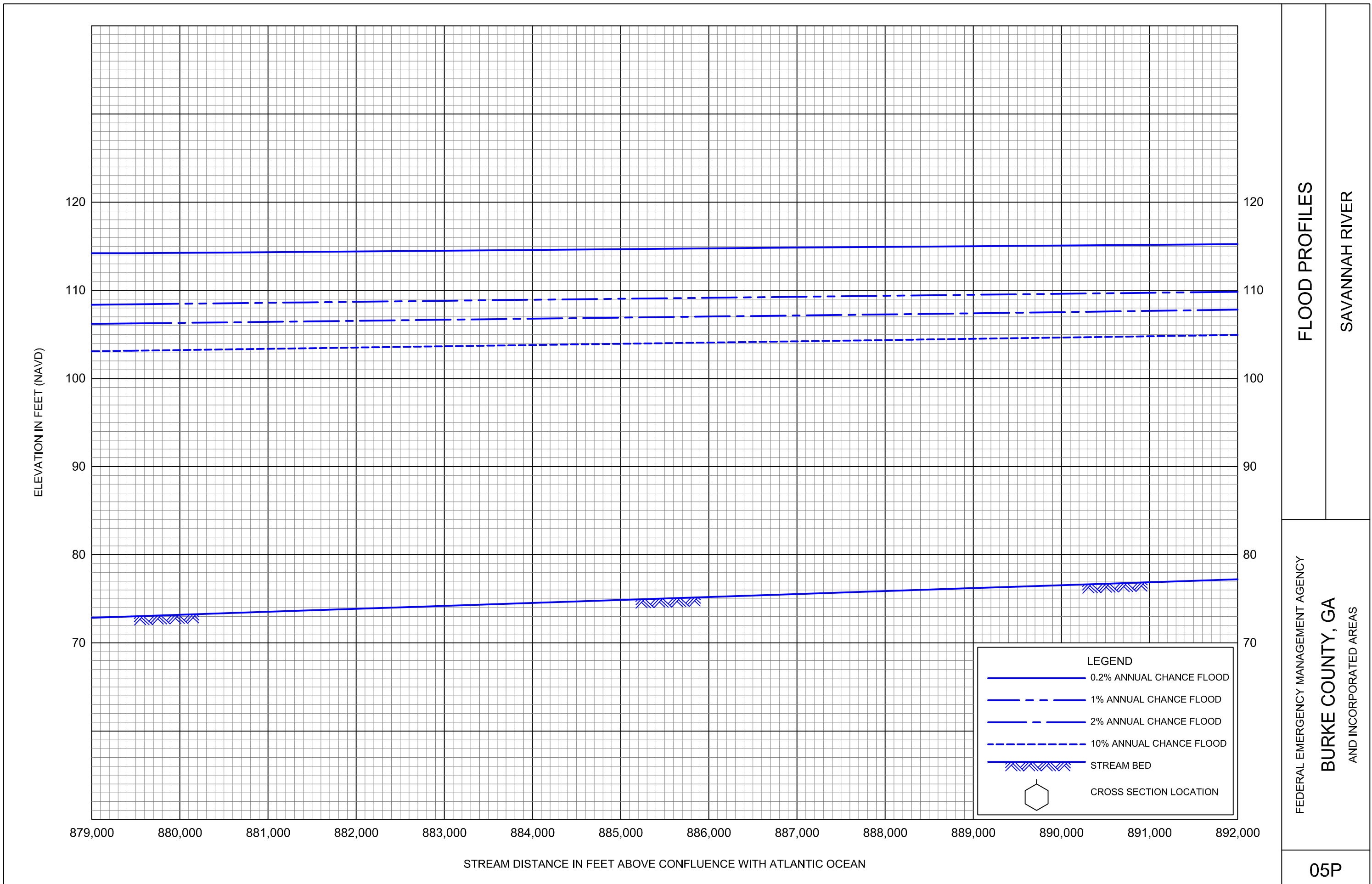


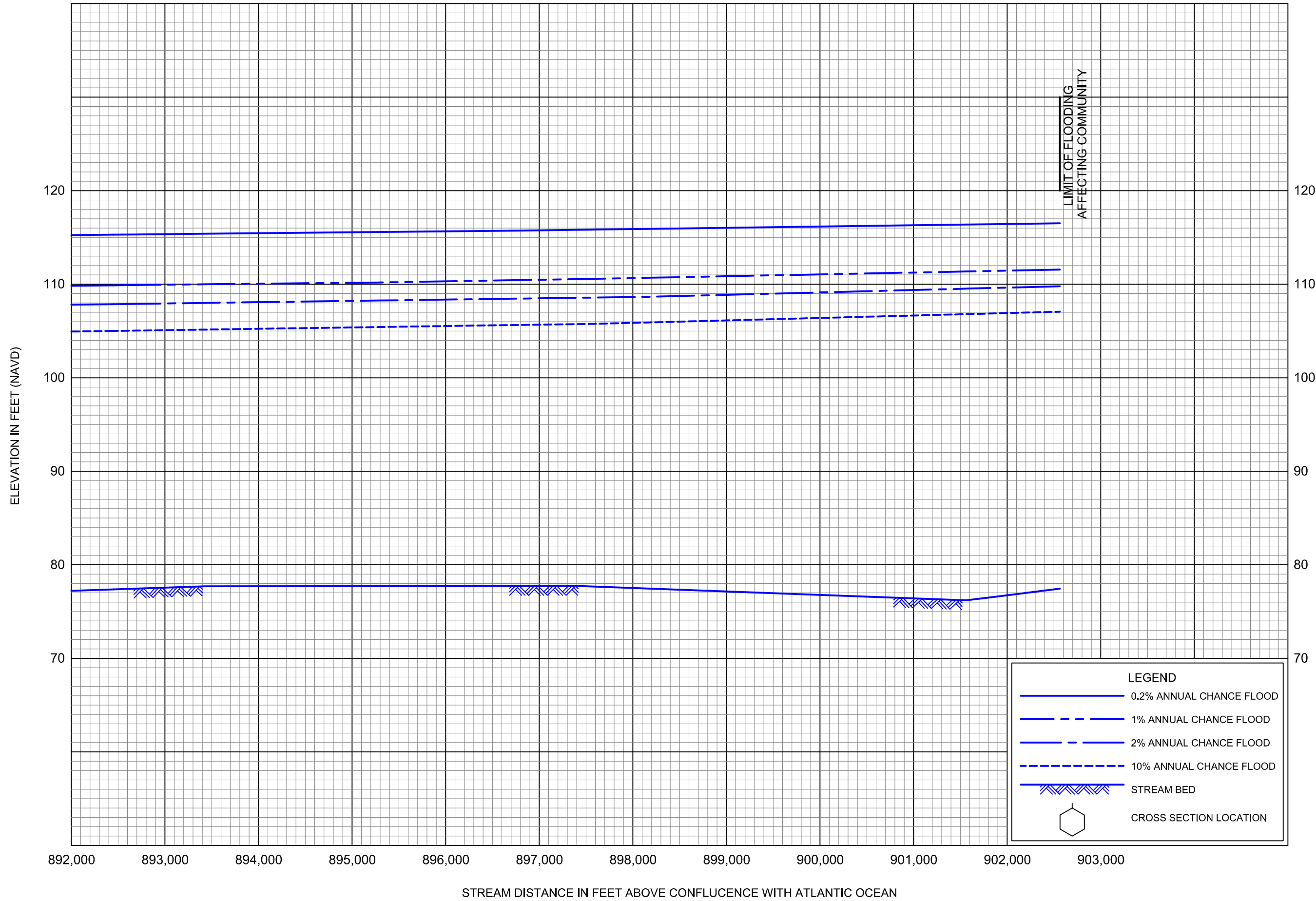
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