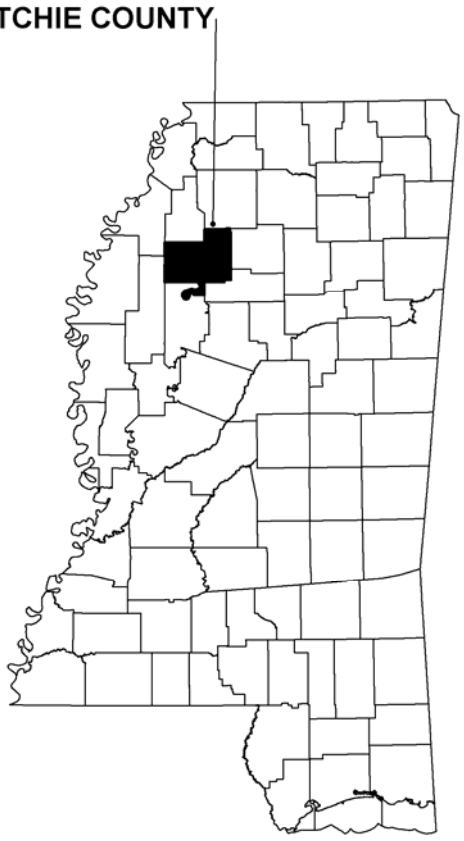
FLOOD INSURANCE STUDY

TALLAHATCHIE COUNTY, MISSISSIPPI
AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
CHARLESTON, CITY OF	280169
GLENDORA, CITY OF	280210
SUMNER, TOWN OF	280194
TALLAHATCHIE COUNTY (UNINCORPORATED AREAS)	280206
TUTWILER, TOWN OF	280197
WEBB, TOWN OF	280213



PRELIMINARY

SEP 15 2010

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
28135CV000A

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program (NFIP) 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.

The preliminary Flood Insurance Study contains profiles presented at a reduced scale to minimize reproduction costs. All profiles will be included and printed at full scale in the final published report.

Selected Flood Insurance rate Map panels for the 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:

Old Zone	New Zone
A1 through A30	AE
B	X
C	X

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: PRELIMINARY

TABLE OF CONTENTS

TABLE OF CONTENTS – continued

FLOOD INSURANCE STUDY
TALLAHATCHIE COUNTY, MISSISSIPPI AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study revises and updates information on the existence and severity of flood hazards in the geographic area of Tallahatchie County, Mississippi, including the Cities of Charleston and Glendora; the Towns of Sumner, Tutwiler, and Webb; and the unincorporated areas of Tallahatchie County (referred to collectively herein as Tallahatchie 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.

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

1.2 Authority and Acknowledgments

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

Tallahatchie County: (Unincorporated Areas)	The hydrologic and hydraulic analyses for the December 15,1990 FIS report were prepared by U.S. Geological Survey, Water Resources Division for the Federal Emergency Management Agency (FEMA), under Contract No. EMW-85-E-1823, Project Work Order No. 2. This study was completed in February 1988 (Tallahatchie Co FIS December 1990). The analyses for the Yalobusha River were taken from the flood insurance study for Grenada County, MS (Grenada Co FIS June 1978).

This FIS was prepared to include the unincorporated areas of and incorporated communities within Tallahatchie County in a countywide format.

For this countywide FIS, new hydrologic and hydraulic analyses were performed by the State of Mississippi for FEMA, under Contract No. EMA-2008-CA-5883. This study was completed in June 2010.

Floodplain boundaries for approximate study streams were delineated based on a Digital Terrain Model (DTM) and contours. The DTM was compiled at a scale of 1:400 feet from imagery with a 2 foot ground sample distance (GSD) from a previous statewide project. Imagery acquisition occurred January through March 2006 and January 2007. The DTM was developed by Fugro EarthData, Inc. and Mississippi Geographic Information, LLC with cooperation from Mississippi Department of Environmental Quality (MDEQ), NOAA Coastal Services Center, Mississippi DOT, Mississippi State University, and Mississippi

Coordinating Council for Remote Sensing and GIS. The DTM was delivered as mass points and breaklines and supports 5 foot ASPRS Class 2 contours.

Base map information shown on the FIRM was provided in digital format by the State of Mississippi and the U.S. Census Bureau. The digital orthoimagery was photogrammetrically compiled at a scale of 1:400 from aerial photography dated August 2009.

The digital FIRM was produced using the Mississippi State Plane Coordinate system, West Zone, FIPSZONE 2302. The horizontal datum was the North American Datum of 1983, GRS80 spheroid. Distance units were measured in U.S. feet.

1.3 Coordination

An initial Consultation Coordination Officer (CCO) meeting (also occasionally referred to as the Scoping meeting) is held with representatives of the communities, FEMA, and the study contractors to explain the nature and purpose of the FIS and to identify the streams to be studied. A final CCO meeting (often referred to as the Preliminary DFIRM Community Coordination, or PDCC, meeting) is held with representatives of the communities, FEMA, and the study contractors to review the results of the study

The dates of the initial and final CCO meetings held for the communities within the boundaries of Tallahatchie County are shown below.

Community Name	Initial CCO Date	Final CCO Date
Tallahatchie County (Unincorporated Areas)	February 12, 1985	January 23, 1990

For this countywide FIS, the project Scoping Meeting was held on August 27, 2008 in the City of Charleston, MS. Attendees for these meetings included representatives from the Mississippi Department of Environmental Quality, Mississippi Emergency Management Agency, FEMA National Service Provider, Tallahatchie County, and the Study Contractor. Coordination with county officials and Federal, State, and regional agencies produced a variety of information pertaining to floodplain regulations, available community maps, food history, and other hydrologic data. All problems raised in the meetings have been addressed. A final meeting, the PDCC, was held on Effective date is TBD to review the results of this study.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Tallahatchie County, Mississippi, including the incorporated communities listed in Section 1.1.

No new detail studies have been performed for this countywide study.

An enhanced Zone A study was performed along Cassidy Bayou and Hopson Bayou.

Table 1 lists the streams which were studied by enhanced Zone A study methods.

Table 1. Flooding Sources Studied By Enhanced Zone A Methods

Flooding Source	Reach Length (miles)	Study Limits
Cassidy Bayou	0.9	Approximately 0.3 mile downstream of Highway 32 to approximately 0.6 mile upstream of Highway 32
Hopson Bayou	2.8	Approximately 1.2 miles downstream of Highway 49 to approximately 0.6 mile upstream of West Street

2.2 Community Description

Tallahatchie County is located in northwest Mississippi and is bordered on the north by Quitman and Panola Counties, Mississippi; on the east by Yalobusha and Grenada Counties, Mississippi; on the south by Grenada and Leflore Counties, Mississippi and on the west by Sunflower and Coahoma Counties, Mississippi. The county lies on the border of the Bluff Hills region and the broad, flat Yazoo Delta region.

Tallahatchie County is served by several major highways and the Illinois Central Railroad. The western portion of the county is served by State Highways 3 and US 49, and the central and eastern portions of the county are served by State Highways 8, 32, and 35.

National Weather Service records indicate a mean annual temperature of 63.9 degrees Fahrenheit and an average annual precipitation of 51.28 inches for Tallahatchie County (U.S. Department of Commerce, 1984). The average dates of the first and last freeze are in early November and in the middle of March, respectively.

The 2009 population estimate of Tallahatchie County was reported to be 12,638 (U.S. Census Bureau, 2009).

2.3 Principal Flood Problems

The principal flood problems in Tallahatchie County have occurred in and around the City of Charleston and in the low-lying areas within the floodplain of the Tillatoba River and its tributaries. Major floods of the Tillatoba River have occurred in March 1973, November 1973, and December 1982. The U.S. Amy Corps of Engineers (COE) measured a high-water elevation of 173.4 feet North American Vertical Datum of 1988 (NAVD) from a discharge of 8,940 cubic feet per second (cfs) during the March 1973 flood, and a high-water elevation of 175.7 feet NAVD (discharge of 11,000 cfs) during the November 1973 flood. A floodmark at an elevation of 178.8 feet NAVD was surveyed by the USGS about 0.4 mile downstream from State Highway 35. It is estimated that this floodmark represents an estimated discharge of 17,000 cfs and a recurrence interval greater than 30 years.

At the State Highway 32 bridge over Hunter Creek, floodmarks have been surveyed at elevations of 190.2 feet, 187.7 feet, and 186.5 feet NAVD. It is presumed that these marks represent floods that occurred prior to the construction of flood control structures in the county.

Tallahatchie County is also affected by the flooding of the Yalobusha River in Grenada and Leflore Counties. The highest flood recorded on the Yalobusha River in Grenada County since closing Grenada Dam (located upstream of the area affecting Tallahatchie county) in

June 1953 was the flood of March 1973. The crest stage at the U.S. Highway 51 bridge over Yalobusha River reached an elevation of 177.4 feet NAVD. This flood is estimated to have had a recurrence interval of 40 years.

Other record floods on the Yalobusha occurred in November 1961; March 1955; February 1966; and April 1970. The stage elevations at the U.S. Highway 51 bridge for these dates were 177.2 feet, 176.6 feet, 174.3 feet and 173.8 feet NAVD, respectively (U.S. Department of Housing and Urban Development, 1978).

2.4 Flood Protection Measures

Extensive flood and erosion control measures have been undertaken by the U.S. Soil Conservation Service (SCS) in the Hunter Creek and North Fork Tillatoba Creek watersheds. These measures include flood control reservoirs or basin headwaters, grade control structures, and channel stabilization measures.

In the North Fork Tillatoba Creek basin, nine SCS flood control reservoirs control flood runoff from a total of 33.5 square miles of drainage area. On Hunter Creek, 7.1 square miles of the basin lie upstream of four SCS flood control reservoirs. These measures have caused reductions to the flood discharges and elevations in the study reaches of these two streams. The flood-control reservoirs on North Fork Tillatoba Creek are considered to affect flood discharges below the confluence with Tillatoba Creek. However, the flood control reservoirs on Hunter Creek are not considered to be significant for Tillatoba Creek floods because of the relatively small area upstream d the reservoirs and because the mouth of Hunter Creek is near the downstream end of the Tillatoba Creek basin considered in the analysis.

Along the Yalobusha River in Grenada County, flood damage protection measures have been provided to the City of Grenada area by improvement of the Yalobusha River channel and construction of the Grenada Dam. Improvement of the Yalobusha River from below Grenada Lake Reservoir to its mouth near Greenwood was completed in 1952. A number of cutoffs reduced the river length between these points from 63.6 to 45.6 miles. In 1953, the Grenada Lake Reservoir closure was completed to afford storage of floodwaters and flow regulation to further reduce downstream stages. The lake is approximately 3 miles northeast of the City of Grenada and has a storage capacity of 1,337,400 acre feet, of which 1,251,700 acre feet are utilized for flood control. Since completion of Grenada Lake Reservoir project, which controls runoff of 1,320 square miles, flood stages on the Yalobusha River north of Grenada result primarily from flood discharges on Batupan Bogue.

A levee exists along Tillatoba Creek. After correspondence with the Yazoo Mississippi Delta Levee Board (YMDLB), a Provisionally Accredited Levee (PAL) was issued designating YMDLB as the owner and responsible party for the levee system. At the time of this submittal the PAL for the Tillatoba Creek levee is currently under review. If the PAL is not accepted then the PAL note will be removed from the panel and the levee will be mapped as not showing protection. The levee is large enough for the terrain to pick up its topography and the 1% annual-chance-flood is shown as contained by the levee on the effective FIRM dated December 15, 1990. A PAL note is included on the panels containing the levee.

There were other structures designated as levees on the effective maps in Tallahatchie County. After further investigation it was determined that none of the structures were PAL eligible. The Panola Quitman Floodway levee does not show protection on the effective FIRM. The Ascalmore Creek/Tippo Bayou North and South levees were classified by the USACE as unacceptable and they do not show protection on the effective FIRM. Levee symbols appear on the effective panel in the vicinity of the Tallahatchie River and Black

Bayou. After correspondence with YMDLB, it was determined that these features are improperly labeled on the effective FIRM and are actually just bluffs or high spots in the natural terrain. All other levees in Tallahatchie County are non-accredited and therefore shown as not containing the flooding.

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-annual-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 100-year flood (1-percent-chance of annual 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

3.1.1 Methods for Flooding Sources with New or Revised Analyses in Current Study

For this countywide study, hydrologic analyses were carried out to establish peak discharge frequency relationships for each flooding source studied by detailed, enhanced approximate, and approximate methods affecting the community.

Discharges for the 1-percent-annual-chance recurrence interval for all new enhanced approximate and approximate study streams in Tallahatchie County were tabulated using Regional regression equations. This methodology is appropriate for this rural county. The analysis was completed in accordance with the USGS report *Flood Characteristics of Mississippi Streams* (WRI 91-4037). The discharge equations are based on the log-Pearson Type III distribution regionalization model. All of the study streams for Tallahatchie County are within the West and Delta flood frequency regions.

3.1.2 Methods for Flooding Sources Incorporated from Previous Studies

This section describes the methodology used in previous studies of flooding sources incorporated into this FIS that were not revised for this countywide study. Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

The magnitude of the 1-percent-annual-chance flood for the uncontrolled drainage area for Tillatoba Creek, North Fork Tillatoba Creek, and Hunter Creek was estimated by USGS regional regression equations (USGS, 1976). The 1-percent-annual-chance design discharges for the flood-control reservoirs were then added to the discharge computed fore the uncontrolled drainage areas on the affected streams.

Data from gaging stations on the Yalobusha River at the Cities of Grenada and Whaley and on Batupan Bogue at the City of Grenada were used to develop peak discharges for the Yalobusha River in Grenada County (U.S. Department of Housing and Urban Development, 1978). The gage on the Yalobusha River was established by the USGS in 1929. The COE replaced this gage in 1934 and located it at the new U.S. Highway 51 bridge, 600 feet upstream from the old bridge. Daily records of these gages are available to date. The crest-stage gage on the Yalobusha River at Whaley was established by the COE in 1938 and has been maintained to date. The COE maintains the crest-stage gage on Batupan Bogue at State Highway 8 at Grenada and it has been read intermittently since 1958.

Peak discharges for the Yalobusha River at Grenada were determined by a flow-frequency analysis of records of the gage at U.S. Highway 51. The flow-frequency analysis was performed according to U.S. Water Resources Council Bulletin No. 17 (U.S. Water Resources Council, 1976). The available years of record subsequent to the closure of Grenada Lake (1954 to 1973) were included in the frequency analysis.

The peak discharges measured in the Yalobusha River at Whaley and Grenada for the 1966 and 1973 floods were approximately the same, indicating little change in peak flow between stations. The peak discharges computed at Grenada were held constant on the downstream of the study.

Peak discharge-drainage area relationships for the 1-percent-annual-chance flood of each flooding source studied in detail in the community are shown in Table 2.

Table 2. Summary of Discharges

Flooding Source And Location	Reach Length (Sq. Miles)	Peak Discharge (CFS) (1% Annual Chance)
HUNTER CREEK		
At mouth	9.87	2,390
Approximately 0.5 mile upstream of State Highway 32	8.45	1,570
NORTH FORK TILLATOBA CREEK		
At mouth	51.2	6,990
TILLATOBA CREEK		
Just below confluence of North Fork Tillatoba Creek	166	26,500
Just above confluence of North Fork Tillatoba Creek	115	22,900
Approximate 0.8 mile upstream of Confluence of Hunter Creek	102	21,700
YALOBUSHA RIVER		
At U.S. Highway 51	1,570	52,000

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.

Cross sections for Tillatoba, North Fork Tillatoba, and Hunter Creeks were field surveyed. Structural geometry of bridges along the creeks were also field measured. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles and on the Flood Insurance Rate Map.

Roughness coefficients (Manning's "n") were chosen by engineering judgment for all streams and for Tillatoba, North Fork Tillatoba, and Hunter Creeks, these values were based on field observation of the channel and floodplain areas. For Tillatoba Creek, values ranged from 0.038 to 0.05 for the channel and from 0.08 to 0.20 for the overbanks. For North Fork Tillatoba Creek, roughness values ranged from 0.036 to 0.05 for the channel and from 0.08 to 0.20 for the overbanks and for Hunter Creek, values ranged from 0.035 to 0.05 for the channel and from 0.09 to 0.20 for the overbanks. For the Yalobusha River, roughness coefficients ranged from 0.03 to 0.08 for the channels and from 0.07 to 0.15 for the overbanks (U.S. Department of Housing and Urban Development, 1978).

The starting water-surface elevation for the downstream end of the Tillatoba Creek step-backwater analysis was determined by matching the computed elevations with the measured elevations of the December 1982 flood at 1,000 feet upstream of the confluence of North Fork Tillatoba Creek and the November 1973 flood at State Highway 35. Water-surface elevations for the 1-percent-annual-chance flood discharge on each creek were computed using WSPRO, a step-backwater computer program (U.S. Army Corps of Engineers, 1984).

The starting water-surface elevation for North Fork Tillatoba Creek and Hunter Creek step-backwater analysis was computed using the slope-conveyance method. Starting water-surface elevations for the Yalobusha River were taken from stream gage data or were developed by the slope-area method (U.S. Department of Housing and Urban Development, 1978).

Water-surface profiles were computed for the 1-percent-annual-chance event for enhanced approximate and approximate study streams through the use of the U.S. Army Corps of Engineers HEC-RAS version 3.1.2 computer program (USACE, 2004).

The enhanced approximate and approximate study methodology used Watershed Information SystEm (WISE) (Watershed Concepts, 2008) as a preprocessor to HEC-RAS. Tools within WISE allowed the engineer to verify that the cross-section data was acceptable. The WISE program was used to generate the input data file for HEC-RAS. Then HEC-RAS was used to determine the flood elevation at each cross section of the modeled stream. No floodway was calculated for streams studied by approximate methods.

The hydraulic analyses for this study are based on the effect on unobstructed flow. The flood elevations as shown on the profiles are thus considered valid only if hydraulic structures in general remain unobstructed and do not fail.

Flood profiles were drawn for detail study streams showing the computed water-surface elevations for floods of the selected recurrence intervals.

Floodplains were mapped to include backwater effects that govern each flooding source near its downstream extent. Floodplains were reviewed for accuracy and adjusted as necessary.

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 the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FIS reports and FIRMs are being prepared using NAVD 88 as the referenced vertical datum.

Flood elevations shown in this FIS report and on the FIRM are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. It is important to note that adjacent counties may be referenced to NGVD29, which may result in differences in base flood elevations across county lines.

Some of the data used in this revision were taken from the prior effective FIS reports and FIRMs and adjusted to NAVD88. The datum conversion factor from NGVD29 to NAVD88 in Tallahatchie County is -0.16 feet.

For more information regarding conversion between the NGVD29 and NAVD88, see the FEMA publication entitled Converting the National Flood Insurance Program to the North American Vertical Datum of 1988 (Reference 18), visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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. To assist in this endeavor, each FIS report provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent-annual-chance flood elevations; delineations of the 1- and 0.2-percent-annual-chance floodplains; and a 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS report as well as

additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1- percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community. For 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 topographic maps at a scale of 1" = 400' with a contour interval of 5 feet (FURGO Earth Data).

For each stream studied by approximate methods, the 1-percent-annual-chance floodplain boundaries have been delineated using interpolation of 5-foot interval topographic mapping developed from a DTM that was compiled at a scale of 400 feet from imagery with a 2' ground sampling distance (FURGO Earth Data).

The 1-and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM (Exhibit 1). On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE) and 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards (Zone X). 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 Flood Insurance Rate Map (Exhibit 1).

4.2 Floodways

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

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage and heightens potential flood hazards by further increasing velocities. To reduce the risk of property damage in areas where the stream velocities are high, the community may wish to restrict development in areas outside the floodway.

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body.

Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause more than a 1.0-foot increase in the BFEs at any point within the community.

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

No floodways were computed for either detailed or approximate areas in Tallahatchie County.

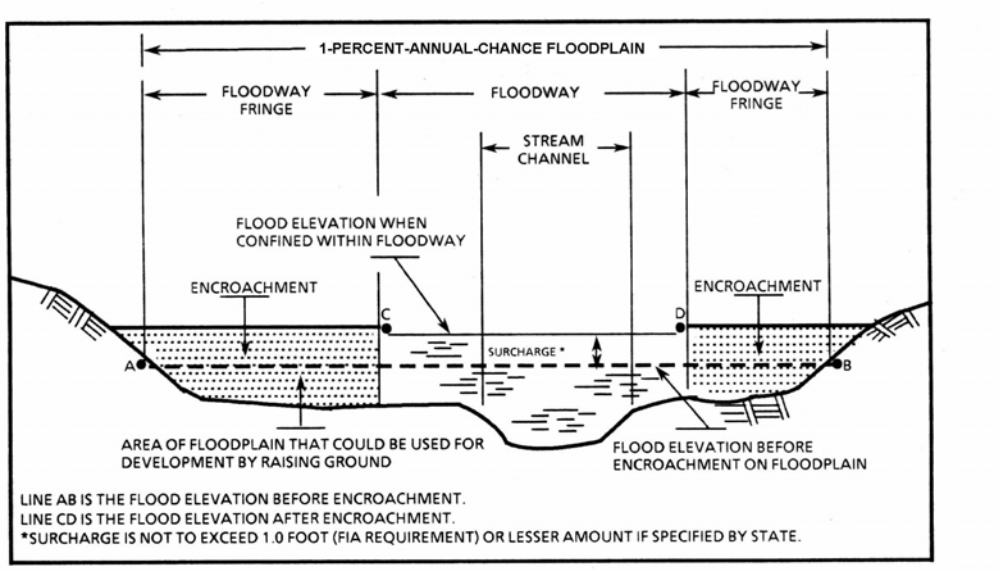


Figure 1. Floodway Schematic

5.0 INSURANCE APPLICATION

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 rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the Flood Insurance Study by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent-annual-chance) flood elevations (BFEs) or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by detailed methods. 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 rate 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 (sq. mi.), and areas protected from the 1-percent-annual-chance flood by levees. No BFEs or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

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

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0. 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 computation.

This countywide FIRM presents flooding information for the entire geographic area of Tallahatchie County. Previously, Flood Insurance Rate Maps 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 2, "Community Map History."

7.0 OTHER STUDIES

There is one previous FIS published for Tallahatchie County dated December 15, 1990. There are also previously prepared FIRMs for the cities of Charleston and Glendora, MS and the towns of Sumner, Tutwiler, and Webb, MS. The Flood Insurance Rate Maps for Coahoma, Quitman, Panola, Yalobusha, Grenada, Leflore, and Sunflower Counties are in agreement with this study.

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Tallahatchie County has been compiled into this FIS. Therefore, this FIS report supersedes or is compatible with all previously printed FIS reports and FIRMs for all jurisdictions within Tallahatchie County, and should be considered authoritative for the purposed of the NFIP.

8.0 LOCATION OF DATA

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

Future revisions may be made that do not result in the republishing of the Flood Insurance Study report. To ensure that any user is aware of all revisions, it is advisable to contact the map repository of flood hazard data located in the community.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Charleston, City of	June 7, 1974	June 25, 1976 February 1, 1980	August 4, 1987	None
Glendora, City of	January 10, 1975	December 8, 1978	September 27, 1985	None
Sumner, Town of	June 14, 1974	June 25, 1976 March 7, 1980	September 4, 1985	None
Tallahatchie County (Unincorporated Areas)	October 21, 1977	None	December 15, 1990	None
Tutwiler, Town of	July 19, 1974	June 18, 1976	September 1, 1986	None
Webb, Town of	January 17, 1975	April 4, 1980	August 1, 1986	None

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

TALLAHATCHIE COUNTY, MS

AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

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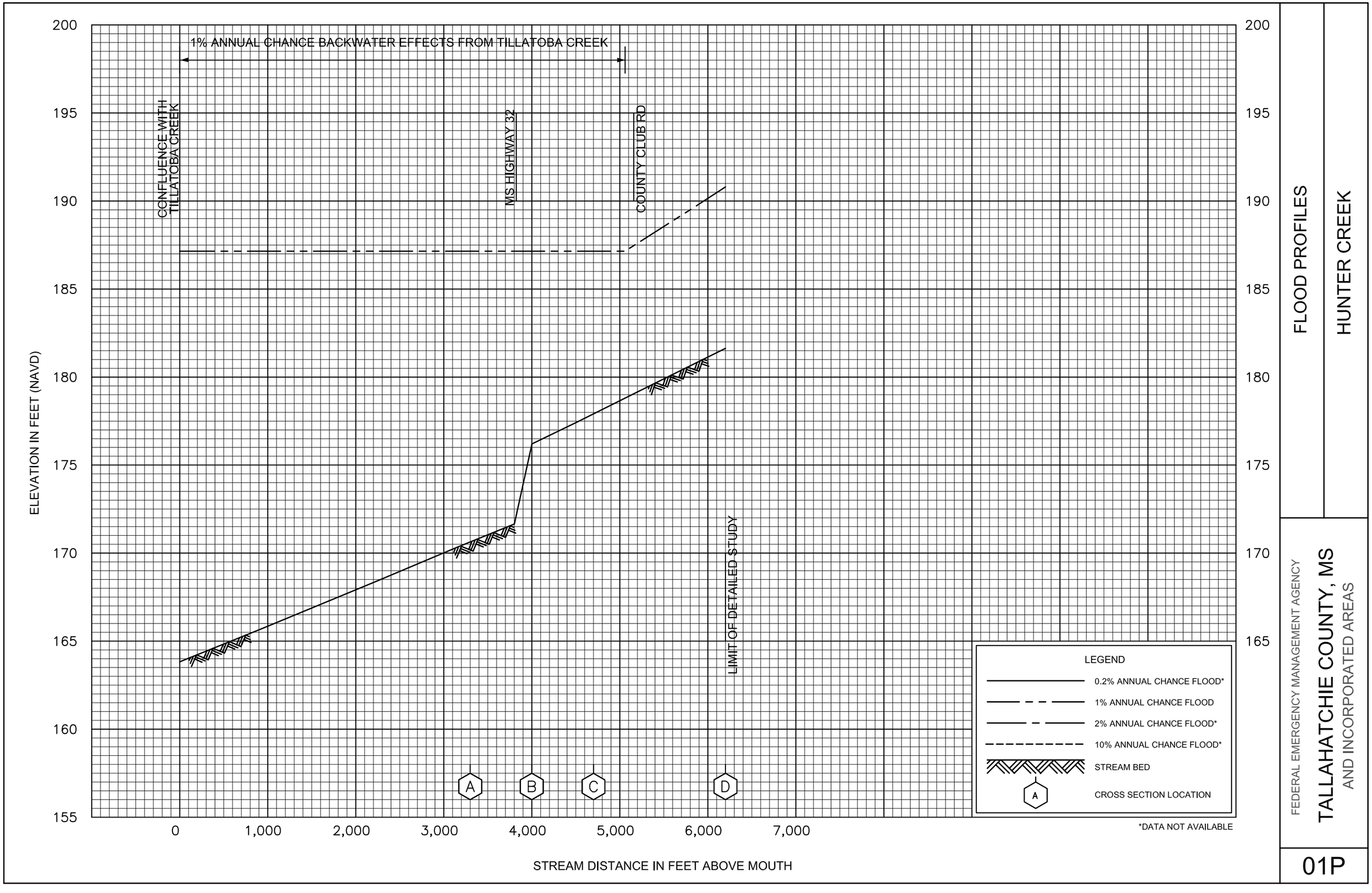


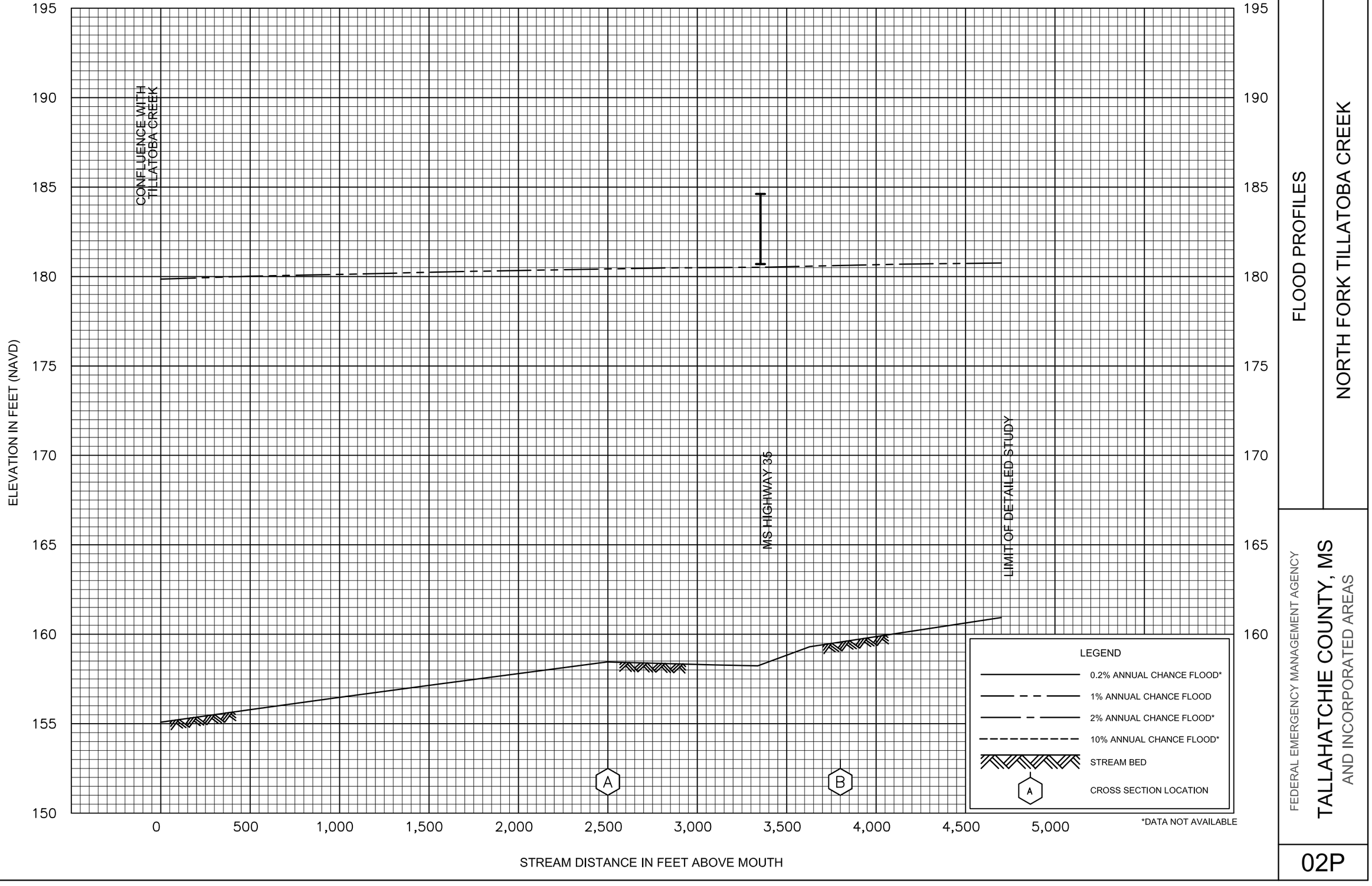
FLOOD PROFILES

HUNTER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

TALLAHATCHIE COUNTY, MS
AND INCORPORATED AREAS

01P



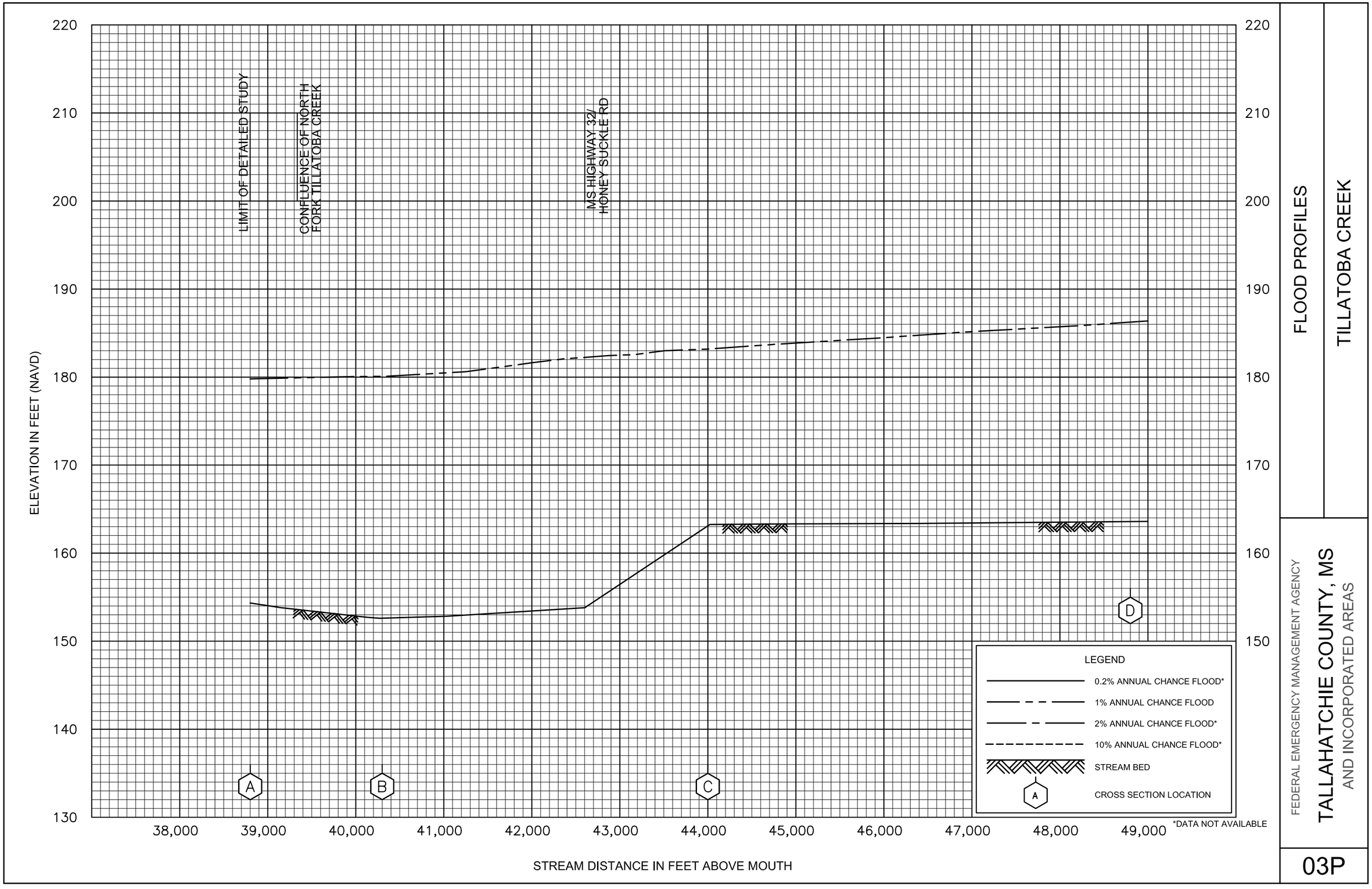
FLOOD PROFILES

NORTH FORK TILLATOBA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

TALLAHATCHIE COUNTY, MS
AND INCORPORATED AREAS

02P



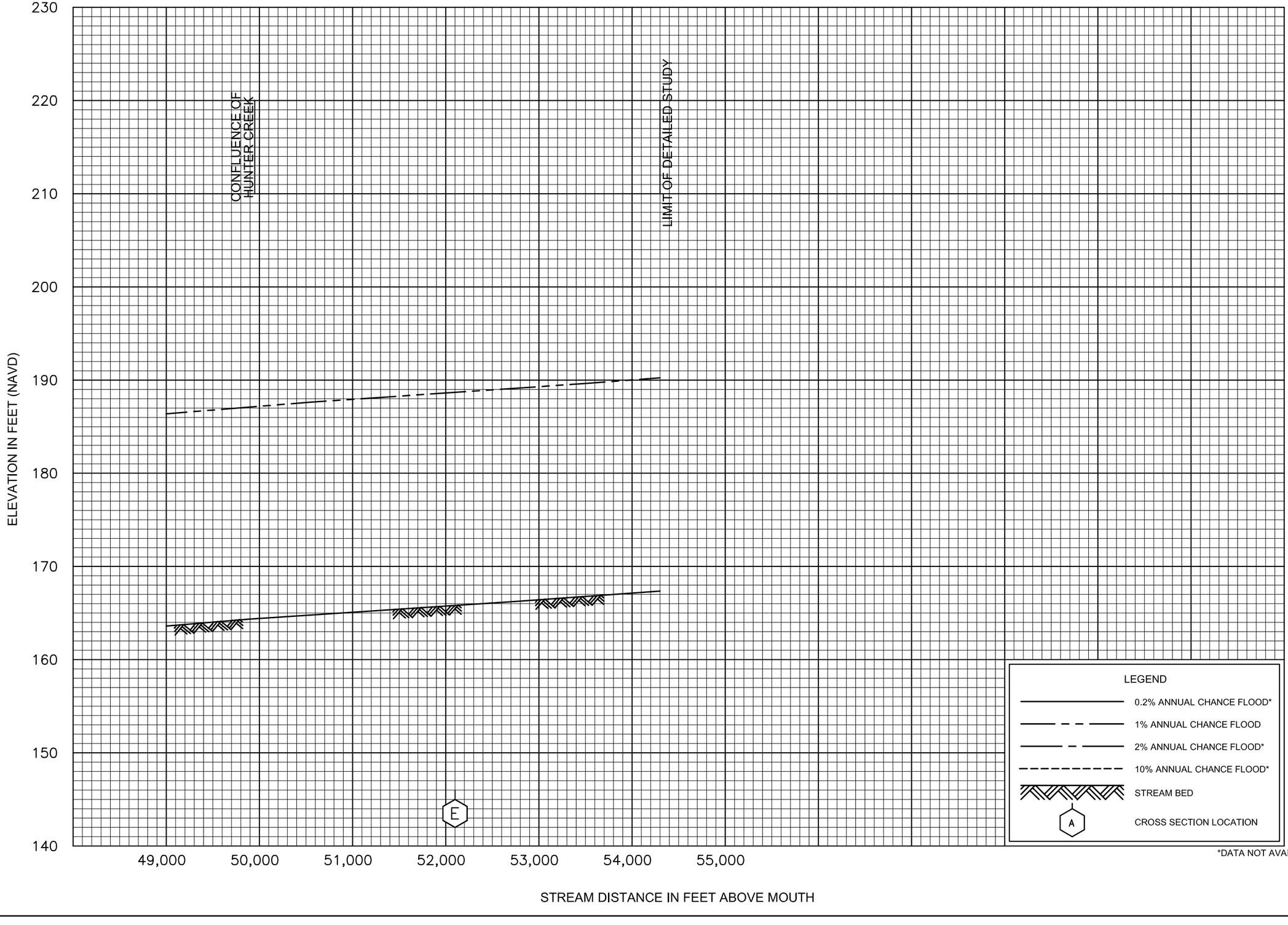
FLOOD PROFILES

TILLATOBA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

TALLAHATCHIE COUNTY, MS
AND INCORPORATED AREAS

03P



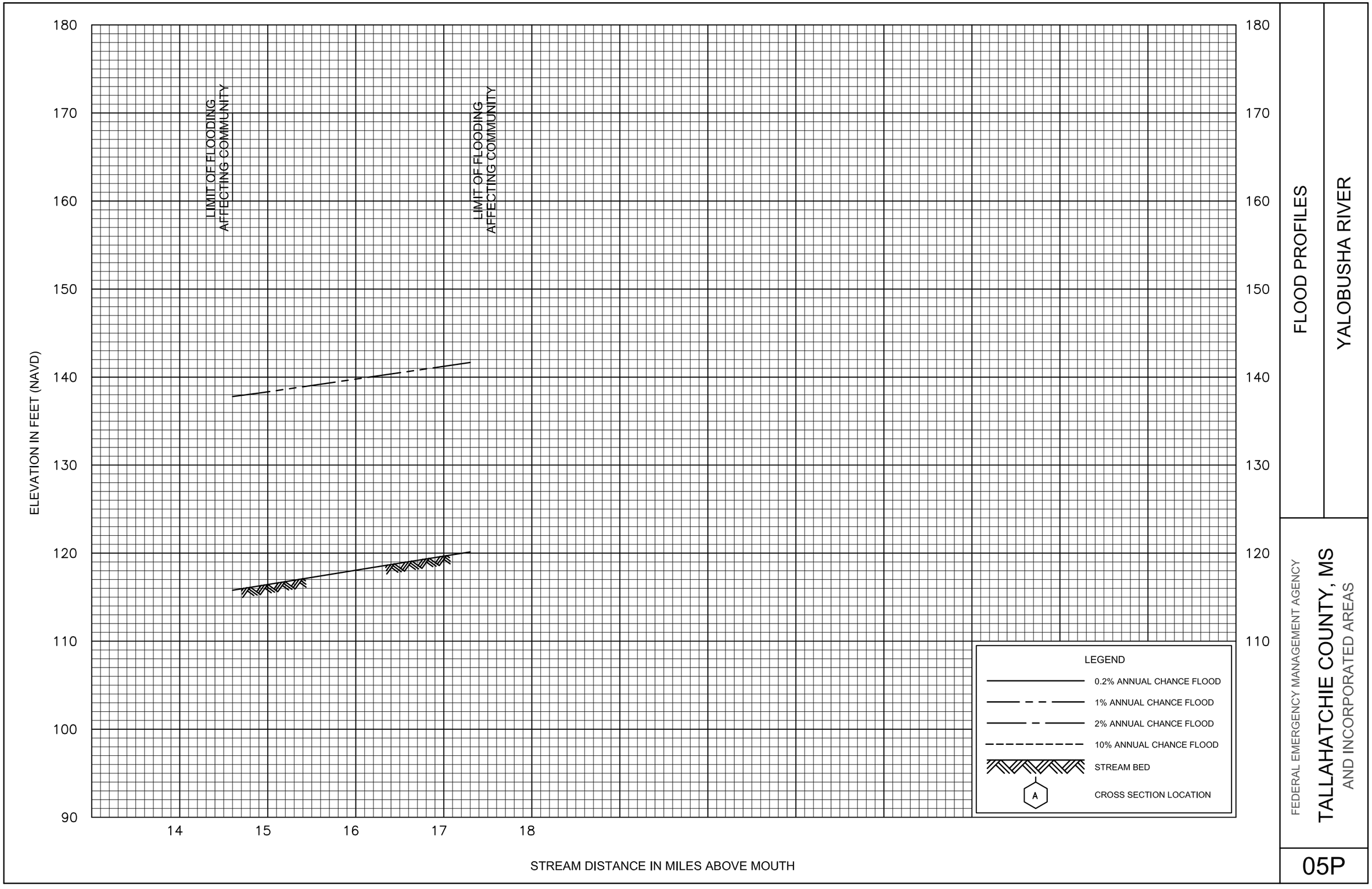
FLOOD PROFILES

TILLATOBA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

TALLAHATCHIE COUNTY, MS
AND INCORPORATED AREAS

04P



FLOOD PROFILES

YALOBUSHA RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

TALLAHATCHIE COUNTY, MS
AND INCORPORATED AREAS

05P