FLOOD INSURANCE STUDY

NEWTON COUNTY, GEORGIA

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
COVINGTON, CITY OF	130144
MANSFIELD, CITY OF*	130630
NEWBORN, TOWN OF*	130631
NEWTON COUNTY (UNINCORPORATED AREAS)	130143
OXFORD, CITY OF	130367
PORTERDALE, CITY OF	130145

* No Special Flood Hazard Areas Identified

REVISED:
March 17, 2014

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
13217CV000B

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 5, 2007

Revised Countywide FIS Dates - March 17, 2014

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FLOOD INSURANCE STUDY
NEWTON 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 Newton County, including the cities of Covington, Mansfield, Oxford and Porterdale; the town of Newborn; and the unincorporated areas of Newton County (referred to collectively herein as Newton County), and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This FIS includes 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 Social Circle is geographically located in Newton and Walton Counties and is not included in the FIS. The FIS reports and Flood Insurance Rate Maps (FIRMs) for the City of Social Circle are separately published.

Please note that the cities of Mansfield and Newborn have no mapped Special Flood Hazard Areas (SFHAs), the areas subject to inundation by the base (1-percent-annual-chance) flood. This does not preclude future determination of SFHAs resulting from changed conditions affecting the community (i.e. annexation of new lands) or the availability of new scientific or technical data about flood hazards.

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 revision of the countywide study have been produced in digital format. Flood hazard information was converted to meet the 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. Information on the authority and acknowledgements for each jurisdiction included in this countywide FIS report, as compiled from their previously printed FIS reports, is shown below.

For the January 5, 1983, FIS for the unincorporated areas of Newton County, the September 2, 1982, FIS for the City of Covington, and the July 19, 1982, FIS for the City of Porterdale, the hydrologic and hydraulic analyses were performed by Mayes, Sudderth and Etheredge, Inc., for the Federal Emergency Management Agency (FEMA), under Contract No. H-6828. The study was completed in December 1982 (References 1, 2, and 3).

For the countywide FIS dated September 5, 2007, redelineations of streams studied by detailed methods were performed by PBS&J for the Georgia Department of Natural Resources (DNR), under Contract No. EMA-2005-CA5211 with FEMA. The work was completed in October 2005.

For this county wide FIS dated March 17, 2014, hydrologic and hydraulic analyses were performed by Dewberry and Davis. New detailed flood hazard information was developed for Yellow River, and limited detail hydrologic and hydraulic analyses were also performed for limited detail streams and Zone A Stream for Georgia DNR under Contract No. EMA-2010-CA-5087. The studies were completed in May 2012.

This FIS revision is also incorporated the Letter of Map Revision (LOMR) determination for portion of Zone A along East Dried Indian Creek that was issued on February 15, 2010.

The base map information shown on this FIRM was derived from Newton County aerial photography produced at a scale of 1:600 from photography dated 2008. The projection used in the preparation of the digital FIRM is Georgia State Plane West Zone, FIPS 1002 (feet). The horizontal datum is the North American Datum of 1983.

1.3 Coordination

For the January 5, 1983, FIS for the Unincorporated Areas of Newton County, the September 2, 1982, FIS for the City of Covington, and the July 19, 1982, FIS for the City of Porterdale, streams requiring detailed study were identified at a meeting held in the Newton County Courthouse on June 12, 1979, and attended by representatives of the study contractor, FEMA, and Newton County.

Throughout the study a series of meetings and telephone conversations was held with Mr. Roy Varner, Chairman of the Board of Commissioners, and with

the Government Technical Monitor for the purposes of establishing background information, analyzing existing flood plain zoning, coordinating engineering efforts and informing the county and FEMA of study progress.

A search for basic data was made at all levels of government. The U.S. Geological Survey (USGS) and the Georgia Department of Transportation provided the planimetric maps that served as the base map for the study (Reference 4). The U.S. Soil Conservation Service, although contacted, provided no new information for this report.

Preliminary flood elevations, flood boundaries and floodway determinations were reviewed with county officials and FEMA on December 2, 1981; March 5, 1982; and March 30, 1982. On August 24, 1982, the results of the study were reviewed at the final meeting, which was attended by representatives of the study contractor, FEMA, and community officials. The study was acceptable to Newton County.

For the revised countywide FIS dated September 5, 2007, the initial Consultation Coordination Officer (CCO) meeting was held on October 29, 2004, and attended by representatives of FEMA, Newton County, the City of Covington, the City of Porterdale, and Michael Baker Jr., Inc. A final CCO meeting was held on May 9, 2006. Attending the meeting were representatives of Newton County, the Georgia DNR, and PBS&J. All issues raised at the meeting have been addressed.

The initial Scoping meeting for Newton County was held on December 17, 2010. This meeting identified the needs of the communities affected by the proposed riverine floodplain mapping project.

For this revision, a final CCO meeting was held on September 17, 2012, to review the results of this revision. This meeting was attended by representative of FEMA, local communities, and Dewberry and Davis. All problems raised at that meeting have been addressed.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Newton County, Georgia, 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.

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 Newton County.

The following streams are studied by detailed methods: Big Haynes Creek, Dried Indian Creek, East Dried Indian Creek, Little Haynes Creek, South River, Town Branch (Rogers Branch), Turkey Creek, and Yellow River. The limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

For the revised countywide FIS dated September 5, 2007, 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 (NGVD29) to the North American Vertical Datum of 1988 (NAVD88). For this countywide study, the following streams were redelineated within the limits of detailed study: Dried Indian Creek, South River, Turkey Creek, and Yellow River. A portion of the Alcovy River was revised by a Letter of Map Revision (Case No. 03-04-007P) dated December 18, 2002.

For the revised countywide FIS dated March 17, 2014, revised detailed analysis and mapping of the Yellow River, which is 21 miles long portion of the river was studied, as well as revised backwater analysis for Dried Indian Creek and Turkey Creek, were performed.

A portion of East Dried Indian Creek was revised by a LOMR (Case No. 09-04-4700P) dated February 15, 2010.

Limited detailed analyses/approximate analyses were used to study those areas having low development potential or minimal flood hazards. Numerous flooding sources were studied by approximate methods. The scope and methods of study were proposed to and agreed upon by Newton County. The limited detail studies were incorporated into the FIRMs as SFHAs designated Zone A for reaches where Zone A exists on the initial countywide FIRM, and as areas designated Zone X (shaded) for reaches where Zone A does not exist on the initial countywide FIRM. Approximate studies were incorporated into the FIRMs as SFHAs designated Zone A.

2.2 Community Description

Newton County is located entirely within the Piedmont physiographic province of the northeastern section of Georgia. The county is located approximately 22 miles southeast of the City of Atlanta and is bounded on the north by Walton County, on the east by Morgan and Jasper Counties, on the south by Butts and Henry Counties and on the west by Rockdale County. The area of the county is approximately 273 square miles.

The land area of Newton County was once a part of the Creek Indian Nation. The Creek Indians roamed the land from 1733, when the first English settlers landed on the coast of Georgia, until 1813, when Georgia Governor Thorp

negotiated a treaty with the Creeks whereby they would give up their claim to the land. Newton County was created by Act of the General Assembly of Georgia on December 24, 1821. The county was formed from parts of Jasper, Henry and Walton Counties and was named in honor of Sergeant John Newton, one of the American soldiers whose courageous action in a daring rescue of prisoners during the Revolutionary War marked him as a hero (Reference 5). The population of Newton County increased by approximately 25 percent from 1960 to 1970 and by 31 percent from 1970 to 1980; the population by 2000 was 62,001 (Reference 6). Most of the recent increase in population has occurred in the unincorporated areas of the county, and this trend is expected to continue. The population of Newton County in 2010 was reported to be 99,958 (Reference 22).

Newton County has a temperate climate, typical of the southeast region of the country. It consists of warm, humid summers, mild winters, and abundant rainfall. Summer temperatures average 78 degrees Fahrenheit (°F) and winter temperatures average 44°F, with an annual mean temperature of approximately 61°F. The average annual precipitation in Newton County is 49 inches, most of which falls in the form of rain. Although rare, snowfall is not uncommon to the region. The wettest month is March, with an average of 5.25 inches of precipitation, while October is the driest, with an average of 3.05 inches (Reference 7).

Several tornadoes may be expected in Georgia each year, with resulting property damage in the thousands and sometimes millions of dollars. These storms move very rapidly and produce intense rainfall. Because of their short duration they do not normally represent a flood threat to extremely large drainage basins, but could result in flash floods on watersheds similar to those in Newton County. These storms have occurred during every month of the year, but occur most frequently in spring. Approximately 50 percent of Georgia's tornadoes have occurred in March and April. During the 14-year period from 1953 to 1967, Georgia had an average of 18 reported tornadoes per year.

The county is drained by three major streams, all flowing in a southerly direction. The southwestern county limit is formed by the South River. The Yellow and Alcovy Rivers flow in a southerly direction and divide the county into thirds. All three streams and their tributaries drain to Jackson Lake, which is located at the extreme south corner of Newton County. The Ocmulgee River begins at the Jackson Lake dam.

Dried Indian Creek, Turkey Creek and Big Haynes Creek are tributaries to the Yellow River. Dried Indian Creek flows southwesterly and joins the Yellow River approximately three miles above Rocky Plain Road. Turkey Creek flows southwesterly and joins the Yellow River above Brown Bridge Road. Big Haynes Creek flows southerly and forms a portion of the northwest county

limits with Rockdale County until its confluence with the Yellow River below Bald Rock Road. Little Haynes Creek, a tributary of Big Haynes Creek, forms a portion of the northwest county limits with Rockdale County until its confluence with Big Haynes Creek above Bald Rock Road.

2.3 Principal Flood Problems

Flood producing storms may occur at any time during the year but are more numerous in winter and spring. Winter storms are usually of the frontal type, lasting several days and covering large areas. Summer storms are generally of a thunderstorm with high rainfall intensities scattered over small areas.

Flood problems in the county are scattered at present and are caused by residential development within floodplain areas.

The most serious flooding in the City of Porterdale has been caused by the overflow of the Yellow River. A number of major floods have occurred on the Yellow River that has caused extensive damage to buildings, transportation routes, and utility lines.

Most recently, extensive flooding occurred in Newton County following the historical flooding event of September 2009, when the Yellow River reached a historic high after heavy, constant rains caused damage in Gwinnett County. The floodwater flowed downstream to Newton, covering entire mobile home communities and inundating churches. The flood reached the bottom of bridges and completely covered parts of streets like Crowell Road.

2.4 Flood Protection Measures

Newton County has recognized the need for proper floodplain management and has adopted ordinances restricting the construction of residential structures within the floodplain. For communities within Newton County that are participating in the NFIP, local ordinances and zoning laws have been adopted that regulate development in the floodplain.

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 is 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 rating. 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 county.

Initial Countywide Analyses

Hydrologic analyses were based upon utilization of the USGS regional regression equation (Reference 8) relating discharge to drainage area for rural streams in various physiographic provinces in the State of Georgia. These equations were determined 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, and regionalizing the results by multiple regression techniques. Since the watersheds of the streams studied are developed to varying extents, these equations were adjusted to account for urbanization, as recommended by the USGS.

The rural equation adjustment involves determining an urbanization factor, RL, which defines urbanization as a function of percentage of impervious watershed area and percentage of watershed area served by storm sewers. The RL factors determined for Dried Indian Creek, East Dried Indian Creek, Town Branch (Rogers Branch) and Turkey Creek range from 1.0 to 2.5. The appropriate regional relationships were then used, applying the RL factor to estimate the magnitude of the 10-, 2-, 1-, and 0.2-percent-annual-chance floods.

Revised Countywide Analyses

For this revision, peak discharge-frequency relationships for the stream restudied by detailed methods (Yellow River) were determined using the Peak Flow Frequency analysis program (Reference 25 & 26),which implements the Bulletin 17B recommended procedures for flood frequency analysis of stream flow records *Guidelines for Determining Flood Flow Frequency*, Bulletin 17B of the USGS Hydrology Committee (Reference 27). Transfer of flows was done to increase the confidence of the result obtained Peak FQ Flow and Because the polynomial function of the peak discharges were reasonably consistent with a Pearson Type III distribution, flood frequency analysis was performed based on Bulletin 17B guidelines (Reference 19).

After careful review of the watersheds and impervious area it was decided for the approximate Zone A study to apply the Georgia Urban Regression Equation to calculate all peak discharges for recurrence interval T, 2 to 500year. A review of all watersheds revealed a wide range of impervious area for all watersheds within Newton County. Georgia is divided into four urban hydrologic regions that correspond to regression equations for estimated peak discharges (Q_T), in cubic feet per second, with recurrence intervals (T) ranging from 2 years to 500 years for the four hydrologic regions and a separate set of equations.

A summary of drainage area – peak discharge relationships for each stream studied in detail is shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance		0.2-Percent-Annual-Chance
				Existing	Future	
BIG HAYNES CREEK						
At Bald Rock Road	79.9	*	*	14,420		*
DRIED INDIAN CREEK						
At confluence with Yellow River	15.0	2,560	3,915	4,480		5,985
Just upstream of Flat Shoals Road	13.6	2,405	3,680	4,215		5,635
Approximately 1.05miles upstream of Flat Shoals Road	12.1	2,215	3,395	3,890		5,215
Approximately 2.6 miles upstream of Flat Shoals Road	9.2	1,936	2,970	3,415		4,580

TABLE 1 - SUMMARY OF DISCHARGES – continued

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance		0.2-Percent-Annual-Chance
				Existing	Future	
DRIED INDIAN CREEK (CONT'D)						
Approximately 3 miles upstream of Flat Road	8.8	1,855	2,850	3,275		4,400
Just upstream of confluence with Town Branch (Rogers Branch)	7.1	1,515	2,375	2,745		3,735
Just upstream of Broad Street /State Highway 81	6.5	1,350	2,145	2,490		3,420
Just upstream of U.S. (upstream crossing) Highway 278/ State Highway 12	5.8	1,205	1,930	2,250		3,110
Just upstream of confluence With East Dried Indian Creek	2.3	740	1,180	1,385		1,910
EAST DRIED INDIAN CREEK						
At confluence with Dried Indian Creek	2.6	780	1,260	1,480		2,055
At Bob Williams Parkway	1.8	*	*	1,055		*
LITTLE HAYNES CREEK						
At confluence with Big Haynes Creek	17.3	3,010	4,750	5,450		7,410
Just upstream of confluence with Sandy Creek	26.9	2,370	3,760	4,330		5,910

*Data not available

TABLE 1 - SUMMARY OF DISCHARGES - continued

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance Existing	1-Percent-Annual-Chance Future	0.2-Percent-Annual-Chance
TOWN BRANCH (ROGERS BRANCH)						
At Confluence with Dried Indian Creek	0.8	565	825	945		1,240
At upstream crossing of Brookwood Circle Southeast	0.4	340	500	570		745
TURKEY CREEK						
At Confluence with Yellow River	3.4	975	1,525	1,775		2,425
Approximately 5,550 feet upstream of the confluence with Yellow River	1.8	675	1,060	1,240		1,705
YELLOW RIVER						
At Rocky Plains Road	430	15,715	28,476	35,672		57,880
Approximately 11,150 feet upstream of Rocky Plains Road	424	15,625	28,350	35,532		57,710
Approximately 10,468 feet downstream of Covington bypass Road	406	15,303	27,870	34,990		57,004
At Covington Bypass Road	403	15,243	27,780	34,880		56,860
At Elm Street	400	15,202	27,712	34,805		56,756
Approximately 4515 feet upstream of Elm Street	390	15,006	27,403	34,442		56,246
At Brown Bridge Road	388	14,974	27,350	34,380		56,157
At Interstate 20	377	14,752	26,989	33,950		55,527
At Mount Tabor Road	345	14,080	25,840	32,550		55,370
Approximately 11,150 feet upstream of Mount Tabor Road	342	14,014	25,725	32,406		53,144

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.

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.

Initial Countywide Analyses

Analyses of the hydraulic characteristics of the flooding sources studied in detail in Newton County were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

Cross-section data for the backwater analyses of the streams studied in detail were obtained from combining photogrammetrically prepared overbank floodplains with field surveyed channels. Culverts and bridges were surveyed to obtain elevation data and structural geometry.

Cross sections were located at close intervals upstream and downstream of bridges and culverts in order to compute significant backwater effects of these structures. In addition, cross sections were taken between hydraulic controls wherever warranted by topographic changes.

The U.S. Army Corps of Engineers HEC-2 step-backwater computer program (Reference 9) was used to compute Water-Surface Elevations (WSELs) of floods for the selected recurrence intervals. Flood profiles were drawn showing computed WSELs for floods of the selected recurrence intervals. The starting WSELs for all streams were calculated using the slope-area method.

Revised Countywide Analyses

Hydraulic analyses were completed for flooding sources identified in the Project Scoping Report and . The analyses consist of determining WSELs for the 10-, 4-, and 2-, 1- and 0.2-percent-annual-chance flood events and

floodways for the detailed study of the Yellow River and a county wide Zone A study of streams. The hydraulic analyses for this study used a steady-state riverine analysis and did not take into account any structures for Newton County Zone A analyses they could have a significant impact on the hydraulics. Therefore no survey information was available for the Newton County Zone A analyses. The hydraulic analyses for the Newton County detailed study used a steady-state riverine analysis and also included cross sections and field data collected during detailed field surveys. For the hydraulic simulations, all structures were assumed to remain fully functional and have unobstructed flows.

Previous study information was available in the existing FIS report for Newton County. Data obtained as a result of this study will replace the existing FIS studies for the Yellow River portion of the stream.

WSELs were determined using detailed methods. Hydraulic analyses were carried out using HEC-RAS version 4.1.0 (Reference 18).

The floodplain cross sections were placed at representative locations, at a maximum of 500 feet apart along the stream centerline. Cross sections geometries were obtained from the topographic data provided by Newton County. None of the channel cross sections for each stream was field surveyed.

In accordance with the FEMA *Guidelines & Specifications for Flood Hazard Mapping Partners* (Guidelines) and the HEC-RAS Hydraulic Reference Manual (Reference 27), cross sections were also placed at all crossing structures including bridges, culverts, and dams. Each structure cross section is categorized as a Top of Road (TOR) cross section. GeoFIRM uses these cross sections to develop crossing structure information as necessary for HEC-RAS modeling.

Additional cross sections were also placed to account for significant profile inflection points (profile breaks). Cross sections at profile breaks are critical for accuracy in the development of Base (1-percent-annual-chance) Flood Elevations (BFEs).

Channel roughness (Manning's "n") factors used in the hydraulic computations were chosen by engineering judgment and based on field observations of the stream channels and overbank floodplain areas. The Manning's "n" values for all detailed studied streams are listed in Table 2.

The channel and overbank "n" values for all streams studied by detailed methods are shown in Table 2, "Manning's "n" Values."

Table 2 - Manning's "n" Values

Stream	Channel	Overbank
Big Haynes Creek	0.020-0.055	0.085-0.110
Dried Indian Creek	0.020-0.055	0.085-0.110
East Dried Indian Creek	0.035-0.055	0.085-0.110
Little Haynes Creek	0.020-0.055	0.085-0.110
South River	0.020-0.055	0.085-0.110
Town Branch (Rogers Branch)	0.020-0.055	0.085-0.110
Turkey Creek	0.020-0.055	0.085-0.110
Yellow River	0.035-0.055	0.070-0.110

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. With the finalization of the North American Vertical Datum of 1988 (NAVD88), many FIS reports and FIRMs are being prepared using NAVD88 as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD88. Structure and ground elevations in the community must, therefore, be referenced to NAVD88. It is important to note that adjacent communities may be referenced to NGVD29. This may result in differences in BFEs across the corporate limits between the communities. The average conversion factor used to convert the data in this FIS report to NAVD88 was calculated using the National Geodetic Survey's VERTCON online utility (Reference 10). The data points used to determine the conversion are listed in Table 3, "Vertical Datum Conversion."

Table 3 –Vertical Datum Conversion

Quad Name	Corner	Longitude	Latitude	Conversion from NGVD29 to NAVD88
Milstead	NE	83.875	33.75	0.003 feet
Milstead	SW	84	33.625	0.062 feet
Milstead	SE	83.875	33.625	-0.026 feet
Jersey	SE	83.751	33.625	-0.066 feet
Porterdale	SW	84	33.5	-0.007 feet
Porterdale	SE	83.875	33.5	-0.066 feet
Covington	SE	83.751	33.5	-0.115 feet
				Average: -0.040 feet

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. Therefore, each FIS provides BFEs and delineations of the 1- and 0.2-percent-annual-chance (500year) 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 Floodway Data Table and the 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 l-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 Big Haynes Creek, East Dried Indian Creek, Little Haynes Creek, and Town Branch (Rogers Branch), 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 topographic maps at a scale of 1:1,560, with a contour interval of 5 feet (Reference 1).

For this revision of the FIS, the floodplain boundaries on the studied streams were delineated utilizing the GeoTerrain tool in ArcGIS, applying the FEMA Boundary Standard (FBS), and the Newton County 2008 Terrain data.

For streams studied by limited detailed or approximate methods, the 1-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 digital elevation models of the topographic LiDAR data (Reference 28).

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the l-percent-annual-chance floodplain boundary corresponds to the boundary of the SFHAs designated Zone A or 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 l-percent-annual-chance floodplain boundary is 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 1percent-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 existing-conditions 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 floodways presented in the original countywide 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 have been tabulated for selected cross sections (Table 4) located in Volume 1. In cases where the floodway and 1-percent-annual-chance floodplain boundaries were either close together or collinear, only the floodway boundary has been shown.

In addition to the existing-conditions 1-percent-annual-chance flood elevations and floodway, for selected stream segments, the future-conditions 1-percent-annual-chance WSELs without the floodway are also presented in Table 4, located in Volume 1.

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 base flood WSELs 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.

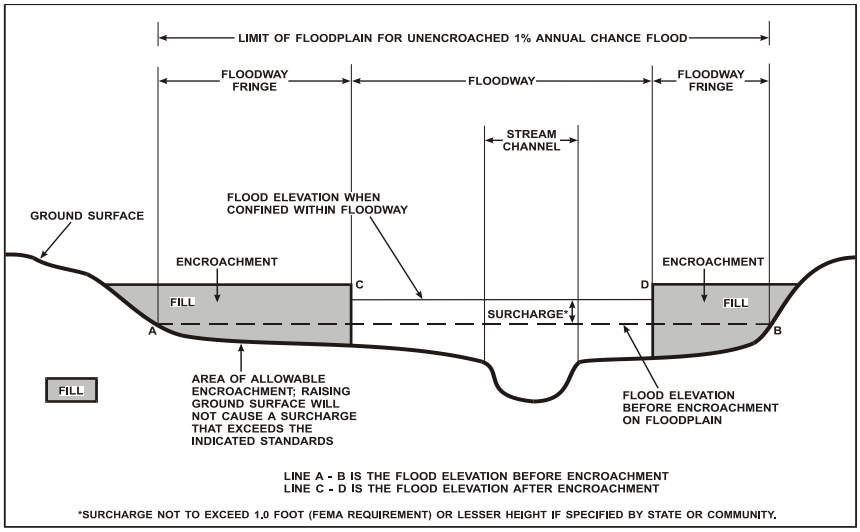

Figure 1 Floodway Schematic

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DRIED INDIAN CREEK								
A	906	263	1,591	2.8	565.7	556.5[2]	557.5	1.0
B	2,881	314	2,019	2.2	565.7	560.5[2]	561.3	0.8
C	3,672	124	583	7.7	565.7	562.7[2]	563.3	0.6
D	4,400	119	857	5.2	568.9	568.9	569.8	0.9
E	5,561	101	803	5.6	574.2	574.2	574.9	0.7
F	6,511	254	2,099	2.1	576.6	576.6	577.4	0.8
G	7,603	749	4,710	1.0	577.4	577.4	578.2	0.8
H	8,400	98	619	7.2	577.5	577.5	578.1	0.6
I	8,583	60	510	8.8	579.0	579.0	579.7	0.7
J	9,078	289	2,242	2.0	584.0	584.0	584.2	0.2
K	10,692	532	3,629	1.2	584.9	584.9	585.3	0.4
L	12,000	224	1,077	3.9	586.0	586.0	586.6	0.6
M	12,794	374	1,977	2.1	589.0	589.0	590.0	1.0
N	13,515	276	1,042	4.0	591.3	591.3	592.1	0.8
O	14,540	321	2,019	1.9	594.2	594.2	595.2	1.0
P	16,138	144	857	4.5	597.8	597.8	598.6	0.8
Q	19,052	263	1,956	2.0	605.1	605.1	606.1	1.0
R	20,225	234	1,070	3.6	607.5	607.5	608.4	0.9

[1]Feet above confluence with Yellow River
[2]Elevation computed without consideration of backwater effects from Yellow River

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

DRIED INDIAN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DRIED INDIAN CREEK (CONTINUED)								
S	21,802	448	2,339	1.7	611	611	611.8	0.8
T	23,292	137	554	6.2	614	614	614.4	0.4
U	24,398	409	1,826	1.9	618.5	618.5	619.2	0.7
V	25,193	290	1,008	3.4	620.5	620.5	621.1	0.6
W	26,333	301	1,556	2.1	623.3	623.3	624	0.7
X	27,184	74	471	7	624.9	624.9	625.5	0.6
Y	28,822	100	697	4.7	632.8	632.8	633.5	0.7
Z	30,674	85	613	5.3	639.7	639.7	640.2	0.5
AA	32,684	40	330	9.9	651.7	651.7	652.2	0.5
AS	34,397	213	1,053	3.1	660.8	660.8	661.3	0.5
AC	35,179	252	1,493	1.8	662.4	662.4	662.9	0.5
AD	36,711	47	239	11.5	665.8	665.8	666	0.2
AE	38,247	47	438	6.3	678.4	678.4	679.2	0.8
AF	38,651	41	434	6.3	680	680	680.8	0.8
AG	39,368	188	414	6.6	696.9	696.9	696.9	0
AH	39,505	131	339	7.4	698.2	698.2	698.2	0
AI	39,969	120	773	3.2	701.3	701.3	701.3	0
AJ	40,250	99	712	3.5	701.5	701.5	701.6	0.1

[1]Feet above confluence with Yellow River

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

DRIED INDIAN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DRIED INDIAN CREEK (CONTINUED)								
AK	41,013	105	694	3.6	703.3	703.3	703.7	0.4
AL	41,127	130	1,086	2.3	703.4	703.4	703.9	0.5
AM	41,561	78	568	4.4	704.1	704.1	704.6	0.5
AN	41,895	181	981	2.5	704.6	704.6	705.2	0.6
AO	42,100	270	1,679	1.5	704.8	704.8	705.5	0.7
AP	42,488	56	377	6.6	704.8	704.8	705.7	0.9
AQ	43,129	386	3,147	0.8	709.2	709.2	709.3	0.1
AR	43,405	445	2,590	1.0	709.2	709.2	709.3	0.1
AS	43,875	113	776	3.2	710.6	710.6	710.8	0.2
AT	44,061	50	488	4.6	710.8	710.8	710.9	0.1
AU	44,539	55	497	4.5	710.9	710.9	711.7	0.8
AV	44,990	638	6,444	0.3	716.1	716.1	716.4	0.3
AW	45,809	353	2,795	0.8	716.2	716.2	716.5	0.3
AX	46,425	281	1,222	1.8	716.3	716.3	716.7	0.4
AY	47,382	129	590	2.3	717.0	717.0	717.7	0.7
AZ	48,542	265	2,552	0.5	727.3	727.3	727.3	0.0
BA	48,882	246	2,244	0.6	727.3	727.3	727.3	0.0
BB	49,410	182	967	1.4	727.4	727.4	727.4	0.0

[1]Feet above confluence with Yellow River

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

DRIED INDIAN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
EAST DRIED INDIAN CREEK								
A	300	219	693	2.1	716.4	714.6[2]	715.6	1.0
B	1,160	91	259	5.7	718.8	718.8	718.8	0.0
C	2,188	94	622	2.4	723.1	723.1	723.6	0.5

[1]Feet above confluence with Dried Indian Creek
[2]Elevation computed without consideration of backwater effects from Dried Indian Creek

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

EAST DRIED INDIAN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE HAYNES CREEK								
A	580	480	2,041	2.7	660.7	643.2[3]	644.2	1.0
B	1570	480/321[2]	2,067	2.6	660.7	647.5[3]	648.0	0.5
C	2355	485/0[2]	1,508	3.6	660.7	651.8[3]	652.4	0.6
D	3829	83/80[2]	879	6.2	660.7	659.2[3]	660.0	0.8
E	4048	103/60[2]	738	7.4	660.7	659.8[3]	660.8	1.0
F	4468	116	454	12.0	666.7	666.7	666.7	0.0
G	4700	208	973	5.6	677.0	677.0	677.0	0.0
H	5139	96/20[2]	546	10.0	678.4	678.4	678.6	0.2
I	7410	2821230[2]	2,800	1.0	684.9	684.9	685.9	1.0
J	9310	226/52[2]	1,788	3.0	686.6	686.6	687.4	0.8
K	11110	358/284[2]	2,579	2.1	689.0	689.0	690.0	1.0
L	13074	711/197[2]	5,034	1.1	690.3	690.3	691.3	1.0
M	14507	678/329[2]	4,451	1.2	691.0	691.0	692.0	1.0
N	17196	176/92[2]	1,318	3.3	693.6	693.6	694.5	0.9

[1] Feet above confluence with Big Haynes Creek
[2] Total width/width within Newton County
[3] Elevation computed without consideration of backwater effects from Big Haynes Creek

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE HAYNES CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TOWN BRANCH (ROGERS BRANCH)								
A	388	17	112	8.4	661.6	658.5[2]	659.5	1.0
B	729	35	166	5.7	662.2	662.2	663.2	1.0
C	1,487	128	860	1.1	673.6	673.6	673.7	0.1
D	1,650	70	422	2.2	673.6	673.6	673.7	0.1
E	1,800	60	288	3.3	673.7	673.7	673.7	0.0
F	1,950	30	157	6.0	673.9	673.9	674.1	0.2
G	2,089	34	180	5.2	674.5	674.5	675.2	0.7
H	2,705	100	535	1.8	682.2	682.2	682.7	0.5
I	2,924	106	678	1.4	682.3	682.3	682.9	0.6
J	3,340	95	321	2.9	684.7	684.7	684.7	0.0
K	3,714	84	270	3.5	687.2	687.2	687.2	0.0
L	4,038	65	305	3.1	690.3	690.3	690.4	0.1
M	4352	30	189	3.0	693.3	693.3	693.4	0.1
N	4,808	24	126	4.5	694.0	694.0	694.3	0.3
0	5,515	85	165	3.5	718.3	718.3	718.3	0.0
P	5,639	119	206	2.8	718.9	718.9	718.9	0.0
Q	5,950	95	309	1.8	723.0	723.0	723.0	0.0
R	6,528	168	404	1.4	731.6	731.6	731.6	0.0
S	6,810	165	1,319	0.4	740.4	740.4	740.4	0.0

[1]Feet above confluence with Dried Indian Creek
[2]Elevation computed without consideration of backwater effects from Dried Indian Creek

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

TOWN BRANCH (ROGERS BRANCH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TURKEY CREEK								
A	1,418	145	590	3.0	636.3	625.3[2]	626.2	0.9
B	3,171	84	535	3.3	636.3	630.1[2]	630.8	0.7
C	4,140	43	292	6.1	636.3	632.6[2]	633.3	0.7
D	5,879	47	321	5.5	640.7	640.7	641.7	1.0
E	8,074	43	304	4.1	648.8	648.8	649.8	1.0
F	8,908	26	165	7.5	652.2	652.2	653.1	0.9
G	10,278	220	1,751	0.7	665.9	665.9	665.9	0.0

[1]Feet above confluence with Yellow River
[2]Elevation computed without consideration of backwater effects from Yellow River

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

TURKEY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
YELLOW RIVER								
A	0	806	12,822	2.8	548.9	548.9	549.4	0.5
B	935	498	7,872	4.6	549.1	549.1	549.6	0.5
C	1,178	499	8,124	4.4	549.1	549.1	549.7	0.6
D	3,134	420	6,786	5.3	549.8	549.8	550.5	0.7
E	6,237	946	14,797	2.4	551.4	551.4	552.4	1.0
F	10,910	780	12,940	2.8	553.3	553.3	554.2	0.9
G	13,951	936	14,769	2.4	554.6	554.6	555.4	0.8
H	20,539	616	8,489	4.2	556.0	556.0	557.0	1.0
I	22,774	249	5,297	6.7	558.3	558.3	559.0	0.7
J	22,852	292	5,516	6.5	561.3	561.3	561.8	0.5
K	24,987	611	10,489	3.4	562.4	562.4	562.8	0.4
L	34,002	566	9,190	3.9	564.4	564.4	565.2	0.8
M	39,886	525	9,131	3.8	565.4	565.4	566.4	1.0
N	41,327	532	7,421	4.7	565.9	565.9	566.8	0.9
O	43,472	594	9,427	3.7	567.7	567.7	568.4	0.7
P	49,317	390	6,558	5.3	571.4	571.4	572.1	0.7
Q	54,618	370	6,671	5.2	574.2	574.2	575.0	0.8
R	54,747	385	7,421	4.7	575.3	575.3	575.6	0.3
S	56,643	490	9,352	3.7	576.1	576.1	576.3	0.2
T	62,788	334	2,871	12.1	607.9	607.9	608.4	0.5
U	62,952	607	9,467	3.7	628.1	628.1	628.7	0.6
V	63,055	557	7,467	4.7	628.1	628.1	628.7	0.6
W	63,174	555	7,216	4.8	628.2	628.2	629.1	0.9

[1]Feet above Limit of Detailed Study (Located approximately 1,040 feet downstream of State Route 212)

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

YELLOW RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
YELLOW RIVER								
X	69,776	449	5,078	6.8	630.5	630.5	631.5	1.0
Y	74,450	660	10,361	3.3	633.9	633.9	634.9	1.0
Z	75,630	849	11,270	3.1	634.5	634.5	635.4	0.9
AA	76,465	1,253	14,748	2.4	635.2	635.2	636.0	0.8
AB	76,587	1,162	16,852	2.0	636.0	636.0	636.6	0.6
AC	82,442	1,836	24,419	1.4	636.8	636.8	637.5	0.7
AD	86,963	1,539	16,979	2.0	637.5	637.5	638.1	0.6
AE	91,630	480	5,619	6.0	639.2	639.2	640.2	1.0
AF	91,951	279	4,503	7.5	639.5	639.5	640.4	0.9
AG	92,005	271	4,720	6.9	640.0	640.0	640.7	0.7
AH	92,015	278	5,164	6.3	640.7	640.7	641.4	0.7
AI	92,174	349	6,341	5.1	641.1	641.1	641.8	0.7
AJ	92,470	320	5,590	5.8	641.6	641.6	642.2	0.6
AK	92,855	367	6,839	4.8	642.6	642.6	643.0	0.4
AL	94,254	354	6,091	5.4	643.5	643.5	644.0	0.5
AM	98,703	440	7,662	4.3	646.1	646.1	647.0	0.9
AN	100,181	498	9,314	3.5	647.4	647.4	648.1	0.7
AO	100,302	602	10,788	3.0	648.1	648.1	648.8	0.7
AP	102,126	650	9,041	3.6	648.5	648.5	649.3	0.8
AQ	105,419	356	7,659	4.2	650.2	650.2	650.8	0.6
AR	107,669	912	18,082	1.8	651.2	651.2	651.8	0.6
AS	110,383	1,646	31,222	1.0	651.5	651.5	652.2	0.7

[1]Feet above Limit of Detailed Study (Located approximately 1,040 feet downstream of State Route 212)

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

FLOODWAY DATA

YELLOW RIVER

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 AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 100-year shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to the areas of 100-year shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone.

Zone A99

Zone A99 is the flood insurance rate zone that corresponds to areas of the 100-year floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No BFEs or depths are shown within this zone.

Zone V

Zone V is the flood insurance risk zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves.

Because approximate hydraulic analyses are performed for such areas, no BFEs are shown within this zone.

Zone VE

Zone VE is the flood insurance risk zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. 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 existing-conditions 0.2-percent-annual-chance floodplain; areas between the existing-conditions and future-conditions 1-percent-annual-chance floodplain boundaries; and to 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.

Zone D

Zone D is the flood insurance risk zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

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 existing-conditions 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 for existing conditions 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 cross hatching, and symbols, the existing- and future-conditions 1- and 0.2-percent-annual-chance floodplains, existing-conditions 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 Newton 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 5.

7.0 OTHER STUDIES

This FIS 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.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Covington, City of	June 28,1974	April 25, 1975	March 2, 1983	
*Mansfield, City of	September 5, 2007	None	September 5, 2007	
*Newborn, Town of	September 5, 2007	None	September 5, 2007	
Newton County (Unincorporated Areas)	April 23, 1976	None	July 5,1983	
Oxford, City of	April 11, 1975	None	September 5, 2007	
Porterdale, City of	April 12, 1974	February 6, 1976	January 19, 1983	

* No Special Flood Hazard Areas Identified

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

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, Federal Regional Center, 3003 Chamblee-Tucker Road, Atlanta, Georgia 30341.

9.0 BIBLIOGRAPHY AND REFERENCES

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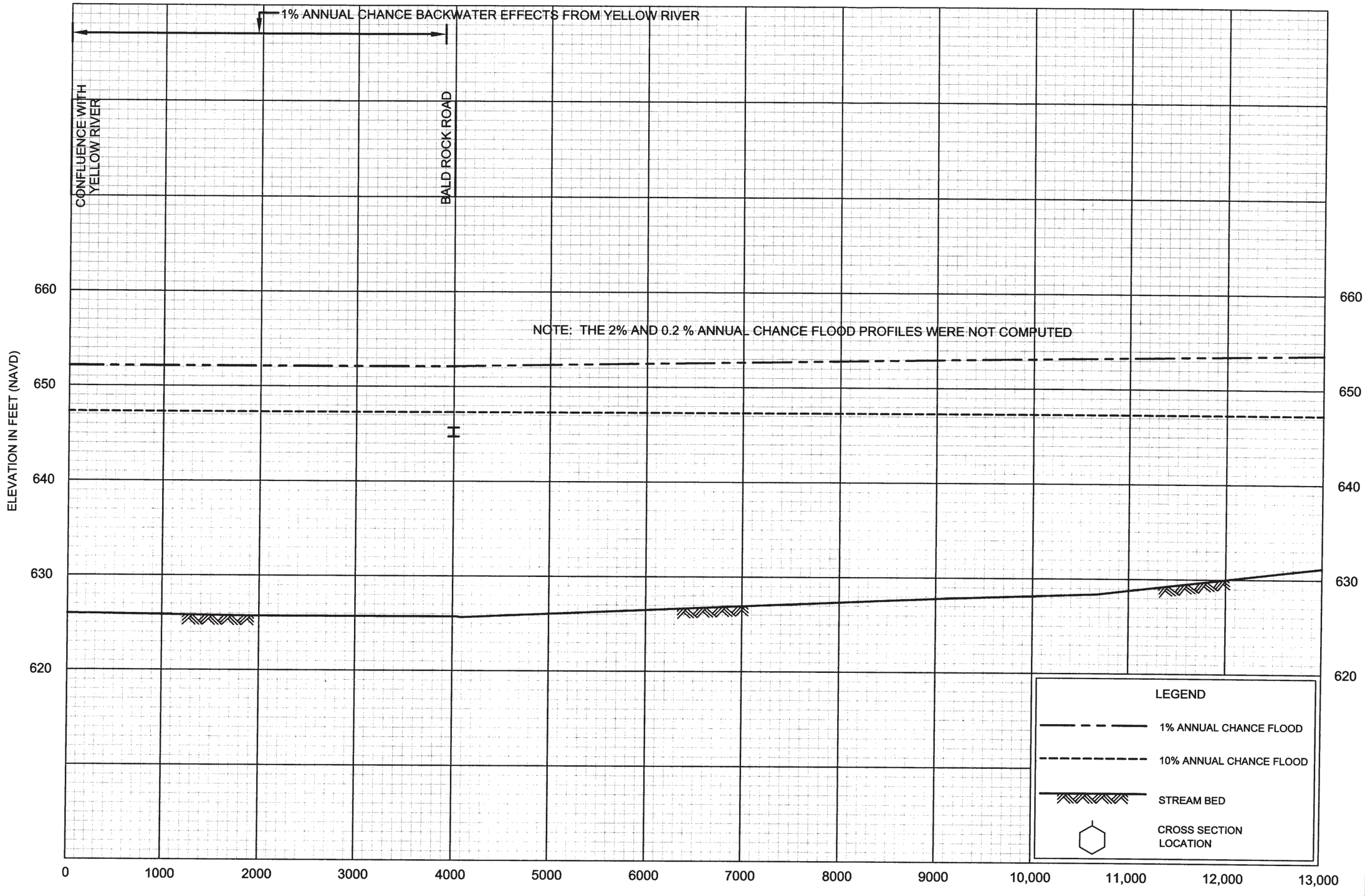


FLOOD PROFILES

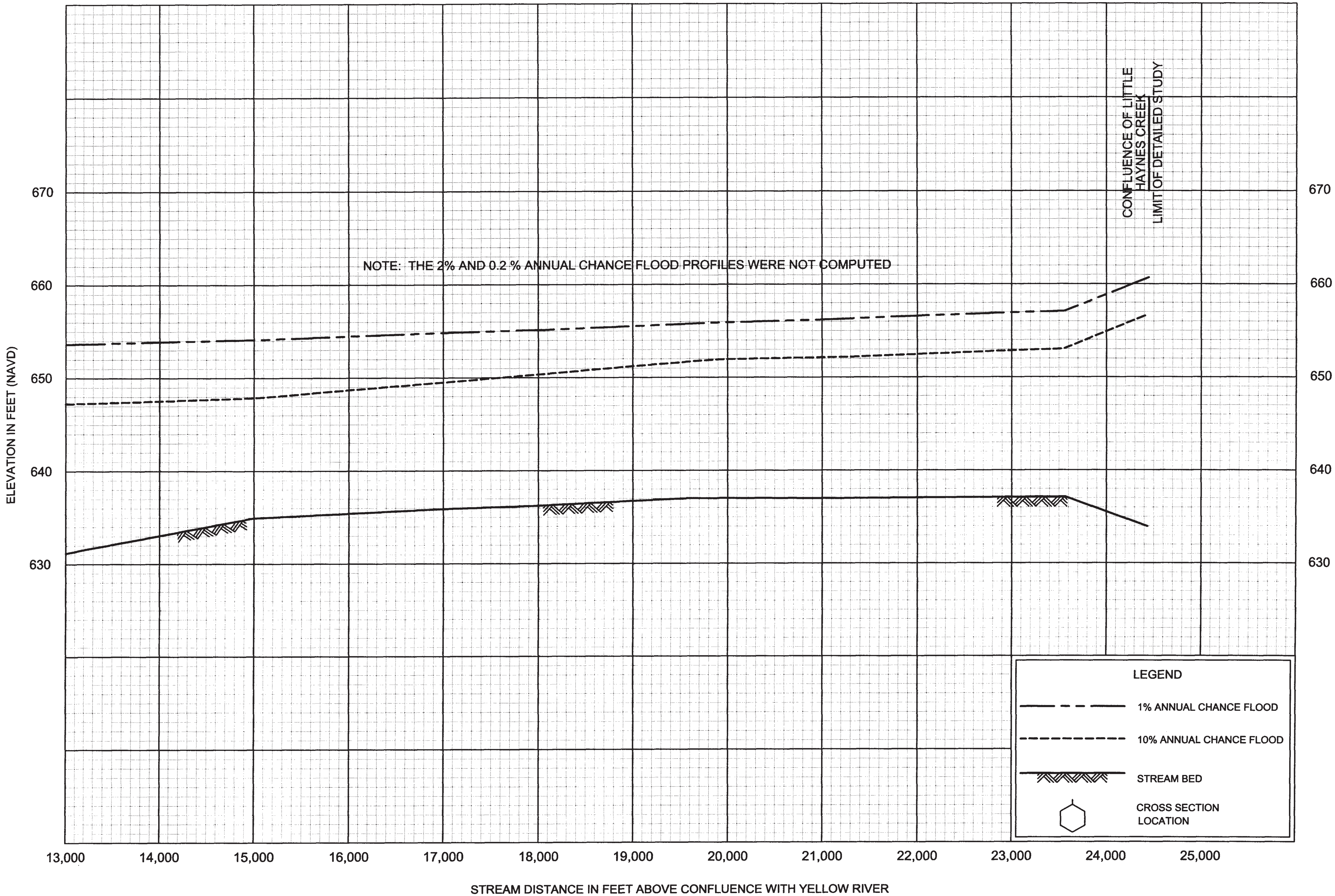
BIG HAYNES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

01P



FLOOD PROFILES

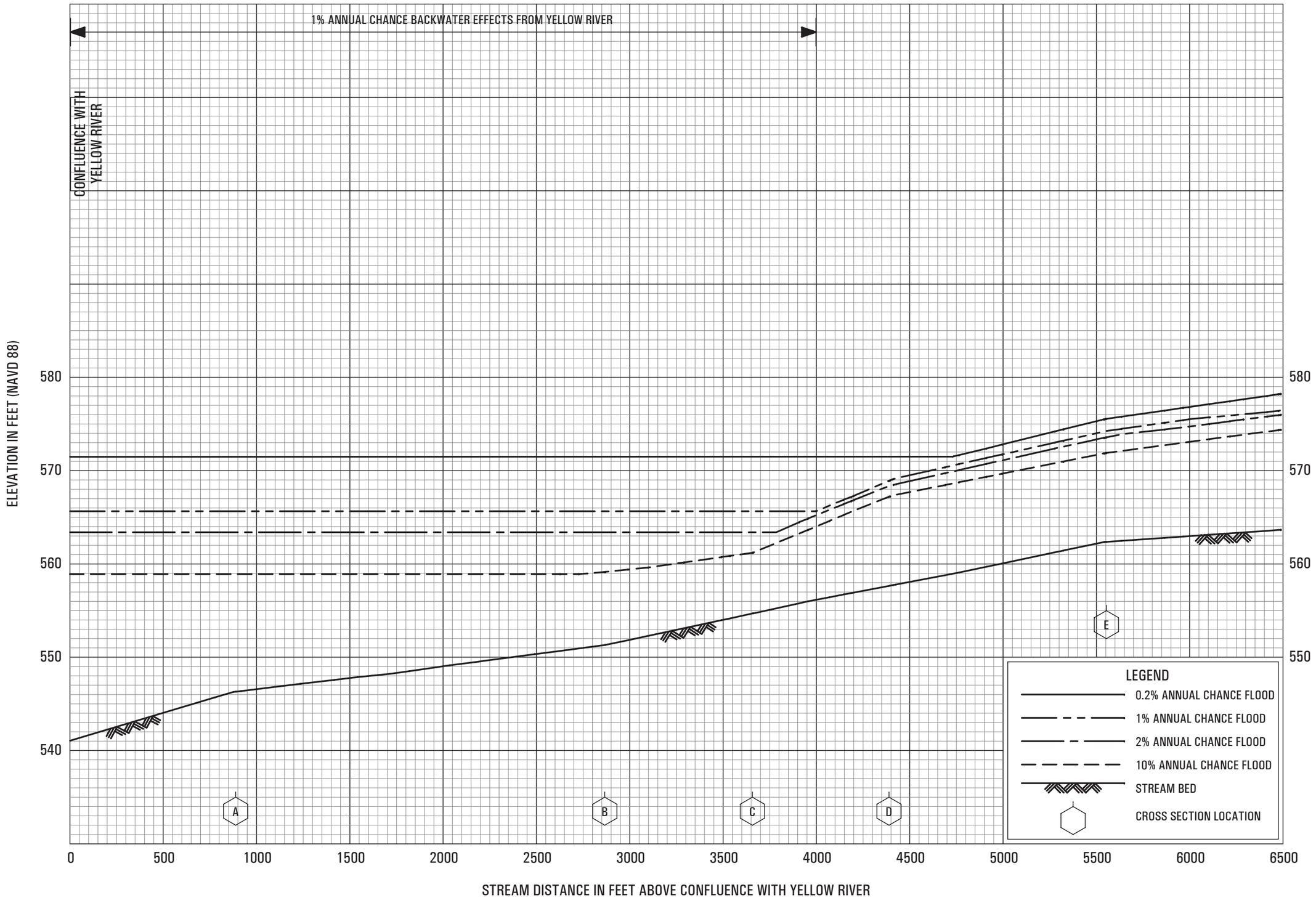
BIG HAYNES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

02P



FLOOD PROFILES

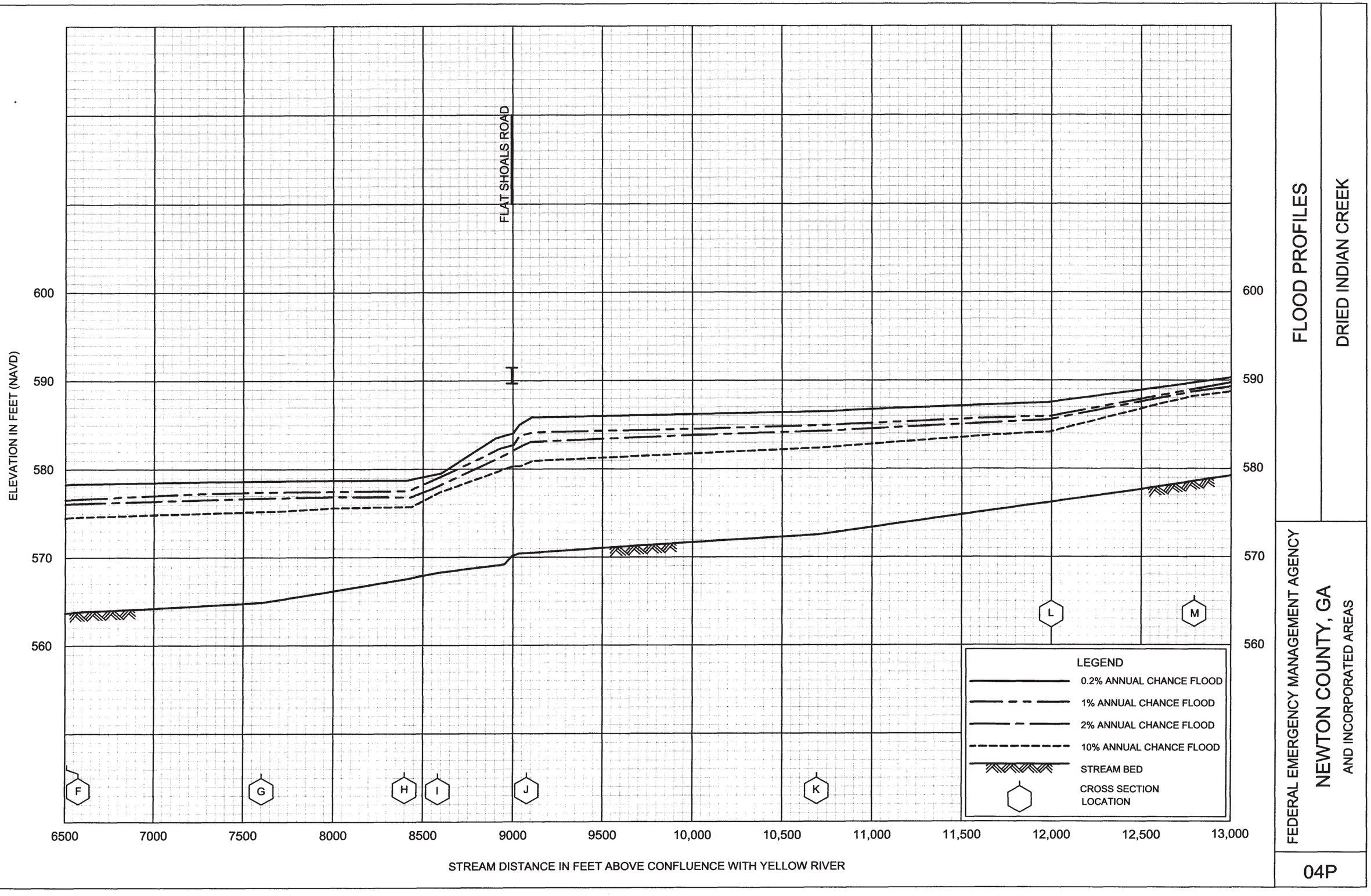
DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

03P



FLOOD PROFILES

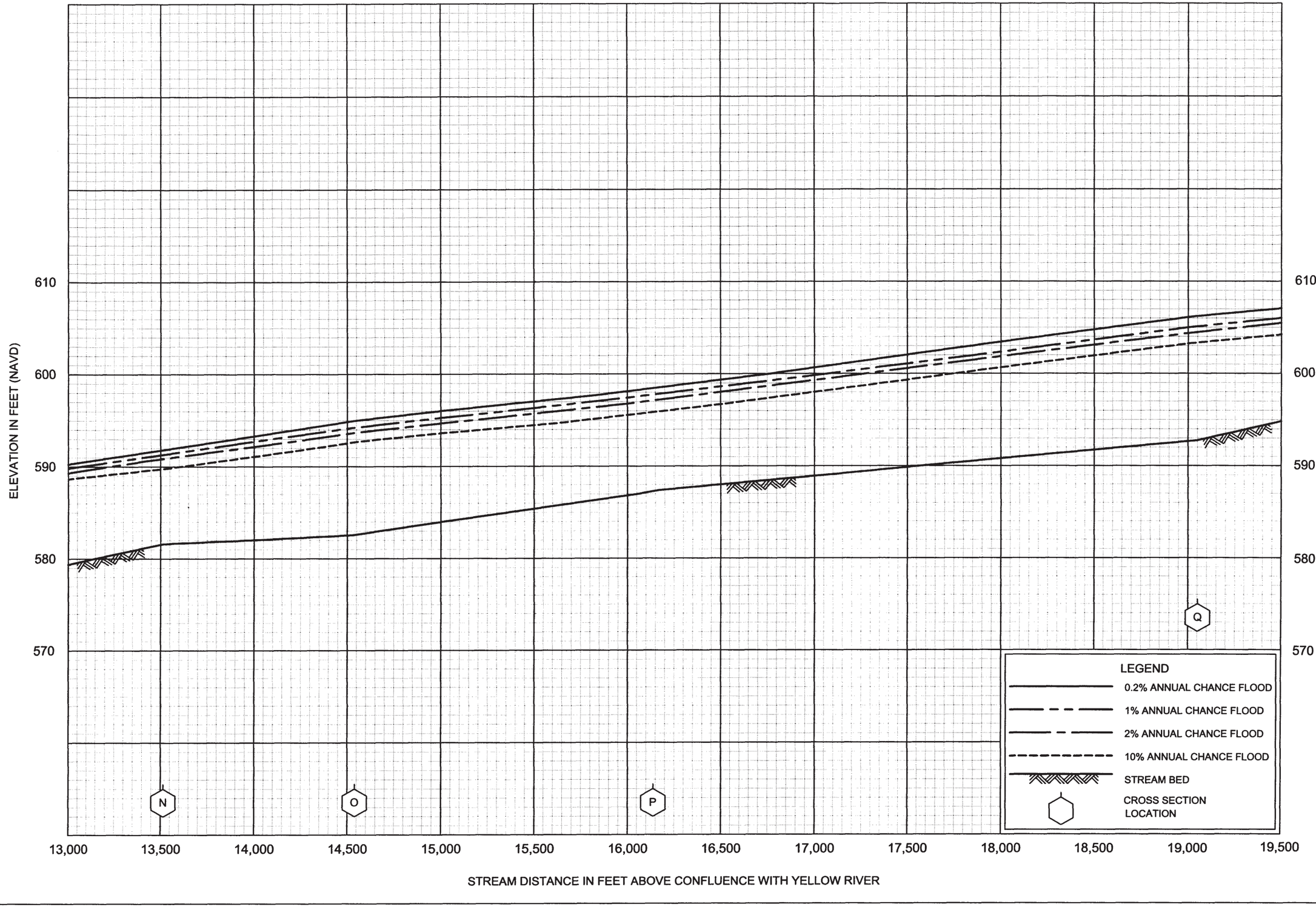
DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

04P



FLOOD PROFILES

DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

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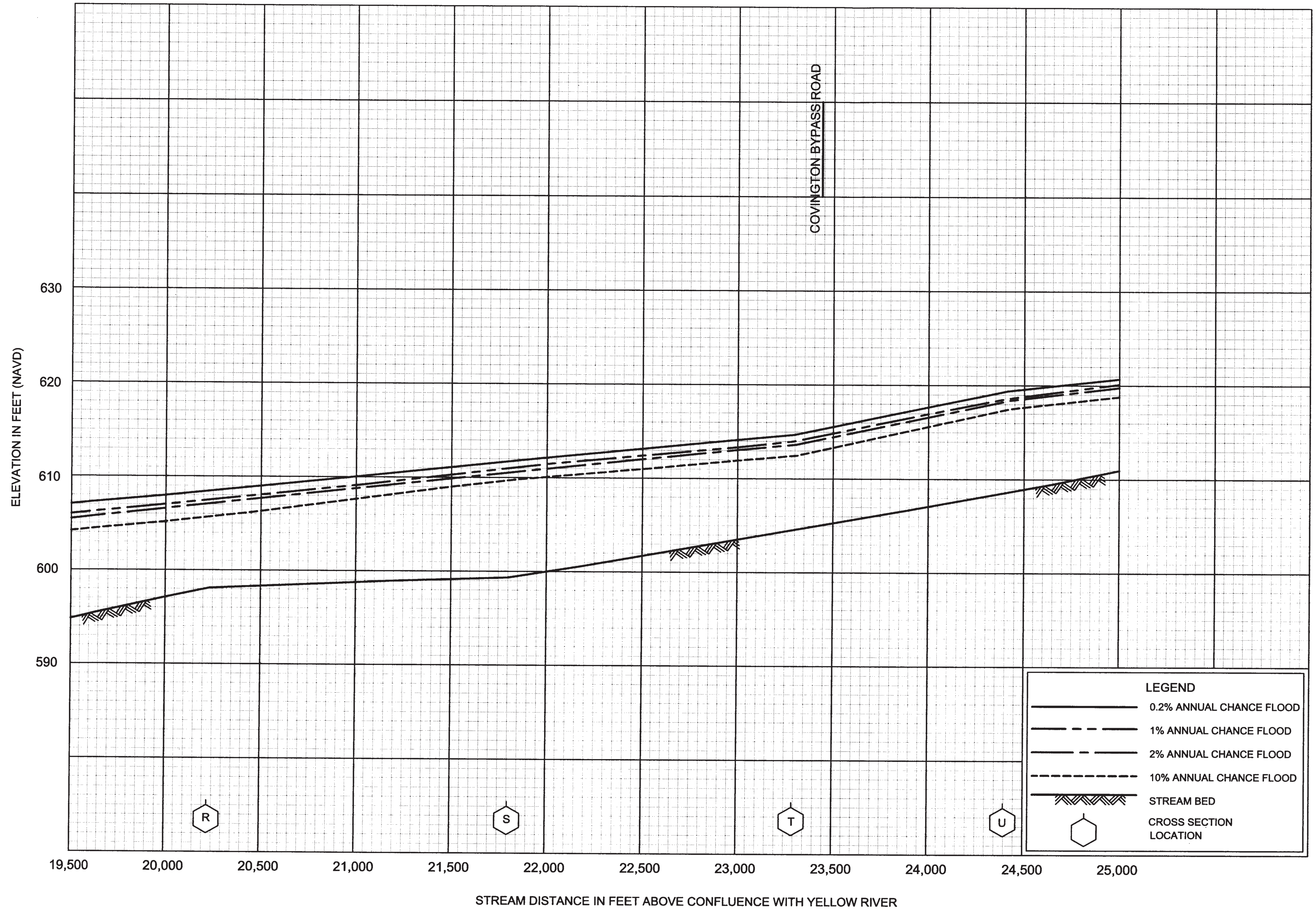


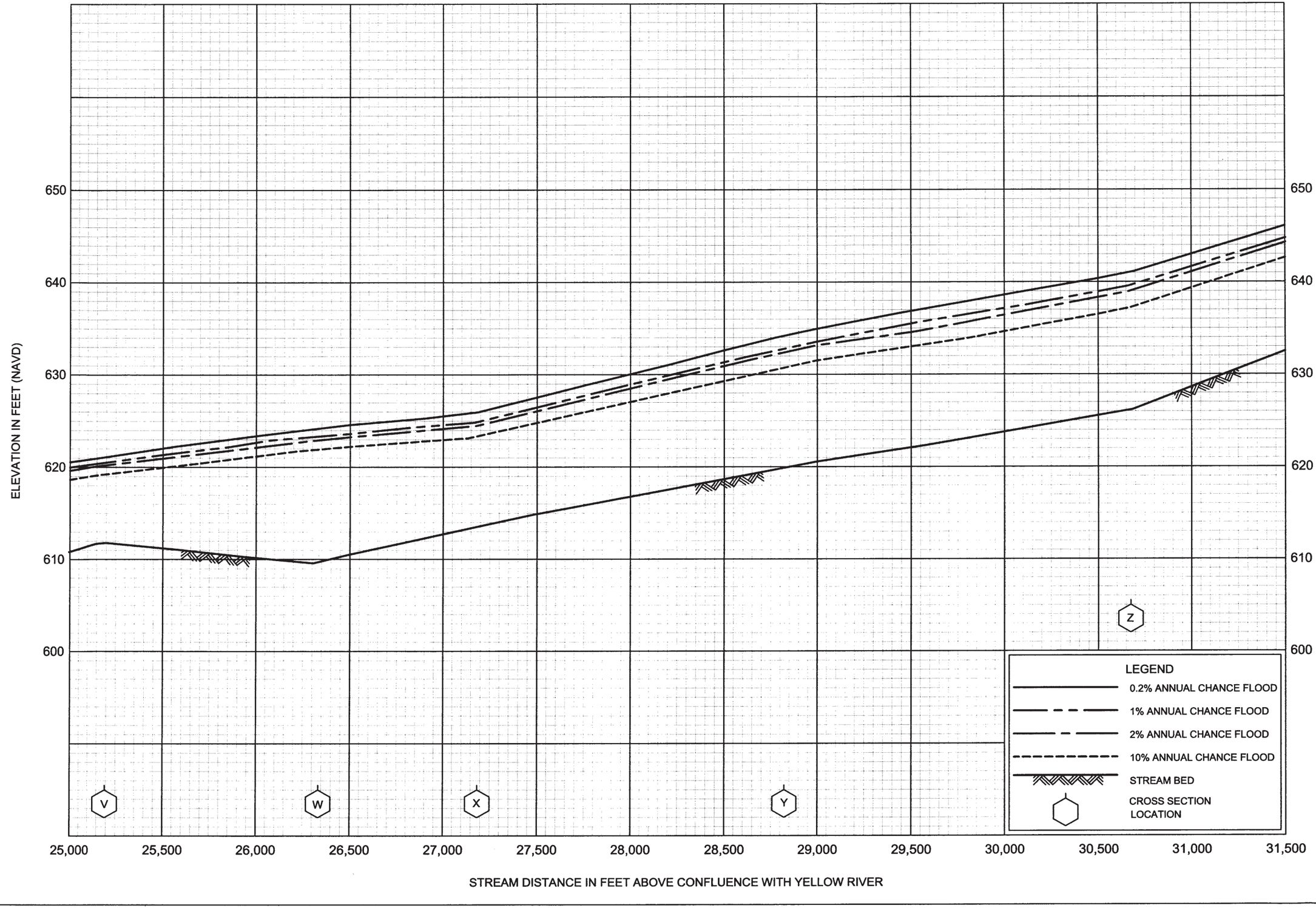
FLOOD PROFILES

DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



FLOOD PROFILES

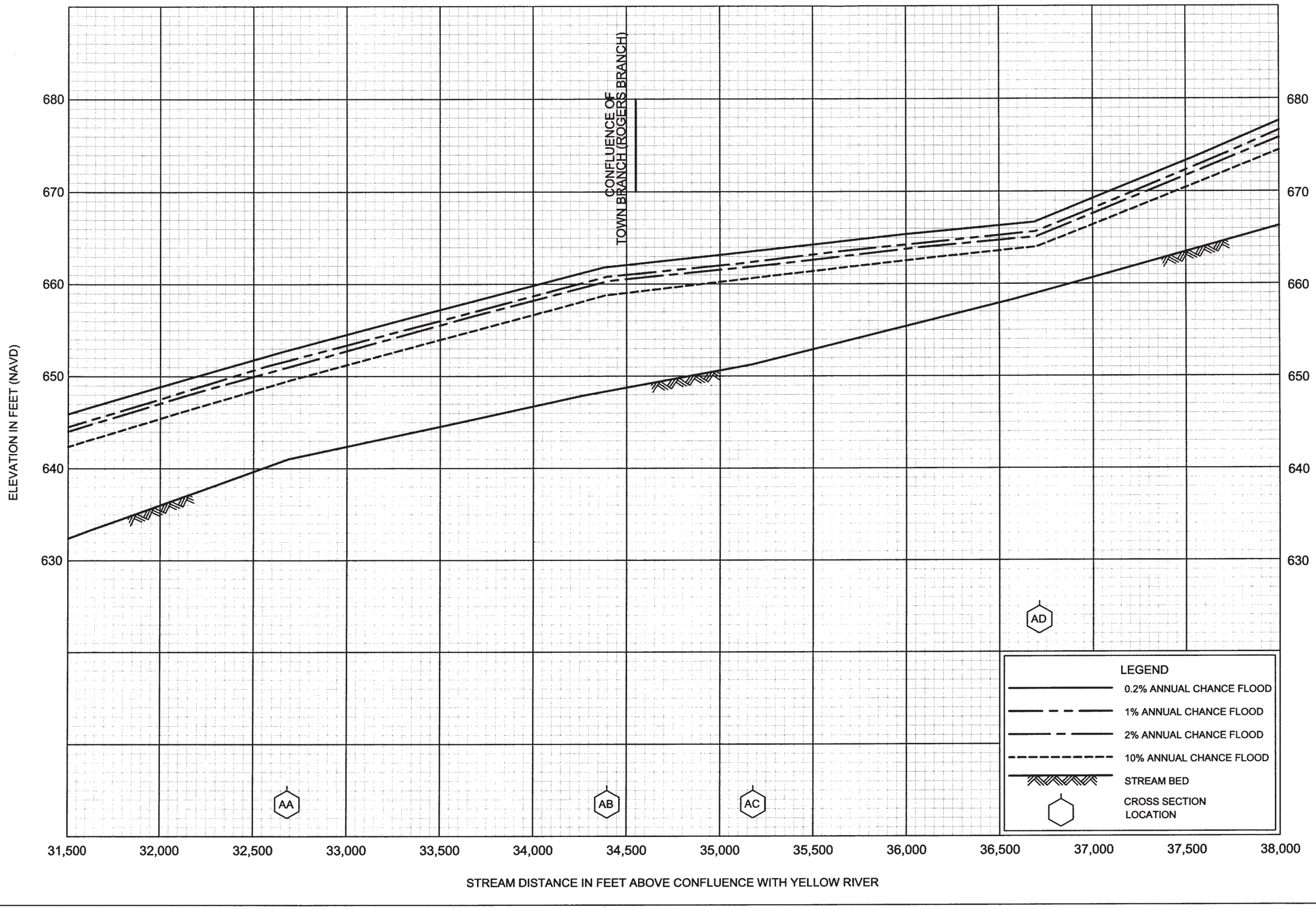
DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

07P



FLOOD PROFILES

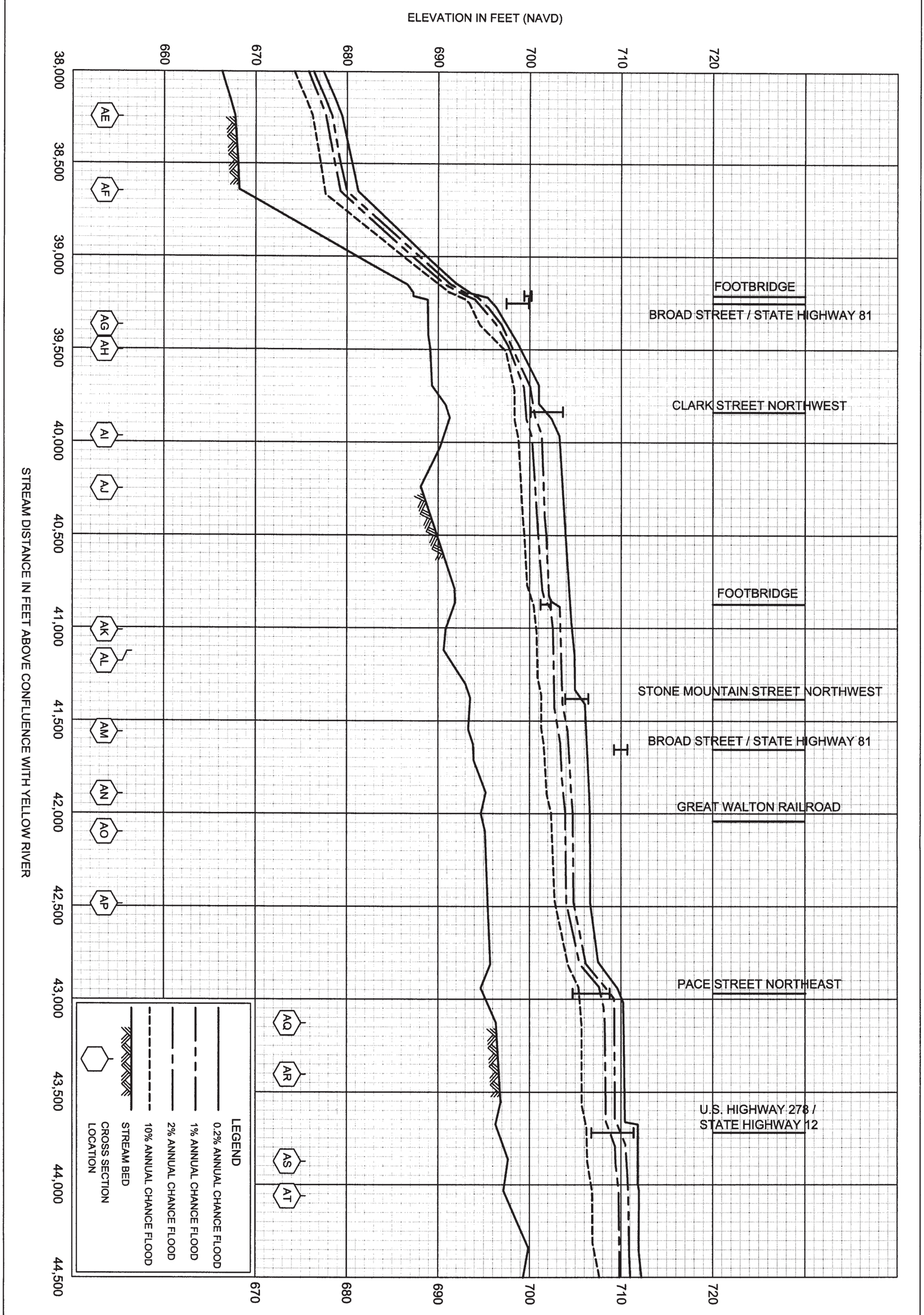
DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

08P



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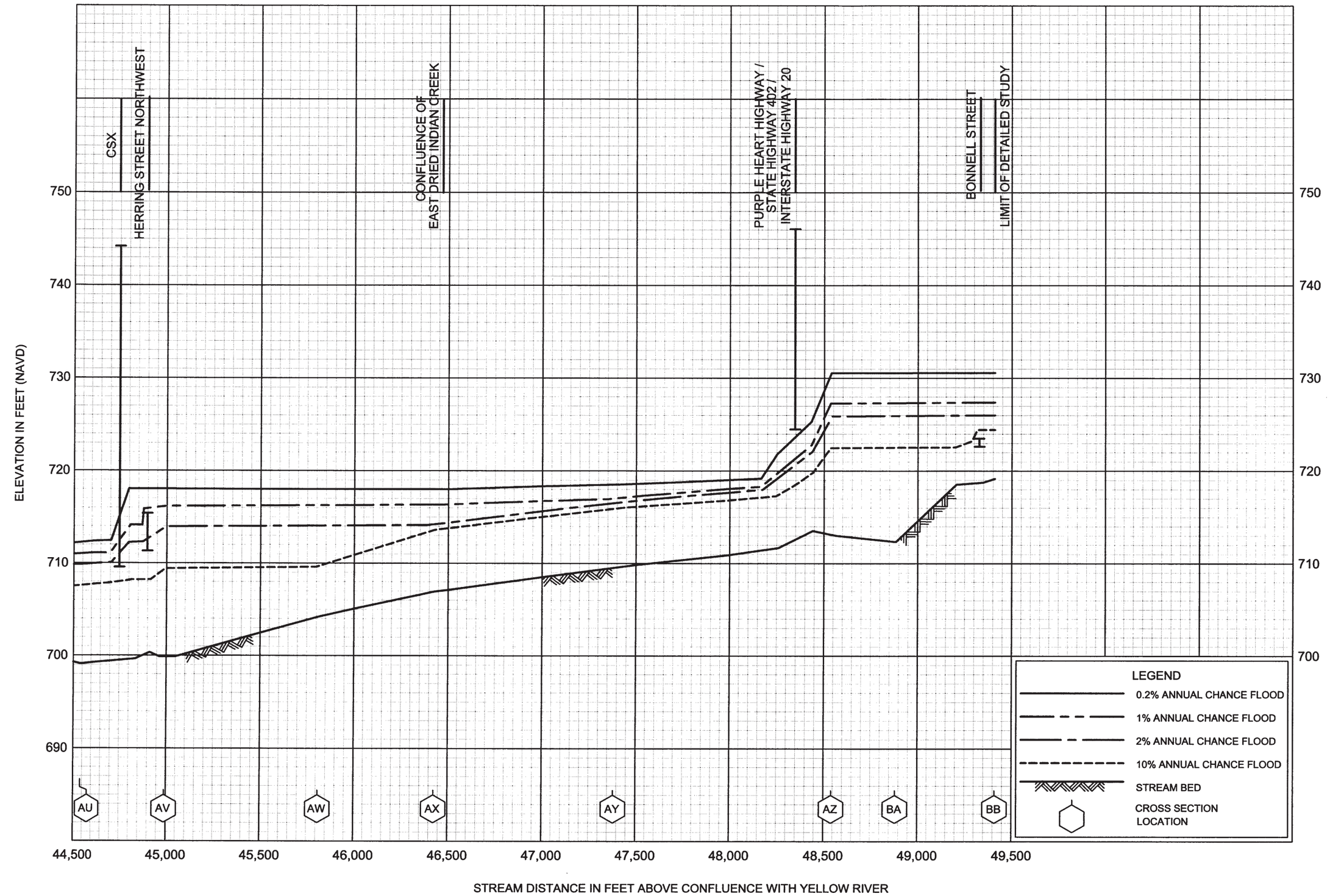
FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

FLOOD PROFILES

DRIED INDIAN CREEK



FLOOD PROFILES

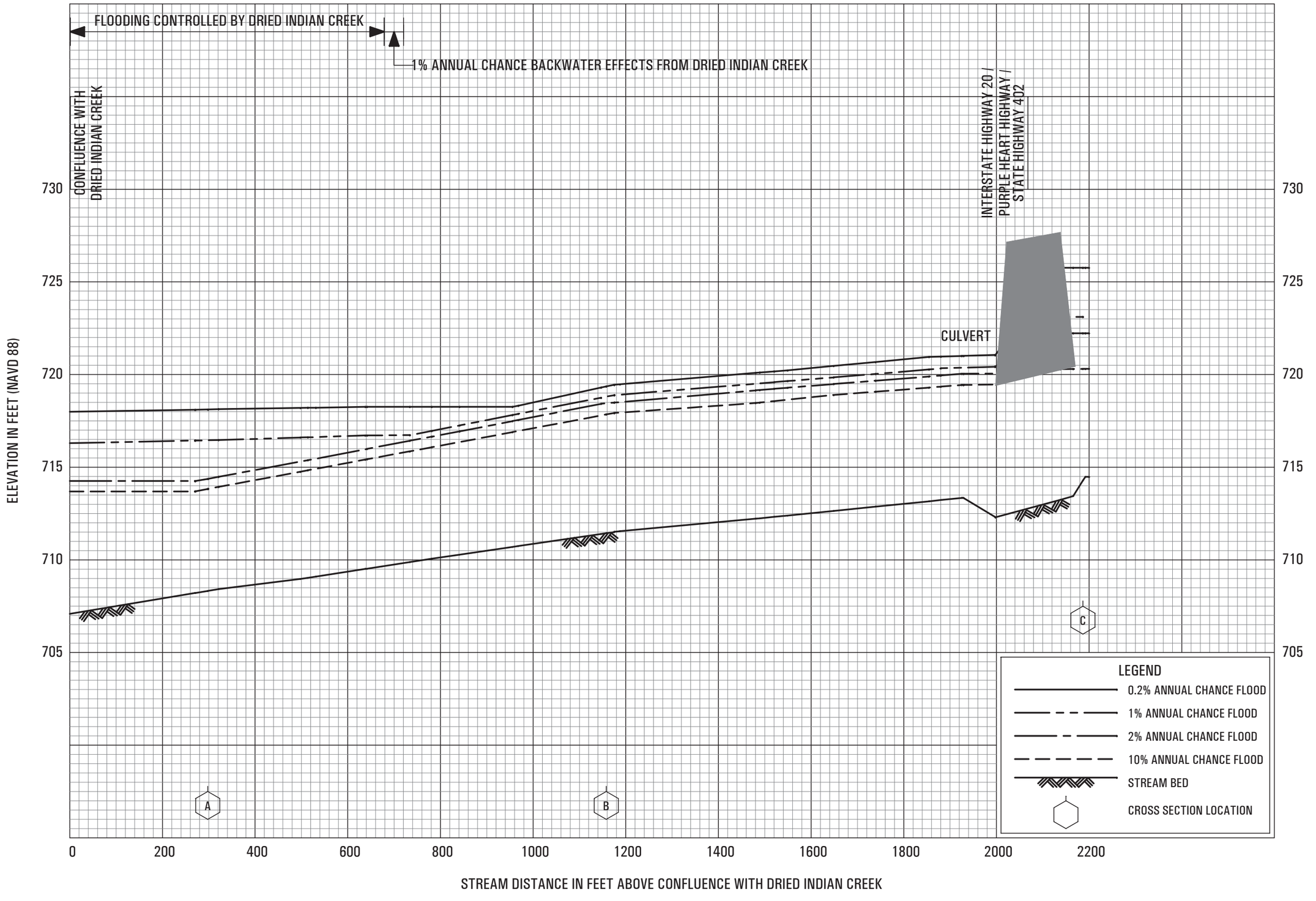
DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

10P



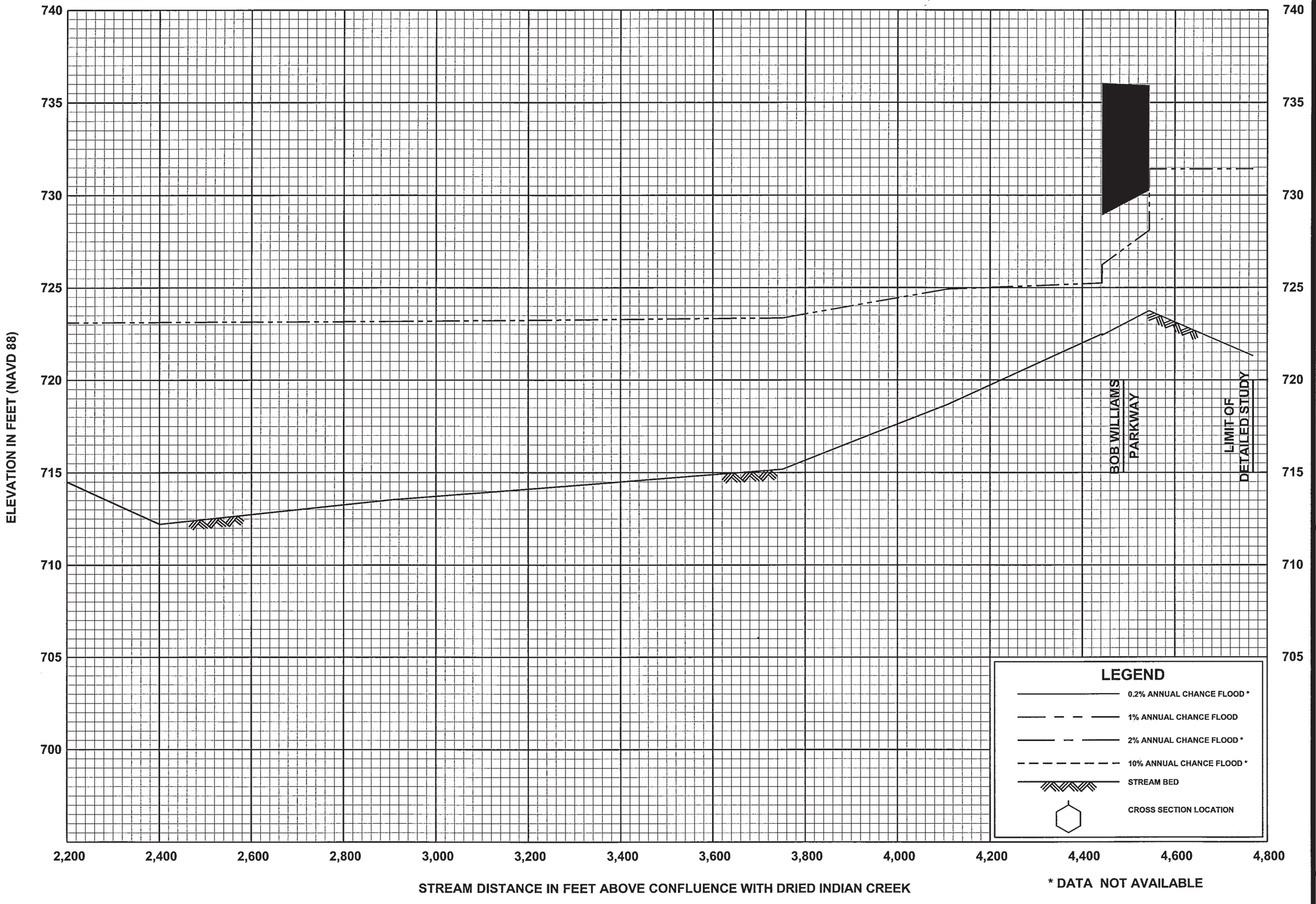
FLOOD PROFILES

EAST DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



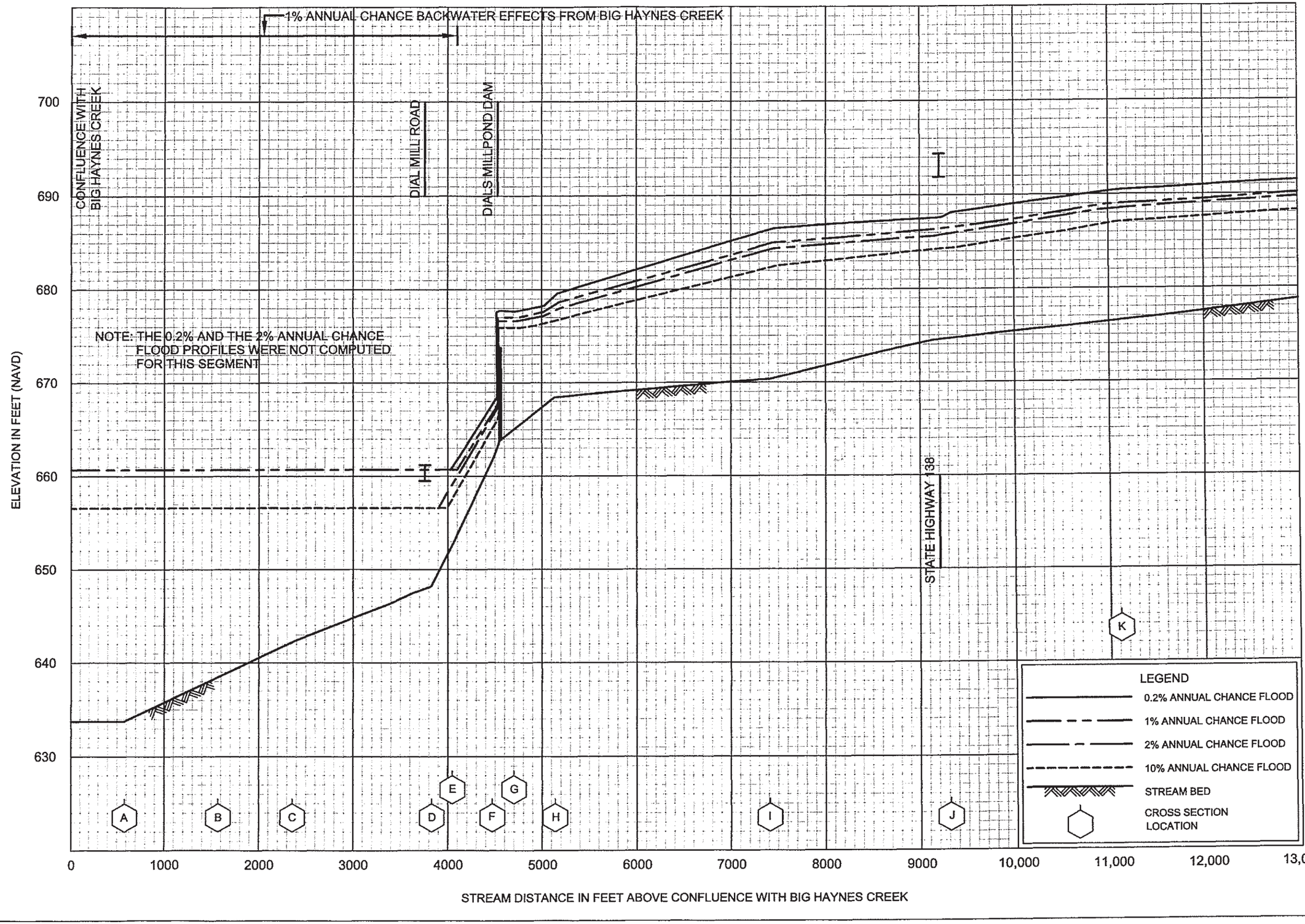
FLOOD PROFILES

EAST DRIED INDIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



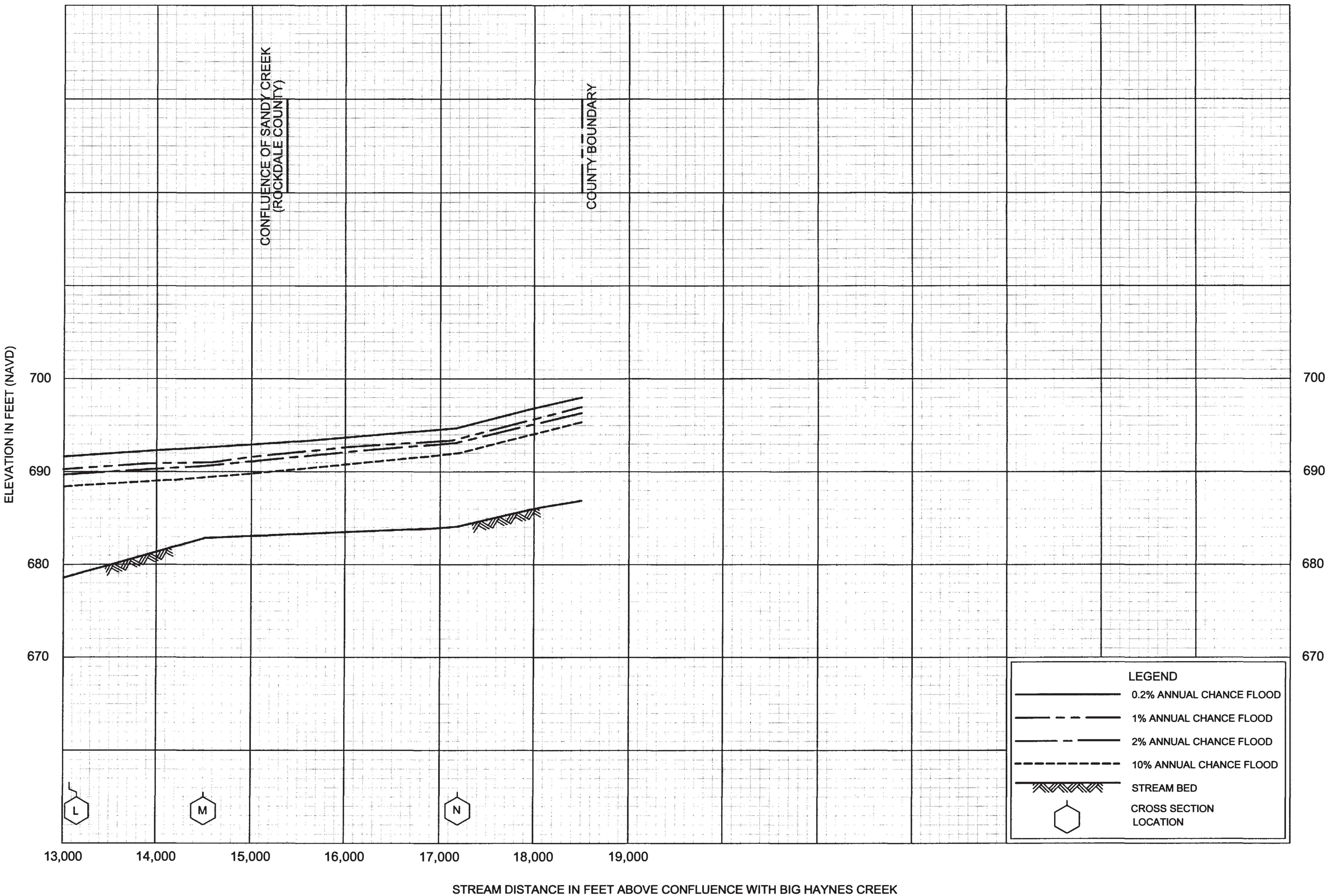
FLOOD PROFILES

LITTLE HAYNES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

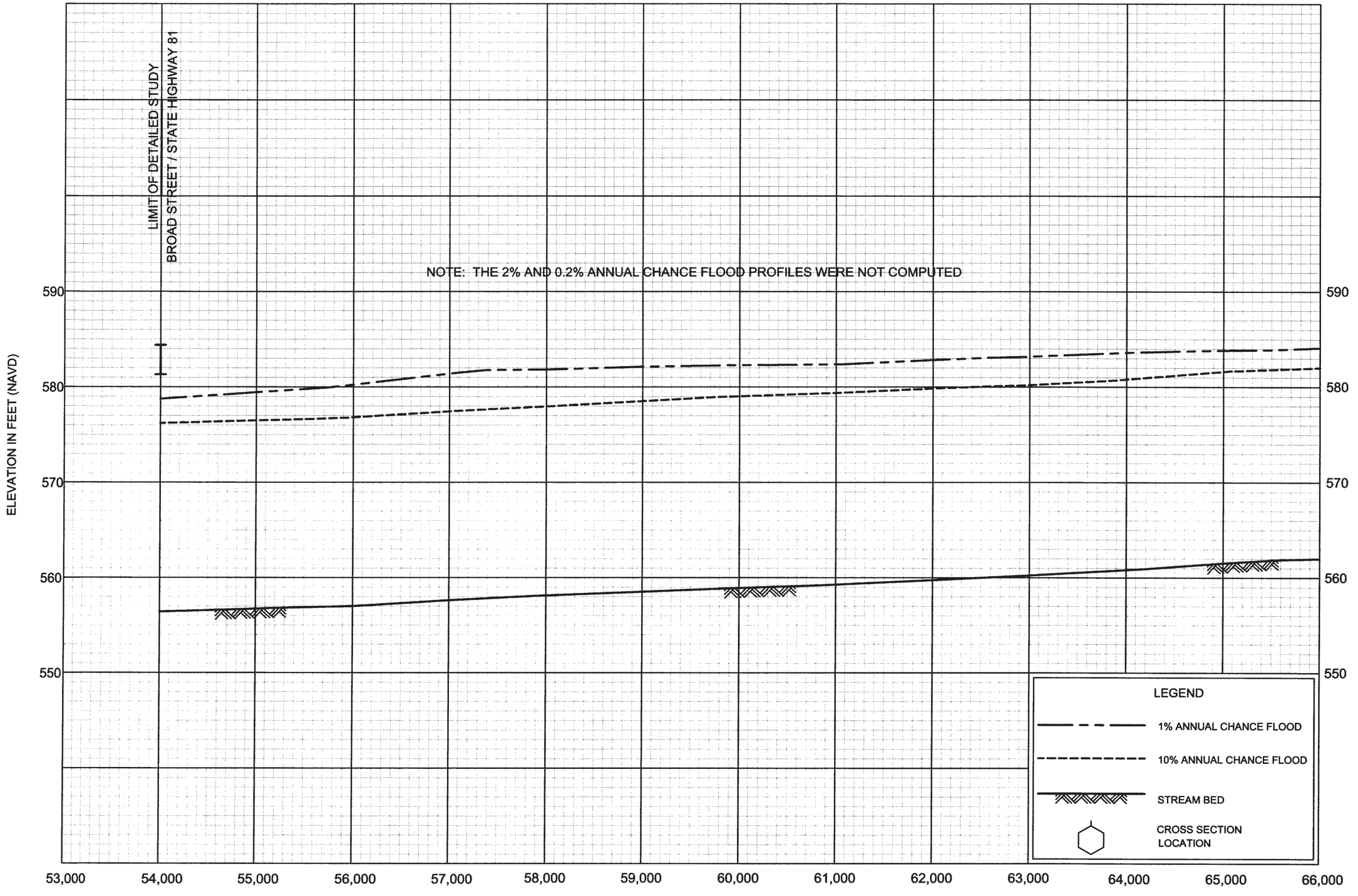


FLOOD PROFILES

LITTLE HAYNES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA
AND INCORPORATED AREAS



FLOOD PROFILES

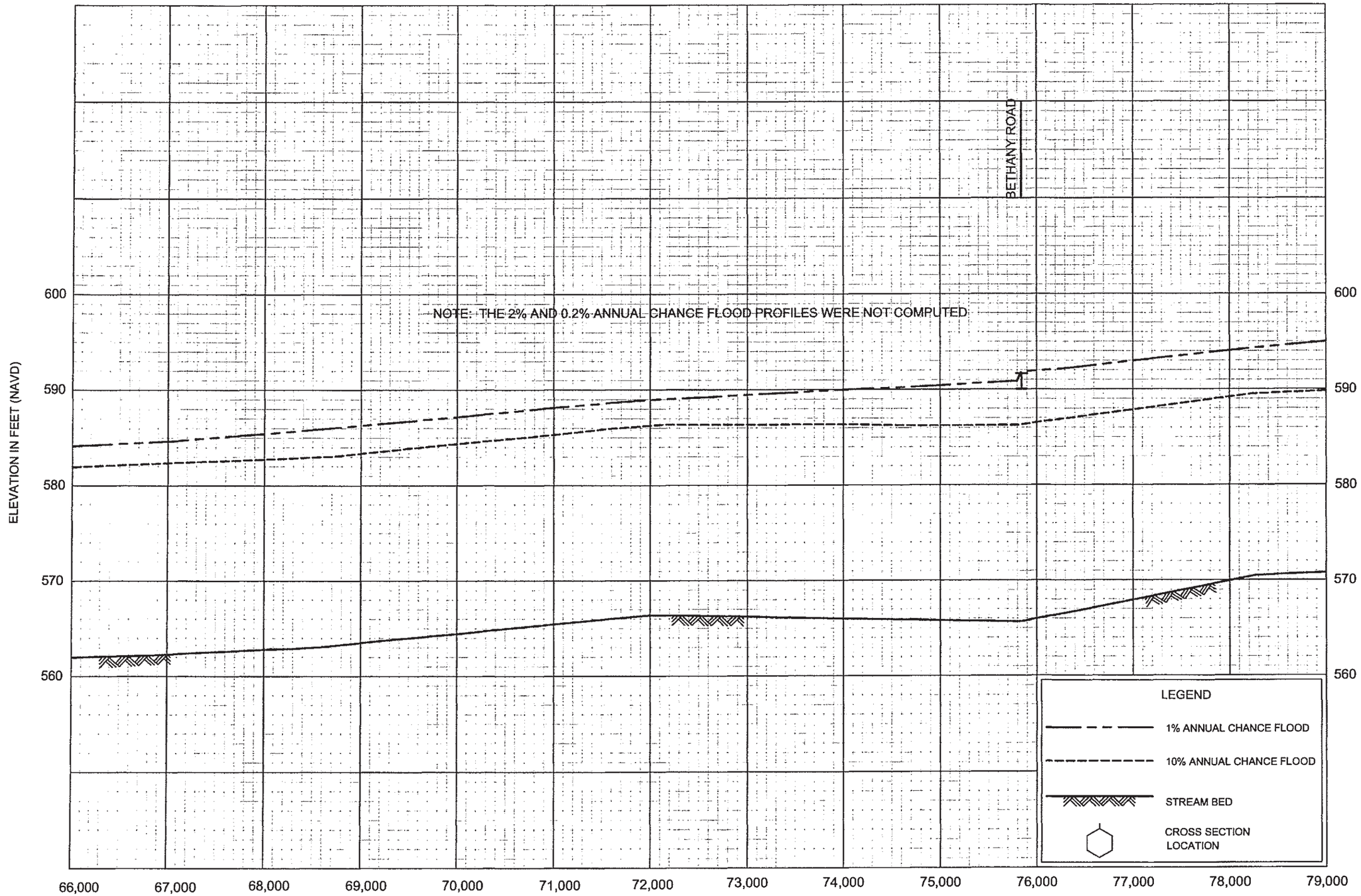
SOUTH RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

15P



FLOOD PROFILES

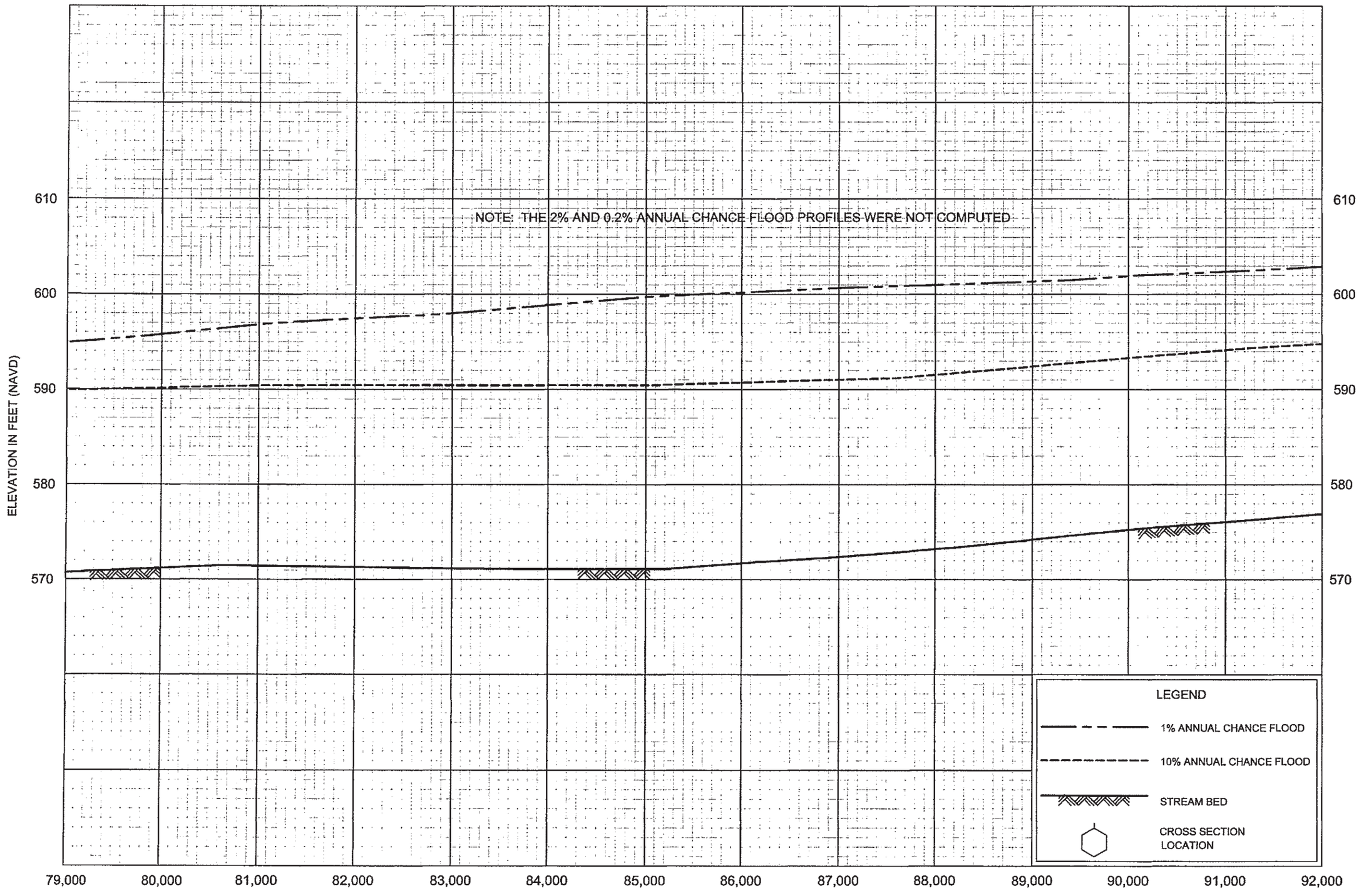
SOUTH RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

16P



FLOOD PROFILES

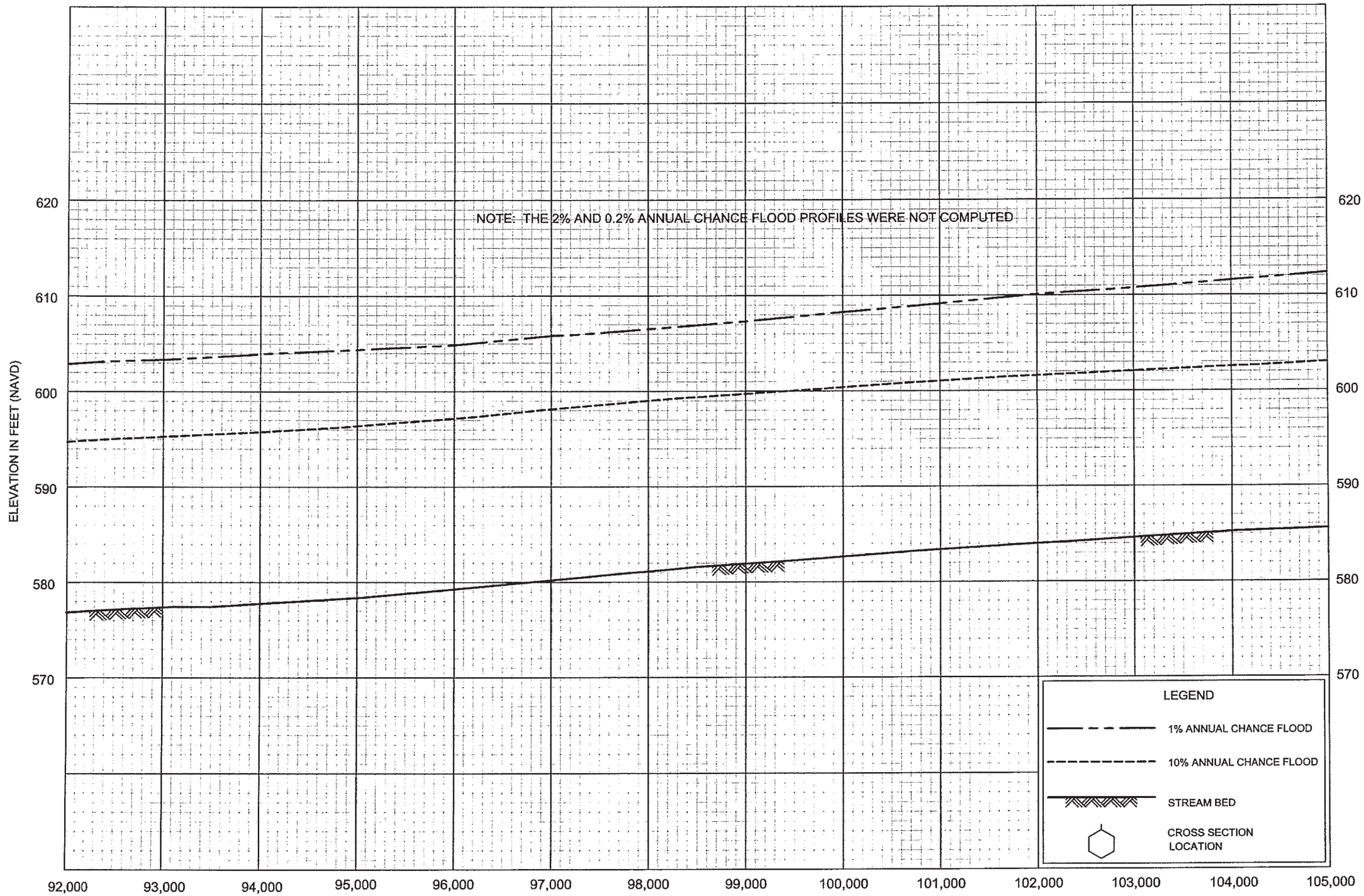
SOUTH RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

17P



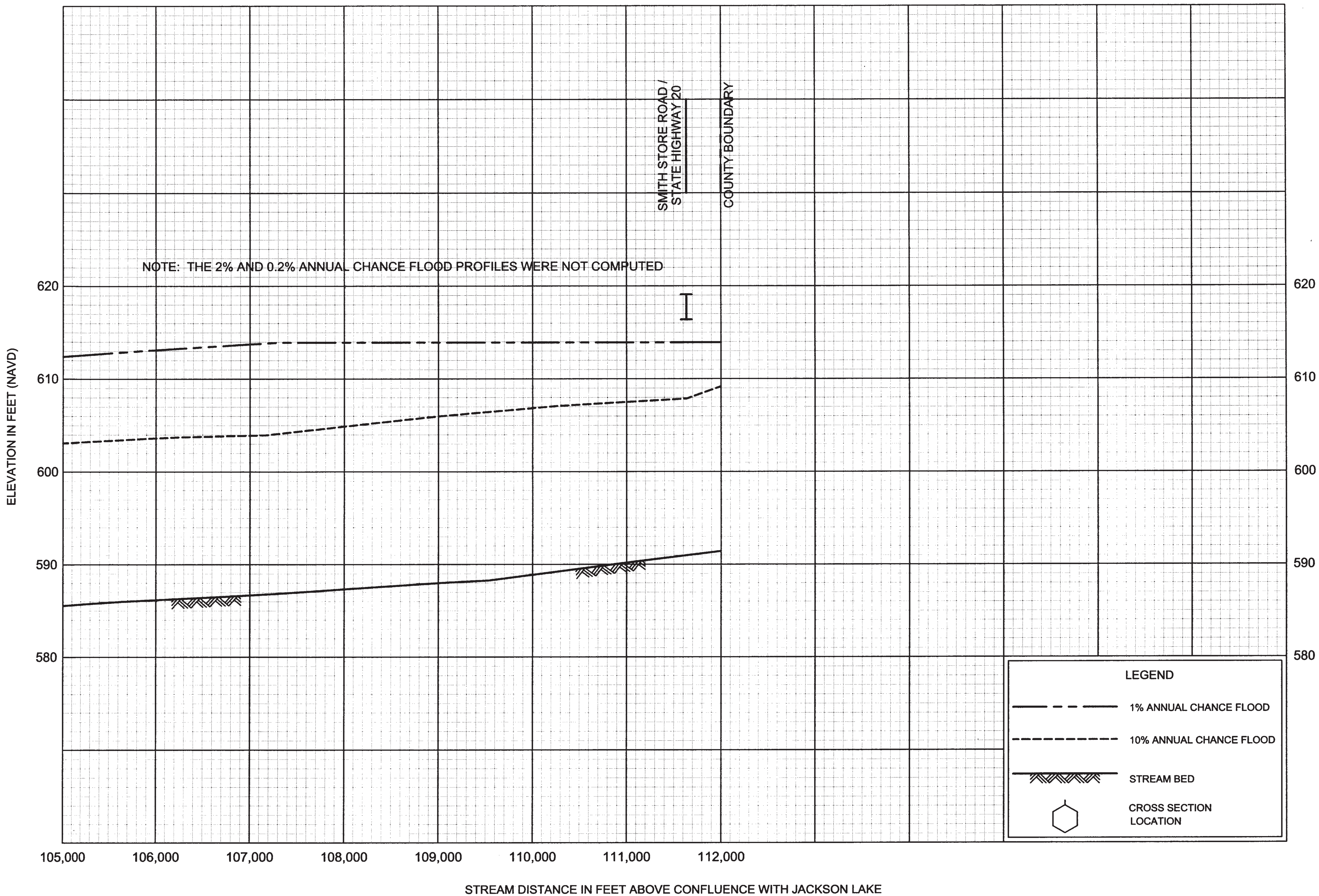
FLOOD PROFILES

SOUTH RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



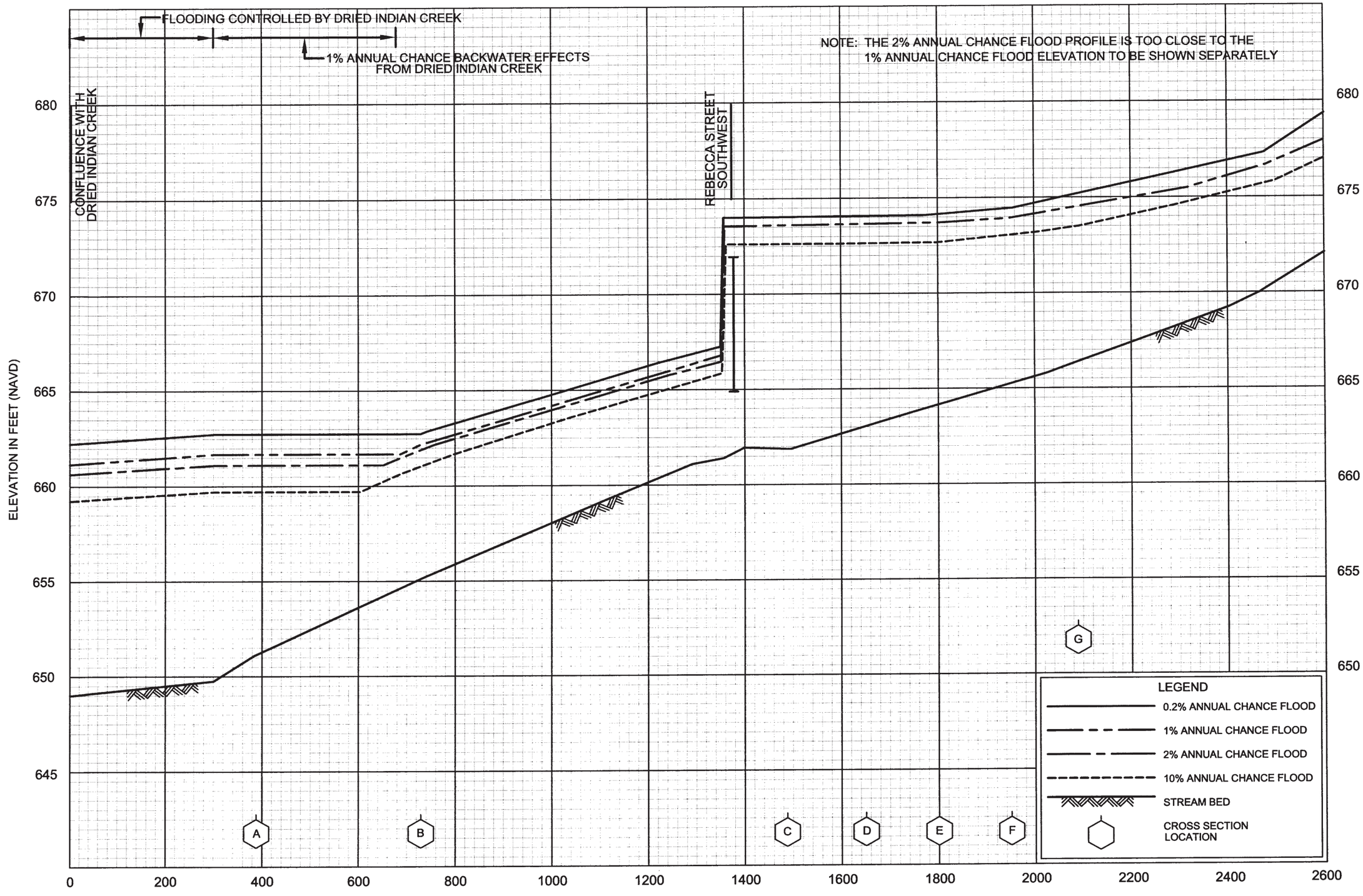
FLOOD PROFILES

SOUTH RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



FLOOD PROFILES

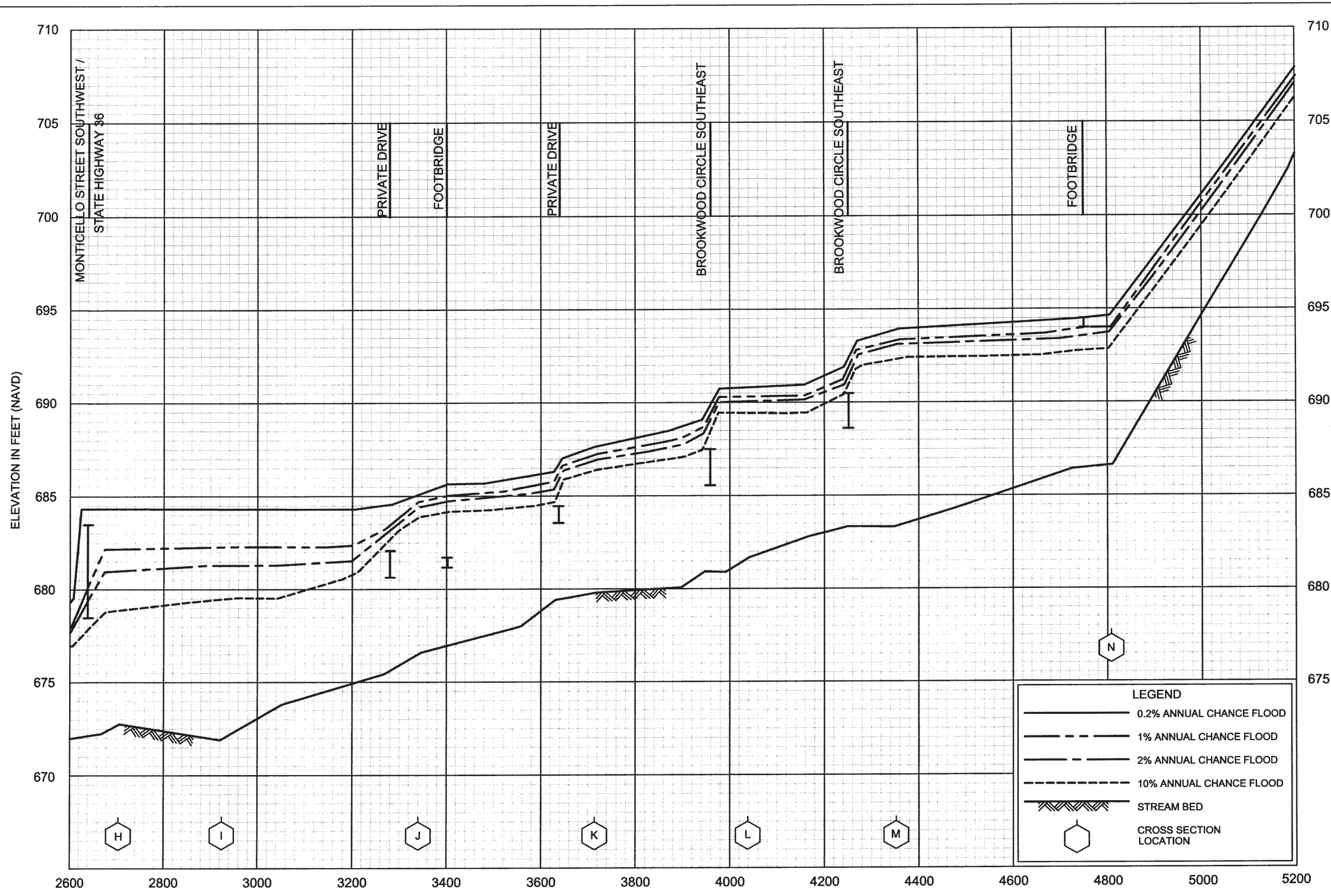
TOWN BRANCH (ROGERS BRANCH)

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS

20P



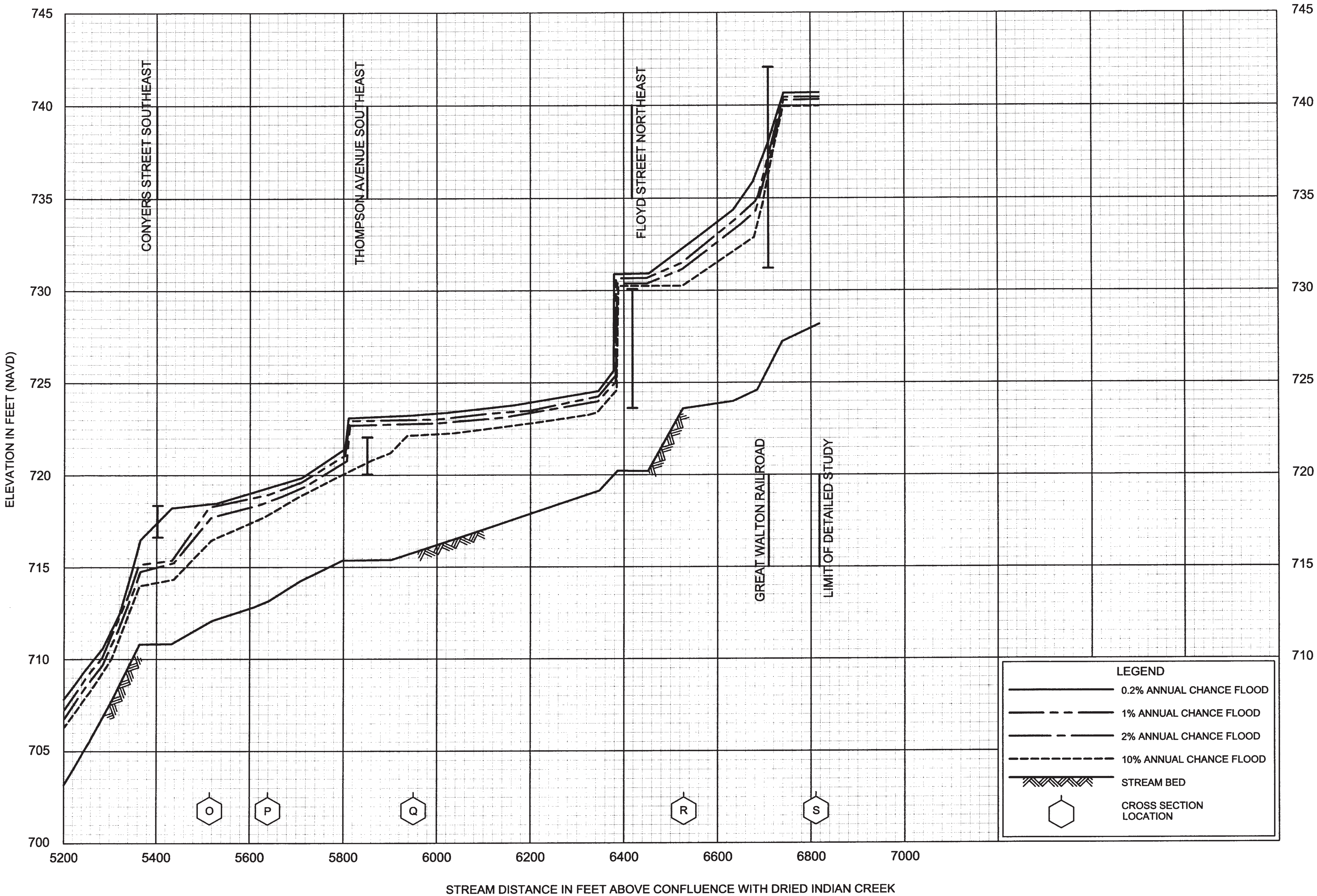
FLOOD PROFILES

TOWN BRANCH (ROGERS BRANCH)

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



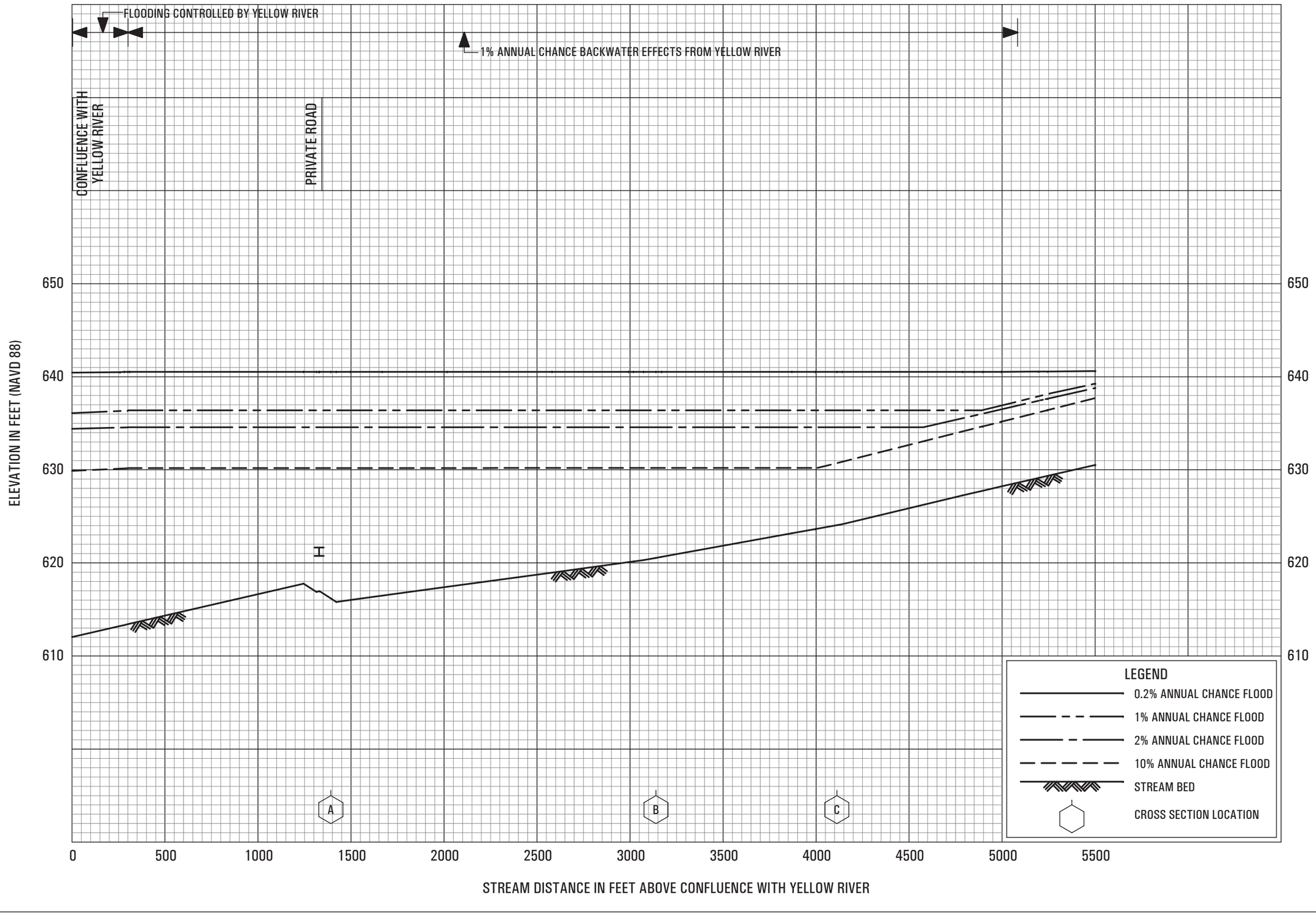
FLOOD PROFILES

TOWN BRANCH (ROGERS BRANCH)

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



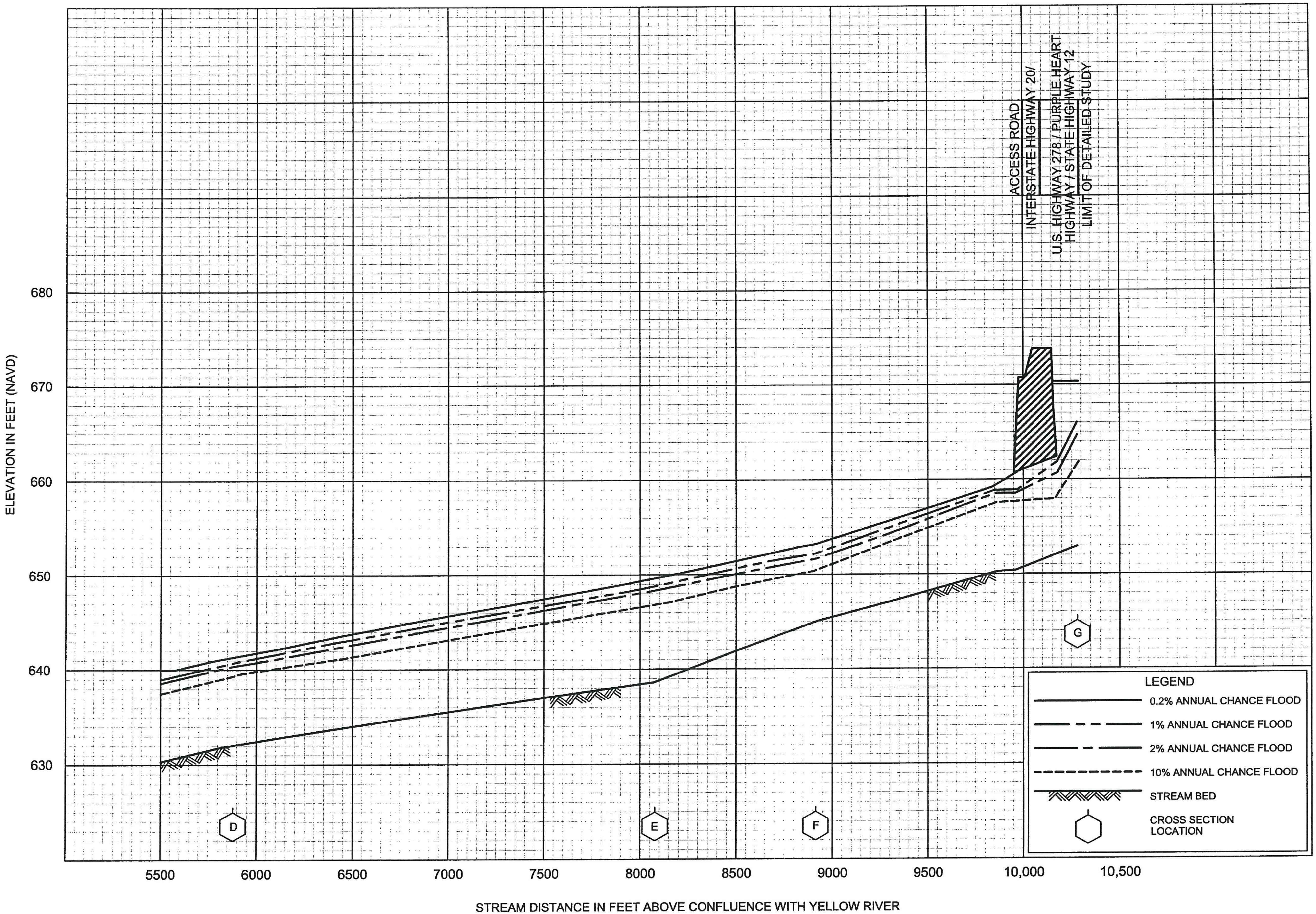
FLOOD PROFILES

TURKEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



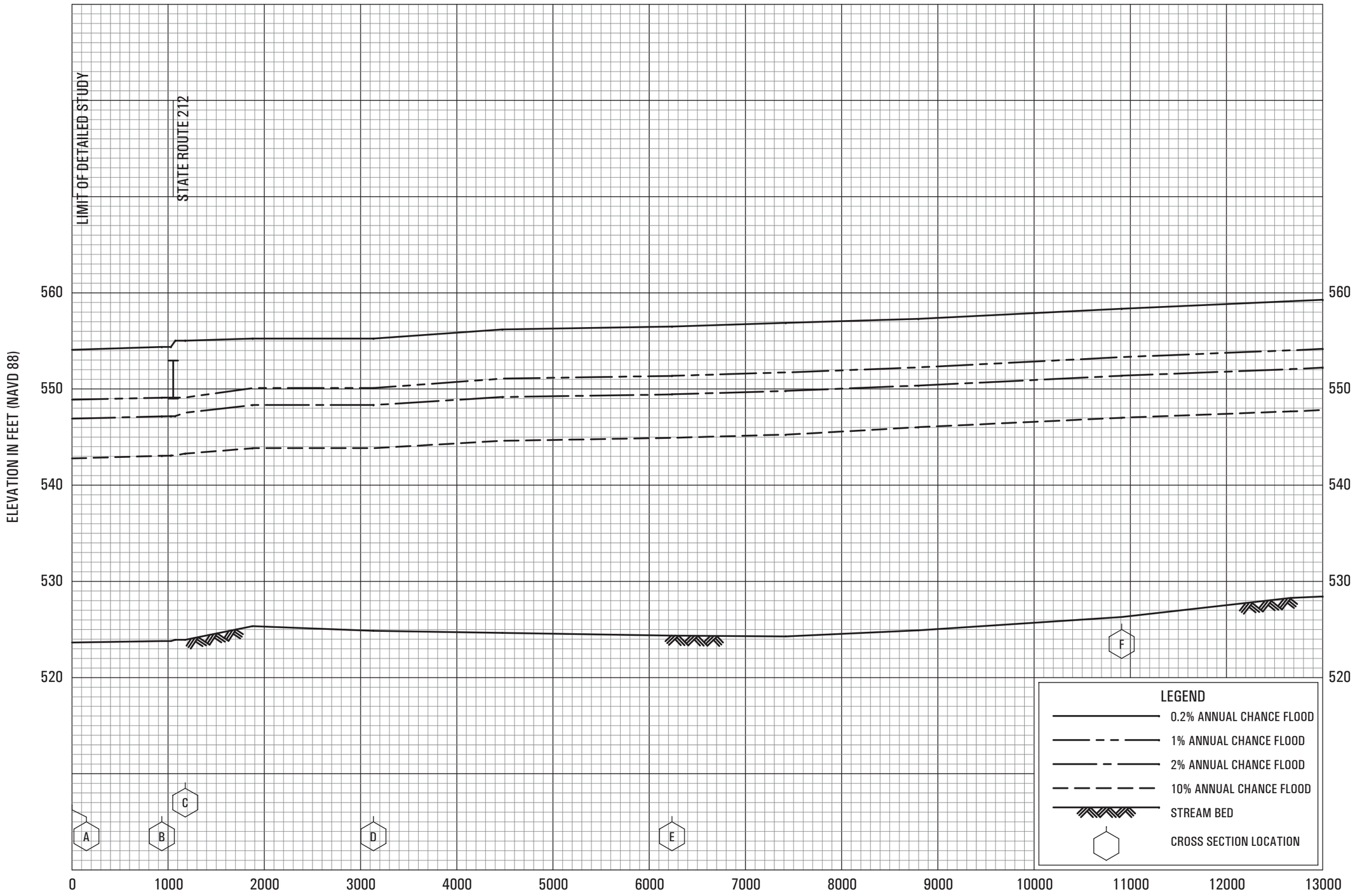
FLOOD PROFILES

TURKEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



*LIMIT OF DETAILED STUDY IS LOCATED APPROXIMATELY 1040 FEET DOWNSTREAM OF STATE ROUTE 212

STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY*

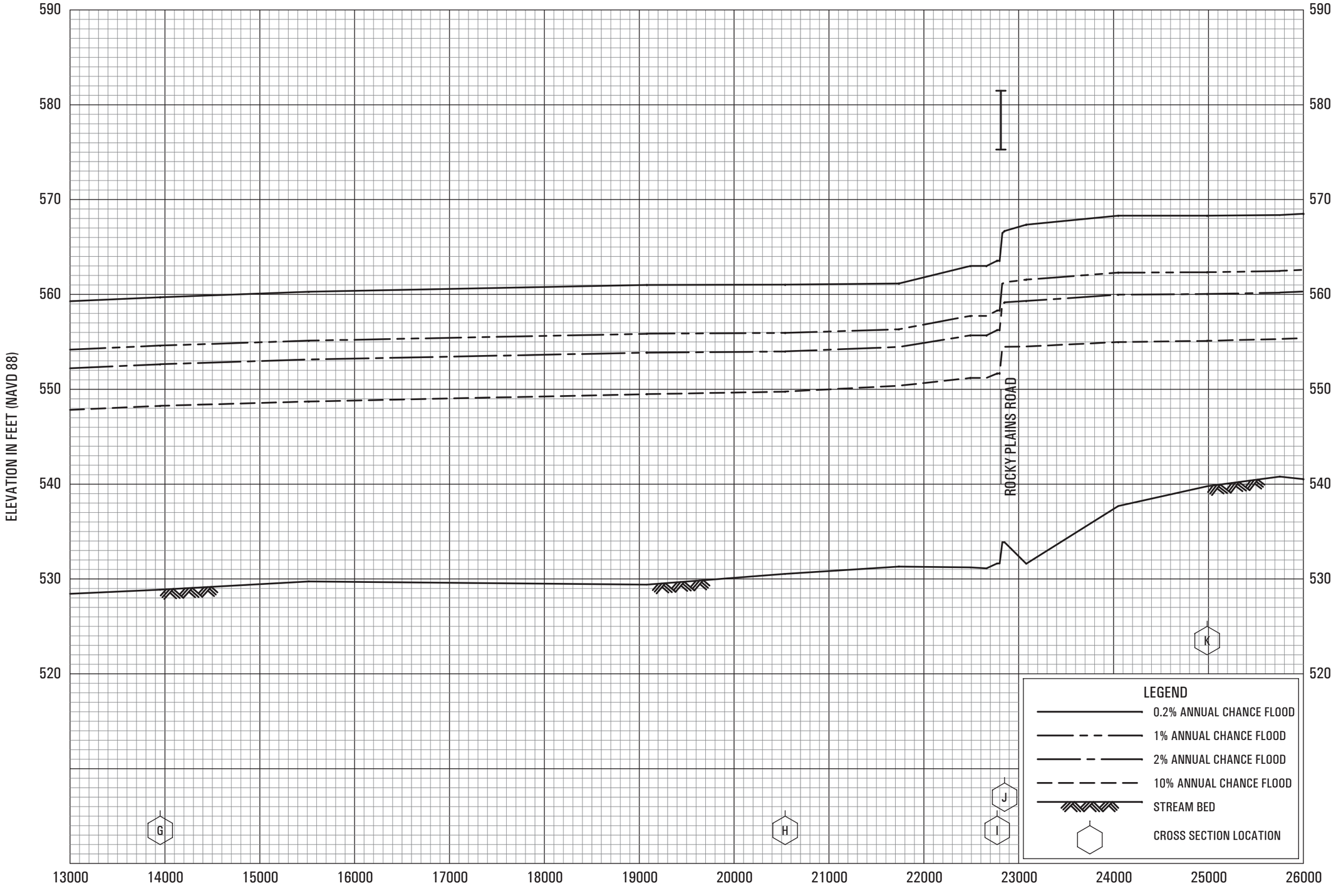
FLOOD PROFILES

YELLOW RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



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FLOOD PROFILES

YELLOW RIVER

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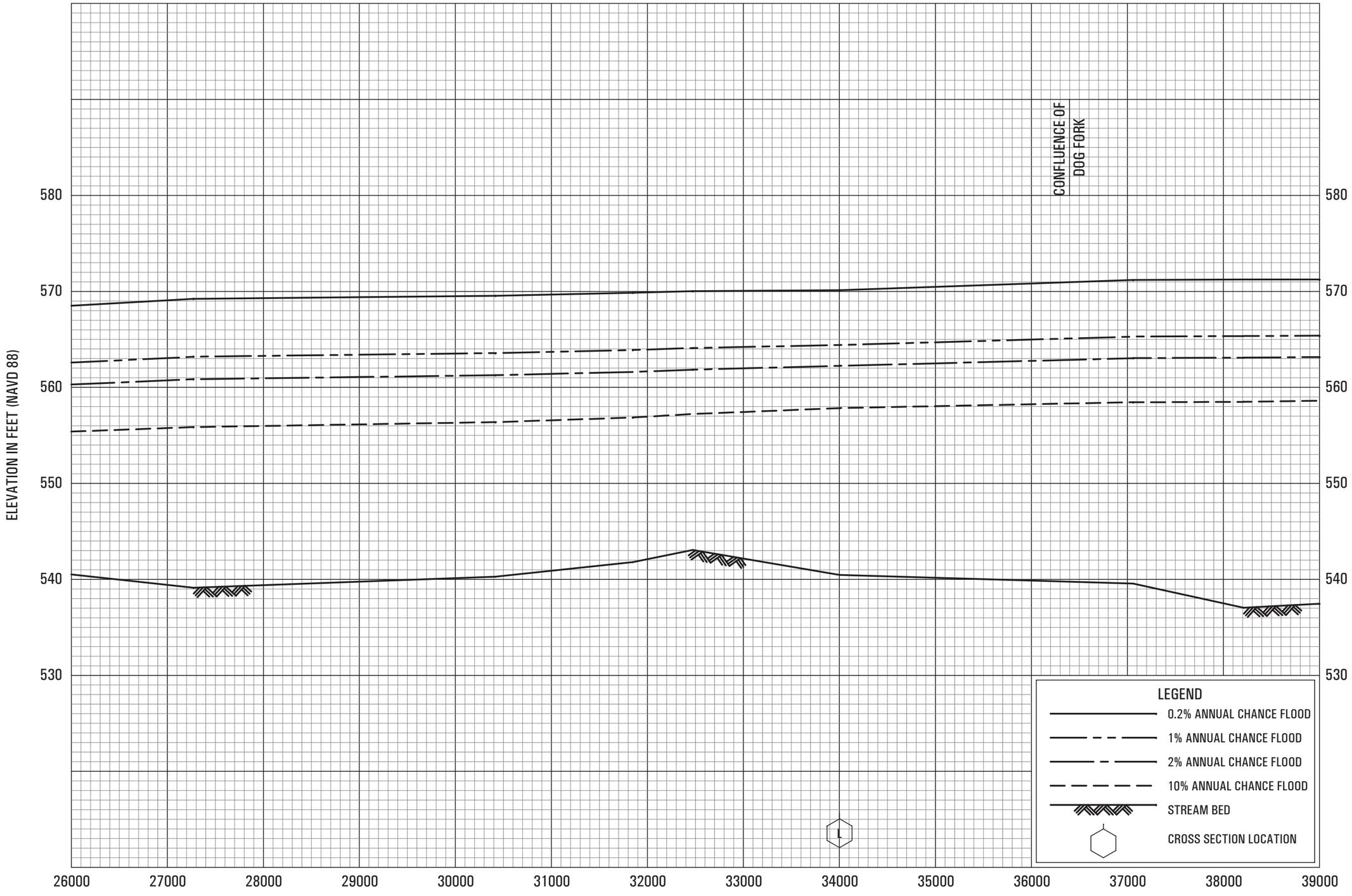
NEWTON COUNTY, GA

AND INCORPORATED AREAS



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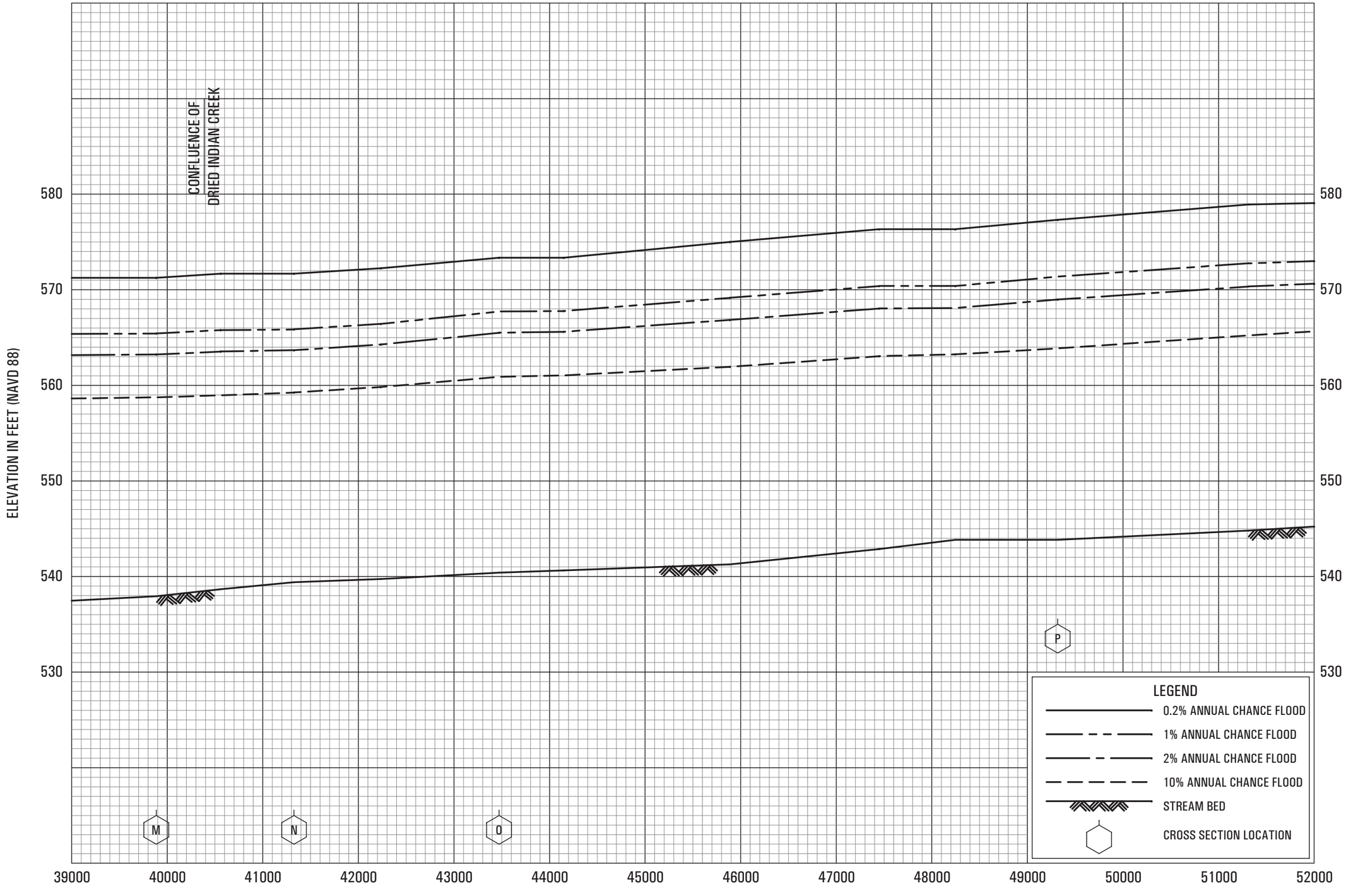
FLOOD PROFILES

YELLOW RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



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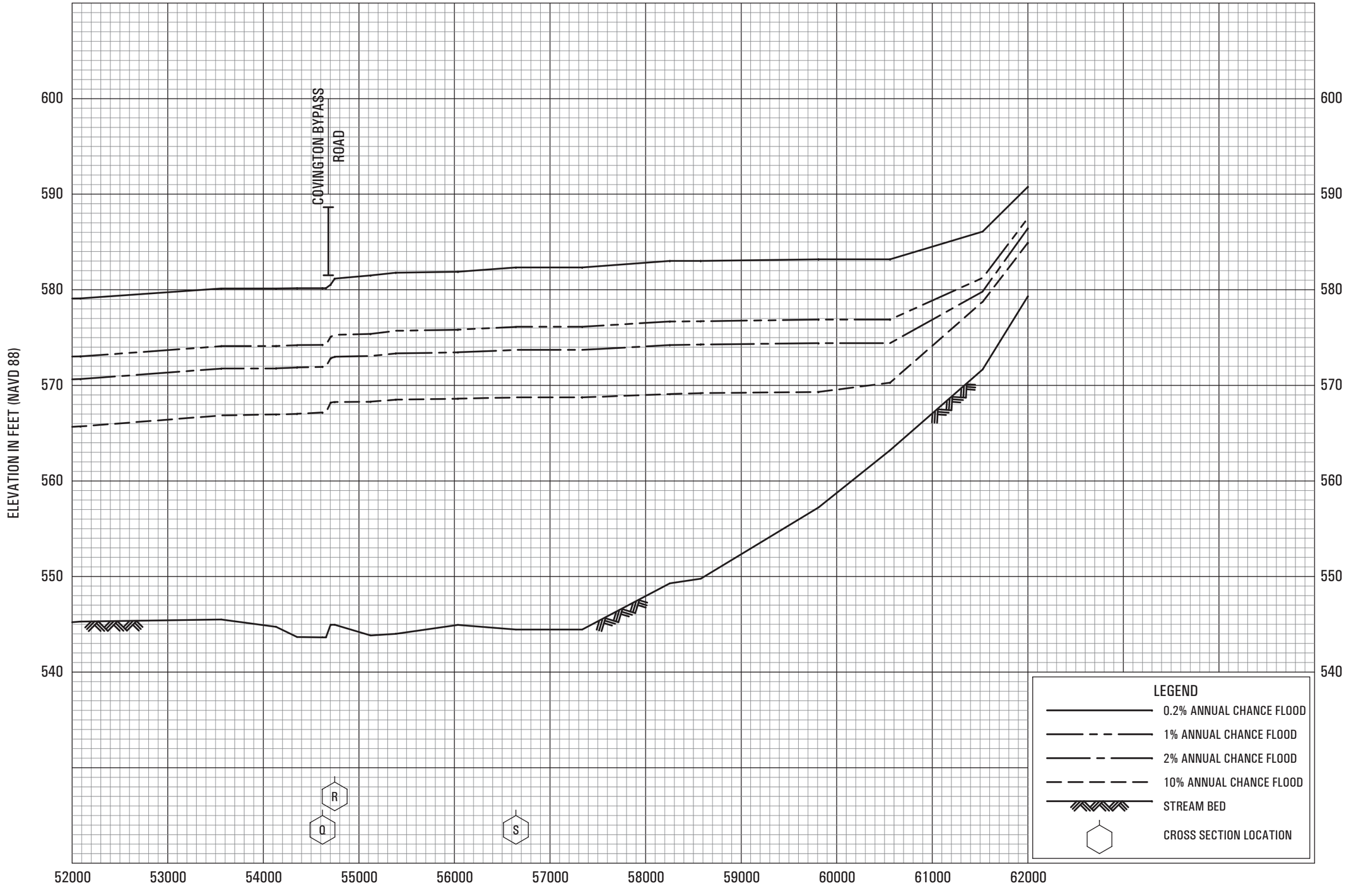
FLOOD PROFILES

YELLOW RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



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FLOOD PROFILES

YELLOW RIVER

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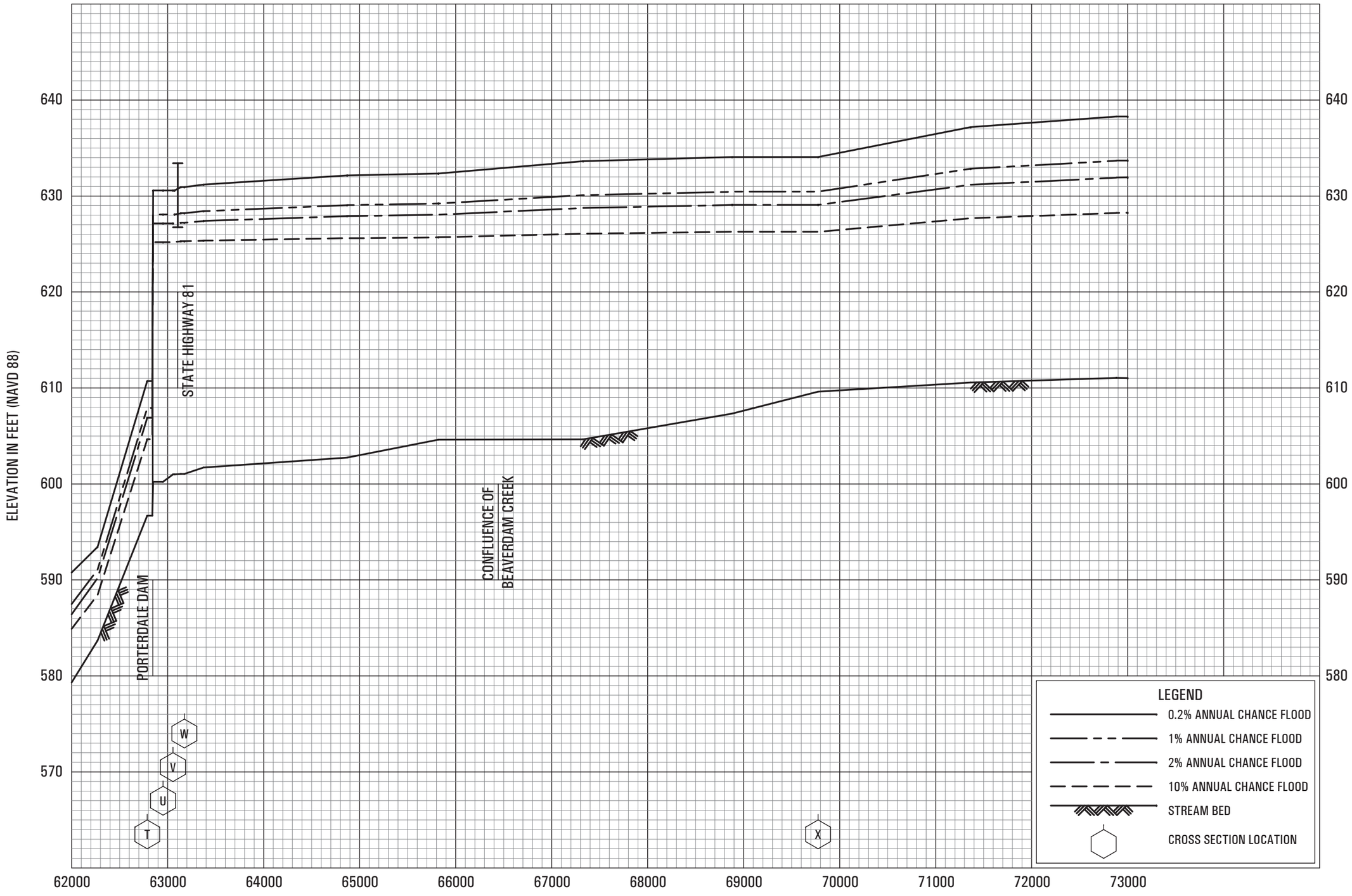
AND INCORPORATED AREAS



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FLOOD PROFILES

YELLOW RIVER

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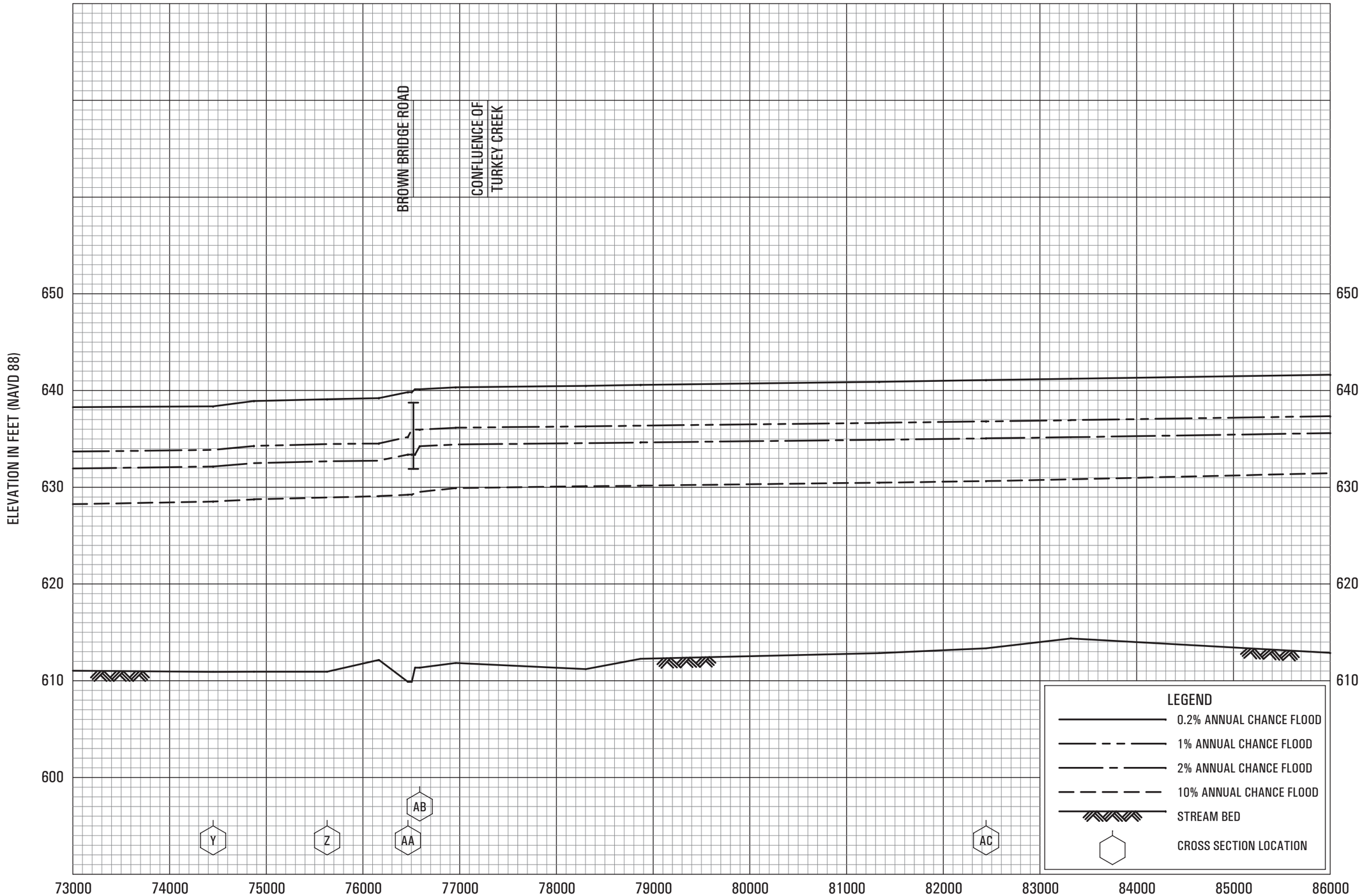
NEWTON COUNTY, GA

AND INCORPORATED AREAS



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STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY*

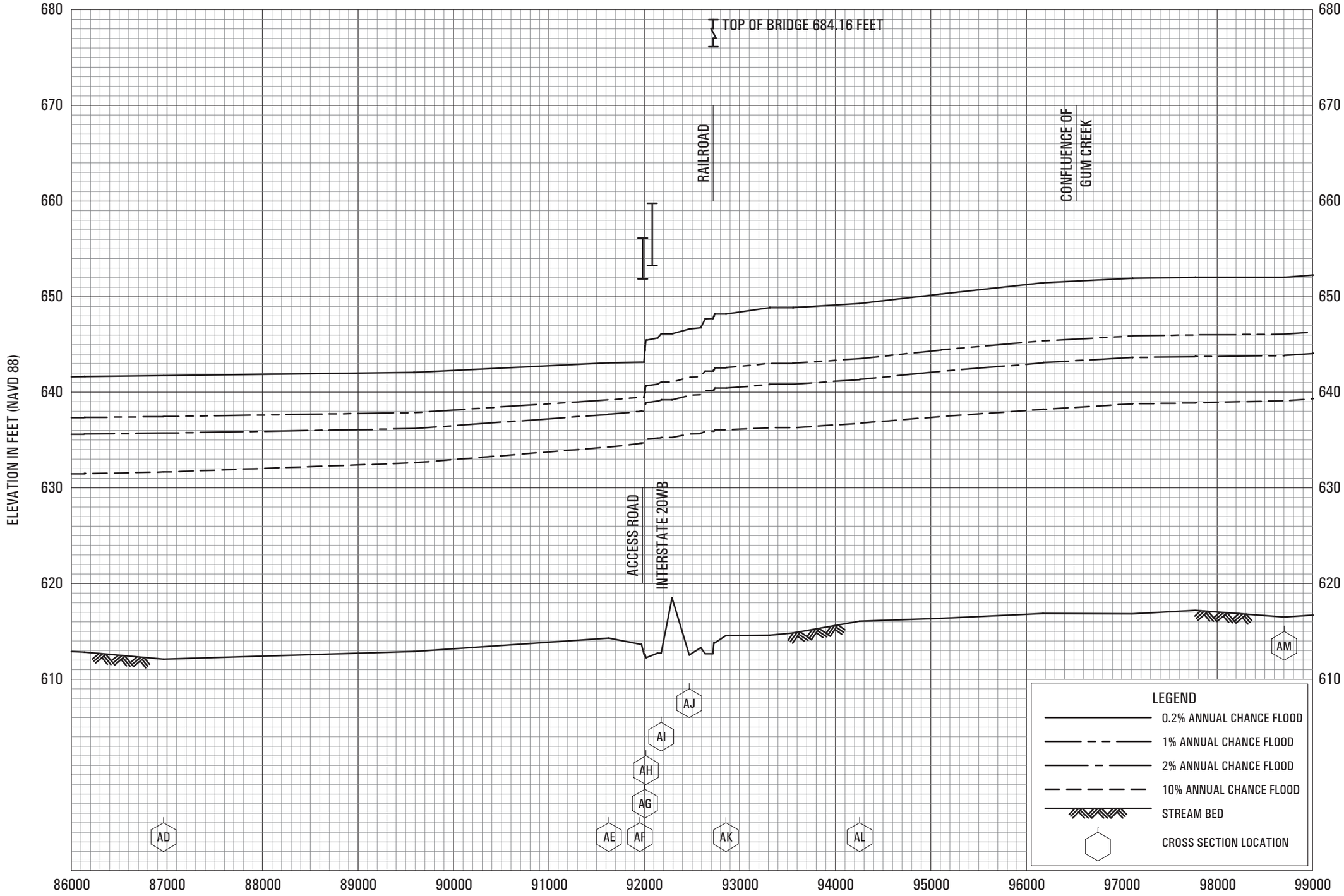
FLOOD PROFILES

YELLOW RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

NEWTON COUNTY, GA

AND INCORPORATED AREAS



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FLOOD PROFILES

YELLOW RIVER

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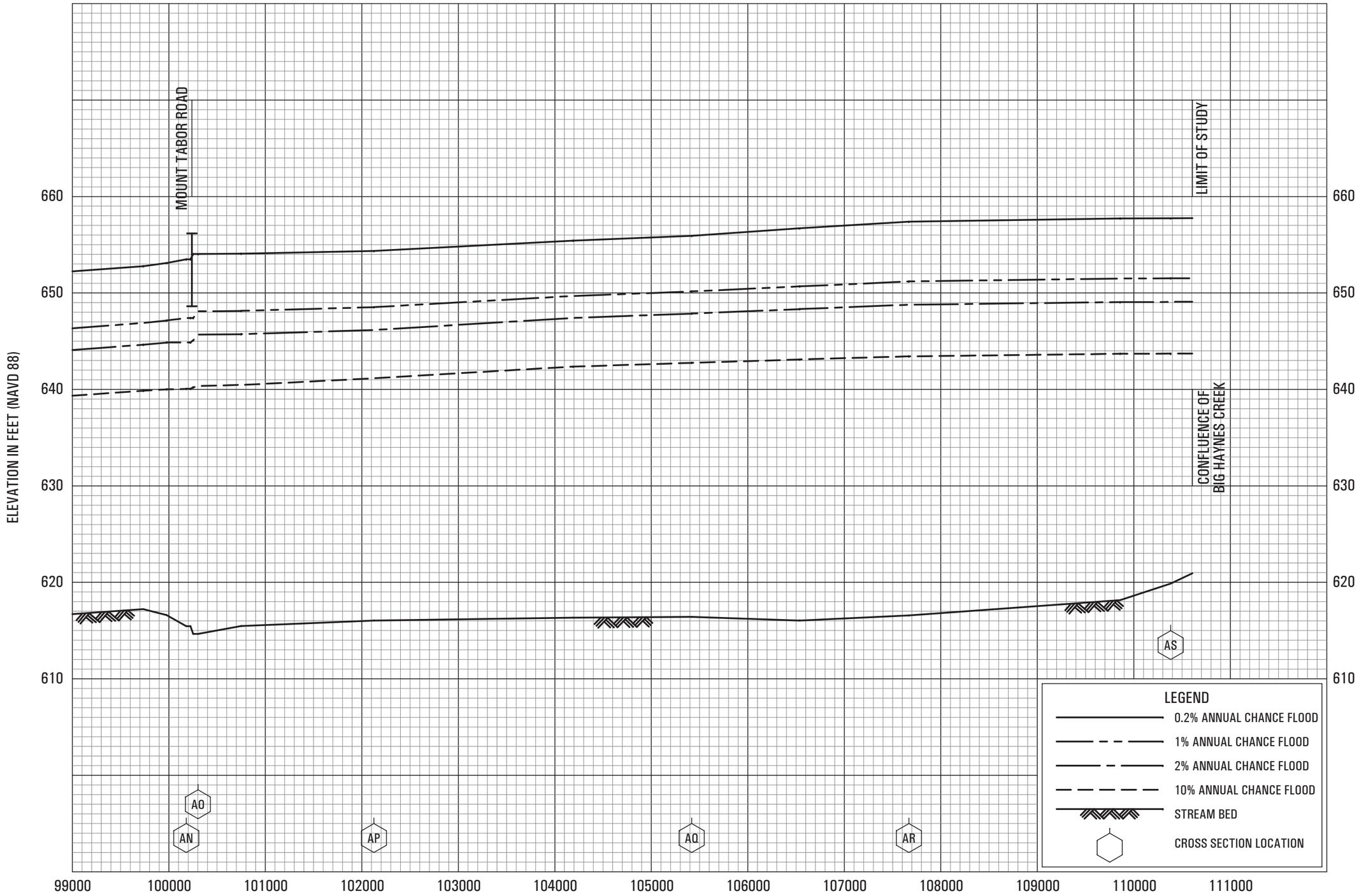
NEWTON COUNTY, GA

AND INCORPORATED AREAS



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STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY*

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AND INCORPORATED AREAS