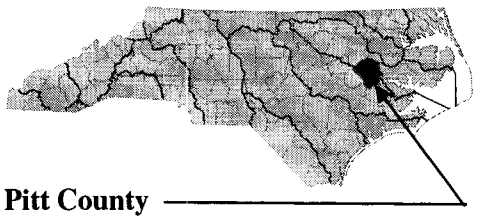
FLOOD INSURANCE STUDY

A Report of Flood Hazards in

PITT COUNTY, NORTH CAROLINA

AND INCORPORATED AREAS



Community Name	Community Number	River Basin
Ayden, Town of	370189	Neuse
Bethel, Town of	370546	Tar-Pamlico
Falkland, Town of	370666	Tar-Pamlico
Farmville, Town of	370190	Neuse
Fountain, Town of	370631	Neuse/Tar-Pamlico
Greenville, City of	370191	Neuse/Tar-Pamlico
Grifton, Town of	370192	Neuse
Grimesland, Town of[1]	370535	Tar-Pamlico
Pitt County (Unincorporated Areas)	370372	Neuse/Tar-Pamlico
Simpson, Village of	370615	Tar-Pamlico
Winterville, Town of	370193	Neuse

[1]No Special Flood Hazard Areas Identified

NORTH CAROLINA Cooperating Technical State
FEMA'S COOPERATING TECHNICAL PARTNER

Revised: April 16, 2013

Federal Emergency Management Agency
State of North Carolina

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http://www.fema.gov and
http://www.ncfloodmaps.com

FOREWORD

This countywide Flood Insurance Study (FIS) Report was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long-term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the state level. As a part of this effort, the State of North Carolina has joined with FEMA in a Cooperating Technical State (CTS) agreement to produce and maintain this FIS Report and the accompanying digital Flood Insurance Rate Map (FIRM) for North Carolina.

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 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.

The following is a list of the publication dates of this Countywide FIS Report starting with the initial Report accompanying the North Carolina Statewide FIRM:

January 2, 2004
April 16, 2013 - to update corporate limits, to change Base Flood Elevations, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to delete Special Flood Hazard Areas, to change zone designations, to add roads and road names, to add floodway, and to change floodway.

This FIS has been produced as part of the North Carolina Floodplain Mapping Program. Craven County, North Carolina, falls under the administrative jurisdiction of Region IV of the Federal Emergency Management Agency (FEMA). Questions concerning this FIS may be directed to the North Carolina Floodplain Mapping Program at www.ncfloodmaps.com, the FEMA Map Information eXchange by calling the toll-free information line at 1-877-FEMA MAP (1-877-336-2627), or by contacting the FEMA Regional Office at the following address:

FEMA, Federal Insurance and Mitigation Administration
Koger Center – Rutgers Building
3003 Chamblee Tucker Road
Atlanta, Georgia 30341
(770) 220-5400

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Section 1.0 - Introduction

1.1 The National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer-funded disaster relief for flood victims and the increasing amount of damage caused by floods. The NFIP makes federally backed flood insurance available in communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. Federally backed flood insurance is available in more than 19,000 communities across the United States and its territories.

The NFIP is managed by the Federal Insurance and Mitigation Administration of the Federal Emergency Management Agency (FEMA). The Federal Insurance and Mitigation Administration manages the insurance component of the NFIP and oversees the flood hazard mapping and the floodplain management aspects of the program.

The NFIP, through involvement with communities, the insurance industry, and the lending industry, helps reduce flood damage by nearly $800 million a year. Further, buildings constructed in compliance with NFIP building standards suffer approximately 80% less damage annually than those not built in compliance. In addition, every $3 paid in flood insurance claims saves $1 in disaster assistance payments. The NFIP is self-supporting for the average historical loss year, which means that operating expenses and flood insurance claims are not paid by the taxpayer, but through premiums collected for flood insurance policies.

Additional information of interest to homeowners, community officials, insurance companies, lenders, and study contractors is available in Section 9.0 of this FIS Report and on the NFIP Internet homepage at http://www.fema.gov/business/nfip/.

1.2 Purpose of this Flood Insurance Study

Flood Insurance Studies (FISs) are one of the primary means by which the NFIP administers the National Flood Insurance Act of 1968, the Flood Disaster Protection Act of 1973, and the National Flood Insurance Reform Act of 1994. FISs develop flood risk data that are used to establish actuarial flood insurance rates. The information in this FIS Report will also be used by Pitt County and the jurisdictions therein (hereinafter referred to collectively as Pitt County) to facilitate the adoption and maintenance of floodplain management ordinances, which form the basis of communities' continued participation in the NFIP. Minimum requirements for participation in the NFIP are set forth in Title 44, Part 60, Section 3 of the Code of Federal Regulations (44 CFR 60.3). In some States and/or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum Federal requirements. In such cases, the more restrictive criteria will take precedence, and the State and/or community (or other jurisdictional agency) will be able to explain them.

This FIS investigates the existence and severity of flood hazards in, or revises and updates previous FISs for, the geographic area of Pitt County, North Carolina, including the jurisdictions listed in Table 1.

Table 1—Jurisdictions in Pitt County

Community	Included in this FIS	Not Included in this FIS	If Not Included, Location of Flood Hazard/Flood Insurance Rate Data
Ayden, Town of	X		
Bethel, Town of	X		
Falkland, Town of	X		
Farmville, Town of	X		
Fountain, Town of	X		
Greenville, City of	X		
Grifton, Town of	X		
Grimesland, Town of[1]	X		
Pitt County (Unincorporated Areas)	X		
Simpson, Village of	X		
Winterville, Town of	X		

[1]No Special Flood Hazard Areas Identified

1.3 FIS Components

A Flood Insurance Study (FIS) is an analysis of flood hazards, typically presented as a set of Flood Insurance Rate Map (FIRM) panels and the FIS Report, which includes a set of Flood Profiles.

Flood Insurance Rate Map

The FIRM shows 1% annual chance (100-year) and 0.2% annual chance (500-year) floodplains, using tints, screens, and symbols. Floodways, the locations of selected cross sections used in the hydraulic analyses and floodway computations, and Velocity Zones are shown where applicable. The FIRM for North Carolina has been produced digitally, and there are separate data layers that are available in the public domain via the Internet.

Flood Insurance Study Report

The FIS Report provides a context for the information shown on the FIRM, as well as a summary of the data upon which the analyses are based. It also includes an index of sources of additional information on the NFIP.

Flood Profiles

A Flood Profile is provided for every stream studied in detail, showing the continuum of calculated flood elevations of various recurrence periods along the studied reaches. Flood Profiles are the documents that serve as a basis for determining flood insurance rate zones.

Flood events of a magnitude expected to occur with a 10%, 2%, 1%, or 0.2% annual chance have been selected as having special significance for developing sound floodplain management programs. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10%, 2%, 1%, and 0.2% chance, respectively, of being equaled in any given year. Therefore, FIS Reports typically determine water-surface elevations for floods with these probabilities. The FIRM delineates 1% and 0.2% annual chance floodplains and 1% annual chance floodway boundaries, and depicts 1% annual chance flood elevations, rounded to the nearest foot, to assist in developing floodplain management measures.

2.1 Floodplains

To provide a national standard without regional discrimination, the 1% annual chance flood has been adopted by FEMA as the base flood for floodplain management purposes. A 1% annual chance flood, or base flood, is defined as that having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance floodplains shown on the FIRM identify areas that are expected to be inundated by the 1% annual chance flood. This 1% annual chance floodplain is also called a Special Flood Hazard Area (SFHA), where the NFIP's floodplain management regulations must be enforced by the community as a condition of participation in the NFIP. The 0.2% annual chance floodplain is employed to indicate additional areas of flood risk associated with exceptionally severe floods.

2.2 Floodways

Encroachment on floodplains such as that caused by placement of 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, floodways are provided as a tool to assist local communities in this aspect of floodplain management. Under this concept, the 1% annual chance riverine 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% annual chance flood can be carried without substantial increases in flood heights. Figure 1, "Floodway Schematic," illustrates this principle. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this FIS are presented to local agencies as a minimum standard that can be adopted directly or that can be used as a basis for additional encroachment studies.

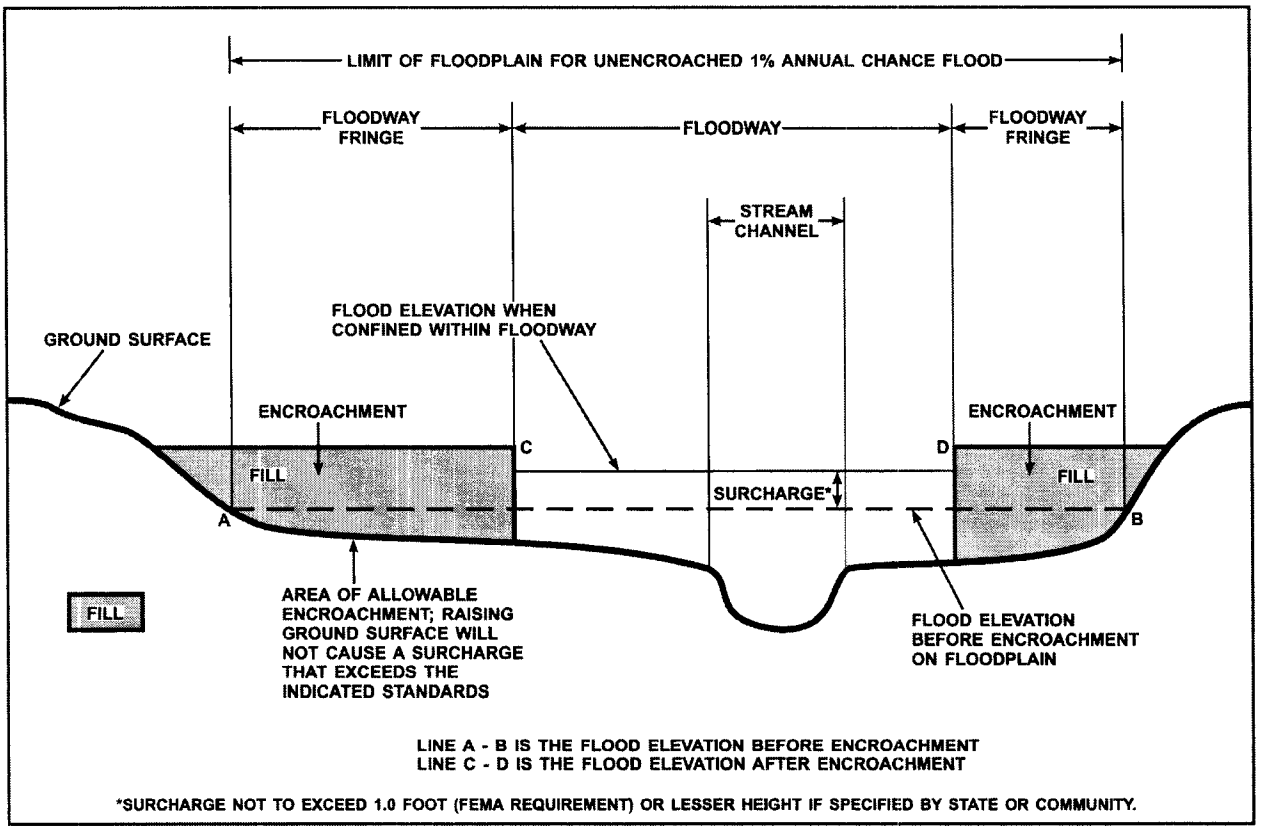

Figure 1—Floodway Schematic

2.3 Base Flood Elevations

Base Flood Elevations (BFEs) are shown on the FIRM and represent rounded, whole-foot elevations at selected locations along flooding sources that have been studied in detail. Flood Profiles in this FIS Report provide a comprehensive and definitive tool to determine specific flood elevations along a stream studied by detailed methods. In order to reduce the risk of damage from floods up to the base (1% annual chance) flood, communities are advised to consider these elevations when issuing building permits for structures.

2.4 Watershed Characteristics

Because a FIS is a probability analysis that may not account for some of the factors listed below, communities are strongly encouraged to consider adopting more restrictive or higher floodplain management criteria or ordinances than the minimum Federal requirements. Communities may also increase the validity of their flood hazard data by investing in continuous maintenance of river gages (see the **Data Validity and Reliability** paragraph below). If the U.S. Geological Survey (USGS) or other agencies do not maintain gages on the flooding sources of interest, partnerships with the USGS may be pursued, or local gages may be installed. For more information, see Section 9.0 of this report.

This flood hazard study represents an analysis of certain watershed characteristics, some of which are summarized as follows:

Drainage Area

In general, streams that drain larger areas have greater flood hazards. FISs, in North Carolina, do not typically analyze flood hazards in places with rural drainage areas of less than one square mile and within urban drainage areas of less than ½ square mile.

Soil Permeability and Infiltration

Differences in the types of soil and the amount of vegetation in a watershed have a significant effect on the amount of water that the soil can absorb; soils with a high sand content absorb much more water than soils with a high clay content. The presence of vegetation increases infiltration; the presence of pavement decreases infiltration and also speeds runoff to receiving waters. As soil permeability and infiltration decrease, the volume and rate of overland flow increases.

Soil Moisture Conditions

In addition to soil permeability and infiltration, the level of the water table helps determine the saturation point, beyond which no water is absorbed. As rainfall duration increases, the height of the water table increases.

Channel and Floodplain Geometry

The geometric contour of a streambed, termed channel geometry, and the geometric contour of a floodplain determine the volume of water that a channel can hold and partially determine the rate at which water flows through it.

Channel and Floodplain Roughness

The roughness of a surface affects the characteristics of runoff whether the water is on the surface of the watershed or in the channel.

FIS Reports include analyses of how these factors will combine to produce overland flow patterns during floods that have a certain probability of occurring in any given year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at shorter intervals or even within the same year. The risk of experiencing a rare flood increases when longer periods are considered. For example, the risk of having a flood which equals or exceeds the 1% annual chance flood (1% chance of annual exceedence) in any 50-year period is approximately 40% (4 in 10), but for any 90-year period, the risk increases to approximately 60% (6 in 10).

It is important to note that the 1% annual chance flood is used as the national standard to allow a consistent approach to floodplain management, flood hazard assessment, and flood hazard mapping. In any given community, a number of factors may result in flooding characteristics that do not conform to predicted conditions. Therefore, the determination that an area is not shown on the FIRM as being within a Special Flood Hazard Area is no guarantee that it will not flood during a 1% annual chance flood. Examples of these factors include Data Validity and Reliability; Developmental and Topographic Changes Over Time; Erosion, Deposition, and Debris Flow; and Meandering and Lateral Migration.

Data Validity and Reliability

Certain types of analysis methods yield more justifiable characterizations of flood hazards. For example, a gage analysis, to determine peak discharges, is based on actual measurements of watershed conditions over time and, therefore, is typically considered the most accurate method of hydrologic analysis. However, it is not feasible to install enough gages to gather data on every stream. In addition, for many of the gage sites that do exist, there are interruptions in the period

of record. The usefulness of gage data for the purpose of predicting flooding behavior decreases with interruptions in the period of record; predicted flooding conditions over a 100-year period based on 20 years of measurements spread over a 35-year period are less valid than those based on 30 years of continuous measurements. A regression analysis is typically considered the best method in the absence of gage data, as it uses gage data from watersheds with similar characteristics to estimate flood frequency and magnitude in an ungaged watershed. Regression equations reflect average conditions for a region; therefore, the results will not exactly match the results of a gage analysis at a particular location. The standard errors of the North Carolina rural regression equations range from 44 to 51 percent for estimates of the 1% annual chance flood. That means the difference between the results of the regression equation and the gage analysis for approximately two-thirds of the locations that gage data exists are within 44 to 51 percent of the gage analysis results. A rainfall-runoff hydrologic analysis may be used for gaged or ungaged watersheds, and can estimate the effects of storage areas and flood control structures and measures. This method is most valid when calibrated against historical data.

Developmental and Topographic Changes Over Time

A FIRM is based on the best topographic and planimetric information available to FEMA and the State of North Carolina at the time the study is produced. In time, however, development and/or natural phenomena can alter the physical characteristics of a watershed and its drainage channels, resulting in changes in the flood hazards in those areas. For example, constructing a housing subdivision reduces the amount of soil that is available to absorb water; this in turn causes an increase in the volume of surface water that flows into the channel.

Erosion, Deposition, and Debris Flow

The flood hazards shown on a FIRM are based on the assumption of unobstructed flow. The FIRM does not reflect an analysis of areas that are subject to erosion caused by the increased water-surface elevations and velocities that occur during flooding. In addition to the risks of landslides or a weakening of the ground underneath roads or structures, any sediment that is removed from one location will be deposited in another; accumulated deposits may have a pronounced effect on flood hazards in those areas. Similarly, debris such as fallen trees or branches, litter, or other items may obstruct stream channels or hydraulic structures, increasing water-surface elevations, velocities, and floodplain width.

Meandering and Lateral Migration

FISs are based on the assumption that channel geometry will remain stable during normal drainage and during flood events. This assumption is valid for most streams, which flow over bedrock or between bedrock outcroppings that form non-alluvial channels. However, alluvial streams change the channel geometry with time, significantly so during flood events. Alluvial streams are subject to erosion and deposition, which may result in braided or meandering channels. Streams of this type may be characterized by lateral migration, or channel shifting, in which the stream may change course entirely during a flood. Whenever clear evidence is available, a FIRM will identify the alluvial nature of a studied flooding source and designate wider floodways to allow for potential migration. However, these floodways are based on qualitative assessments and not on quantitative geomorphic and engineering analyses.

Section 3.0 – Insurance Applications

For flood insurance applications, the FIRM designates flood insurance rate zones and, in 1% annual chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use the zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies. Table 2, "Flood Zone Designations," includes a description of each type of flood hazard zone.

Table 2—Flood Zone Designations

Zone	Description
A	Zone A is the flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined in the FIS Report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no Base Flood Elevations or depths are shown within this zone.
AE	Zone AE is the flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined in the FIS Report by detailed methods. In most instances, whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.
AH	Zone AH is the flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.
AO	Zone AO is the flood insurance rate zone that corresponds to the areas of 1% annual chance 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.
AR	Zone AR is the flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
A99	Zone A99 is the flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No Base Flood Elevations or depths are shown within this zone.
V	Zone V is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no Base Flood Elevations are shown within this Zone.
VE	Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Table 2—Flood Zone Designations

Zone	Description
X	Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2% annual chance floodplain, areas within the 0.2% annual chance floodplain, and to areas of 1% annual chance flooding where average depths are less than 1 foot, areas of 1% annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone.
X (Future)	Zone X (Future Base Flood) is the flood insurance risk zone that corresponds to the 1-percent-annual-chance floodplains that are determined based on future-conditions hydrology. No BFEs or base flood depths are shown within this zone.
D	Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

Section 4.0 – Area Studied

4.1 Community Characteristics

Pitt County is located in the Coastal Plain of eastern North Carolina. It is surrounded by Edgecombe and Martin Counties to the north, Beaufort County to the east, Craven County to the south, and Greene and Lenoir Counties to the west-southwest. The land area is approximately 652 square miles, and mostly consists of undeveloped forest (pine, oak, and hardwoods), croplands (tobacco), and pastures. There are 124 square miles (32.6% of the total miles) within the Special Flood Hazard Area. The 2010 population according to the Census Bureau was 168,148.

4.2 Principal Flood Problems

Flooding is an important cause of many of the social and economic problems confronting Pitt County. Although stream flooding within the county may occur during any season of the year, the most severe flooding is usually the result of accumulations of abnormally high direct precipitation, pocosin overflow, or stream channel overflow, following tropical storms and local thunderstorms during the spring and summer months. The terrain of the county is relatively flat, and inadequate main channels prevent timely removal of accumulated surface water. Relatively large areas remain inundated for periods of up to 3 or 4 days following major rainstorms. Historical records from 1966-1986 show that an average of three flood-producing storms per year have occurred in the floodplains of the major watersheds in the county. Approximately 75 percent of these storms occurred during the growing season.

Low-lying areas of Greenville are subject to periodic flooding from the Tar River, Green Mill Run, and their tributaries. The most severe flooding on the Tar River is usually the result of heavy rains from tropical storms, while creek flooding usually result primarily from local thunderstorms. River stage records from the national weather service gage at Greenville show that a stage of 15.85 feet NAVD has been equaled or exceeded eight times between 1905 and 1986.

Flooding on the streams within the Towns of Grifton and Farmville may occur during any season of the year. The most severe flooding is normally the result of heavy rains from tropical storms and local thunderstorms during the spring, late summer, and early fall.

It is estimated that thousands of acres of croplands and pastureland within the Towns of Grifton and Farmville suffer flood damage annually. Contentnea Creek and its tributaries, as well as areas adjacent to Little Contentnea Creek and its tributaries, suffer flood damage annually from stream channel overflow or accumulation of surface water caused by abnormally heavy rainfall. Their floodplains are relatively flat, and their main channel capacities are inadequate for the timely removal of accumulated surface water. The frequency of flooding has noticeably increased during the past few years as the main channels have become more clogged, and practically none of the tributaries function properly or adequately to drain productive agricultural lands. Low areas in the floodplains remain inundated at shallow depth for 3 to 5 days following torrential rains.

4.3 Historic Flood Elevations

October 5 to 18, 1954 (Hurricane Hazel)
Hurricane Hazel was the most destructive storm in the history of North Carolina. The storm crossed the coast just north of the City of Myrtle Beach, South Carolina, as hurricane winds hit

the Atlantic coast between the City of Georgetown, South Carolina, and Cape Lookout, North Carolina. Storm tides (i.e. hurricane surge) devastated the immediate ocean front of this stretch of coast. Every fishing pier along 170 miles of coast, from Myrtle Beach, South Carolina to Cedar Island, North Carolina, was destroyed. The waterfront between the South Carolina state line and Cape Fear was completely destroyed. Grass-covered dunes, some 20 feet high, along and behind which beach homes had been built in a continuous line 5 miles long, simply disappeared- dunes, houses, and all. From Cape Fear to Cape Lookout the degree of devastation was not as great, but the ocean front property was damaged an average of 50 percent along this entire stretch. North Cape Lookout damage was relatively light.

Storm surge of 16.6 feet above National Geodetic Vertical Datum (NGVD) was observed at Holden Beach Bridge and the Town of Calabash, North Carolina. The lowest recorded barometric pressure of the storm surge was 938 millibars (mb), reported at Little River Inlet on the North Carolina-South Carolina border. Maximum wind speeds were 83 mph, with gusts recorded at 98 mph at the City of Wilmington, North Carolina; 106 mph at Cape Fear. The storm continued inland through North Carolina causing widespread damage due to high winds and recorded rainfall. Nineteen people were killed and 200 injured during this storm.

August 3 to 14, 1955 (Hurricane Connie)
Hurricane Connie entered North Carolina close to Cape Lookout at about 8:30 a.m. on August 12. The prolonged pounding of high waves against the coast caused tremendous beach erosion, probably worse than that caused by Hazel in 1954. Storm tides along the coast from the City of Southport to the Town of Nags Head, North Carolina, were reported to be about 7 feet NGVD (6.9 feet NGVD at the Town of Wrightsville Beach and 7.5 feet NGVD at Kure Beach, North Carolina). Water in sounds and near the mouths of rivers was 5 to 8 feet above normal. At Wilmington, winds were reported at 72 mph, gusting to 83 mph. At Fort Macon, winds of 75 mph, gusts of 100 mph, and a barometric pressure of 962 mb were reported. The storm also brought torrential rains with the maximum rainfall, around 12 inches in 48 hours, occurring near the Town of Morehead City, North Carolina. Total damage throughout the State was estimated at $50 million.

August 7 to 21, 1955 (Hurricane Diane)
Five days after Hurricane Connie, and before the damage from that storm could be estimated, Hurricane Diane struck the coast near the Town of Carolina Beach, North Carolina, about 6 a.m. on August 17. The highest wind speed reported during this storm was 74 mph at Wilmington Airport. Storm tides ranged from 5 to 9 feet above mean low water on the beaches (6.8 feet NGVD at Wrightsville Beach), and in some areas of sounds and rivers emptying into sounds, estimated water levels were 5 to 9 feet above normal. Water was 3 feet above flood level in the business district of the Town of Belhaven and "waist deep" in parts of the Cities of Washington and New Bern, North Carolina. Diane caused severe beach erosion along the North Carolina coast. The total damage caused in North Carolina by Connie and Diane was estimated to be in excess of $90 million. No deaths or injuries in North Carolina were attributed to either of the storms.

September 10 to 23, 1955 (Hurricane Ione)
Hurricane Ione moved up from the south and crossed the North Carolina coast near Salter Path, 10 miles west of Morehead City, at about 5 a.m. on September 19. It then slowly curved to the northeast and went out to sea near the Virginia border early on September 20. When Ione entered North Carolina, winds gusted to over 100 mph. Wind speeds of 75 mph with gusts to 107 mph were recorded at Cherry Point. The minimum barometric pressure recorded over North Carolina

during this storm was 960 mb. Heavy rains also accompanied Ione. At the same time, prolonged easterly winds drove tidal water onto beaches and into sounds and estuaries to heights of 3 to 10 feet above normal. The result was the largest inundation of eastern North Carolina ever known to have occurred. At New Bern, the depth of the flood was the greatest ever recorded, about 10.5 feet above mean low water; 40 city blocks were flooded, several hundred homes were washed away, and thousands more were flooded with up to 4 feet of water. A high tide of 6.9 feet NGVD was reported at the Town of Atlantic Beach, North Carolina, and an estimated 5.3 feet NGVD at Wrightsville Beach.

September 21 to October 3, 1958 (Hurricane Helene)
Hurricane Helene was one of the most powerful storms of recent history; fortunately for the people of North Carolina, the storm center was well out at sea as it moved north on September 26 and 27. Nevertheless, high winds were recorded at Wilmington, with the highest winds measured at 85 mph and peak gusts recorded at 135 mph. The lowest reported central pressure of the storm was 932 mb; this measurement was recorded south-southeast of Cape Fear early on the morning of the 27th. There was some beach erosion due to seas and tides, but this erosion was minimized by the fact that the storm occurred at a time of low astronomical tides. High tides were estimated at 3 to 5 feet above normal; a high tide of 5.1 feet NGVD was reported at Wrightsville Beach. Tides were higher on the southern edge of Pamlico Sound, when the wind shift as the storm center passed brought the tides 7 to 8 feet above normal.

August 29 to September 13, 1960 (Hurricane Donna)
Hurricane Donna crossed the North Carolina coast between the City of Wilmington and the Town of Morehead City on September 11. The center of the storm passed a few miles east of the Town of Wrightsville Beach, although Wilmington and Wrightsville Beach were each in the eye for about an hour. The lowest barometric pressure recorded during this storm was 962 mb at Wilmington. High tides, 6 to 8 feet above normal, together with high winds, caused severe damage at many points. Winds of hurricane force, up to 97 mph, were reported from Wilmington. During the night of September 11, the storm center moved northward, parallel and slightly east of a line drawn between Wilmington and Norfolk, Virginia. Wind gusts were in excess of 97 mph and tides were 4 to 8 feet above normal. High tides of 10.3 and 8.3 feet NGVD were reported at Atlantic Beach and Wrightsville Beach, respectively.

September 13, 1984 (Hurricane Diana)
The landfall location of Diana was 38 miles south of Wilmington with 90 mph winds at its closest approach to Wilmington. Diana had 115 mph sustained winds before landfall. Storm surge was approximately 5-6 feet.

September 26, 1985 (Hurricane Gloria)
The landfall location of Gloria was Cape Hatteras, with 90 knot winds and a storm surge of approximately 6-8 feet.

July 12, 1996 (Hurricane Bertha)
1996 was a damaging year in the hurricane history of North Carolina. Tropical Storm Arthur, Hurricane Bertha, and Hurricane Fran all made direct landfall on the North Carolina coastline. It was the most active tropical cyclone season in the state since 1955, when Hurricanes Connie, Diane, and Ione all hit the coast. Bertha entered North Carolina in North Topsail Beach with 105 mph gust and a storm surge of approximately 5 feet.

September 5, 1996 (Hurricane Fran)
The landfall location of Fran was near the City of Wilmington and its progression into the Raleigh-Durham area caused an estimated $1.275 billion in damage in North Carolina alone. Fran hit with gusts up to 105 mph and a storm surge of approximately 16 feet. Over $1 billion in damage was reported in North Topsail Beach and Surf City and 23 people were killed.

August 26, 1998 (Hurricane Bonnie)
The landfall location of Bonnie was in southern North Carolina near Cape Fear very close to landfall of both Hurricanes Bertha and Fran in 1996. Even though a powerful storm, damage from Bonnie was much less than Fran, which was also Category 3. Winds gusted up to 100 knots and storm tides of 5 to 8 feet above normal were reported mainly in eastern beaches of Brunswick County, while a storm surge of 6 feet was reported at Pasquotank and Camden Counties in the Albemarle Sound.

September 16, 1999 (Hurricane Floyd)
Hurricane Floyd made landfall near Wilmington with category two winds of 105 to 110 mph. Rainfall totals from Floyd were as high as 15 to 20 inches over portions of eastern North Carolina; with a record of 23.45 inches of rain falling in the month of September at Wilmington, NC. This breaks the previous record of 21.12 inches set in July 1886. These rains combined with saturated ground from previous rain events, including Hurricane Dennis, to produce an inland flood disaster. There were 74 deaths in the United States, including 52 in North Carolina, due to drowning from flood waters. This makes Floyd the deadliest U.S. hurricane since Agnes in 1972.

September 18, 2003 (Hurricane Isabel)
Hurricane Isabel made landfall along the Outer Banks just north of Cape Lookout around 1 pm on September 18, 2003. The eye of the storm tracked northeast passing over eastern Halifax County. Winds gusts to near Hurricane force were recorded over Halifax County. Many locations across the Coastal Plain and even back into the Triangle received wind gusts between 50 to 70 mph late in the afternoon until early evening. Many trees were uprooted falling on vehicles and homes all across the area. Up to 6 inches of rain fell across Edgecombe, Halifax and Wilson counties resulting in flooding of several roads. Property damage was estimated to be $7.3 million.

September 1, 2006 (Tropical Storm Ernesto)
On September 1, 2006, Tropical Storm Ernesto produced flooding and high winds county wide. Emergency officials reported approximately 50 to 75 downed trees. There were also numerous reports of road flooding from rainfall amounts of 3 to 4 inches. Total crop and livestock damage was estimated to be $985,000.

Table 3, "Historic Flood Elevations," lists selected flooding sources in Pitt County with records of past stages. The table shows the historic peak, a location description, approximate stream station, the date of the historic peak, and approximate recurrence interval of the flood elevation. The approximate recurrence interval for a flood is often estimated based on an analysis of rainfall amounts from a storm and/or stream gage data.

Table 3—Historic Flood Elevations

Flooding Source/ Tropical Storm	Location Description	Approximate Stream Station	Historic Peak (Feet NAVD 88)	Date	Approximate Recurrence Interval
Chicod Creek	*	29827	20.42	September 1999	> 500-year
	*	29910	19.56	September 1999	> 500-year
Contentnea Creek (Backwater from Neuse River)	300 feet southeast of intersection of Saw Mill and Tick Bite Road	17467	27.28	September 1999	> 500-year
Contentnea Creek	Upstream side of Highway 11	33855	31.56	September 1999	> 500-year
	Upstream side of Hugo Road	73425	36.69	September 1999	> 500-year
	Grifton	U.S. Geological Survey gage station at Hookerton (upstream of Grifton)	35.85	October 7, 1964 and October 8, 1964	>100-years
	Grifton	U.S. Geological Survey gage station at Hookerton (upstream of Grifton)	*	April 26, 1978	> 50-year
	Grifton	U.S. Geological Survey gage station at Hookerton (upstream of Grifton)	*	October 6, 1929, February 17, 1948 and August 3, 1960	> 10 year
Conetoe Creek	Bethel	*	*	September 14, 1960, October 7, 1964 and August 23, 1967	15 years or greater
Fork Swamp	Downstream side of Emma Cannon Road	3744	38.10	September 1999	> 500-year

Table 3—Historic Flood Elevations

Flooding Source/ Tropical Storm	Location Description	Approximate Stream Station	Historic Peak (Feet NAVD 88)	Date	Approximate Recurrence Interval
Fork Swamp	0.43 mile upstream of Worthington Road	41705	53.39	September 1999	> 500-year
Green Mill Run	*	24006	47.44	September 1999	> 500-year
	*	15503	36.17	September 1999	> 500-year
	*	10935	28.59	September 1999	> 500-year
	*	7883	23.75	September 1999	> 500-year
	*	3882	24.15	September 1999	> 500-year
	*	between 3581 and 3882	23.05	September 1999	> 500-year
Grindle Creek	*	25248	17.95	September 1999	> 500-year
	*	23361	16.07	September 1999	> 500-year
	*	between 23361 and 24004	15.62	September 1999	> 500-year
	*	20460	16.26	September 1999	> 500-year
	*	19977	14.15	September 1999	> 500-year
Hardee Creek	*	between 6571 and 7112	15.88	September 1999	> 500-year
	*	between 12786 and 12821	29.38	September 1999	> 500-year
	*	4794	20.45	September 1999	> 500-year
Johnsons Mill Run	*	8115	30.22	September 1999	> 500-year
	*	near 5790	29.53	September 1999	> 500-year
	*	3204	28.1, 28.81, 28.88	September 1999	> 500-year

Table 3—Historic Flood Elevations

Flooding Source/ Tropical Storm	Location Description	Approximate Stream Station	Historic Peak (Feet NAVD 88)	Date	Approximate Recurrence Interval
Juniper Branch	*	33491	21.26	September 1999	> 500-year
	*	between 12308 and 13006	32.63	September 1999	> 500-year
Little Contentnea Creek	Farmville	U.S. Geological Survey gage station 5.5 miles outside of Farmville	43.85	January 29, 1976	5-10-year
	Farmville	U.S. Geological Survey gage station 5.5 miles outside of Farmville	48.85	October 5 and 6, 1964	>100-year
	Farmville	U.S. Geological Survey gage station 5.5 miles outside of Farmville	45.85	September 13, 1960	>10-year
North Fork Green Mill Run	*	723	58.86	September 1999	> 500-year
Swift Creek	Upstream side of Country Club Drive	197387	43.65	September 1999	> 500-year
	Upstream side of Hines Drive	204183	46.75	September 1999	> 500-year
	Upstream side of Highway 903	223971	53.70	September 1999	> 500-year
Tar River	*	182350	39.36	September 1999	> 500-year
	*	148211	32.7	September 1999	> 500-year
	*	124995	28.81	September 1999	> 500-year
	*	109514	27.35	September 1999	> 500-year

Table 3—Historic Flood Elevations

Flooding Source/ Tropical Storm	Location Description	Approximate Stream Station	Historic Peak (Feet NAVD 88)	Date	Approximate Recurrence Interval
Tar River	*	104600	26.35	September 1999	> 500-year
	*	99300	25.38	September 1999	> 500-year
	*	66300	20.18	September 1999	> 500-year
	*	31359	15.02	September 1999	> 500-year
	Greenville	National Weather Service gage at Greenville *	20.98	July 28, 1919	50-100-years
	Greenville	*	15.28	March 23, 1975	*
	Greenville	National Weather Service gage at Greenville	13.05	February 10, 1973	*

*Data Not Available

4.4 Flood Protection Measures

Flood protection measures may be structural (such as levees, dams, and reservoirs) or non-structural (such as land-use management ordinances, policies, or practices).

To provide safe flood protection and be mapped as such, FEMA specifies that all levees must: have a minimum of three feet of freeboard against the 1% annual chance flood event; be equipped with closure devices at every opening; be constructed with embankments and foundations that are certified not to fail due to erosion, seepage, or instability; and be certified against future loss of freeboard due to settling. For additional requirements, please refer to 44 CFR 65.10.

Table 4, "Flood Protection Measures," lists the flood protection measures undertaken to mitigate flood damage in Pitt County.

Table 4—Flood Protection Measures

Type of Measure	Description of Measure or Location and Description of Structure	Levee Compliant with 44 CFR 65.10?
Channel improvements	Conetoe Creek and Grindle Creek	N/A

Table 4—Flood Protection Measures

Type of Measure	Description of Measure or Location and Description of Structure	Levee Compliant with 44 CFR 65.10?
Clearing and snagging project	Tar River between Hardee Creek and Rocky Mount	N/A
Channel improvements and stream channelization	Upper Green Mill Run, Parkers Creek, and their tributaries, Little Contentnea Creek Watershed	N/A

N/A-Not Applicable

4.5 Scope of Study

For this map maintenance revision, a scoping meeting was held in Pitt County to present the results of initial research to the county and communities within the county and to discuss their floodplain mapping needs. The county and communities were asked to provide input on proposed study priorities and analysis methods. These meetings resulted in the identification of flooding sources having a floodplain mapping need. Map Maintenance Plans were developed based on the results of the scoping meetings and were both mailed to each jurisdiction within Edgecombe County and posted to the State's website at www.ncfloodmaps.com.

For the countywide FIS Report, issued on January 2, 2004, initial scoping meetings were held in Pitt County to present the results of initial research to the county and communities within the county and to discuss their flood mapping needs. The county and communities were asked to provide input on proposed study priorities and analysis methods. Those meetings resulted in the identification of flooding sources having a flood mapping need. Draft basin plans were developed based on the results of the initial scoping meetings. Final scoping meetings were held by the State and FEMA to provide counties and communities an overview of the draft basin plans, including the proposed scope and schedule for the project, and to provide an opportunity for additional county and community input. After the final scoping meeting was held, the Final Basin Plans were produced.

This FIS covers the geographic area of Pitt County, North Carolina, and all jurisdictions therein. The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction. Limits of detailed study are indicated on the Flood Profiles and/or the FIRM.

Table 5, "Scope of Revision: Revised or Newly Studied," lists flooding sources that were revised or newly studied by detailed methods for this revision.

Table 5—Scope of Revision: Revised or Newly Studied

Source	Riverine Sources		Affected Communities
	From	To	
Contentnea Creek South Tributary	The confluence with Contentnea Creek	Approximately 0.7 mile upstream of McCrae Street	Pitt County (Unincorporated Areas), Town of Grifton
Eagle Swamp	The confluence with Contentnea Creek	Approximately 300 feet upstream of Skeeter Pond Road	Town of Grifton
Little Contentnea Creek (Downstream)	The confluence with Contentnea Creek	Approximately 1.0 mile upstream of Pocosin Road (SR 1125)	Pitt County (Unincorporated Areas)
Little Contentnea Creek (Upstream)	Approximately 850 feet downstream of Chinquapin Road (SR 1218)	The Pitt/Wilson County boundary	Pitt County (Unincorporated Areas), Town of Farmville
Middle Swamp	The confluence with Little Contentnea Creek	Approximately 0.6 mile upstream of U.S. Highway 258	Pitt County (Unincorporated Areas), Town of Farmville
Pinelog Branch	The confluence with Little Contentnea Creek	Approximately 1,510 feet upstream of Fred Drive (SR 1266)	Pitt County (Unincorporated Areas)
Pinelog Branch North Tributary	The confluence with Pinelog Branch	Approximately 0.6 mile upstream of the confluence with Pinelog Branch	Pitt County (Unincorporated Areas)
Pinelog Branch South Tributary	The confluence with Pinelog Branch	Approximately 0.5 mile upstream of Stantonsburg Road (SR 1200)	Pitt County (Unincorporated Areas)

Table 6, "Scope of Revision: Limited Detailed" lists flooding sources that were studied by approximate methods in previous FISs but were revised using limited detailed methods for this revision.

Table 6— Scope of Revision: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Black Swamp[1]	The confluence with Little Contentnea Creek	Approximately 0.5 mile upstream of the confluence with Jacob Branch	Pitt County (Unincorporated Areas), Town of Farmville

Table 6— Scope of Revision: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Jacob Creek[1]	The confluence with Black Swamp	Approximately 0.5 mile upstream of the confluence with Black Swamp	Pitt County (Unincorporated Areas), Town of Farmville
Little Contentnea Creek Tributary 1[1]	The confluence with Little Contentnea Creek	Approximately 0.8 mile upstream of NC Highway 903	Pitt County (Unincorporated Areas)
Ward Run[1]	The confluence with Little Contentnea Creek	Approximately 0.4 mile upstream of the confluence with Little Contentnea Creek	Pitt County (Unincorporated Areas)

[1] Revised to reflect backwater effects from new detailed study

Table 7, "Flooding Sources Studied by Detailed Methods: Revised or Newly Studied," lists flooding sources that were revised or newly studied by detailed methods for previous FISs but were not part of this revision. Their effective analysis remains valid.

Table 7—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communities
	From	To	
Bates Branch	Approximately 425 feet downstream of Tucker Road	Approximately 100 feet upstream of Tucker Road	Village of Simpson
Bells Branch	Confluence with Hardee Creek	Approximately 2,000 feet upstream of the confluence	City of Greenville Pitt County (Unincorporated Areas)
Chicod Creek	Approximately 0.6 mile upstream of State Route 33	Approximately 1.5 miles upstream of Mobley's Bridge Road	Pitt County (Unincorporated Areas)
Contentnea Creek	The confluence with Neuse River	The Greene/Pitt County boundary	Town of Grifton Pitt County (Unincorporated Areas)
Fork Swamp	The confluence with Swift Creek	Approximately 0.4 mile upstream of Fire Tower Road	City of Greenville Town of Winterville Pitt County (Unincorporated Areas)

Table 7—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communities
	From	To	
Fork Swamp Tributary 1	The confluence with Fork Swamp	Approximately 0.7 mile upstream of Old Tar Road	Pitt County (Unincorporated Areas) City of Greenville Town of Winterville
Fork Swamp Tributary 2	The confluence with Fork Swamp	Approximately 0.8 mile upstream of confluence with Fork Swamp	Pitt County (Unincorporated Areas) City of Greenville
Fornes Run	At the confluence with Green Mill Run	Approximately 1,850 feet upstream of the confluence with Green Mill Run	City of Greenville
Green Mill Run	The confluence with Tar River	Approximately 270 feet upstream of Allen Road	City of Greenville Pitt County (Unincorporated Areas)
Grindle Creek	The confluence with Tar River	Approximately 500 feet downstream of the confluence of Grindle Creek Tributary	Pitt County (Unincorporated Areas)
Hardee Creek	The confluence with Tar River	Approximately 1.0 mile upstream of Herman Garris Road	Pitt County (Unincorporated Areas) City of Greenville
Hardee Creek Tributary	The confluence with Hardee Creek	Approximately 425 feet upstream of Joseph Street	City or Greenville
Johnsons Mill Run	The confluence with Tar River	Approximately 0.6 mile upstream of Staton House Road	City of Greenville Pitt County (Unincorporated Areas)
Juniper Branch	The confluence with Chicod Creek	Approximately 0.46 mile upstream of Ivy Road	Pitt County (Unincorporated Areas)
Neuse River	The Pitt/Craven County boundary	The Pitt/Lenoir/Craven County boundary	Pitt County (Unincorporated Areas)
North Fork Green Mill Run	The confluence with Green Mill Run	Approximately 1,100 feet upstream of Spring Forest Road	City of Greenville Pitt County (Unincorporated Areas)
Reedy Branch	The confluence with Green Mill Run	At West 10th Street	City of Greenville

Table 7—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communities
	From	To	
Swift Creek	Approximately 0.3 mile downstream of the confluence of Fork Swamp	Approximately 0.4 mile downstream of Forlines Road (SR 1126)	City of Greenville Town of Winterville Town of Ayden Pitt County (Unincorporated Areas)
Tar River	The Pitt/Beaufort County Boundary	The Pitt/Edgecombe County Boundary	City of Greenville Pitt County (Unincorporated Areas) Town of Falkland
Tranters Creek	The confluence with Tar River	The confluence with Maple Branch	Pitt County (Unincorporated Areas)

Table 8, "Flooding Sources Studied by Detailed Methods: Redelineated," contains a list of flooding sources that were studied by detailed methods for previous FISs, but were only partially revised in the current study. Their effective analyses remain valid; however, their floodplain delineations have been revised on the current FIRM.

Table 8—Flooding Sources Studied by Detailed Methods: Redelineated

Source	Riverine Sources		Affected Communities
	From	To	
Baldwin Swamp	The confluence with Moyes Run - Cannon Swamp	Approximately 2.8 miles upstream of Moyes Run – Cannon Swamp Confluence	City of Greenville Pitt County (Unincorporated Areas)
Baldwin Swamp-North Tributary	The confluence with Baldwin Swamp	Approximately 0.86 mile upstream of Baldwin Swamp Confluence	Pitt County (Unincorporated Areas)
Bates Branch	The confluence with Juniper Branch	Approximately 100 feet upstream of Tucker Road	Pitt County (Unincorporated Areas)
Bells Branch	Approximately 2,000 feet upstream of the confluence	York Road	City of Greenville
Chicod Creek	The confluence with Tar River	Approximately 0.6 mile upstream of South Grimesland Bridge Road	Pitt County (Unincorporated Areas)

Table 8—Flooding Sources Studied by Detailed Methods: Redelineated

Source	Riverine Sources		Affected Communities
	From	To	
Fornes Run	Approximately 1,850 feet upstream of the confluence with Green Mill Run	Greenville Boulevard	City of Greenville
Indian Well Swamp	Approximately 0.8 mile upstream of confluence of Indian Well Swamp Tributary	Approximately 0.6 mile upstream of Ivy Road	Pitt County (Unincorporated Areas)
Lateral No. 1	The confluence with Parkers Creek	U.S. Highway 13	City of Greenville Pitt County (Unincorporated Areas)
Lateral No. 2	The confluence with Parkers Creek	U.S. Highway 13	City of Greenville
Meeting House Branch	The confluence with Bells Branch	King George Road	City of Greenville
Moyes Run - Cannon Swamp	Approximately 150 feet downstream of Old Pactolus Road	Approximately 0.6 mile upstream of Old Pactolus Road	Pitt County (Unincorporated Areas)
Parkers Creek	The confluence with Tar River	Approximately 800 feet upstream of confluence of Lateral No. 2	City of Greenville Pitt County (Unincorporated Areas)
Reedy Branch	West 10th Street	U.S. Highway 264 Alternate	City of Greenville

Table 9, "Flooding Sources Studied by Detailed Methods: Limited Detailed" lists flooding sources that studied using limited detailed methods for previous FISs but were not part of this revision. Their effective analysis remains valid.

Table 9—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Back Swamp	Confluence with Swift Creek	Approximately 0.3 mile upstream of Hanrahan Road	Pitt County (Unincorporated Areas) Town of Grifton Town of Ayden

Table 9—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Black Swamp	Approximately 0.5 mile upstream of the confluence of Jacob Branch	The confluence of Langs Mill Run	Town of Farmville Pitt County (Unincorporated Areas)
Briery Swamp	The confluence with Tranters Creek	Approximately 0.5 mile upstream of Staton Mill Rd	Pitt County (Unincorporated Areas)
Briery Swamp Tributary	The confluence with Briery Swamp	Approximately 0.77 mile upstream of State Hwy 903	Pitt County (Unincorporated Areas)
Buckleberry Canal	The Pitt/Craven County boundary	Approximately 0.9 mile upstream of Rock Road	Pitt County (Unincorporated Areas)
Cheeks Mill Run	Approximately 0.5 mile upstream of the confluence with the Tar River	A backwater area from a point approximately 1.8 miles upstream of the confluence with the Tar River	Pitt County (Unincorporated Areas)
Chicod Creek	Approximately 1.5 miles upstream of Mobley's Bridge Road	The Pitt/Beaufort County boundary	Pitt County (Unincorporated Areas)
Clayroot Swamp	The confluence with Swift Creek	Approximately 1,300 feet upstream of V.O.A. Site B Road	Pitt County (Unincorporated Areas)
Clayroot Swamp Tributary 1	The confluence with Clayroot Swamp	Approximately 325 feet downstream of Johnny Haddock Rd crossing	Pitt County (Unincorporated Areas)
Conetoe Creek	The confluence with the Tar River	The confluence of Crisp Creek	Pitt County (Unincorporated Areas)
Cow Swamp	The confluence with Chicod Creek	Approximately 2.6 miles upstream of Black Jack Simpson Road	Pitt County (Unincorporated Areas)
Creeping Swamp	The confluence with Clayroot Swamp	The Pitt/Beaufort County boundary	Pitt County (Unincorporated Areas)
Crisp Creek	The confluence with Conetoe Creek	Approximately 0.5 mile downstream of U.S. Highway 64	Town of Bethel Pitt County (Unincorporated Areas)
Cross Swamp	The confluence with Cow Swamp	Approximately 0.6 mile upstream Black Jack-Grimesland Road	Pitt County (Unincorporated Areas)
Flat Swamp	The confluence with Tranters Creek	Approximately 0.4 mile upstream of Flat Swamp Church Road	Pitt County (Unincorporated Areas)

Table 9—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Grindle Creek	Confluence of Grindle Creek Tributary	Approximately 0.24 mile upstream of State Road 1431	Pitt County (Unincorporated Areas)
Grindle Creek Tributary	The confluence with Grindle Creek	Approximately 2.0 miles upstream of confluence with Grindle Creek	Pitt County (Unincorporated Areas)
Gum Swamp	The confluence with Swift Creek	Approximately 1.1 miles upstream of confluence with Swift Creek	City of Greenville Pitt County (Unincorporated Areas)
Harris Mill Run	The confluence with Tar River	Approximately 0.4 mile upstream of U.S. Highway 264	Pitt County (Unincorporated Areas), City of Greenville
Horse Swamp	Confluence with Swift Creek	Approximately 0.3 mile upstream of Jolly Road	Pitt County (Unincorporated Areas)
Hunting Run	The confluence with Grindle Creek	Approximately 1.5 miles upstream of Grindle Creek	Pitt County (Unincorporated Areas)
Indian Well Swamp	The confluence with Clayroot Swamp	Approximately 0.4 mile upstream of Grover Hardee Road	Pitt County (Unincorporated Areas)
Indian Well Swamp Tributary	The confluence with Indian Well Swamp	Approximately 0.2 mile upstream of Stanley Road	Pitt County (Unincorporated Areas)
Island Swamp	The confluence with Chicod Creek	Approximately 0.9 mile upstream of South Grimesland Bridge Road	Pitt County (Unincorporated Areas)
Jacob Branch	Approximately 0.5 mile upstream of the confluence with Black Swamp	Approximately 0.4 mile upstream of Hog Market Road	Pitt County (Unincorporated Areas)
Johnsons Mill Run Tributary	The confluence with Johnsons Mill Run	Approximately 2.3 miles upstream of confluence with Johnsons Mill Run	Pitt County (Unincorporated Areas) City of Greenville
Kitten Creek	The confluence with Otter Creek	Approximately 1.7 mile upstream of Dilda Church Rd	Pitt County (Unincorporated Areas), Town of Fountain

Table 9—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Langs Mill Run	The confluence with Black Swamp	At the Pitt/Edgecombe County Boundary	Town of Farmville Town of Fountain Pitt County (Unincorporated Areas)
Lawrence Run	The confluence with Tyson Creek	Approximately 1.8 miles upstream of State Hwy 121	Pitt County (Unincorporated Areas)
Little Contentnea Creek	Approximately 1.0 mile upstream of Pocosin Road (SR 1125)	Approximately 850 feet downstream of Chinquapin Road (SR 1218)	Pitt County (Unincorporated Areas)
Little Contentnea Creek Tributary 1	Approximately 0.8 mile upstream of NC Highway 903	Approximately 0.30 mile upstream of NC State Route 102	Pitt County (Unincorporated Areas)
Little Contentnea Creek Tributary 2	The confluence with Little Contentnea Creek	Approximately 0.6 mile upstream of Nash Joyner Road	Pitt County (Unincorporated Areas)
Little Contentnea Creek Tributary 3	The confluence with Little Contentnea Creek Tributary 2	Approximately 0.7 mile upstream of confluence with Little Contentnea Creek Tributary 2	Pitt County (Unincorporated Areas)
Meadow Branch	The confluence with Briery Swamp	Approximately 0.7 mile upstream of Sheppard Mill Road	Pitt County (Unincorporated Areas)
Middle Swamp	Approximately 0.6 mile upstream of U.S. Highway 258	Approximately 220 feet upstream of U.S. Highway 264	Town of Farmville Pitt County (Unincorporated Areas)
Mill Branch	The confluence with Whichard Branch	Approximately 0.4 mile upstream of Staton Mill Road	Pitt County (Unincorporated Areas)
Otter Creek	The confluence with Tar River	Approximately 0.8 mile downstream of Edgewood Church Road	Town of Falkland Pitt County (Unincorporated Areas)
Otter Creek Tributary	The confluence with Otter Creek	Approximately 200 feet upstream of the confluence with Otter Creek	Pitt County (Unincorporated Areas)
Parkers Creek	Approximately 800 feet upstream confluence of Lateral No. 2	Approximately 800 feet upstream of Staton Road	City of Greenville Pitt County (Unincorporated Areas)

Table 9—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Pea Branch	The confluence with Tranters Creek	Approximately 0.1 mile upstream of Satterwaite Road	Pitt County (Unincorporated Areas)
Poley Branch	The confluence with Tranters Creek	Approximately 0.4 mile upstream of Sheppard Mill Road	Pitt County (Unincorporated Areas)
Swift Creek	The Pitt/Craven County boundary	Approximately 0.3 mile downstream of the confluence of Fork Swamp	Pitt County (Unincorporated Areas) City of Greenville Town of Ayden Town of Winterville
Swift Creek Tributary 1	The confluence with Swift Creek	Approximately 500 feet upstream of Jolly Rd	Pitt County (Unincorporated Areas) Town of Ayden
Swift Creek Tributary 2	The confluence with Swift Creek	Approximately 0.6 mile upstream of Red Forbes Rd	Pitt County (Unincorporated Areas) Town of Winterville
Thomas Canal	The confluence with Conetoe Creek	Approximately 900 feet upstream of Bowers Road	Town of Bethel Pitt County (Unincorporated Areas)
Thorofare Swamp	The confluence with Clayroot Swamp	Approximately 1.3 miles upstream of confluence with Clayroot Swamp	Pitt County (Unincorporated Areas)
Tranters Creek	Approximately 2.5 miles upstream of confluence with Tar River	Approximately 1.3 miles upstream of confluence with Flat Swamp	Pitt County (Unincorporated Areas)
Tributary to Little Contentnea Creek Tributary 1	The confluence with Little Contentnea Creek Tributary 1	Approximately 0.5 mile upstream of confluence with Little Contentnea Creek Tributary 1	Pitt County (Unincorporated Areas)
Tyson Creek	The confluence with Tar River	Approximately 1.3 miles upstream of Seven Pines Road	Pitt County (Unincorporated Areas), Town of Falkland
Ward Run	Approximately 0.4 mile upstream of the confluence with Little Contentnea Creek	Pitt/Wilson County boundary	Pitt County (Unincorporated Areas)
Whichard Branch	The confluence with Grindle Creek	Approximately 0.8 mile upstream of David Nobles Road	Pitt County (Unincorporated Areas)

Grindle Pocosin is the only area studied by approximate methods within the county. Approximate analyses were used to study those area having a low development potential or minimal flood hazards. The scope and methods of study were proposed to, and agreed upon by, FEMA and Pitt County.

For this revision, some stream names have changed. Below, Table 10, "Stream Name Changes" describes those name changes in detail.

Table 10—Stream Name Changes

Community	Old Name	New Name
Pitt County (Unincorporated Areas)	Unnamed Tributary to Hardee Creek	Hardee Creek Tributary
Pitt County (Unincorporated Areas)	A portion of Juniper Branch	Bates Branch
Pitt County (Unincorporated Areas)	Moves Run-Cannon Swamp	Moyes Run-Cannon Swamp
Pitt County (Unincorporated Areas)	Horsepen Swamp	Horse Swamp

Section 5.0 – Engineering Methods

For the flooding sources studied in detail in the county, standard hydrologic and hydraulic methods were used to determine the flood hazard data required for this FIS.

5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationship for each flooding source studied in detail affecting the county.

Analyses for January 2, 2004 Countywide FIS

The hydrologic analyses for the Tar Pamlico River basin, except for floodway sources with stream gages, were performed using the urban and rural regression equations developed by the USGS. The urban equations were published in "Estimation of Flood-Frequency Characteristics of Small Urban Streams in North Carolina Water Resources Investigations Report 99-4114." Regression equations are mathematical formulas that relate the flow in the stream to physical factors such as the area of the basin and the percentage of the surface that is impervious (paved). Regression equations are developed by fitting a line through the center of the points on a graph that compares flood flows to basin area. The results reflect the "statistical average" of the data. If a gage station is located on the stream being studied, data from that station can be used to adjust the regression results to more accurately estimate the flood flow. There are three separate regional regression equations that cover North Carolina. Pitt County is located in the hydrologic region known as the Coastal Plain region. The USGS regression equation was used to estimate the 1% annual chance flow for the streams in Pitt County. Analyses of historical high-water marks obtained from interviews of county residents were used to confirm the accuracy of the regression equation estimates.

Discharge estimates for study reaches on the Tar River were computed by transferring the log-Pearson III discharge estimates at USGS gages 02082585 (Tar River at NC 97 at Rocky Mount) and 02083500 (Tar River at Tarboro) to points upstream and downstream of the gages. Discharges at points between the two gages were computed by linear interpolation using the relation between the logs of the selected recurrence interval discharge at the gage and the log of the drainage area. Discharges at points downstream of 02083500 were computed by linearly extrapolating the relation between the logs of discharge and drainage area.

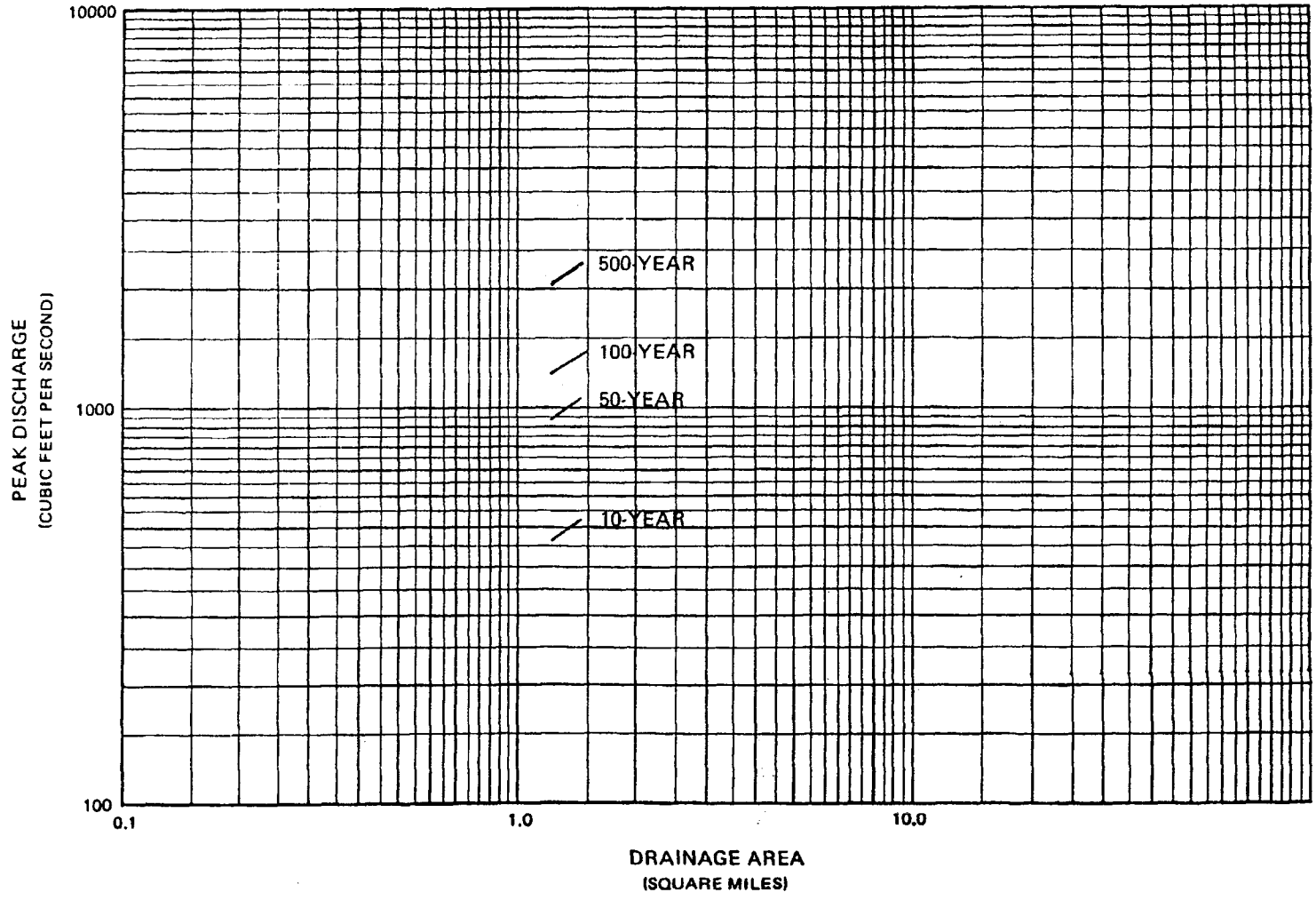

FIGURE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

BELLS BRANCH

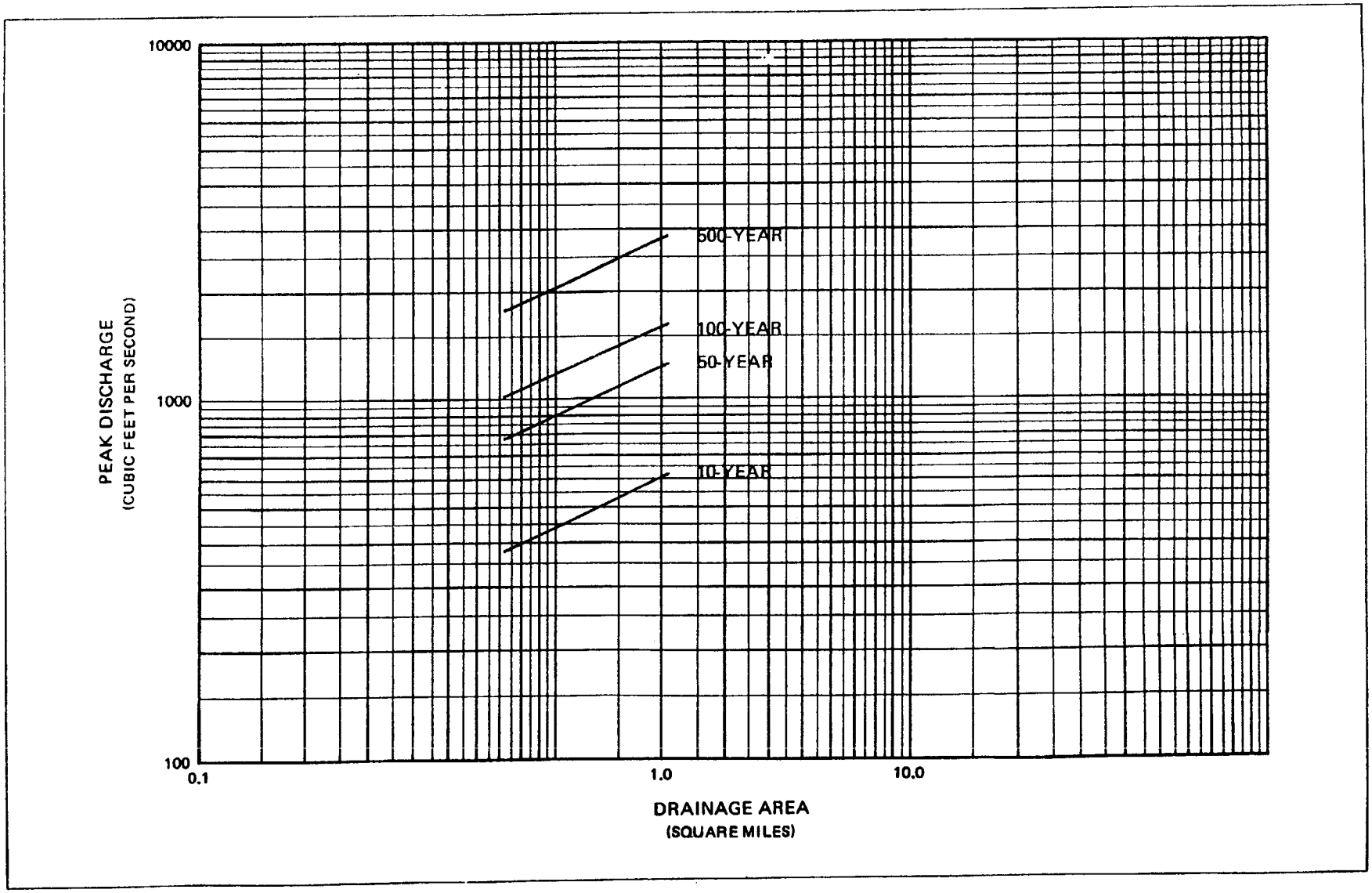

FIGURE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

FORNES RUN

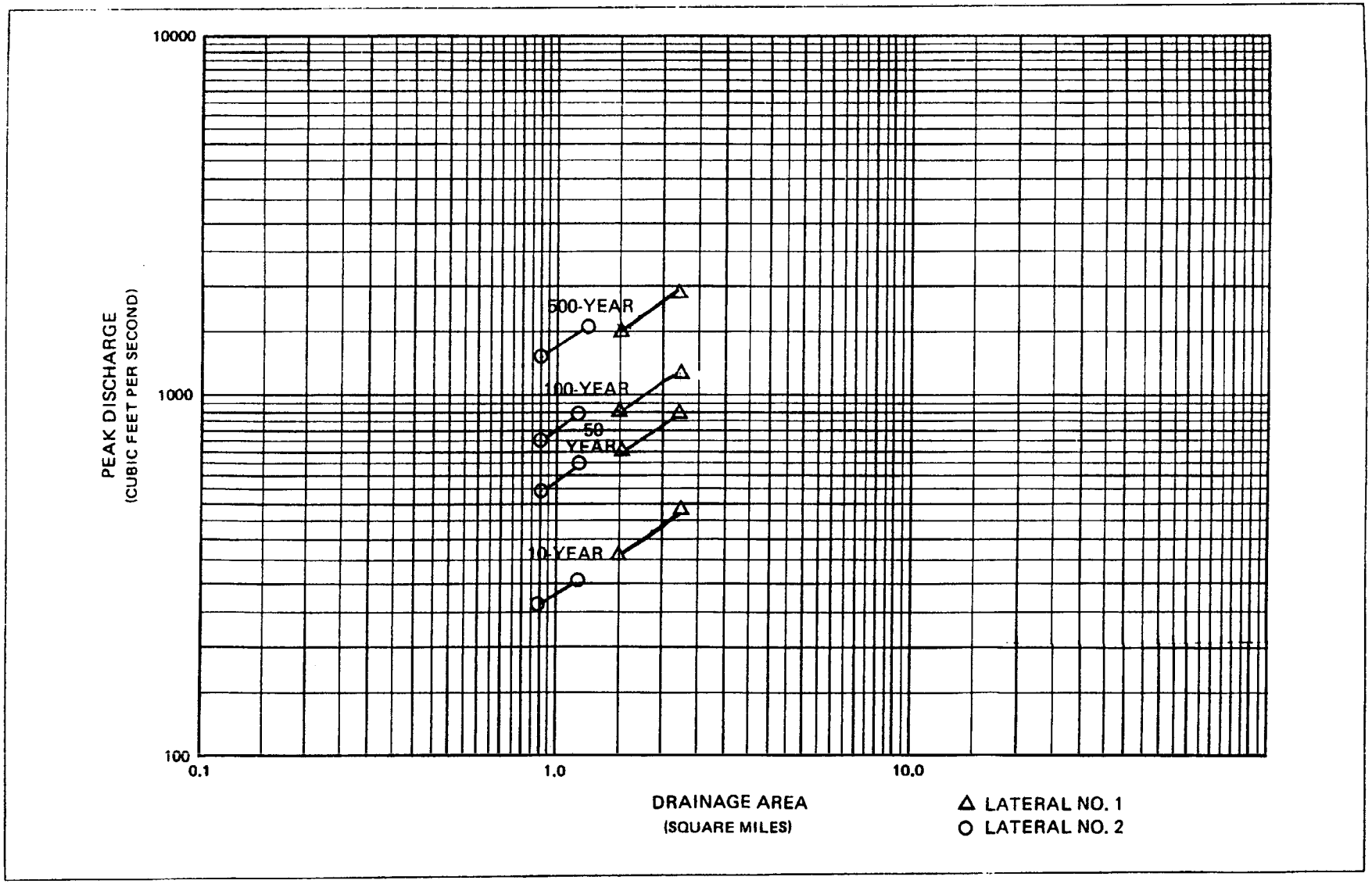

FIGURE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

LATERAL NO. 1 - LATERAL NO. 2

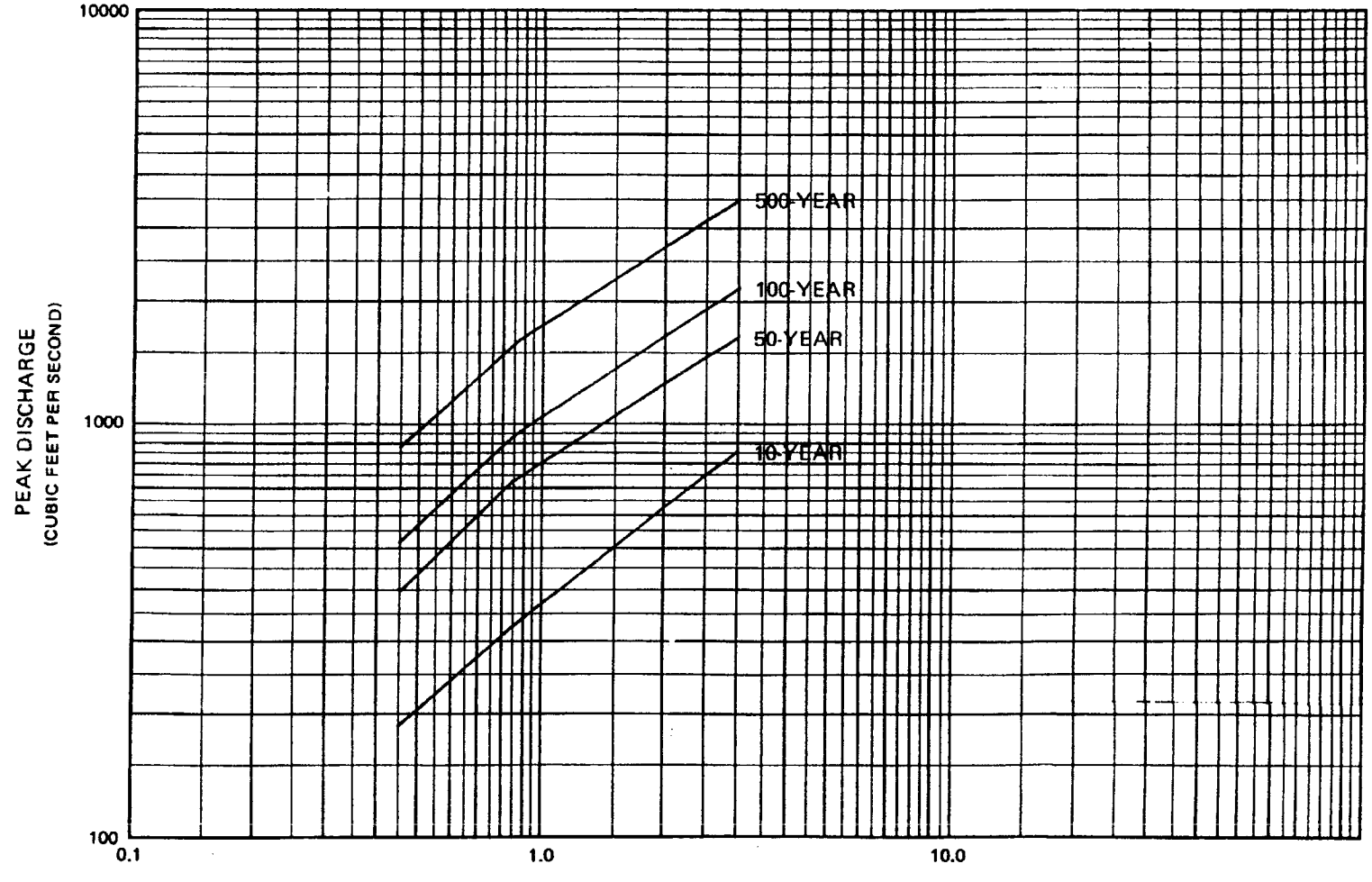

FIGURE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

MEETING HOUSE BRANCH

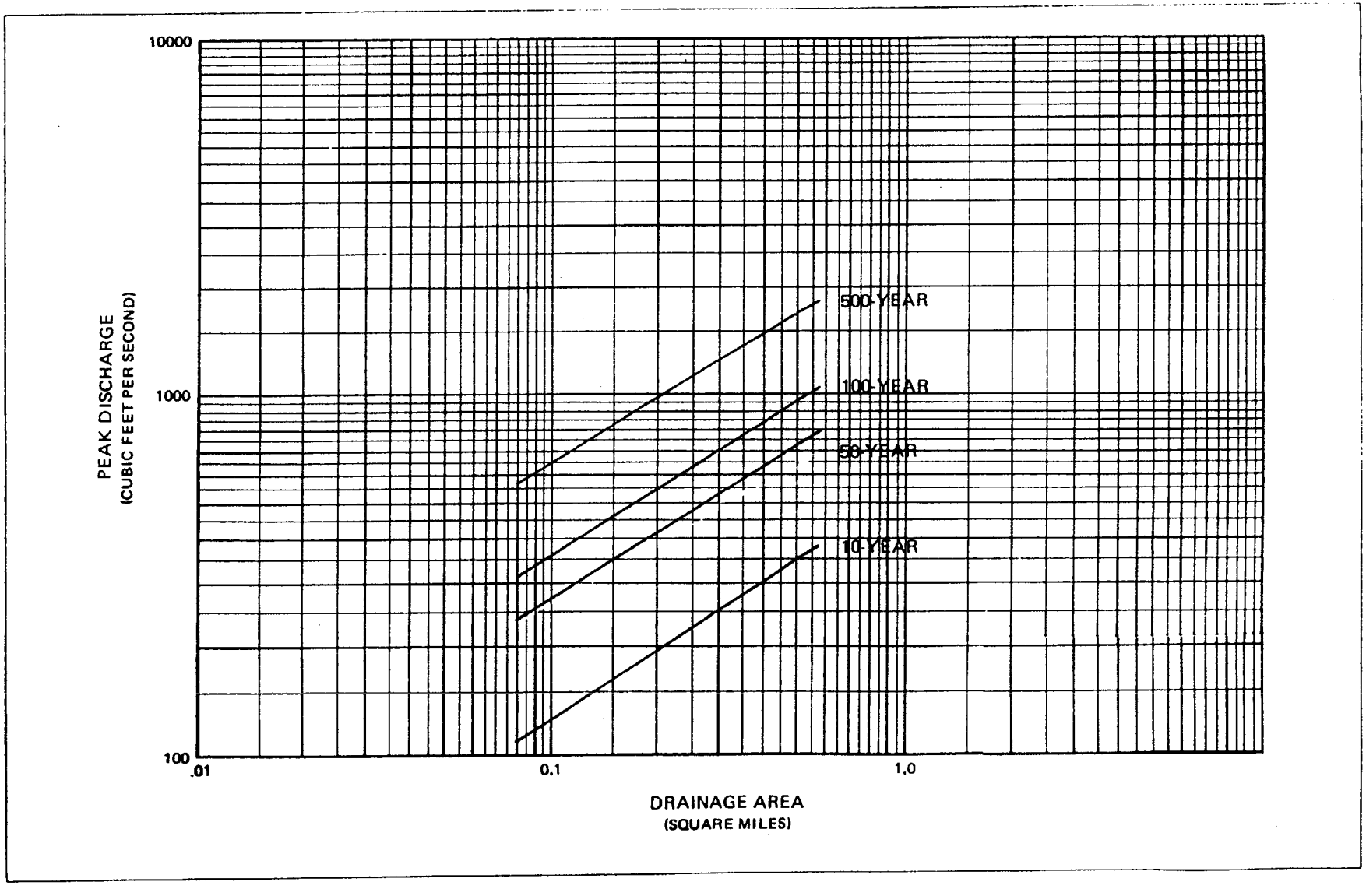

FIGURE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

REEDY BRANCH

Revised Analyses for Countywide FIS

The updated streams in this county were studied as two separate projects under two separate contracts. The first project covered all or portions of the following streams: Contentnea Creek South Tributaryand Little Contentnea Creek,. The second project covered all or parts of Little Contentnea Creek, Middle Swamp, Pinelog Branch, Pinelog Branch North Tributary, and Pinelog Branch South Tributary

In the time between the two projects, the U.S. Geological Survey issued an update to their rural regression equations. Therefore, the hydrologic methods differed between the two projects in cases where the rural regression equations were used to calculate flood discharges.

The hydrologic approaches used for the first project were the U.S. Geological Survey (USGS) rural and urban regression equations for North Carolina described in USGS Water Resource Investigation (WRI) report 96-4084 (USGS, 1996) and USGS Water Resource Investigation (WRI) report 01-4207 (USGS, 2001). For Pitt County, the Coastal Plain regression equations were used for all streams.

The hydrologic approaches used for the second project were U.S. Geological Survey Scientific Investigations Report 2009-5158 (USGS, 2009) and USGS Water Resource Investigation (WRI) report 01-4207 (USGS, 2001). For the streams using rural equations, Region 4 equations were used. The Coastal Plain regression equations were used for all urban streams.

The basin delineations and drainage areas were determined using a 50' x 50' grid size digital elevation model (DEM) generated from the Light Detection and Ranging (LIDAR) data collected and processed as part of the study. Drainage areas developed using the 50'x 50' DEM often differ from published values at USGS gage locations. Such differences are usually the result of the difference in resolution of the base terrain data used to delineate drainage boundaries. In North Carolina, published USGS drainage areas have usually been determined by manual delineation using 1:24,000 or 1:62,500 scale topographic maps. Differences between computed and published drainage areas are less than 10% for all USGS gages considered in this report. In order to maintain consistency drainage areas computed from the 50'x 50' DEM were used in all analyses in this study.

Many of the watersheds drained by studied streams in Pitt County contained sufficient urbanization to require application of the USGS North Carolina urban equations. Percents imperviousness for these basins was estimated using a combination of digital orthophotographic data and impervious cover data downloaded from the National Land Cover Database 2001 (USGS, 2001).

There are 2 active or discontinued USGS stream gages on streams included in this study. A flood frequency analysis for Little Contentnea Creek near Farmville (02091700) was performed according to Bulletin 17B guidelines (USGS, 1981). The period of record for 02091700, however, does not include recent large flooding events (Hurricanes Fran and Floyd). Additionally, a comparison of gage discharge estimates to discharge estimates computed using the USGS regression equations at the gage location shows the gage discharge estimates to be less than or equal to the regression equation estimates. For these reasons, the regression equation discharges for Little Contentnea Creek were not adjusted using the gage estimates from 02091700. The subsequent hydraulic modeling was performed using unadjusted regression equation estimates.

A new flood frequency analysis was performed for the stream gage on Chicod Creek (02084160). The station skew option was used for this analysis, because of channelization that occurred on the stream in 1982.

A summary of the drainage area-peak discharge relationships for the flooding sources studied by detailed methods is shown in Table 11, "Summary of Discharges."

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Back Swamp	At the confluence with Swift Creek	8.02	*	*	1,521	*
	Just upstream of confluence of Back Swamp Tributary	3.60	*	*	1,005	*
	Approximately 0.38 mile downstream of Ernest Taylor Road	2.68	*	*	807	*
Back Swamp	Approximately 0.13 mile upstream of Ernest Taylor Road	1.73	*	*	629	*
	Approximately 0.18 mile downstream of Hanrahan Road	0.99	*	*	454	*
Baldwin Swamp	At the confluence with Moyes Run-Cannon Swamp	2.16	646	1,303	1,738	2,920
	At Sunny Side Road	0.15	131	301	429	790
Baldwin Swamp-North Tributary	At the confluence with Baldwin Swamp	0.25	182	370	495	836
Bates Branch	At Black Jack – Simpson Road	7.55	1,355	2,585	3,340	5,500
Black Swamp	Just upstream of confluence of Jacob Branch	11.15	*	*	1,830	*
Briery Swamp	At the confluence with Tranters Creek	23.37	*	*	2,790	*
	At the confluence with Briery Swamp Tributary	9.32	*	*	1,660	*
	Approximately 0.6 mile upstream of Oakley Road	2.3	*	*	750	*
Briery Swamp Tributary	At the confluence with Briery Swamp	2.84	*	*	1,310	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Buckleberry Canal	Approximately 1.0 mile upstream of Pitt/Craven County boundary	13.28	*	*	2,020	*
	Approximately 0.26 mile downstream of Cletus Hart Road	12.10	*	*	1,920	*
	Approximately 0.35 mile downstream of Cletus Hart Road	5.17	*	*	1,190	*
	Approximately 0.5 mile upstream of Rock Road	4.24	*	*	1,060	*
Chicod Creek	Approximately 0.65 mile upstream of Cora Street	54.83	4,270	5,810	6,350	7,390
	At the confluence with Cow Swamp	22.90	*	*	2,750	*
	Boyds Road	15.73	*	*	2,230	*
	At the confluence with Island Swamp	7.93	*	*	1,510	
Clayroot Swamp	Just upstream of confluence with Swift Creek	80.17	*	*	5,600	*
	Approximately 0.2 mile downstream of confluence of Creeping Swamp	78.17	*	*	5,520	*
Clayroot Swamp	Just upstream of confluence with Swift Creek	80.17	*	*	5,600	*
	Approximately 0.2 mile downstream of confluence of Creeping Swamp	78.17	*	*	5,520	*
	Just upstream of confluence of Creeping Swamp	45.58	*	*	4,070	*
	Approximately 0.2 mile downstream of Cal Jones Road	43.58	*	*	3,960	*
	Approximately 1.4 miles upstream of Cal Jones Road	40.16	*	*	3,780	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 0.8 mile downstream of Highway 102	37.77	*	*	3,660	*
	Just upstream of Highway 102	36.57	*	*	3,590	*
	Approximately 0.4 mile upstream of Highway 102	34.84	*	*	3,490	*
	Approximately 0.5 mile upstream of Highway 102	32.77	*	*	3,370	*
Clayroot Swamp	Approximately 0.5 mile downstream of confluence of Indian Well Swamp	29.18	*	*	3,160	*
	Just upstream of confluence of Indian Well Swamp	12.12	*	*	1,920	*
	Approximately 0.6 mile downstream of confluence of Clayroot Swamp Tributary 1	11.62	*	*	1,880	*
	Just upstream of confluence of Clayroot Swamp Tributary 1	8.56	*	*	1,580	*
	Approximately 0.1 mile upstream of Black Jack-Simpson Road	8.27	*	*	1,550	*
	Approximately 0.4 mile downstream of confluence of Thorofare Swamp	6.28	*	*	1,320	*
	Just upstream of confluence of Thorofare Swamp	3.84	*	*	1,000	*
	Approximately 0.4 mile upstream of confluence of Thorofare Swamp	3.68	*	*	978	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 0.7 mile upstream of confluence of Thorofare Swamp	1.38	*	*	561	*
	Approximately 0.2 mile downstream of V.O.A. Site B Road	1.17	*	*	512	*
	Just upstream of V.O.A. Site B Road	0.29	*	*	234	*
Clayroot Swamp Tributary 1	Just upstream of confluence with Clayroot Swamp	2.45	*	*	778	*
Clayroot Swamp Tributary 1	Approximately 0.4 mile upstream of confluence with Clayroot Swamp	1.26	*	*	534	*
Conetoe Creek	At the confluence with Tar River	102.85	*	*	6,320	*
	At Penny Hill Road	73.52	*	*	4,820	*
	At the confluence with NC 42 Canal	58.45	*	*	4,420	*
	At the confluence with Crisp Creek	30.06	*	*	3,210	*
Contentnea Creek	At the confluence with Neuse River	1,007.2	12,800	*	23,200	32,300
	At the confluence of Eagle Swamp	994.8	12,600	*	23,000	32,100
	Approximately 1.1 miles downstream of confluence of Little Contentnea Creek	980.0	12,400	19,400	22,800	31,900
Contentnea Creek South Tributary	The confluence with Contentnea Creek	1.4	229	442	561	918
	Approximately 600 feet downstream of South Street	1.2	209	405	515	847
	Approximately 130 feet upstream of McCrae Street	1.0	190	371	473	781
Cow Swamp	At the confluence with Chicod Creek	17.61	*	*	2,370	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	At the confluence with Cross Swamp	7.18	*	*	1,430	*
Creeping Swamp	Just upstream of confluence with Clayroot Swamp	31.99	*	*	3,590	*
	Just downstream of Highway 43	29.61	*	*	3,490	*
	Approximately 0.9 mile upstream of Highway 43	28.88	*	*	3,430	*
	Approximately 1.3 miles upstream of Highway 43	24.51	*	*	3,040	*
Creeping Swamp	Approximately 0.2 mile downstream of confluence of Polland Swamp	19.90	*	*	2,630	*
	Just upstream of confluence of Polland Swamp	15.06	*	*	2,180	*
	Approximately 0.7 mile downstream of Highway 102	12.60	*	*	1,960	*
	Just upstream of confluence of Creeping Swamp Tributary	10.05	*	*	1,730	*
	Approximately 0.7 mile upstream of confluence of Creeping Swamp Tributary	4.21	*	*	1,060	*
	Approximately 1.8 miles upstream of confluence of Creeping Swamp Tributary	2.36	*	*	760	*
Crisp Creek	At the confluence with Conetoe Creek	21.09	*	*	2,630	*
	At the Pitt - Edgecombe County Boundary	19.86	*	*	2,540	*
Cross Swamp	At the confluence with Cow Swamp	4.36	*	*	1,080	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Eagle Swamp	At the confluence with Contentnea Creek	8.5	700	1,270	1,570	2,450
	Approximately 550 feet upstream of Tick Bite Road	7.8	670	1,210	1,500	2,350
	Approximately 0.6 mile downstream of South Highland Avenue	6.9	610	1,120	1,390	2,180
Flat Swamp	At the confluence with Tranters Creek	22.43	*	*	2,720	*
Flat Swamp	At the confluence with Flat Swamp Tributary	9.95	*	*	1,720	*
Fork Swamp	Just upstream of confluence with Swift Creek	25.01	1,360	2,560	3,230	5,520
	Approximately 1.4 miles upstream of confluence with Swift Creek	22.47	1,280	2,430	3,070	5,260
	Approximately 0.9 mile upstream of Highway 102	19.04	1,170	2,230	2,820	4,870
	Approximately 1.0 mile upstream of Ayden Golf Club Road	15.65	1,050	2,010	2,560	4,450
	Just upstream of Jack Jones Road	12.80	936	1,820	2,320	4,060
	Approximately 0.2 mile upstream of Worthington Road	9.88	810	1,590	2,040	3,610
	Just upstream of confluence of Fork Swamp Tributary 1	5.00	553	1,120	1,450	2,640
	Just upstream of confluence of Fork Swamp Tributary 2	2.63	387	806	1,060	1,970
	Just upstream of Fire Tower Road	2.14	344	724	952	1,790
Fork Swamp Tributary 1	At the confluence with Fork Swamp	2.02	333	703	926	1,740

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Just downstream of Old Tar Road	1.63	296	631	833	1,580
	Approximately 0.5 mile upstream of Old Tar Road	1.20	249	539	716	1,380
Fork Swamp Tributary 2	At the confluence with Fork Swamp	2.24	353	741	975	1,830
	0.4 mile upstream of confluence with Fork Swamp	1.70	303	643	850	1,610
Green Mill Run	At the confluence with Tar River	12.9	2,600	2,600	4,400	5,720
Green Mill Run	At South Memorial Drive	7.05	1,710	1,710	3,080	4,090
Grindle Creek	At the confluence with Tar River	78.87	2,760	4,600	5,540	8,140
	At the confluence of Grindle Creek Tributary	65.67	*	*	5,000	*
	At the confluence of Whichard Branch	33.18	*	*	3,400	*
	Downstream of Alpine-Taylor Road	22.54	*	*	2,730	*
Grindle Creek Tributary	At the confluence with Grindle Creek	1.71	*	*	634	*
Gum Swamp	Just upstream of confluence with Swift Creek	3.25	*	*	912	*
	Approximately 0.5 mile upstream of confluence with Swift Creek	3.08	*	*	884	*
	Approximately 1.1 miles upstream of confluence with Swift Creek	2.81	*	*	841	*
Hardee Creek	At the confluence with Tar River	9.23	2,010	3,140	3,540	4,680
Hardee Creek Tributary	At the confluence with Hardee Creek	1.26	664	1,150	1,310	1,780

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Harris Mill Run	At the confluence with Tar River	3.52	*	*	955	*
Horse Swamp	Just upstream of confluence with Swift Creek	3.43	*	*	941	*
	Just downstream of Jolly Road	3.25	*	*	912	*
	Approximately 0.2 mile upstream of Jolly Road	1.85	*	*	662	*
Hunting Run	At the confluence with Grindle Creek	8.01	*	*	1,520	*
Indian Well Swamp	Just upstream of confluence of Clayroot Swamp	16.66	*	*	2,300	*
	Approximately 0.2 mile downstream of Stokestown-St Johns Road	16.19	*	*	2,260	*
	Approximately 0.3 mile downstream of Ervin Buck Road	13.22	*	*	2,020	*
	Approximately 0.1 mile upstream of Ervin Buck Road	12.78	*	*	1,980	*
	Just upstream of confluence of Indian Well Swamp Tributary	8.00	*	*	1,520	*
	Just upstream of Grover-Hardee Road	7.71	*	*	1,490	*
	Approximately 0.4 mile upstream of Grover Hardee Road	6.61	*	*	1,360	*
	At State Highway 43	0.54	131	281	388	690
Indian Well Swamp Tributary	Just upstream of confluence with Indian Well Swamp	2.87	*	*	850	*
	Approximately 0.5 mile upstream of confluence with Indian Well Swamp	2.01	*	*	695	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 0.7 mile upstream of confluence with Indian Well Swamp	1.72	*	*	637	*
	Approximately 0.3 mile downstream of Stanley Road	1.58	*	*	605	*
	Approximately 0.2 mile upstream of Stanley Road	1.19	*	*	516	*
Island Swamp	At the confluence with Chicod Creek	1.30	*	*	543	*
Jacob Branch	Just upstream of confluence with Black Swamp	4.40	*	*	1,080	*
	Approximately 0.5 mile downstream of U.S. Highway 258	2.12	*	*	716	*
	Approximately 0.1 mile downstream of U.S. Highway 258	1.87	*	*	666	*
	Approximately 0.2 mile upstream of U.S. Highway 258	1.41	*	*	569	*
	Approximately 0.5 mile upstream of U.S. Highway 258	1.29	*	*	540	*
Johnsons Mill Run	At the confluence with Tar River	27.45	1,440	2,500	3,050	4,610
Johnsons Mill Run Tributary	At the confluence with Johnsons Mill Run	5.51	*	*	1,230	*
Juniper Branch	At the confluence with Chicod Creek	8.52	2,050	2,050	3,170	4,660
	Approximately 0.2 mile upstream of confluence of Bates Branch	7.36	1,880	1,880	2,930	4,330
	Just upstream of confluence of Bates Branch	3.79	1,270	1,270	2,060	3,100

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 0.6 mile upstream of Black Jack-Simpson Road	2.89	1,080	1,080	1,780	2,700
	Approximately 0.3 mile upstream of Ivy Road	1.13	624	1,090	1,240	1,690
Kitten Creek	At the confluence with Otter Creek	14.78	*	*	2,150	*
	At Spain Bridge Road	8.75	*	*	1,600	*
Kitten Creek	Approximately 0.2 mile upstream of Dilda Church Road	3.96	*	*	1,020	*
Langs Mill Run	Just upstream of confluence of Black Swamp	11.15	*	*	1,830	*
	Just upstream of confluence of Black Swamp	5.45	*	*	1,220	*
	Approximately 0.4 mile upstream of Bynum Road	5.15	*	*	1,180	*
	Approximately 0.4 mile downstream of Rock Quarry Road	4.86	*	*	1,150	*
	Just downstream of Rock Quarry Road	4.53	*	*	1,100	*
	Approximately 0.2 mile upstream of Rock Quarry Road	4.38	*	*	1,080	*
	Approximately 0.1 mile downstream of Allen Gay Road	4.04	*	*	1,030	*
	Approximately 0.2 mile upstream of U.S. Highway 258	3.79	*	*	995	*
	Approximately 0.2 mile downstream of Highway 222	2.86	*	*	848	*
	Just upstream of Highway 222	2.35	*	*	759	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Just downstream of Edgecombe/Pitt County boundary	2.10	*	*	712	*
	Approximately 0.2 mile downstream of Railroad	1.0	315	632	758	1,150
Lawrence Run	At the confluence with Tyson Creek	5.88	*	*	1,280	*
	Approximately 0.2 mile upstream of State Highway 121	4.15	*	*	1,050	*
Little Contentnea Creek	The confluence with Contentnea Creek	184.1	4,648	7,520	8,960	12,856
	Approximately 1.0 mile upstream of the confluence with Contentnea Creek	182.7	4,625	7,485	8,920	12,800
	Approximately 0.7 mile downstream of NC Highway 903	178.8	4,565	7,393	8,813	12,655
	Approximately 0.3 mile upstream of NC Highway 903	170.8	4,438	7,200	8,588	12,346
	Approximately 5.6 miles downstream of Pocosin Road (SR 1125)	161.9	4,294	6,980	8,332	11,996
	Approximately 1.9 miles downstream of Pocosin Road (SR 1125)	153.6	4,156	6,769	8,085	11,657
	Approximately 0.6 mile downstream of Pocosin Road (SR 1125)	96.7	3,127	5,178	6,222	9,083
	Approximately 1.0 mile upstream of Pocosin Road (SR 1125)	96.2	*	*	6,204	*
	Just downstream of U.S. Highway 13	95.06	*	*	6,163	*
	Approximately 0.7 mile upstream of U.S. Highway 13	94.68	*	*	6,149	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 0.9 mile downstream of confluence of Little Contentnea Creek Tributary 2	92.35	*	*	6,063	*
	Just upstream of confluence of Little Contentnea Creek Tributary 2	80.77	*	*	5,620	*
Little Contentnea Creek	Just upstream of confluence of Pinelog Branch	66.70	*	*	5,043	*
	Approximately 173 feet downstream of Chinquapin Road (SR 1218)	66.3	2,481	4,164	5,028	7,415
	Approximately 397 feet upstream of Chinquapin Road (SR 1218)	60.1	2,334	3,931	4,753	7,029
	Approximately 0.6 mile downstream of NC Highway 121	56.1	2,237	3,778	4,572	6,774
	Approximately 558 feet upstream of NC Highway 121	54.5	2,199	3,716	4,499	6,671
	Approximately 0.3 mile downstream of U.S. Highway 258	37.7	1,752	3,002	3,651	5,468
	Approximately 0.3 mile upstream of U.S. Highway 258	36.5	1,719	2,947	3,587	5,376
	Approximately 0.5 mile upstream of Edward May Road (SR 2107)	34.7	1,664	2,859	3,482	5,226
	Approximately 0.5 mile downstream of Lewis Store Road (SR 1229)	31.8	1,578	2,720	3,316	4,988
	Approximately 365 feet downstream of U.S. Highway 264	20.32	1,116	1,882	2,273	3,183

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 0.78 mile upstream of Bell Road (SR 1231)	17.43	1,015	1,717	2,076	2,911
	Approximately 0.7 mile downstream of Moseley Road (SR 1233)	16.02	963	1,632	1,974	2,771
Little Contentnea Creek	Approximately 1,870 feet downstream of Moseley Road (SR 1233)	10.05	723	1,234	1,497	2,112
	Approximately 0.5 mile upstream of Moseley Road (SR 1233)	7.64	610	1,046	1,271	1,799
	Approximately 0.7 mile upstream of Moseley Road (SR 1233)	5.78	514	885	1,077	1,529
Little Contentnea Creek Tributary 1	Just upstream of confluence with Little Contentnea Creek	7.50	*	*	1,460	*
	Approximately 0.5 mile upstream of confluence with Little Contentnea Creek	7.25	*	*	1,440	*
	Just upstream of confluence of Tributary to Little Contentnea Creek Tributary 1	3.27	*	*	916	*
	Approximately 0.2 mile upstream of State Route 102	2.95	*	*	863	*
Little Contentnea Creek Tributary 2	Just upstream of confluence with Little Contentnea Creek	10.62	*	*	1,780	*
	Just upstream of Askew Road	9.50	*	*	1,670	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 0.4 mile upstream of Askew Road	7.85	*	*	1,500	*
	Approximately 0.3 mile upstream of Ballards Crossroads Road	6.98	*	*	1,410	*
Little Contentnea Creek Tributary 2	Approximately 0.3 mile downstream of confluence of Little Contentnea Creek Tributary 3	5.85	*	*	1,270	*
	Just upstream of confluence of Little Contentnea Creek Tributary 3	2.45	*	*	777	*
Little Contentnea Creek Tributary 3	Just upstream of confluence with Little Contentnea Creek Tributary 2	3.24	*	*	911	*
Meadow Branch	At the confluence with Briery Swamp	6.02	*	*	1,290	*
	Approximately 0.3 mile upstream of Beargrass Road	3.23	*	*	908	5,800
Meeting House Branch	The confluence with Bells Branch	1.4	499	924	1,083	1,561
Middle Swamp	The confluence with Little Contentnea Creek	55.89	2,083	3,454	4,147	5,742
	Approximately 0.5 mile upstream of the confluence with Little Contentnea Creek	54.34	2,047	3,396	4,078	5,648
	Approximately 1,260 feet downstream from Moye-Turnage Road (SR 1139)	51.29	1,975	3,281	3,940	5,461
	Approximately 0.9 mile downstream from Moye-Turnage Road (SR 1139)	19.68	1,094	1,847	2,231	3,124

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
	Approximately 1.0 miles upstream of U.S. Highway 13	16.99	999	1,691	2,044	2,868
	Approximately 1.4 miles upstream of U.S. Highway 13	14.95	923	1,566	1,895	2,662
Middle Swamp	Approximately 700 feet upstream of U.S. Highway 258	11.64	791	1,348	1,633	2,301
	Approximately 0.7 mile upstream of U.S. Highway 258	8.00	*	*	1,520	*
	Approximately 1.1 miles downstream of U.S. Highway 264 – Alt.	7.02	*	*	1,410	*
	Approximately 0.7 mile downstream of U.S. Highway 264 – Alt.	1.43	*	*	572	*
	Approximately 0.3 mile downstream of U.S. Highway 264 – Alt.	1.17	*	*	511	*
	Just downstream of U.S. Highway 264 – Alt.	0.99	*	*	465	*
Mill Branch	At the confluence with Whichard Branch	3.46	*	*	944	*
Moyes Run – Cannon Swamp	At Old Pactolus Road	9.59	1,573	3,242	3,782	6,080
	At the confluence of Baldwin Swamp	8.17	1,430	2,699	3,480	5,400
	At Greenville ETJ Zoning Limit	1.0	408	854	1,160	1,980
Neuse River	Approximately 0.55 mile downstream of Pitt/Craven County line	3,912.0	29,600	42,700	49,000	65,300
North Fork Green Mill Run	At the confluence with Green Mill Run	1.71	645	1,150	1,330	1,860

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Otter Creek	At the confluence of Tar River	48.34	*	*	8,400	*
	At the confluence of Kitten Creek	31.73	*	*	6,620	*
Otter Creek	At the confluence of Otter Creek Tributary	21.85	*	*	5,360	*
	At Webbs Lane Road	3.93	*	*	2,040	*
Parkers Creek	At the confluence with Tar River	7.51	*	*	2,870	*
	At the confluence with Lateral No. 2	2.16	*	*	1,310	*
Pea Branch	At the confluence with Tranters Creek	3.78	*	*	993	*
	At Sheppard Mill Road	1.49	*	*	587	*
Pinelog Branch	The confluence with Little Contentnea Creek	11.5	787	1,341	1,625	2,290
	Approximately 1,760 feet upstream of Askew Road (SR 1217)	10.5	743	1,267	1,537	2,168
	Approximately 1,810 feet upstream of Stantonsburg Road (SR 1200)	7.8	618	1,059	1,287	1,821
	Approximately 1,490 feet upstream of Fishpond Road (SR 1214)	5.5	500	862	1,050	1,491
	Approximately 270 feet upstream of VOA Site C Road (SR 1212)	2.8	331	577	705	1,009

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Pinelog Branch	Approximately 400 feet upstream of the confluence of Pinelog Branch North Tributary	1.2	195	345	423	612
	Approximately 200 feet upstream of the confluence of Pinelog Branch South Tributary	0.9	167	296	365	528
	Approximately 250 feet upstream of Fred Drive (SR 1266)	0.8	151	268	330	480
Pinelog Branch North Tributary	The confluence with Pinelog Branch	1.5	221	390	478	689
Pinelog Branch South Tributary	The confluence with Pinelog Branch	0.2	64	117	145	213
Poley Branch	At the confluence with Tranters Creek	1.75	*	*	643	*
	At Sheppard Mill Road	1.10	*	*	493	*
Swift Creek	Approximately 0.4 mile downstream of confluence of Clayroot Swamp	178.32	*	*	7,690	*
	Just upstream of confluence of Clayroot Swamp	97.83	*	*	6,210	*
	Approximately 0.7 mile downstream of Beaver Dam Road	94.51	*	*	6,120	*
	Just downstream of Clark Ford Road	91.41	*	*	6,030	*
	Approximately 0.7 mile upstream of Gardnerville Road	86.34	*	*	5,840	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Swift Creek	Approximately 0.5 mile downstream of Stokestown-St Johns Road	82.48	*	*	5,690	*
	Approximately 0.2 mile upstream of Stokestown-St. Johns Road	81.26	*	*	5,640	*
	Approximately 0.9 mile upstream of Stokestown-St. Johns Road	75.26	*	*	5,400	*
	Approximately 1.2 miles downstream of confluence of Fork Swamp	70.18	*	*	5,190	*
	At the confluence of Fork Swamp	43.02	1,900	3,390	4,230	7,080
	Approximately 1.0 mile downstream of confluence of Back Swamp	38.31	1,770	3,190	4,000	6,710
	Just upstream of confluence of Back Swamp	28.65	1,480	2,750	3,460	5,870
	Just downstream of Highway 102	25.70	1,390	2,600	3,280	5,590
	Just upstream of old Highway 11	19.59	1,190	2,260	2,860	4,940
	Just upstream of Highway 11	18.95	1,170	2,220	2,820	4,860
	Just upstream of confluence of Horse Swamp	12.53	924	1,800	2,290	4,020
	Just upstream of confluence of Swift Creek Tributary 2	9.04	770	1,520	1,950	3,460
	Approximately 0.6 mile upstream of confluence of Swift Creek Tributary 2	7.75	707	1,400	1,810	3,230
	Just upstream of confluence of Gum Swamp	4.01	489	1,000	1,300	2,390

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Swift Creek	Approximately 0.3 mile upstream of confluence of Gum Swamp	3.73	470	964	1,260	2,310
Swift Creek Tributary 1	Just upstream of confluence with Swift Creek	2.66	*	*	814	*
	Approximately 0.8 mile upstream of confluence with Swift Creek	1.82	*	*	657	*
	Approximately 0.2 mile downstream of Highway 11	1.32	*	*	546	*
Swift Creek Tributary 2	Just upstream of confluence with Swift Creek	1.32	*	*	546	*
	Approximately 0.2 mile upstream of Red Forbes Road	1.20	*	*	518	*
	Approximately 0.6 mile upstream of Red Forbes Road	0.89	*	*	438	*
Tar River	Approximately 1.0 mile downstream of the confluence of Bear Creek	2,898	30,300	46,500	54,800	77,500
	At the confluence of Grindle Creek	2,757	29,500	45,200	53,100	74,900
	At State Highway 222	2,521	28,200	43,000	50,400	70,500
	At the Edgecombe/Pitt County boundary	2,459	27,800	42,400	49,600	69,200
Thomas Canal	At the confluence with Conetoe Creek	1.37	*	*	559	*
Thorofare Swamp	Just upstream of confluence with Clayroot Swamp	2.21	*	*	733	*
	Just upstream of Hubert Boyd road	0.81	*	*	415	*
	Approximately 0.6 mile upstream of Hubert Boyd road	0.66	*	*	369	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Tranters Creek	At U.S. Highway 264	216.5	4,970	8,775	10,890	17,130
	At the confluence of Aggie Run	174.02	*	*	8,680	*
	At the confluence of Poley Branch	157.47	*	*	8,200	*
	At the confluence of Briery Swamp	116.74	*	*	6,920	*
	At the confluence of Beargrass Swamp	89.19	*	*	5,940	*
	At the confluence of Collie Swamp	31.01	*	*	3,270	*
	At the confluence of Flat Swamp	3.17	*	*	899	*
Tributary to Little Contentnea Creek Tributary 1	Just upstream of confluence with Little Contentnea Creek Tributary 1	3.50	*	*	951	*
	Approximately 0.4 mile upstream of confluence with Little Contentnea Creek Tributary 1	3.40	*	*	935	*
Tyson Creek	At the confluence with Tar River	22.37	*	*	2,720	*
	At the confluence of Lawrence Run	11.71	*	*	1,880	*
	Approximately 0.6 miles downstream of Seven Pines Road	3.88	*	*	1,010	*
Ward Run	Just upstream of confluence with Little Contentnea Creek	5.88	*	*	1,280	*
	Just upstream Allen Gay Road	5.37	*	*	1,210	*
	Approximately 0.6 mile downstream of Highway 222	4.88	*	*	1,150	*
	Approximately 0.3 mile downstream of Highway 222	4.38	*	*	1,080	*

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Ward Run	Just downstream of Highway 222	3.93	*	*	1,020	*
Whichard Branch	At the confluence with Grindle Creek	8.70	*	*	1,590	*
	At the confluence of Mill Branch	3.48	*	*	948	*

*Data not available

Table 12, "Gage Information," lists the stream gages located in Pitt County, including the drainage area of the flooding source at the gage and the period of record available at the time of the publication of this FIS Report

Table 12—Gage Information

Gage Number or Identifier	Flooding Source	Site Name	Drainage Area (*square miles*)	Period of Record	
				From	To
02083800	Conetoe Creek	Conetoe Creek near Bethel	78.1[1]	1957	Present
02084160	Chicod Creek	Chicod Creek at State Route 1760 near Simpson	43.3	1982	2007
02083833	Conetoe Creek Tributary 3	Conetoe Creek Tributary 3 near Penny Hill	11.0	1993	1997
02091970	Creeping Swamp	Near Vanceboro	27.0	1972	1985
02084164	Juniper Branch	Juniper Branch at SR 1766 near Simpson	7.5[1]	1976 1979	1978 1986
02091700	Little Contentnea Creek	Near Farmville	95.3	1957	1987
02084000	Tar River	Tar River at Greenville	2,620[1]	1998	Present
02083500	Tar River	Tar River at Tarboro	2180[1]	1897 1932	1899 Present

[1]Drainage area determined during study is more accurate and differs from drainage area published by U.S. Geological Survey.

5.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the flood elevations for the selected recurrence intervals. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which BFEs were computed, selected cross-section locations are also shown on the FIRM. Flood profiles were developed showing computed water-surface elevations for 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 tables in the FIS Report. For construction and/or floodplain management purposes, users are encouraged to use the flood elevation data presented in the FIS in conjunction with the data shown on the FIRM.

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

Analyses for January 2, 2004 Countywide FIS

For the streams studied by detailed methods, water-surface elevations of floods of the selected recurrence intervals were computed through use of the USACE HEC-RAS step-backwater computer program version 3.0 (USACE, 2001).

The cross section geometries were obtained from a combination of data obtained using Light digital elevation Detection and Ranging (LIDAR) and field surveys. All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry. Natural floodplain cross sections were surveyed approximately every 4,000' along the detail study reaches to obtain the channel geometry between bridges and culverts. Overbank cross-section data for the backwater analyses were obtained from recently flown LIDAR data. Manning's "n" value determinations were made in the field by an engineer where stream access was possible, with orthophotos used to supplement areas that could not be accessed. The hydraulic analyses were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail. The computer models were calibrated using historic high water data collected during field investigations.

For flooding sources studied by limited detailed methods in the county, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this report and the FIRM panels. This method entails developing a HEC-RAS hydraulic model, resulting in the calculation of BFEs and the delineation of the 1% annual chance floodplain (designated as Zone AE). Cross sections for the flooding sources studied by limited detailed methods were obtained using digital elevation data obtained with LIDAR technology developed as part of the North Carolina Statewide Floodplain Mapping Program. The hydraulic model is prepared using this digital elevation data, without surveying bathymetric or structural data. Where bridge or culvert data are readily available, such as from the North Carolina Department of Transportation, these data have been reflected in the hydraulic model. If these structural data are not readily available, field measurements of these structures were made to approximate their geometry in the hydraulic models. In addition, this method

does not include field surveys that determine specifics on channel and floodplain characteristics. A limited detailed study is a "buildable" product that can be upgraded to a fully detailed study at a later date by verifying stream channel characteristics, bridge and culvert opening geometry, and by analyzing multiple recurrence intervals.

The results of the HEC-RAS computations are tabulated for all cross sections (Table 14, "Limited Detailed Flood Hazard Data"). Flood Profiles have not been developed for streams studied by limited detailed methods. In addition, floodways for streams studied by limited detailed methods are not delineated on the FIRM. However, the 1% annual chance water-surface elevations, flood discharges, and non-encroachment widths from the limited detailed studies for every modeled cross section are given in Table 14. The non-encroachment widths given at modeled cross sections can be used by communities to enforce floodplain management ordinances that meet the requirement defined in 44 CFR 60.3(c)(10).

Between cross sections for streams studied by limited detailed methods, 1% annual chance water-surface elevations should be calculated by mathematical interpolation using the distance along the stream centerline. Non-encroachment widths and, therefore, the location of a non-encroachment area boundary between cross sections should be determined based on either 1) mathematical interpolation, or 2) the non-encroachment width at the upstream or downstream cross section, whichever is larger. If the width determined by this second method is wider than the Special Flood Hazard Area (SFHA) or the 1% annual chance floodplain delineated on the FIRM for this location along the stream, the non-encroachment area shall be considered to be coincident with the SFHA. A full detailed study incorporating field survey data in the HEC-RAS hydraulic model may be submitted for a Letter of Map Revision (LOMR) request to map a regulatory floodway along a section of a stream in lieu of applying the non-encroachment widths listed in Table 14. FEMA's current (as of August 2001) map revision structure exempts submittal fees for map revision requests based solely on the submission of more detailed data.

Revised Analyses for Countywide FIS

Detailed Study

Peak flood discharges with 10%, 4%, 2%, 1%, and 0.2% annual chance of exceedance have been modeled for this study. Hydraulic cross section geometries were obtained from a combination of LIDAR data and field surveys. All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry. Cross sections were field surveyed every 3000-4000 feet along the streams to determine channel geometries between bridges and culverts. The overbank cross-section data for the backwater analyses were obtained from the recently flown LIDAR data.

Water-surface elevations of floods of the selected annual chance of exceedance discharges were computed through use of the Army Corps of Engineers' HEC-RAS step-backwater computer program version 3.1.3 (HEC-RAS 3.1.3) (USACE, 2005). These computer models were calibrated using historic high water data collected during field investigations. Floodway computations were run on the models using a target surcharge value of 1.0 foot.

Starting conditions for the hydraulic models were set to normal depth using starting slopes calculated from channel invert values taken from the LIDAR data or, where applicable, derived from the water surface elevations of existing effective Flood Insurance Study water surface elevations. Manning's n-values were field investigated and delineated on USGS Digital Orthophoto Quarter Quads (DOQQ) for both channel and overbank areas.

Limited Detailed Study

The hydraulic model used for this Flood Insurance Study is the U. S. Corps of Engineers Hydraulic Engineering Center River Analysis System, version 3.1.3 (HEC-RAS 3.1.3) (USACE, 2005). Topographic data for the floodplain models was developed using recently flown LIDAR land data, field measured of verified structure information, and updated hydrologic data. The model was developed using HEC-RAS 3.1.3, run for the 100-year frequency storms, and calibrated to known historic flood marks, where available. Approximate 100-year floodway models were also developed using method 4 in HEC-RAS 3.1.3.

Starting conditions for the hydraulic models were set to normal depth using starting slopes calculated from channel invert values taken from the LIDAR data, or, where applicable, derived from the water surface elevations of existing effective flood elevations.

Channel roughness factors (Manning's "n") used in the hydraulic computations were chosen on the basis of field observations. The channel and overbank "n" values for all of the streams studied by detailed methods are shown in Table 13, "Roughness Coefficients."

Table 13—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Back Swamp	0.043 - 0.045	0.140
Baldwin Swamp	0.050 – 0.090	0.100 – 0.160
Baldwin Swamp North Tributary	0.050 – 0.090	0.100 – 0.160
Bates Branch	0.050 – 0.090	0.100 – 0.160
Bells Branch	0.011 – 0.080	0.130 - 0.200
Briery Swamp	0.045	0.130
Briery Swamp Tributary	0.050 – 0.052	0.130 – 0.150
Buckleberry Canal	0.045	0.130
Cheeks Mill Creek	0.050	0.08 – 0.15
Chicod Creek	0.045	0.130 - 1.000
Clayroot Swamp	0.042 - 0.045	0.120 - 0.140
Clayroot Swamp Tributary 1	0.050	0.150
Contentnea Creek	0.045 - 0.080	0.100 - 0.200
Contentnea Creek South Tributary	0.047 – 0.052	0.060 – 0.120
Conetoe Creek	0.040 – 0.050	0.105 – 0.150
Cow Swamp	0.050	0.120 – 0.150
Creeping Swamp	0.047	0.131 - 0.150
Crisp Creek	0.038 – 0.05	0.128 – 0.135
Cross Swamp	0.045	0.080 – 0.150
Eagle Swamp	0.045 – 0.050	0.032 – 0.090
Flat Swamp	0.045	0.130
Fork Swamp	0.045	0.130

Table 13—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Fork Swamp Tributary 1	0.050	0.100 - 0.200
Fork Swamp Tributary 2	0.050	0.110 - 0.200
Fornes Run	0.011 – 0.080	0.130 - 0.200
Green Mill Run	0.011- 0.059	0.013 – 0.200
Grindle Creek	0.036	0.075 – 0.113
Grindle Creek Tributary	0.050	0.135 – 0.200
Gum Swamp	0.042 - 0.043	0.130 - 0.140
Hardee Creek	0.050 – 0.055	0.110 – 0.140
Hardee Creek Tributary	0.055	0.130 – 0.200
Harris Mill Run	0.045 – 0.050	0.150
Horse Swamp	0.050	0.150
Hunting Run	0.040	0.120 – 0.130
Indian Well Swamp	0.040 – 0.090	0.100 – 0.160
Indian Well Swamp Tributary	0.042 - 0.050	0.130 - 0.150
Island Swamp	0.045 – 0.050	0.105 – 0.135
Jacob Branch	0.045 - 0.050	0.130 - 0.150
Johnsons Mill Run	0.035 – 0.065	0.077 – 1.000
Johnsons Mill Run Tributary	0.043 – 0.045	0.083 – 0.113
Juniper Branch	0.045	0.080 – 0.150
Kitten Creek	0.050	0.140 – 0.150
Langs Mill Run	0.045 - 0.050	0.120 - 0.150
Lateral No. 1	0.011 – 0.080	0.130 - 0.200
Lateral No. 2	0.011 – 0.080	0.130 - 0.200
Lawrence Run	0.050	0.150
Little Contentnea Creek	0.040 – 0.065	0.035 – 0.180
Little Contentnea Creek Tributary 1	0.050	0.140 - 0.150
Little Contentnea Creek Tributary 2	0.040 - 0.045	0.130 - 0.140
Little Contentnea Creek Tributary 3	0.045 - 0.050	0.014
Meadow Branch	0.045 – 0.055	0.13 – 0.15
Meeting House Branch	0.011 – 0.080	0.130 - 0.200
Middle Swamp	0.045 – 0.055	0.035 – 0.180
Mill Branch	0.050	0.100 – 0.120
Moyes Run – Cannon Swamp	0.050 – 0.090	0.100 – 0.160
Neuse River	0.035 - 0.045	0.120 - 0.160
North Fork Green Mill Run	0.045	0.110 – 0.120
Otter Creek	0.050	0.130
Otter Creek Tributary	0.05	0.110 – 0.150
Parkers Creek	0.011 – 0.080	0.130 - 0.200

Table 13—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Pea Branch	0.048	0.140
Pinelog Branch	0.045 – 0.048	0.060 – 0.150
Pinelog Branch North Tributary	0.045 – 0.050	0.060 – 0.150
Pinelog Branch South Tributary	0.055	0.060 – 0.150
Poley Branch	0.045	0.130
Reedy Branch	0.011 – 0.080	0.130 - 0.200
Swift Creek	0.040 - 0.055	0.110 - 0.220
Swift Creek Tributary 1	0.042	0.100-0.130
Swift Creek Tributary 2	0.042	0.130
Tar River	0.045 – 0.080	0.060 – 1.000
Thomas Canal	0.045	0.110
Thorofare Swamp	0.045	0.140
Tranters Creek	0.020 – 0.060	0.200 – 0.450
Tributary to Little Contentnea Creek Tributary 1	0.050	0.130 - 0.140
Tyson Creek	0.040	0.130
Ward Run	0.045 - 0.050	0.140 - 0.150
Whichard Branch	0.035 – 0.080	0.100 – 0.150

Table 14, "Limited Detailed Flood Hazard Data," lists data for selected cross sections used in the limited detailed flood hazard analysis.

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BACK SWAMP				
031	3,062	1,521	40.0[4]	65 / 125
045	4,458	1,521	43.1	314 / 199
052	5,184	1,521	43.3	131 / 358
060	6,010	1,521	43.6	189 / 282
067	6,653	1,521	43.8	272 / 249
073	7,330	1,521	44.0	223 / 258
080	7,968	1,521	44.3	111 / 332
094	9,367	1,521	45.2	199 / 259
098	9,824	1,521	45.4	149 / 299
103	10,287	1,521	45.7	155 / 239
109	10,898	1,521	46.2	113 / 209

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BACK SWAMP				
121	12,086	1,005	47.8	133 / 136
125	12,521	1,005	48.0	62 / 137
129	12,938	1,005	48.3	107 / 145
134	13,388	1,005	48.5	102 / 58
141	14,059	1,005	49.0	30 / 117
149	14,887	807	50.0	46 / 67
154	15,449	807	50.8	45 / 43
161	16,122	807	51.9	15 / 165
170	17,024	807	53.2	23 / 201
176	17,622	629	53.5	25 / 215
181	18,062	629	53.6	29 / 293
187	18,692	629	53.9	62 / 12
192	19,230	629	54.6	109 / 53
199	19,874	629	55.2	46 / 24
206	20,609	454	56.7	63 / 11
211	21,122	454	57.9	46 / 11
219	21,869	454	60.3	19 / 30
224	22,397	454	61.8	14 / 48
229	22,892	454	62.6	101 / 15
BLACK SWAMP				
016	1,610	1,832	61.3[4]	200 / 25
025	2,518	1,832	61.3[4]	265 / 422
031	3,061	1,832	61.4	297 / 256
037	3,706	1,832	63.4	212 / 352
053	5,325	1,832	63.8	47 / 405
059	5,919	1,832	64.7	232 / 227
066	6,645	1,832	65.4	272 / 285
073	7,256	1,832	65.9	138 / 193
080	8,022	1,832	66.4	169 / 238
087	8,684	1,832	66.7	132 / 324
093	9,322	1,832	67.0	121 / 146
101	10,072	1,832	67.5	116 / 201
106	10,615	1,832	67.8	209 / 246
116	11,598	1,832	68.1	28 / 489
125	12,499	1,832	68.4	218 / 462
135	13,513	1,832	68.8	69 / 295
144	14,380	1,832	69.3	388 / 33
150	14,966	1,832	69.8	213 / 41
154	15,431	1,832	70.4	471 / 28
156	15,599	1,832	70.6	484 / 120
BRIERY SWAMP				
015	1,475	2,352	22.0[4]	79 / 231
020	1,970	2,352	22.0[4]	85 / 289

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BRIERY SWAMP				
025	2,519	2,352	22.0[4]	64 / 240
031	3,112	2,352	22.3	101 / 303
037	3,717	2,352	22.6	151 / 306
048	4,831	2,352	23.4	61 / 415
056	5,627	2,352	24.4	28 / 54
062	6,245	2,269	26.8	275 / 14
071	7,130	2,269	28.0	101 / 568
077	7,690	2,269	28.2	510 / 185
084	8,415	2,269	28.6	590 / 43
090	9,039	2,269	28.9	444 / 60
096	9,562	2,269	29.1	249 / 216
103	10,321	2,269	29.5	231 / 355
108	10,785	2,269	29.6	261 / 272
114	11,383	2,269	29.9	130 / 271
121	12,056	2,269	30.2	40 / 522
125	12,500	2,269	30.3	201 / 404
133	13,295	2,078	30.6	175 / 277
138	13,823	2,078	30.8	456 / 130
146	14,632	2,078	31.2	124 / 332
153	15,326	2,078	31.7	12 / 311
161	16,106	2,078	32.4	12 / 412
169	16,897	2,078	33.3	132 / 212
174	17,420	2,078	33.7	12 / 354
178	17,774	2,078	33.9	269 / 328
185	18,503	2,078	34.1	204 / 528
196	19,558	2,078	34.5	238 / 362
202	20,240	2,078	34.9	179 / 287
209	20,880	2,078	35.2	190 / 422
216	21,576	2,078	35.7	477 / 13
221	22,064	2,078	36.0	276 / 25
236	23,640	1,656	37.5	145 / 256
242	24,209	1,656	37.8	244 / 222
248	24,820	1,656	38.2	131 / 149
254	25,438	1,656	38.9	152 / 271
259	25,904	1,656	39.8	30 / 272
266	26,561	1,656	41.0	10 / 330
280	27,972	1,656	42.9	231 / 237
284	28,446	1,656	43.1	221 / 218
290	29,005	1,656	43.2	169 / 328
298	29,771	1,656	43.5	148 / 237
304	30,423	1,656	43.9	201 / 215
314	31,383	1,656	44.9	12 / 380
317	31,718	1,656	45.3	10 / 362

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BRIERY SWAMP				
332	33,171	1,656	47.1	234 / 147
359	35,905	1,390	49.0	240 / 315
383	38,349	1,390	50.9	26 / 262
388	38,752	1,390	51.2	33 / 276
393	39,295	1,390	51.6	89 / 164
403	40,337	1,390	52.8	179 / 41
411	41,060	1,390	53.7	250 / 103
419	41,944	1,390	54.2	475 / 140
428	42,751	1,390	54.4	158 / 58
443	44,266	1,390	56.2	8 / 337
454	45,412	1,390	57.0	76 / 501
465	46,480	750	57.8	3 / 338
474	47,365	750	58.0	3 / 317
482	48,224	750	58.1	3 / 660
491	49,148	750	58.2	3 / 1,718
502	50,178	750	58.3	3 / 1,042
510	51,032	750	58.4	3 / 1,285
519	51,932	750	58.6	3 / 1,771
528	52,779	363	58.6	10 / 6
537	53,659	363	59.9	53 / 244
549	54,896	363	61.0	385 / 1,790
559	55,861	363	61.0	828 / 406
565	56,507	363	61.0	608 / 605
BRIERY SWAMP TRIBUTARY				
019	1,944	846	38.1	45 / 83
031	3,095	846	39.0	230 / 15
043	4,345	846	40.0	282 / 75
048	4,815	846	40.3	114 / 121
067	6,657	749	42.1	46 / 216
073	7,263	749	43.0	56 / 182
078	7,787	749	44.2	114 / 63
BUCKLEBERRY CANAL				
139	13,908	2,023	23.6[4]	116 / 120
169	16,884	1,919	23.6[4]	127 / 31
182	18,221	1,187	23.6[4]	14 / 72
188	18,824	1,187	23.6[4]	17 / 17
195	19,473	1,187	23.6[4]	17 / 41
212	21,189	1,187	23.7	17 / 17
222	22,186	1,187	25.0	17 / 158
239	23,863	1,187	26.1	67 / 291
247	24,685	1,187	26.3	345 / 296
256	25,561	1,061	26.4	462 / 304
265	26,500	1,061	26.5	501 / 307

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BUCKLEBERRY CANAL				
280	28,000	1,061	26.9	302 / 286
CHEEKS MILL CREEK				
030	3,000	1,054	37.2[2]	11 / 85
034	3,418	1,054	37.2[2]	29 / 36
041	4,080	1,054	37.2[2]	78 / 50
046	4,611	1,054	37.2[2]	49 / 29
051	5,111	1,054	37.2[2]	16 / 56
056	5,610	1,054	37.2[2]	40 / 15
CHICOD CREEK				
382	38,240	2,754	18.5	156 / 674
385	38,539	2,754	18.6	204 / 663
391	39,079	2,754	18.6	297 / 446
397	39,669	2,754	18.8	208 / 542
405	40,529	2,754	19.1	102 / 334
414	41,378	2,603	19.5	355 / 661
419	41,917	2,603	19.7	590 / 327
425	42,452	2,603	20.0	60 / 545
427	42,657	2,603	20.1	124 / 369
433	43,267	2,603	20.5	361 / 376
437	43,693	2,603	20.7	283 / 350
441	44,121	2,603	21.0	112 / 307
455	45,530	2,603	21.9	231 / 383
463	46,263	2,603	22.2	159 / 590
469	46,885	2,603	22.5	47 / 469
486	48,572	2,603	24.3	118 / 32
491	49,115	2,603	25.0	329 / 257
500	50,010	2,603	25.6	258 / 194
516	51,612	2,603	26.4	255 / 204
525	52,527	2,603	26.9	137 / 338
531	53,063	2,603	27.2	228 / 139
538	53,793	2,603	27.7	51 / 235
544	54,431	2,226	28.4	236 / 345
551	55,054	2,018	28.7	157 / 405
559	55,920	2,018	29.0	55 / 368
567	56,737	2,018	29.6	176 / 96
575	57,537	2,018	30.5	132 / 188
586	58,560	1,816	30.9	226 / 446
592	59,206	1,816	31.1	227 / 112
602	60,163	1,816	31.7	169 / 140
615	61,475	1,816	32.3	38 / 528
621	62,099	1,816	32.5	204 / 291
634	63,422	1,816	33.4	262 / 118
639	63,909	1,816	33.7	164 / 163

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CHICOD CREEK				
646	64,590	1,816	34.1	265 / 93
655	65,456	1,816	34.8	396 / 103
673	67,280	1,510	36.3	134 / 278
682	68,242	1,510	37.2	79 / 150
697	69,707	1,510	39.2	243 / 57
704	70,396	1,253	39.4	324 / 175
CLAYROOT SWAMP				
010	1,032	5,596	19.4[4]	60 / 595
019	1,857	5,596	19.4[4]	285 / 388
032	3,189	5,596	19.4[4]	445 / 177
042	4,239	5,596	19.4[4]	50 / 879
066	6,605	5,596	20.3	290 / 450
073	7,259	5,517	20.4	175 / 670
080	7,953	5,517	20.5	840 / 305
091	9,050	4,065	20.6	599 / 515
100	10,041	4,065	20.7	275 / 494
108	10,750	4,065	20.8	170 / 413
115	11,519	4,065	21.2	177 / 355
121	12,147	4,065	21.4	495 / 149
128	12,836	4,065	21.6	834 / 38
136	13,577	4,065	21.9	729 / 246
143	14,342	4,065	22.1	455 / 587
151	15,132	4,065	22.4	439 / 610
159	15,854	4,065	22.6	195 / 575
165	16,524	3,964	22.7	174 / 254
171	17,139	3,964	23.1	200 / 220
181	18,102	3,964	24.2	250 / 144
189	18,916	3,964	24.4	389 / 133
195	19,492	3,964	24.6	674 / 107
203	20,337	3,964	24.8	435 / 583
212	21,201	3,964	24.9	765 / 375
219	21,911	3,964	25.0	584 / 325
228	22,754	3,964	25.2	442 / 747
236	23,583	3,964	25.4	370 / 1255
243	24,319	3,964	25.5	601 / 1258
251	25,128	3,784	25.6	610 / 950
257	25,731	3,784	25.7	36 / 1481
262	26,215	3,784	25.8	185 / 1300
268	26,785	3,784	25.9	245 / 1400
274	27,428	3,784	26.0	450 / 1527
281	28,149	3,784	26.0	395 / 1450
288	28,831	3,655	26.1	485 / 1600
295	29,466	3,655	26.1	405 / 1600

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CLAYROOT SWAMP				
301	30,055	3,655	26.2	1100 / 1185
308	30,784	3,655	26.3	824 / 1459
315	31,473	3,655	26.4	201 / 1814
322	32,151	3,655	26.5	365 / 555
326	32,646	3,655	26.8	186 / 298
336	33,585	3,655	27.8	215 / 325
341	34,099	3,589	28.0	256 / 665
349	34,894	3,589	28.1	709 / 756
355	35,522	3,492	28.3	424 / 774
363	36,308	3,373	28.5	654 / 725
370	36,975	3,373	28.6	228 / 1128
376	37,599	3,373	28.8	33 / 1138
382	38,226	3,373	28.9	33 / 1370
389	38,883	3,209	29.1	31 / 1128
397	39,703	3,209	29.3	67 / 1156
404	40,421	3,209	29.5	32 / 1344
413	41,275	3,158	29.7	43 / 975
421	42,064	3,158	29.8	512 / 858
428	42,819	3,158	30.0	611 / 686
433	43,316	3,158	30.1	325 / 555
445	44,547	1,921	30.5	21 / 459
455	45,460	1,921	31.1	183 / 419
461	46,090	1,921	31.4	21 / 421
476	47,561	1,921	32.5	350 / 90
485	48,492	1,876	32.7	514 / 21
492	49,249	1,876	32.9	473 / 21
500	50,011	1,876	33.2	561 / 109
507	50,665	1,876	33.5	114 / 227
512	51,171	1,876	33.8	134 / 534
521	52,094	1,578	34.1	41 / 286
532	53,229	1,578	35.0	40 / 360
541	54,056	1,578	35.4	177 / 353
545	54,507	1,547	35.6	194 / 249
550	54,997	1,547	35.7	300 / 291
555	55,468	1,547	35.8	259 / 477
560	55,988	1,547	36.0	297 / 407
565	56,490	1,547	36.1	283 / 470
575	57,467	1,324	36.4	761 / 169
582	58,175	1,324	36.5	366 / 186
587	58,712	1,324	36.7	573 / 106
597	59,677	1,002	37.1	217 / 134
609	60,924	1,002	37.7	228 / 15
616	61,596	978	38.4	131 / 152

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CLAYROOT SWAMP				
623	62,285	978	38.7	15 / 345
627	62,699	561	38.9	181 / 286
633	63,283	561	39.1	12 / 416
639	63,917	561	39.4	12 / 193
644	64,369	561	40.0	12 / 264
649	64,925	512	40.3	21 / 175
662	66,172	234	41.5	85 / 58
667	66,721	234	41.6	14 / 64
CLAYROOT SWAMP TRIBUTARY 1				
006	645	778	33.8[4]	80 / 95
020	1,998	778	37.1	78 / 225
027	2,738	534	37.4	44 / 15
034	3,446	534	40.0	28 / 323
043	4,334	534	41.6	106 / 12
051	5,124	534	44.1	79 / 12
057	5,709	534	45.8	46 / 59
CONETOE CREEK				
107	10,696	6,240	33.3[4]	312 / 104
110	10,997	6,240	33.3[4]	223 / 138
115	11,495	6,240	33.3[4]	24 / 536
120	11,994	6,240	33.3[4]	101 / 290
125	12,494	6,240	33.3[4]	345 / 477
127	12,747	6,240	33.3[4]	31 / 496
135	13,495	6,240	33.3[4]	50 / 154
141	14,136	6,240	33.3[4]	462 / 35
145	14,494	6,240	33.3[4]	35 / 94
150	14,994	6,240	33.3[4]	35 / 236
155	15,494	6,240	33.3[4]	169 / 210
160	16,015	6,240	33.3[4]	206 / 335
165	16,493	6,240	33.3[4]	695 / 120
170	16,992	6,240	33.3[4]	697 / 162
175	17,492	6,240	33.3[4]	355 / 193
180	17,992	6,240	33.3[4]	48 / 233
185	18,490	6,240	33.3[4]	64 / 193
190	18,990	6,240	33.3[4]	71 / 202
195	19,490	6,240	33.3[4]	97 / 147
200	19,990	6,240	33.3[4]	152 / 722
205	20,489	6,240	33.3[4]	378 / 667
210	20,989	6,240	33.3[4]	85 / 857
215	21,489	6,240	33.3[4]	41 / 480
220	21,989	6,240	33.3[4]	136 / 221
225	22,488	6,240	33.3[4]	307 / 166
230	22,988	6,240	33.3[4]	33 / 392

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CONETOE CREEK				
235	23,488	6,240	33.3[4]	593 / 179
240	23,988	6,240	33.3[4]	778 / 69
245	24,488	6,240	33.3[4]	213 / 20
249	24,879	6,240	33.3[4]	189 / 33
255	25,488	6,240	33.3[4]	122 / 153
260	25,988	6,240	33.3[4]	338 / 356
265	26,488	6,240	33.3[4]	633 / 349
270	26,989	5,940	33.3[4]	621 / 343
275	27,489	5,940	33.3[4]	441 / 143
280	27,981	5,940	33.3[4]	248 / 175
285	28,489	5,940	33.3[4]	340 / 337
291	29,076	5,940	33.3[4]	567 / 46
295	29,489	5,940	33.3[4]	551 / 40
300	29,989	5,940	33.4	559 / 315
305	30,488	5,940	33.4	413 / 632
311	31,064	5,940	33.5	117 / 392
315	31,488	5,940	33.5	109 / 299
320	32,021	4,960	33.7	218 / 833
325	32,488	4,960	33.8	34 / 637
329	32,947	4,960	33.8	255 / 493
335	33,488	4,960	33.9	433 / 117
341	34,096	4,960	34.0	254 / 826
345	34,489	4,960	34.2	291 / 688
350	34,989	4,960	34.3	370 / 472
355	35,489	4,960	34.3	118 / 327
360	35,989	4,960	34.5	133 / 697
365	36,489	4,960	34.6	260 / 244
377	37,686	4,960	35.8	400 / 955
382	38,168	4,960	35.9	292 / 727
387	38,668	4,960	36.0	37 / 592
390	38,990	4,960	36.1	145 / 362
395	39,490	4,960	36.3	232 / 330
400	39,990	4,960	36.4	263 / 228
405	40,490	4,960	36.6	333 / 242
410	40,990	4,960	36.7	33 / 352
415	41,491	4,960	36.9	238 / 385
420	41,991	4,960	37.0	42 / 120
425	42,491	4,960	37.3	136 / 233
430	42,991	4,960	37.5	98 / 160
440	43,992	4,960	38.8	97 / 108
445	44,492	4,820	39.0	42 / 186
448	44,759	4,820	39.2	311 / 148
453	45,315	4,820	39.3	257 / 151

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CONETOE CREEK				
460	45,992	4,820	39.5	186 / 453
465	46,492	4,820	39.8	217 / 276
470	46,993	4,820	39.9	222 / 337
475	47,493	4,820	40.1	186 / 531
480	47,993	4,820	40.2	228 / 241
485	48,493	4,820	40.5	737 / 195
490	48,994	4,820	40.6	614 / 539
495	49,493	4,820	40.6	248 / 705
500	49,993	4,820	40.8	174 / 745
505	50,493	4,820	40.9	99 / 1,068
510	50,993	4,820	41.1	464 / 835
516	51,554	4,820	41.2	514 / 280
520	51,994	4,820	41.4	551 / 525
525	52,494	4,820	41.6	460 / 857
530	52,995	4,820	41.7	490 / 933
535	53,468	4,820	41.8	551 / 833
540	53,995	4,820	42.0	560 / 570
546	54,584	4,420	42.2	454 / 1,238
550	55,000	4,420	42.2	978 / 839
555	55,500	4,420	42.3	615 / 189
561	56,091	4,420	42.5	281 / 654
565	56,500	4,420	42.6	564 / 30
575	57,500	4,420	45.1	1,006 / 131
580	57,996	4,420	45.1	710 / 585
585	58,500	4,420	45.2	206 / 951
590	59,000	4,420	45.2	31 / 1,020
595	59,500	4,420	45.3	30 / 1,803
600	60,000	4,420	45.4	38 / 1,289
605	60,500	4,420	45.5	431 / 910
610	61,000	4,420	45.6	619 /583
615	61,500	4,420	45.7	734 / 567
620	62,000	4,420	45.7	622 / 391
625	62,499	4,420	45.9	531 / 224
630	63,000	4,420	46.1	506 / 618
635	63,500	4,420	46.2	1,046 / 619
640	64,000	4,300	46.3	1,246 / 390
645	64,500	4,300	46.4	1,323 / 391
650	65,000	4,300	46.4	1,571 / 468
657	65,702	4,300	46.5	1,211 / 244
660	66,001	4,300	46.6	1,132 / 296
665	66,500	4,300	46.7	802 / 583
670	67,000	4,300	46.7	1,100 / 710
675	67,500	4,210	46.8	664 / 905

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CONETOE CREEK				
680	68,000	4,210	46.9	595 / 634
685	68,500	4,210	47.1	728 / 914
691	69,051	4,210	47.2	769 / 923
695	69,500	4,210	47.3	418 / 1,441
700	70,000	4,210	47.5	343 / 1,248
705	70,500	4,210	47.6	274 / 968
711	71,137	4,210	47.8	1,038 / 1,001
716	71,642	4,210	47.8	412 / 1,056
721	72,106	4,210	48.0	316 / 896
COW SWAMP				
004	391	2,370	18.5[4]	417 / 69
010	959	2,370	18.5[4]	45 / 374
016	1,564	2,370	18.5[4]	164 / 268
021	2,059	2,370	18.5[4]	350 / 65
024	2,409	2,370	18.5[4]	217 / 107
031	3,065	2,370	18.9	170 / 191
034	3,385	2,370	19.3	218 / 129
037	3,739	2,370	19.6	31 / 228
043	4,343	2,370	20.3	166 / 225
052	5,156	2,370	21.2	80 / 143
056	5,562	2,370	21.8	34 / 222
060	6,029	2,370	22.3	87 / 350
066	6,647	2,370	22.8	35 / 293
071	7,090	2,370	23.4	146 / 93
075	7,521	2,370	24.1	339 / 87
079	7,941	2,150	24.5	151 / 116
085	8,469	2,150	25.1	58 / 140
088	8,821	2,150	25.5	389 / 104
092	9,244	2,150	25.8	201 / 111
096	9,558	2,150	26.0	275 / 104
102	10,207	2,150	26.5	209 / 101
107	10,695	2,150	26.9	468 / 20
113	11,318	2,150	27.3	236 / 116
117	11,736	2,150	27.9	361 / 84
125	12,535	2,150	28.7	144 / 84
138	13,847	2,150	30.7	258 / 192
144	14,391	2,150	31.0	72 / 388
149	14,926	2,150	31.2	162 / 256
155	15,466	2,150	31.4	333 / 200
158	15,774	2,150	31.5	339 / 174
164	16,370	2,150	31.7	330 / 106
169	16,912	2,150	31.9	526 / 220
173	17,326	2,150	32.0	280 / 166

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
COW SWAMP				
179	17,900	2,150	32.3	312 / 220
188	18,765	1,430	32.7	63 / 169
192	19,205	1,430	33.2	199 / 98
196	19,570	1,430	33.5	121 / 101
204	20,354	1,430	34.5	90 / 190
210	21,039	1,260	34.9	235 / 49
215	21,476	1,260	35.1	47 / 68
220	21,996	1,260	35.6	138 / 168
225	22,479	1,260	35.8	66 / 106
229	22,946	1,260	36.1	118 / 177
235	23,486	1,260	36.5	258 / 84
240	24,039	1,260	36.9	172 / 35
247	24,692	1,260	37.6	129 / 150
253	25,312	1,260	38.3	109 / 33
257	25,692	1,260	38.9	159 / 110
264	26,407	1,260	39.5	135 / 159
270	27,016	1,260	39.9	144 / 218
274	27,431	1,260	40.1	55 / 237
280	27,997	1,020	40.7	81 / 246
285	28,463	1,020	41.0	88 / 221
289	28,879	1,020	41.5	99 / 184
293	29,336	1,020	41.9	83 / 175
298	29,825	1,020	42.4	165 / 129
303	30,321	1,020	42.7	87 / 298
308	30,824	1,020	43.0	102 / 141
313	31,250	1,020	43.4	132 / 164
319	31,944	725	44.1	124 / 61
325	32,536	725	44.8	96 / 92
335	33,465	725	45.9	117 / 128
340	33,963	725	46.3	347 / 92
CREEPING SWAMP				
027	2,655	3,590	20.9	42 / 514
035	3,525	3,590	21.6	600 / 150
044	4,410	3,590	22.1	99 / 310
050	5,008	3,590	22.8	134 / 181
055	5,479	3,590	23.3	225 / 95
063	6,269	3,590	24.2	554 / 168
076	7,588	3,490	26.0	800 / 100
084	8,418	3,490	26.1	600 / 300
092	9,248	3,490	26.2	125 / 600
103	10,293	3,430	26.4	600 / 250
113	11,254	3,430	26.7	400 / 400
124	12,362	3,430	27.0	400 / 400

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CREEPING SWAMP				
140	13,962	3,040	27.4	327 / 403
154	15,361	3,040	27.9	230 / 852
162	16,218	3,040	28.1	87 / 1018
172	17,156	3,040	28.3	372 / 662
182	18,234	3,040	28.7	404 / 440
194	19,448	3,040	29.3	591 / 384
217	21,667	2,630	29.9	476 / 749
228	22,766	2,630	30.3	647 / 234
237	23,730	2,630	30.9	369 / 411
249	24,855	2,630	31.6	99 / 658
263	26,293	2,630	32.6	335 / 370
276	27,643	2,630	33.6	364 / 205
293	29,302	2,180	34.6	364 / 305
303	30,276	2,180	35.0	383 / 208
336	33,575	1,960	37.8	661 / 45
371	37,147	1,910	39.4	493 / 545
393	39,259	1,730	40.9	26 / 413
426	42,643	1,730	46.6	219 / 221
439	43,921	1,060	46.7	45 / 727
458	45,802	760	46.7	500 / 400
CRISP CREEK				
010	1,026	2,628	47.8[4]	200 / 375
015	1,501	2,628	47.8[4]	125 / 327
021	2,059	2,628	48.0	407 / 46
025	2,502	2,628	48.2	147 / 207
030	3,003	2,628	48.4	361 / 257
035	3,503	2,628	48.6	517 / 348
042	4,171	2,628	48.8	40 / 400
045	4,501	2,628	49.0	50 / 200
050	5,001	2,628	49.3	248 / 132
055	5,502	2,628	49.6	195 / 235
060	6,002	2,628	49.8	75 / 325
065	6,501	2,628	50.0	240 / 576
070	7,001	2,628	50.2	33 / 620
075	7,473	2,540	50.3	286 / 231
080	8,000	2,540	50.5	522 / 473
085	8,500	2,540	50.6	197 / 670
CROSS SWAMP				
004	384	1,080	32.8	172 / 6
006	612	1,080	32.9	58 / 82
011	1,145	1,080	33.3	103 / 119
015	1,527	1,080	33.5	127 / 55
019	1,904	1,080	33.7	79 / 44

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CROSS SWAMP				
022	2,249	1,080	33.9	77 / 62
027	2,749	1,080	34.2	115 / 20
032	3,179	1,080	34.6	110 / 6
038	3,772	1,080	35.2	82 / 65
043	4,300	1,080	35.6	130 / 122
049	4,907	888	35.9	61 / 293
054	5,363	888	36.2	78 / 181
058	5,811	888	36.5	129 / 84
063	6,343	742	36.8	116 / 12
FLAT SWAMP				
012	1,172	2,721	39.5[4]	385 / 137
019	1,855	2,721	39.7[4]	457 / 131
024	2,356	2,721	39.8[4]	327 / 304
030	2,957	2,721	39.9[4]	351 / 383
035	3,509	2,721	40.1	119 / 164
051	5,109	2,721	41.3	84 / 618
055	5,495	2,721	41.5	362 / 356
060	6,032	2,721	41.6	291 / 279
GRINDLE CREEK				
399	39,896	4,999	20.5	300 / 300
410	41,003	4,999	20.7	300 / 300
425	42,499	4,634	21.0	300 / 300
440	43,999	4,634	21.3	300 / 300
450	44,999	4,634	21.6	31 / 408
455	45,500	4,634	21.7	34 / 435
458	45,792	4,634	21.8	225 / 225
461	46,131	4,634	22.7	31 / 350
465	46,501	4,634	22.8	31 / 287
475	47,501	4,634	23.0	141 / 120
485	48,500	4,558	23.2	373 / 58
496	49,551	4,558	23.6	545 / 119
505	50,501	4,558	23.7	47 / 943
515	51,501	4,558	23.9	405 / 619
523	52,322	4,558	24.1	700 / 700
527	52,681	4,558	26.4	600 / 600
530	53,002	4,558	26.4	200 / 200
550	55,004	4,558	26.8	500 / 500
560	56,005	4,558	27.0	600 / 600
570	57,006	4,558	27.1	600 / 600
580	58,007	4,365	27.5	298 / 509
590	59,007	4,365	27.8	1,156 / 575
600	60,009	4,365	27.9	674 / 530
610	61,010	4,365	28.1	1,173 / 965

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GRINDLE CREEK				
620	62,010	4,365	28.4	674 / 530
630	63,010	4,365	28.7	569 / 204
640	64,010	4,365	29.0	69 / 1,073
650	65,010	4,365	29.2	368 / 965
660	66,010	4,365	29.4	307 / 1,526
670	67,012	4,365	29.7	577 / 512
680	68,011	4,365	29.9	105 / 629
687	68,658	4,048	30.2	225 / 944
690	69,031	4,048	31.0	28 / 358
695	69,511	4,048	31.1	28 / 141
700	70,012	4,048	31.2	28 / 662
710	71,013	4,048	31.4	28 / 553
720	72,012	4,048	31.5	28 / 527
730	73,013	4,048	31.7	101 / 28
740	74,012	4,048	31.9	274 / 28
750	75,013	4,048	32.1	573 / 31
765	76,501	3,397	32.5	47 / 35
771	77,105	3,397	32.6	31 / 74
780	78,002	3,397	33.8	200 / 200
790	79,001	3,397	33.9	100 / 100
794	79,431	3,397	35.4	150 / 150
800	80,000	3,397	35.4	953 / 23
810	81,001	3,397	35.5	640 / 23
820	82,000	3,397	35.7	438 / 23
830	83,000	3,397	35.9	281 / 23
840	84,000	3,397	36.0	63 / 34
850	85,000	3,397	36.5	70 / 315
866	86,646	3,276	38.4	195 / 332
870	87,000	3,276	38.5	269 / 160
GRINDLE CREEK TRIBUTARY				
036	3,596	634	21.9	384 / 2
041	4,131	634	23.7	82 / 12
046	4,628	634	25.4	128 / 31
052	5,155	634	26.5	64 / 83
056	5,625	634	27.2	2 / 561
061	6,131	634	27.7	333 / 85
067	6,726	483	28.2	289 / 21
076	7,614	483	29.5	250 / 250
081	8,130	483	29.5	250 / 250
087	8,667	483	29.5	250 / 250
092	9,204	483	29.5	628 / 513
095	9,548	483	29.5	812 / 242
100	10,035	483	29.6	757 / 382

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GUM SWAMP				
007	664	912	56.3	28 / 153
010	1,000	912	56.6	44 / 130
015	1,500	912	56.9	47 / 113
020	2,000	912	57.6	107 / 94
025	2,535	912	58.4	78 / 109
030	3,000	884	59.0	20 / 155
035	3,500	884	59.7	31 / 167
040	4,000	884	60.2	34 / 88
045	4,500	884	61.2	30 / 107
050	5,000	884	61.9	28 / 129
055	5,500	884	62.4	17 / 100
060	6,000	841	63.2	137 / 32
HARRIS MILL RUN				
069	6,909	955	24.8[4]	20 / 120
075	7,498	955	25.2	59 / 10
080	8,008	955	26.8	39 / 32
085	8,499	955	28.0	70 / 20
094	9,373	955	30.3	14 / 66
099	9,932	955	31.3	10 / 20
106	10,624	830	33.4	80 / 15
112	11,223	830	34.4	9 / 39
117	11,674	830	35.4	10 / 20
121	12,092	830	36.9	17 / 16
127	12,685	830	39.3	23 / 37
132	13,204	502	41.0	37 / 17
137	13,749	502	42.2	15 / 13
150	14,995	502	47.9	20 / 15
160	16,010	502	60.2	40 / 40
165	16,531	502	60.2	40 / 40
HORSE SWAMP				
023	2,301	941	49.4 [4]	211 / 101
026	2,565	941	49.4 [4]	200 / 40
028	2,838	941	49.7	254 / 65
035	3,516	912	51.1	132 / 67
040	3,958	912	51.6	44 / 127
044	4,421	662	52.3	13 / 114
HUNTING RUN				
010	998	1,519	20.9[4]	20 / 20
015	1,498	1,519	20.9[4]	20 / 20
020	1,996	1,519	21.0	59 / 83
025	2,495	1,519	21.5	131 / 13
030	2,996	1,519	22.1	195 / 28
035	3,495	1,519	22.5	198 / 15

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
HUNTING RUN				
039	3,855	1,519	23.0	184 / 20
050	4,995	1,519	25.4	100 / 280
055	5,494	1,519	25.8	53 / 120
060	5,993	1,519	26.4	38 / 152
065	6,492	1,519	27.0	79 / 148
080	8,048	1,519	29.0	178 / 39
INDIAN WELL SWAMP				
006	600	2,300	31.0[4]	622 / 87
013	1,312	2,300	31.0[4]	553 / 336
020	1,954	2,300	31.0[4]	500 / 300
025	2,512	2,300	31.0	300 / 400
031	3,128	2,300	31.4	22 / 500
049	4,874	2,263	33.7	575 / 209
060	6,000	2,263	33.9	617 / 150
072	7,189	2,263	34.1	500 / 400
083	8,334	2,017	34.2	391 / 510
101	10,123	1,980	35.3	222 / 370
112	11,150	1,980	35.6	452 / 245
122	12,206	1,980	36.1	454 / 210
136	13,599	1,518	36.8	243 / 546
143	14,265	1,518	37.0	183 / 420
156	15,551	1,487	37.6	116 / 200
162	16,171	1,487	38.0	250 / 200
169	16,941	1,487	38.5	350 / 349
INDIAN WELL SWAMP TRIBUTARY				
007	736	850	36.5[4]	125 / 160
013	1,258	850	36.5[4]	55 / 102
020	1,955	850	36.5[4]	100 / 100
026	2,564	850	37.1	40 / 120
031	3,099	695	37.3	90 / 225
038	3,832	695	37.7	60 / 295
045	4,500	637	38.0	220 / 125
052	5,160	637	38.4	110 / 270
058	5,782	637	38.9	230 / 30
063	6,284	637	39.7	170 / 99
069	6,890	605	40.4	65 / 100
075	7,541	605	41.4	30 / 130
089	8,870	605	42.2	100 / 100
ISLAND SWAMP				
003	278	506	35.6[4]	30 / 90
008	822	506	35.8	15 / 120
017	1,675	506	36.8	60 / 20
020	2,034	506	37.1	90 / 25

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ISLAND SWAMP				
032	3,179	506	38.3	10 / 10
036	3,589	506	39.6	70 / 15
040	4,011	353	40.1	15 / 35
043	4,318	353	40.4	10 / 15
049	4,876	353	41.3	12 / 15
054	5,364	353	41.9	10 / 18
060	5,999	353	42.7	10 / 28
067	6,681	353	43.3	39 / 30
072	7,182	353	43.6	63 / 43
077	7,675	353	43.9	11 / 60
JACOB BRANCH				
004	414	1,083	61.3[4]	82 / 303
016	1,592	1,083	62.8	100 / 100
023	2,294	1,083	63.0	84 / 180
027	2,734	1,083	63.2	206 / 151
033	3,265	1,083	63.5	119 / 142
045	4,464	1,083	64.2	250 / 41
050	4,996	1,083	64.7	201 / 87
057	5,673	1,083	65.5	240 / 56
064	6,374	1,083	66.2	155 / 168
070	6,981	1,083	66.9	222 / 25
077	7,682	1,083	68.0	130 / 87
082	8,191	1,083	68.6	33 / 195
087	8,694	1,083	69.4	13 / 170
094	9,428	1,083	70.4	192 / 68
106	10,621	1,083	73.0	152 / 51
115	11,467	1,083	74.2	138 / 71
121	12,074	1,083	75.0	224 / 22
129	12,902	716	76.2	181 / 26
136	13,643	716	77.2	95 / 91
143	14,320	666	78.1	135 / 16
160	16,030	569	80.9	76 / 62
169	16,893	569	82.1	80 / 20
179	17,941	540	83.3	40 / 80
JOHNSONS MILL RUN TRIBUTARY				
005	500	1,230	25.5[4]	26 / 28
010	1,000	1,230	25.5[4]	28 / 17
015	1,502	1,230	25.5[4]	14 / 30
030	2,999	1,230	25.5[4]	53 / 26
035	3,499	1,230	25.5[4]	36 / 11
041	4,125	1,230	25.5[4]	24 / 39
047	4,712	1,230	25.5[4]	27 / 20
055	5,502	1,230	25.8	93 / 22

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
JOHNSONS MILL RUN TRIBUTARY				
061	6,121	1,230	26.2	20 / 113
069	6,861	1,230	26.9	76 / 13
074	7,394	1,230	27.8	32 / 55
080	7,980	1,230	28.7	121 / 30
084	8,445	1,230	29.0	350 / 25
091	9,094	1,230	29.1	251 / 15
095	9,490	1,120	29.3	149 / 15
100	9,991	1,120	29.6	46 / 126
105	10,491	1,120	29.8	119 / 90
111	11,060	1,120	30.0	255 / 15
115	11,488	1,120	30.2	112 / 19
121	12,058	1,120	30.4	15 / 297
125	12,489	1,120	30.6	16 / 70
KITTEN CREEK				
002	210	2,150	36.2[4]	337 / 13
007	653	2,150	36.2[4]	272 / 13
012	1,151	2,150	36.2[4]	13 / 57
015	1,500	2,150	36.2[4]	78 / 42
020	1,960	2,150	36.2[4]	13 / 144
024	2,436	2,150	36.2[4]	35 / 110
031	3,071	2,026	36.2[4]	58 / 153
037	3,666	1,858	36.2[4]	174 / 28
039	3,862	1,858	36.2[4]	156 / 49
045	4,500	1,858	36.2[4]	89 / 75
050	5,000	1,858	36.2[4]	125 / 87
055	5,500	1,858	36.2[4]	116 / 11
060	6,000	1,858	36.2[4]	121 / 34
064	6,393	1,858	36.2[4]	52 / 143
069	6,855	1,858	36.2[4]	52 / 158
072	7,204	1,858	36.2[4]	148 / 22
077	7,691	1,858	36.2[4]	63 / 48
082	8,224	1,858	37.1	18 / 129
087	8,735	1,858	37.8	202 / 11
090	8,997	1,858	37.9	115 / 32
099	9,861	1,858	39.0	17 / 38
102	10,188	1,858	39.7	18 / 77
106	10,556	1,858	40.2	103 / 13
110	11,027	1,858	40.8	18 / 48
115	11,536	1,858	41.9	57 / 56
120	12,042	1,858	42.4	114 / 68
125	12,496	1,858	42.8	104 / 21
132	13,187	1,858	43.7	50 / 77
136	13,600	1,858	44.2	62 / 116

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
KITTEN CREEK				
141	14,060	1,858	44.7	24 / 114
145	14,500	1,858	45.5	42 / 74
150	15,000	1,598	46.5	89 / 51
156	15,598	1,598	48.1	251 / 110
159	15,942	1,598	48.2	90 / 121
163	16,289	1,598	48.4	48 / 117
168	16,843	1,598	48.8	156 / 9
172	17,246	1,598	49.1	74 / 64
179	17,859	1,598	49.6	42 / 201
183	18,334	1,598	49.9	40 / 114
188	18,787	1,598	50.4	47 / 85
194	19,378	1,598	51.2	100 / 70
198	19,787	1,406	51.8	129 / 49
203	20,288	1,406	52.3	51 / 163
208	20,790	1,406	52.7	33 / 128
213	21,291	1,406	53.1	56 / 132
218	21,790	1,406	53.4	43 / 100
223	22,290	1,406	53.9	120 / 17
227	22,693	1,406	54.3	94 / 85
233	23,289	1,297	54.8	35 / 125
238	23,789	1,297	55.3	101 / 88
242	24,170	1,297	55.6	102 / 52
247	24,721	1,297	56.2	68 / 48
252	25,236	1,297	56.8	59 / 156
258	25,788	1,297	57.3	62 / 29
264	26,351	1,297	58.4	44 / 72
268	26,788	1,297	58.9	134 / 10
273	27,288	1,297	59.6	104 / 74
278	27,788	1,186	60.1	64 / 48
283	28,288	1,186	60.5	81 / 85
288	28,838	1,186	61.0	68 / 55
293	29,289	1,186	61.4	134 / 69
299	29,858	1,186	61.8	73 / 99
303	30,338	1,186	62.2	63 / 54
309	30,896	1,186	62.9	22 / 99
313	31,289	1,186	63.2	84 / 76
317	31,693	1,186	63.8	93 / 55
323	32,290	1,019	65.4	118 / 18
328	32,790	1,019	66.4	83 / 98
333	33,289	1,019	66.8	163 / 120
338	33,790	1,019	67.0	155 / 191
343	34,289	1,019	67.1	194 / 149
348	34,789	1,019	67.4	38 / 152

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
KITTEN CREEK				
354	35,418	652	68.3	100 / 25
357	35,709	652	69.0	225 / 100
361	36,108	559	69.5	100 / 10
368	36,790	559	70.6	76 / 34
373	37,268	559	71.8	85 / 75
378	37,816	559	73.5	85 / 50
383	38,287	559	74.5	62 / 61
388	38,787	559	75.5	46 / 42
394	39,411	472	76.5	57 / 27
LANGS MILL RUN				
010	1,001	1,222	71.2	64 / 217
015	1,520	1,222	71.6	28 / 267
021	2,131	1,222	72.2	25 / 160
029	2,861	1,183	73.1	42 / 191
035	3,517	1,183	73.5	64 / 212
042	4,204	1,183	74.0	160 / 129
053	5,258	1,146	74.6	170 / 201
063	6,314	1,146	75.2	70 / 300
079	7,850	1,100	78.1	30 / 337
087	8,670	1,080	78.7	56 / 312
097	9,667	1,080	79.6	84 / 94
105	10,476	1,080	80.6	153 / 212
112	11,227	1,080	81.3	239 / 30
121	12,069	1,080	82.4	209 / 86
145	14,499	995	84.1	5 / 150
154	15,421	995	85.5	17 / 315
166	16,571	995	86.5	25 / 287
174	17,442	995	87.6	34 / 189
182	18,229	848	88.7	192 / 196
195	19,533	759	91.4	87 / 123
204	20,444	759	92.3	64 / 122
214	21,387	759	93.3	87 / 144
222	22,185	712	94.5	29 / 101
LAWRENCE RUN				
005	501	1,275	32.7	71 / 91
010	1,003	1,275	33.3	53 / 56
015	1,504	1,275	34.1	61 / 63
021	2,124	1,275	35.1	39 / 56
025	2,506	1,275	35.8	77 / 31
030	3,006	1,275	36.4	100 / 20
036	3,562	1,275	37.3	125 / 15
040	4,005	1,275	37.9	100 / 20
044	4,352	1,275	38.6	150 / 20

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LAWRENCE RUN				
050	5,045	1,275	40.1	150 / 15
054	5,408	1,275	40.5	243 / 17
058	5,817	1,047	41.0	45 / 56
066	6,559	1,047	42.4	34 / 92
070	7,005	1,047	43.2	64 / 54
075	7,505	1,047	44.1	46 / 120
080	7,991	1,047	44.8	15 / 100
085	8,505	1,047	46.0	18 / 98
090	8,963	1,047	46.8	21 / 117
093	9,343	1,047	47.2	21 / 134
098	9,768	1,047	47.8	19 / 101
105	10,504	1,047	49.3	44 / 121
110	11,005	1,047	50.4	100 / 20
115	11,506	694	51.8	90 / 40
119	11,928	694	52.4	49 / 78
125	12,506	694	53.4	48 / 66
130	12,957	694	54.4	35 / 84
135	13,507	694	55.9	43 / 58
140	14,007	694	57.2	61 / 70
145	14,507	694	58.4	55 / 73
LITTLE CONTENTNEA CREEK				
759	75,934	6,204	42.9	103 / 941
774	77,352	6,204	43.1	492 / 203
784	78,439	6,204	43.6	477 / 622
800	79,960	6,204	44.2	42 / 200
810	80,997	6,204	44.7	372 / 276
817	81,735	6,204	44.8	235 / 349
824	82,442	6,204	44.9	511 / 1,245
834	83,396	6,204	45.0	211 / 1,242
845	84,467	6,204	45.1	496 / 1,273
860	85,951	6,163	46.0	86 / 800
879	87,929	6,163	46.3	1,196 / 527
889	88,868	6,163	46.4	787 / 772
897	89,745	6,149	46.6	300 / 1370
904	90,448	6,149	46.8	56 / 1,677
913	91,255	6,149	47.2	550 / 1,200
925	92,490	6,063	47.9	429 / 703
934	93,355	6,063	48.6	494 / 829
941	94,122	6,063	49.2	149 / 1,650
948	94,768	6,063	49.5	370 / 1,459
962	96,175	6,063	49.9	445 / 780
978	97,810	5,620	50.4	695 / 844
995	99,470	5,620	50.7	1,027 / 775

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LITTLE CONTENTNEA CREEK				
1006	100,625	5,620	50.9	1,307 / 366
1018	101,825	5,620	51.1	958 / 848
1037	103,674	5,620	51.5	458 / 1,070
1055	105,504	5,620	51.9	378 / 1,000
1067	106,718	5,043	52.1	400 / 400
LITTLE CONTENTNEA CREEK TRIBUTARY 1				
007	736	1,464	32.2[4]	149 / 19
013	1,268	1,464	32.2[4]	110 / 43
025	2,523	1,437	32.2[4]	28 / 77
031	3,088	1,437	32.2[4]	137 / 18
040	4,034	1,437	32.2[4]	65 / 49
047	4,659	1,437	32.2[4]	176 / 18
052	5,242	1,437	32.2[4]	124 / 18
059	5,911	1,437	32.2[4]	18 / 90
071	7,070	916	34.5	50 / 67
076	7,647	916	36.3	68 / 71
082	8,214	916	37.5	63 / 127
088	8,786	916	38.5	18 / 130
097	9,738	916	41.3	31 / 223
106	10,558	916	42.0	79 / 109
LITTLE CONTENTNEA CREEK TRIBUTARY 2				
018	1,779	1,782	49.9[4]	80 / 255
023	2,342	1,782	49.9[4]	155 / 90
029	2,942	1,782	49.9[4]	200 / 35
043	4,250	1,674	51.4	50 / 180
050	5,000	1,674	52.0	119 / 215
060	5,958	1,674	52.6	68 / 346
068	6,824	1,502	53.1	124 / 191
075	7,548	1,502	53.7	145 / 147
091	9,123	1,502	55.1	101 / 108
099	9,851	1,406	56.2	157 / 60
105	10,500	1,406	56.9	235 / 62
114	11,415	1,406	57.9	183 / 56
121	12,093	1,406	58.9	166 / 128
127	12,715	1,406	59.3	233 / 146
136	13,562	1,272	59.8	30 / 261
144	14,442	1,272	60.6	150 / 110
153	15,256	777	61.4	86 / 88
158	15,849	777	62.1	131 / 92
172	17,241	777	64.7	105 / 41
179	17,937	777	65.9	100 / 86
186	18,613	777	67.0	97 / 89
193	19,322	777	68.1	48 / 129

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LITTLE CONTENTNEA CREEK TRIBUTARY 3				
005	484	911	61.6	30 / 177
011	1,059	911	62.6	63 / 253
017	1,719	911	63.7	126 / 118
022	2,151	911	64.4	96 / 153
026	2,648	911	65.4	23 / 273
031	3,149	911	66.5	66 / 108
038	3,782	911	67.5	33 / 206
MEADOW BRANCH				
006	553	1,293	22.0[4]	144 / 60
011	1,093	1,293	22.0[4]	90 / 51
017	1,733	1,293	22.3	89 / 114
022	2,195	1,293	22.6	80 / 111
029	2,931	1,293	23.1	74 / 127
036	3,618	1,293	23.4	74 / 219
058	5,786	1,293	24.7	169 / 83
068	6,818	1,293	25.5	8 / 191
075	7,450	1,207	25.8	87 / 525
083	8,280	1,207	26.1	213 / 7
091	9,075	1,207	26.6	154 / 12
097	9,680	1,207	27.0	664 / 7
103	10,293	1,207	27.3	16 / 117
113	11,336	1,207	29.3	7 / 177
130	12,960	1,207	30.2	1,615 / 7
142	14,228	908	30.5	1,227 / 197
148	14,843	908	30.5	783 / 483
155	15,523	908	30.6	415 / 566
162	16,210	908	30.8	497 / 63
170	16,962	908	31.1	1,220 / 5
178	17,838	908	31.6	2,198 / 371
189	18,914	908	32.5	1,623 / 5
207	20,687	908	42.0	169 / 21
212	21,169	506	42.1	48 / 46
218	21,777	506	43.8	270 / 66
223	22,320	506	44.5	60 / 21
231	23,075	506	45.8	136 / 7
236	23,578	506	46.6	134 / 135
MIDDLE SWAMP				
372	37,224	1,519	63.8	427 / 62
379	37,875	1,519	64.0	413 / 19
387	38,682	1,519	64.3	333 / 152
394	39,359	1,519	64.5	51 / 285
402	40,168	1,519	65.2	22 / 259
409	40,881	1,410	65.9	18 / 352

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MIDDLE SWAMP				
416	41,594	1,410	66.5	18 / 339
422	42,244	1,410	67.0	21 / 318
428	42,780	572	67.4	83 / 263
434	43,440	572	67.9	21 / 118
442	44,157	572	69.7	65 / 88
448	44,802	511	71.0	97 / 57
455	45,465	511	71.9	87 / 89
459	45,931	511	72.4	116 / 78
466	46,649	465	75.7	71 / 14
MILL BRANCH				
003	278	944	40.5[4]	288 / 5
009	927	944	40.5[4]	152 / 12
015	1,500	944	40.9	188 / 5
020	2,000	944	41.9	327 / 5
025	2,500	944	42.3	195 / 34
030	3,000	944	42.7	257 / 50
035	3,500	944	43.3	10 / 236
040	4,000	944	44.3	178 / 23
043	4,251	944	44.9	18 / 31
047	4,697	944	46.3	229 / 12
050	5,000	944	47.1	20 / 55
055	5,499	944	47.8	21 / 35
060	5,999	944	48.7	14 / 44
065	6,498	813	49.5	90 / 29
070	6,998	813	50.7	39 / 28
075	7,499	813	51.7	159 / 24
080	7,998	813	52.5	39 / 29
085	8,497	813	53.5	45 / 40
090	8,997	813	54.2	27 / 82
092	9,204	813	54.4	21 / 98
096	9,563	813	54.8	62 / 71
100	9,995	813	55.4	86 / 48
105	10,496	813	56.0	7 / 31
110	10,996	813	58.0	21 / 69
116	11,608	662	58.7	21 / 59
OTTER CREEK				
042	4,201	8,406	34.7[4]	55 / 594
053	5,329	8,406	34.7[4]	326 / 18
062	6,155	8,406	34.7[4]	43 / 166
071	7,071	8,406	34.7[4]	336 / 115
080	7,959	8,406	34.7[4]	121 / 136
088	8,760	8,406	34.7[4]	806 / 18
095	9,490	8,406	34.7[4]	450 / 450

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
OTTER CREEK				
105	10,459	8,406	34.7[4]	450 / 450
112	11,178	8,406	34.7[4]	450 / 450
120	11,978	8,406	34.7[4]	189 / 162
123	12,313	8,406	34.7[4]	240 / 296
129	12,860	8,406	34.7[4]	403 / 28
135	13,489	8,406	34.7[4]	171 / 18
145	14,490	8,406	34.7[4]	95 / 261
150	15,041	8,406	34.7[4]	870 / 160
160	15,956	8,406	34.7[4]	582 / 420
167	16,659	8,406	34.7[4]	35 / 266
175	17,517	8,406	35.1	249 / 417
182	18,150	8,406	35.4	326 / 192
186	18,579	8,406	35.7	142 / 60
190	19,049	8,406	36.1	142 / 281
203	20,254	6,624	36.4	199 / 86
210	21,000	6,624	36.6	118 / 157
216	21,566	6,624	36.8	286 / 171
220	22,000	6,624	36.9	102 / 250
225	22,500	6,624	37.0	93 / 82
230	23,000	6,624	37.5	173 / 186
235	23,500	6,624	37.6	139 / 116
240	23,997	6,624	37.9	58 / 369
248	24,814	6,624	38.1	349 / 71
252	25,226	6,624	38.5	209 / 195
259	25,862	6,624	38.7	126 / 248
268	26,775	6,624	39.0	506 / 63
274	27,404	6,624	39.2	449 / 59
280	27,993	6,624	39.4	643 / 78
285	28,493	6,624	39.5	524 / 130
289	28,923	6,624	39.6	449 / 59
298	29,798	6,624	40.2	228 / 46
305	30,492	6,624	40.9	365 / 89
310	30,992	6,624	41.3	34 / 244
318	31,824	6,124	42.2	183 / 96
325	32,547	6,124	43.0	165 / 99
330	32,992	6,124	43.4	93 / 66
335	33,493	6,124	44.1	97 / 240
341	34,059	6,124	44.3	91 / 79
345	34,492	6,124	44.8	117 / 62
353	35,251	6,124	45.5	96 / 111
359	35,873	6,124	46.0	193 / 89
366	36,597	6,124	46.3	49 / 205
373	37,315	6,124	46.8	178 / 114

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
OTTER CREEK				
380	37,991	6,124	47.2	353 / 58
391	39,064	6,124	47.8	72 / 153
400	40,000	5,362	48.5	365 / 63
405	40,500	5,362	48.7	72 / 375
411	41,145	5,362	49.0	149 / 141
417	41,671	5,362	49.3	74 / 240
425	42,500	5,362	49.8	194 / 200
OTTER CREEK TRIBUTARY				
009	865	1,162	47.6[4]	237 / 14
PARKERS CREEK				
195	19,497	1,310	24.5	236 / 99
199	19,851	1,310	24.6	140 / 84
205	20,508	1,310	24.8	191 / 9
209	20,948	1,310	25.1	66 / 260
216	21,577	1,310	25.1	25 / 9
220	22,032	1,310	25.9	240 / 12
PEA BRANCH				
008	829	993	14.6[4]	254 / 5
012	1,247	993	14.6[4]	69 / 11
021	2,104	993	14.7	131 / 17
025	2,507	993	15.0	142 / 49
032	3,157	993	15.5	175 / 5
036	3,632	993	15.9	101 / 82
041	4,150	993	16.2	5 / 207
048	4,778	993	16.6	122 / 52
060	6,000	587	17.7	62 / 29
067	6,674	587	18.5	68 / 91
073	7,327	587	19.3	55 / 130
084	8,440	546	22.1	24 / 13
095	9,518	546	24.9	67 / 40
POLEY BRANCH				
008	827	643	15.1[4]	854 / 191
015	1,466	643	15.1[4]	32 / 73
020	1,980	643	15.1[4]	24 / 81
025	2,474	643	15.1[4]	60 / 48
031	3,067	561	15.2	2 / 168
034	3,436	561	17.0	20 / 23
039	3,888	561	19.7	52 / 34
042	4,201	561	20.6	17 / 54
052	5,165	493	23.3	76 / 42
058	5,769	493	24.1	19 / 60
064	6,379	427	24.7	53 / 66
069	6,861	427	24.9	150 / 307

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SWIFT CREEK				
1219	121,919	7,690	19.0	398 / 1,021
1230	123,011	7,690	19.2	250 / 750
1238	123,837	7,690	19.3	550 / 335
1256	125,585	6,210	19.8	1,000 / 250
1266	126,560	6,210	20.0	833 / 404
1270	126,979	6,210	20.0	432 / 666
1282	128,194	6,264	20.3	412 / 249
1294	129,375	6,143	20.7	300 / 550
1303	130,298	6,143	20.9	374 / 590
1309	130,915	6,143	21.0	300 / 500
1320	131,990	6,143	21.3	250 / 450
1336	133,608	6,143	22.2	770 / 455
1341	134,059	6,143	22.3	800 / 320
1351	135,109	6,143	22.6	365 / 381
1361	136,082	6,143	22.9	304 / 612
1366	136,643	6,143	23.0	556 / 290
1381	138,058	6,143	23.4	135 / 505
1403	140,252	6,028	24.1	525 / 320
1417	141,737	6,028	24.4	500 / 500
1427	142,709	6,028	24.6	47 / 589
1434	143,370	6,028	24.8	100 / 500
1442	144,207	6,028	25.1	300 / 475
1454	145,398	6,028	25.4	450 / 500
1468	146,770	6,028	25.9	100 / 500
1482	148,181	6,028	26.4	90 / 320
1490	149,009	6,028	26.7	250 / 125
1505	150,519	6,028	27.5	700 / 300
1518	151,803	6,028	27.7	1,200 / 125
1541	154,076	5,836	28.0	200 / 1,200
1556	155,550	5,836	28.4	140 / 1,000
1570	157,047	5,836	28.7	1,400 / 80
1588	158,786	5,836	29.1	500 / 1,000
1604	160,412	5,836	29.4	380 / 1,000
1634	163,441	5,687	30.3	100 / 1,420
1653	165,331	5,687	31.0	700 / 1,200
1666	166,570	5,639	31.2	940 / 1,400
1680	168,000	5,639	31.4	780 / 1,600
1699	169,857	5,400	31.8	800 / 1,000
1714	171,366	5,190	32.2	250 / 1,000
1724	172,416	5,190	32.8	100 / 1,000
1739	173,869	5,190	33.3	804 / 716
SWIFT CREEK TRIBUTARY 1				
005	543	814	47.1 [4]	150 / 250

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SWIFT CREEK TRIBUTARY 1				
012	1,218	814	47.1 [4]	100 / 100
020	1,972	814	47.1 [4]	100 / 50
028	2,787	814	47.5	100 / 75
039	3,855	814	49.4	20 / 150
050	5,009	657	51.1	20 / 100
062	6,213	546	52.8	40 / 20
076	7,624	422	55.9	15 / 15
SWIFT CREEK TRIBUTARY 2				
008	847	547	53.0[4]	12 / 38
017	1,741	547	54.5	12 / 143
023	2,271	518	54.9	17 / 80
031	3,060	518	56.6	12 / 12
035	3,500	518	58.6	26 / 42
042	4,199	518	60.0	12 / 21
THOMAS CANAL				
013	1,341	559	46.3[4]	2 / 291
016	1,569	559	46.3[4]	12 / 14
020	1,998	559	46.3[4]	9 / 80
023	2,307	559	46.8	9 / 18
030	3,000	559	47.4	47 / 207
034	3,412	559	48.0	119 / 9
044	4,409	559	48.5	590 / 2
048	4,752	559	48.5	539 / 30
051	5,141	559	48.6	107 / 215
055	5,498	559	48.7	21 / 356
067	6,681	559	48.8	2 / 556
070	6,998	559	48.8	719 / 346
075	7,499	559	48.8	495 / 495
079	7,937	559	48.8	444 / 387
084	8,371	559	48.9	688 / 275
092	9,186	487	48.9	2 / 643
096	9,627	487	48.9	2 / 680
THOROFARE SWAMP				
007	702	733	36.7 [4]	80 / 75
013	1,251	733	36.7 [4]	45 / 65
021	2,123	415	37.4	34 / 50
026	2,631	415	38.0	67 / 32
033	3,312	415	38.5	55 / 80
040	4,005	415	39.0	40 / 140
047	4,696	369	39.4	25 / 150
055	5,494	369	39.9	80 / 60
062	6,171	369	40.3	130 / 68
069	6,851	369	40.6	185 / 40

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TRANTERS CREEK				
401	40,104	10,890	10.0	67 / 1,873[5]
487	48,725	10,890	11.2	1,181 / 50[5]
511	51,101	10,890	11.6	607 / 50[5]
570	57,004	10,890	12.1	661 / 132[5]
654	65,352	10,890	12.6	50 / 722[5]
681	68,126	10,890	13.2	137 / 709[5]
705	70,464	8,678	13.3	1,007 / 558[5]
711	71,134	8,678	13.4	841 / 790[5]
716	71,635	8,678	13.4	737 / 1,350[5]
721	72,136	8,678	13.4	310 / 1,687[5]
726	72,637	8,678	13.4	757 / 945[5]
731	73,138	8,678	13.4	202 / 2,419[5]
766	76,645	8,661	13.5	2,024 / 1,339[5]
776	77,649	8,661	13.5	1,700 / 238[5]
786	78,649	8,661	13.5	1,327 / 415[5]
793	79,265	8,661	13.5	356 / 424[5]
797	79,651	8,661	13.6	1,003 / 172[5]
804	80,448	8,573	13.6	945 / 97[5]
812	81,150	8,573	13.6	335 / 1,354[5]
817	81,650	8,573	13.7	664 / 1,730[5]
821	82,149	8,573	13.7	469 / 1,654[5]
827	82,650	8,573	13.7	662 / 651[5]
842	84,150	8,573	13.8	71 / 3,333[5]
849	84,850	8,573	13.8	426 / 3,162[5]
856	85,648	8,573	13.9	842 / 2,348[5]
864	86,385	8,573	13.9	178 / 2,134[5]
871	87,146	8,573	14.0	780 / 304[5]
876	87,645	8,573	14.0	518 / 258[5]
881	88,144	8,573	14.1	2,026 / 210[5]
890	89,036	8,524	14.1	1,107 / 322[5]
899	89,923	8,524	14.2	1,715 / 701[5]
908	90,818	8,524	14.3	721 / 208[5]
918	91,810	8,524	14.4	327 / 1,019[5]
926	92,648	8,524	14.4	481 / 1,253[5]
937	93,650	8,524	14.5	944 / 910[5]
941	94,150	8,524	14.5	793 / 1,125[5]
947	94,650	8,524	14.5	1,027 / 1,470[5]
955	95,494	8,524	14.6	1,717 / 182[5]
971	97,135	8,305	14.6	2,182 / 269[5]
976	97,636	8,305	14.7	1,097 / 894[5]
981	98,136	8,305	14.7	1,449 / 671[5]
986	98,637	8,305	14.7	1,237 / 763[5]
991	99,138	8,305	14.7	1,509 / 680[5]

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TRANTERS CREEK				
1001	100,139	8,305	14.8	1,465 / 429[5]
1010	101,029	8,305	14.8	877 / 1,092[5]
1018	101,796	8,305	14.8	187 / 937[5]
1026	102,640	8,305	14.9	915 / 1,072[5]
1032	103,235	8,305	15.0	1,212 / 514[5]
1041	104,140	8,305	15.0	1,139 / 451[5]
1046	104,640	8,305	15.1	988 / 631[5]
1061	106,135	8,201	15.2	165 / 1,482[5]
1071	107,134	8,201	15.4	401 / 1,615[5]
1089	108,892	8,201	15.7	190 / 2,108[5]
1101	110,087	8,201	15.8	867 / 1,788[5]
1112	111,196	7,840	15.9	1, 217 / 856[5]
1121	112,135	7,840	16.2	1,014 / 260[5]
1131	113,136	7,840	17.3	168 / 86[5]
1140	113,951	7,836	17.9	1, 369 / 50[5]
1150	114,998	7,836	18.2	226 / 1,371[5]
1156	115,598	7,836	18.3	45 / 1,965[5]
1165	116,476	7,836	18.5	226 / 2,365[5]
1171	117,059	7,836	18.6	45 / 2,269[5]
1181	118,142	7,836	18.8	174 / 2,469[5]
1191	119,066	7,836	19.0	45 / 1,366[5]
1206	120,597	7,743	19.3	342 / 2,228[5]
1227	122,661	7,743	19.6	1,935 / 635[5]
1234	123,370	7,743	19.7	2,557 / 108[5]
1242	124,155	7,743	19.8	1,632 / 248[5]
1252	125,154	7,743	20.0	1,828 / 44[5]
1260	126,039	7,743	20.3	872 / 44[5]
1269	126,907	7,743	20.5	1,474 / 82[5]
1277	127,652	7,743	20.7	1,754 / 44[5]
1283	128,327	7,743	20.8	1,642 / 179[5]
1298	129,828	7,743	21.2	44 / 2,152[5]
1306	130,570	7,743	21.4	44 / 2,033[5]
1313	131,336	7,743	21.6	125 / 1,444[5]
1324	132,386	7,743	21.9	645 / 357[5]
1329	132,915	7,743	22.0	643 / 104[5]
1353	135,292	6,923	22.7	2,232 / 560[5]
1361	136,136	6,923	22.9	1,554 / 703[5]
1372	137,163	6,923	23.2	1,651 / 959[5]
1379	137,889	6,923	23.4	1,961 / 517[5]
1384	138,365	6,923	23.5	1,560 / 40[5]
1392	139,231	6,923	23.7	3,628 / 40[5]
1400	139,976	6,923	23.8	3,390 / 40[5]
1411	141,134	6,880	24.2	3,150 / 96[5]

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TRANTERS CREEK				
1420	142,032	6,880	24.5	1,456 / 40[5]
1431	143,134	6,880	25.2	1,646 / 40[5]
1441	144,108	6,880	25.9	1,026 / 301[5]
1450	144,968	6,880	26.5	1,794 / 40[5]
1456	145,622	6,880	27.0	2,775 / 89[5]
1466	146,636	6,880	27.3	2,118 / 1,001[5]
1475	147,522	6,847	27.5	1,713 / 1,055[5]
1486	148,635	6,847	27.7	429 / 1,897[5]
1496	149,636	6,847	27.9	40 / 1,995[5]
1516	151,636	6,847	28.4	532 / 3,581[5]
1554	155,442	6,703	29.4	274 / 294[5]
1565	156,483	6,703	30.1	263 / 39[5]
1571	157,134	6,703	30.7	1,639 / 138[5]
1578	157,767	6,703	30.9	1,708 / 39[5]
1596	159,635	5,944	31.3	1,830 / 36[5]
1606	160,633	5,944	31.3	1,626 / 87[5]
1611	161,131	5,944	31.4	1,397 / 340[5]
1619	161,872	5,944	31.4	733 / 895[5]
1626	162,631	5,859	31.5	339 / 835[5]
1636	163,633	5,859	31.6	1,291 / 769[5]
1641	164,132	5,859	31.7	1,616 / 214[5]
1646	164,632	5,859	31.7	1,385 / 779[5]
1651	165,133	5,859	31.8	823 / 347[5]
1656	165,634	5,859	31.9	1,441 / 685[5]
1661	166,134	5,859	31.9	2,024 / 789[5]
1668	166,799	5,859	32.0	1,932 / 793[5]
1676	167,633	5,859	32.0	1,128 / 1,325[5]
1683	168,342	5,859	32.1	911 / 1,115[5]
1691	169,132	5,806	32.1	1,450 / 851[5]
1698	169,814	5,806	32.2	949 / 1,132[5]
1706	170,632	5,806	32.4	1,724 / 278[5]
1713	171,281	5,806	32.5	1,924 / 482[5]
1721	172,131	5,806	32.7	1,296 / 36[5]
1734	173,351	5,806	32.9	283 / 1,002[5]
1743	174,286	5,806	33.1	314 / 615[5]
1754	175,419	5,806	33.4	441 / 109[5]
1765	176,539	5,806	33.7	1,305 / 631[5]
1797	179,673	3,269	34.2	213 / 281[5]
1806	180,634	3,269	34.4	488 / 353[5]
1815	181,484	3,269	34.5	455 / 877[5]
1826	182,633	3,269	34.6	962 / 193[5]
1836	183,632	3,269	34.9	696 / 340[5]
1841	184,133	3,269	35.0	451 / 325[5]

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TRANTERS CREEK				
1850	185,015	3,269	35.8	422 / 275[5]
1856	185,633	3,269	36.0	639 / 235[5]
1861	186,133	3,192	36.0	945 / 459[5]
1866	186,633	3,192	36.1	606 / 627[5]
1871	187,133	3,192	36.1	290 / 939[5]
1876	187,633	3,192	36.2	286 / 807[5]
1881	188,133	3,192	36.3	628 / 502[5]
1886	188,633	3,192	36.3	897 / 268[5]
1891	189,133	3,192	36.4	871 / 121[5]
1896	189,633	3,192	36.6	464 / 273[5]
1901	190,133	3,192	36.7	304 / 419[5]
1906	190,632	3,192	36.9	593 / 105[5]
1911	191,132	3,192	37.0	534 / 175[5]
1916	191,633	3,192	37.2	410 / 340[5]
1921	192,133	3,192	37.3	129 / 895[5]
1926	192,633	3,192	37.4	21 / 1,825[5]
1931	193,134	3,192	37.5	385 / 1,665[5]
1936	193,633	3,192	37.5	789 / 1,470[5]
1946	194,631	2,955	37.6	648 / 228[5]
1956	195,630	2,955	38.2	237 / 357[5]
1963	196,341	2,955	38.6	277 / 221[5]
1971	197,130	2,955	39.0	602 / 43[5]
1981	198,133	899	39.5	124 / 80[5]
1986	198,633	899	40.0	42 / 144[5]
1991	199,133	899	40.5	4 / 165[5]
1996	199,633	899	41.1	4 / 239[5]
2001	200,132	899	41.6	150 / 64[5]
2008	200,803	899	42.3	179 / 7[5]
2011	201,132	899	42.9	96 / 60[5]
2016	201,632	507	43.5	94 / 5[5]
2021	202,132	507	44.5	8 / 42[5]
2026	202,632	507	45.5	25 / 33[5]
2031	203,132	507	46.3	5 / 45[5]
2036	203,632	507	47.5	22 / 10[5]
2041	204,132	469	49.2	5 / 25[5]
TRIBUTARY TO LITTLE CONTENTNEA CREEK TRIBUTARY 1				
005	540	951	34.1	66 / 54
011	1,103	951	35.5	43 / 57
017	1,660	951	36.8	65 / 143
022	2,176	935	37.9	70 / 43
027	2,740	935	39.4	45 / 102
TYSON CREEK				
075	7,503	2,718	31.2[4]	199 / 30

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TYSON CREEK				
080	8,003	2,718	31.2[4]	30 / 51
085	8,504	2,718	31.2[4]	77 / 43
090	9,033	2,718	31.2[4]	120 / 40
105	10,547	2,553	31.2[4]	38 / 78
113	11,316	2,553	31.2[4]	151 / 20
120	12,005	2,553	31.2[4]	286 / 20
125	12,506	2,553	31.2[4]	198 / 20
139	13,922	2,553	31.2[4]	20 / 20
143	14,349	2,553	31.2[4]	93 / 30
150	15,005	2,553	31.2[4]	20 / 157
155	15,503	2,553	31.2[4]	151 / 67
160	16,003	2,553	31.2[4]	111 / 24
164	16,406	2,553	31.2[4]	58 / 21
170	17,049	2,553	31.2[4]	147 / 42
176	17,551	2,553	31.2[4]	140 / 35
180	18,005	2,553	31.2[4]	75 / 50
186	18,634	2,553	31.2[4]	76 / 91
193	19,296	2,553	31.2[4]	84 / 25
198	19,793	2,553	31.4	64 / 53
204	20,383	2,553	32.2	81 / 45
210	20,997	1,884	32.9	20 / 236
215	21,496	1,884	33.2	81 / 45
220	21,996	1,884	33.6	68 / 236
225	22,497	1,884	34.1	175 / 20
230	22,998	1,884	34.4	148 / 20
236	23,559	1,884	34.8	122 / 20
240	24,038	1,884	35.0	63 / 20
250	24,999	1,884	36.9	63 / 20
255	25,497	1,884	37.2	91 / 36
260	25,997	1,884	37.8	123 / 11
265	26,498	1,884	38.3	21 / 48
270	26,998	1,652	39.2	28 / 212
275	27,499	1,652	39.7	51 / 63
280	27,999	1,652	40.6	83 / 33
285	28,499	1,652	41.5	30 / 95
290	28,961	1,652	42.5	30 / 101
295	29,458	1,652	43.3	20 / 105
299	29,927	1,652	44.2	93 / 70
305	30,499	1,652	45.0	110 / 19
310	30,998	1,338	46.0	103 / 20
315	31,479	1,338	46.9	75 / 79
319	31,906	1,338	47.5	59 / 75
324	32,434	1,338	48.3	47 / 91

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TYSON CREEK				
332	33,151	1,009	49.4	76 / 21
337	33,715	1,009	50.3	44 / 108
343	34,258	1,009	51.3	63 / 99
346	34,624	1,009	51.8	58 / 102
351	35,067	1,009	52.6	93 / 43
361	36,102	1,009	55.3	101 / 32
365	36,503	1,009	55.8	110 / 66
370	37,037	1,009	56.4	75 / 61
375	37,502	1,009	57.1	100 / 52
378	37,836	1,009	57.7	118 / 25
384	38,366	1,009	58.5	89 / 80
389	38,875	1,009	59.1	43 / 140
395	39,502	1,009	59.8	22 / 130
400	40,002	1,009	60.7	20 / 170
405	40,504	1,009	61.6	39 / 81
408	40,848	1,009	62.3	33 / 103
413	41,348	1,009	63.0	81 / 73
420	42,017	1,009	63.9	113 / 8
425	42,480	352	64.7	20 / 20
WARD RUN				
015	1,525	1,275	79.8	95 / 166
023	2,256	1,275	80.8	41 / 350
036	3,647	1,212	83.1	65 / 330
043	4,336	1,212	83.4	297 / 179
049	4,907	1,212	83.6	476 / 36
057	5,722	1,212	84.1	125 / 175
064	6,414	1,212	84.7	61 / 229
071	7,076	1,212	85.2	313 / 78
077	7,706	1,147	85.7	197 / 56
082	8,216	1,147	86.3	190 / 40
089	8,871	1,147	87.0	169 / 72
096	9,585	1,080	87.8	179 / 133
102	10,156	1,080	88.2	206 / 130
115	11,500	1,015	91.5	34 / 215
121	12,086	1,015	91.6	164 / 159
WHICHARD BRANCH				
005	500	1,592	32.3[4]	867 / 9
010	999	1,592	32.3[4]	400 / 400
015	1,499	1,592	32.9	32 / 16
018	1,836	1,592	33.3	17 / 52
022	2,161	1,592	33.8	94 / 19
025	2,500	1,592	34.0	13 / 25
030	3,000	1,592	34.6	207 / 204

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
WHICHARD BRANCH				
035	3,500	1,592	34.9	140 / 189
040	4,000	1,592	35.8	146 / 333
045	4,500	1,592	36.1	354 / 75
050	5,000	1,592	36.6	234 / 34
055	5,499	1,592	37.3	256 / 196
060	5,998	1,592	37.6	207 / 237
065	6,500	1,592	38.0	173 / 251
070	7,000	1,592	38.6	195 / 93
075	7,499	1,592	39.1	202 / 147
078	7,765	1,592	39.4	235 / 113
082	8,246	1,592	40.4	290 / 114
090	9,001	948	40.6	85 / 705
095	9,501	948	40.6	37 / 407
100	10,001	948	40.7	61 / 120
105	10,501	948	40.9	118 / 306
110	11,001	948	41.0	188 / 13
115	11,501	948	41.5	209 / 10
119	11,861	948	41.8	283 / 8
122	12,196	948	41.9	121 / 15
125	12,500	948	42.3	113 / 30
130	13,000	948	43.0	8 / 16
135	13,500	948	43.7	20 / 284
140	14,001	948	44.0	9 / 53
146	14,560	948	44.8	47 / 13
151	15,068	948	45.2	8 / 24
155	15,500	948	45.9	9 / 53
160	15,999	818	46.4	229 / 7
165	16,498	818	46.8	15 / 140
169	16,877	818	47.2	150 / 80
172	17,241	818	47.4	53 / 56
175	17,498	818	48.1	18 / 437
180	17,999	818	48.3	22 / 330
185	18,499	818	48.3	25 / 6
190	18,998	818	49.2	12 / 74
195	19,498	818	50.1	98 / 197
200	19,999	818	50.5	30 / 73
206	20,585	818	51.2	53 / 64

Table 14—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
WHICHARD BRANCH				
210	20,957	818	52.8	83 / 102
213	21,327	818	53.3	68 / 183

[1] This table reflects all modeled cross sections. Some cross sections shown in this table may not appear on map.
[2] Feet above mouth
[3] Left/Right Distance from the Mapped Center of Stream to Encroachment Boundary based on a 1.0 foot or less surcharge (Looking Downstream).
[4] Elevation includes backwater effects.
[5] Width contained within Pitt County.

6.1 Vertical and Horizontal Control

Vertical Datum

All FISs 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 (NAVD 88), all North Carolina FISs have been prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown on the FIRM for Pitt County are referenced to NAVD 88. Structure and ground elevations in the county must, therefore, be referenced to NAVD 88. It is important to note that FISs for adjacent communities may be referenced to NGVD 29. This may result in BFE differences across political boundaries between the communities.

As noted above, the elevations shown in this FIS are referenced to NAVD 88. Ground, structure, and flood elevations may be compared and/or referenced to NGVD 29 by applying a standard conversion factor. The conversion factor for Pitt County is -1.15 ft. The locations used to establish the conversion factor were USGS quadrangle corners that fell within the county, as well as those that were within 2.5 miles outside the county. The benchmarks are referenced to NAVD 88. Table 15, "Datum Conversion Locations and Values," is shown below.

Table 15—Datum Conversion Locations and Values

Latitude	Longitude	Conversion from NGVD 29 to NAVD 88 (Feet)
77.500	35.750	-1.12
77.375	35.750	-1.18
77.250	35.750	-1.13
77.625	35.625	-1.11
77.500	35.625	-1.14
77.375	35.625	-1.18
77.250	35.625	-1.15
77.125	35.625	-1.12
77.500	35.500	-1.15
77.375	35.500	-1.15
77.250	35.500	-1.12
77.500	35.375	-1.23
77.375	35.375	-1.21
77.250	35.375	-1.15
Average conversion in Pitt County from NGVD 29 to NAVD 88 = -1.15 Feet		

The BFEs shown on the FIRM represent whole-foot rounded values. For example, a 1% annual chance water-surface elevation of 102.4 feet will appear as 102 on the FIRM and 102.6 feet will appear as 103. Therefore, users who wish to convert the elevations in this FIS to NGVD 29

should apply the stated conversion factor(s) to elevations shown on the Flood Profiles and supporting data tables in the FIS Report, which are shown, at a minimum, to the nearest 0.1 foot.

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

Vertical Control Monuments

Qualifying bench marks within Pitt County that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS) as First or Second Order Vertical, with a vertical stability classification of A, B, or C, are shown and labeled on the FIRM with their 6-character NSRS Permanent Identifier (PID).

The National Geodetic Survey establishes precisely located monuments on the North Carolina Grid System and Bench Marks referenced to a vertical datum (NGVD 1929 and NAVD 1988).

Bench marks cataloged by the NGS and entered into the NSRS vary widely in vertical stability classification. NSRS vertical stability classifications are as follows:

- Stability A: Monuments of the most reliable nature, expected to hold position/elevation well (e.g., mounted in bedrock)
- Stability B: Monuments which generally hold their position/elevation well (e.g., concrete bridge abutment)
- Stability C: Monuments which may be affected by surface ground movements (e.g., concrete monument below frost line)
- Stability D: Mark of questionable or unknown vertical stability (e.g., concrete monument above frost line, or steel witness post)

In addition, when local jurisdictions have established their own vertical monument network, these monuments may also be shown on the FIRM with the appropriate designations. Local monuments will be placed on the FIRM if the community has requested that they be included and if the monuments meet the aforementioned criteria.

North Carolina Geodetic Survey (NCGS) and contractor surveyed vertical control monuments will be shown on the FIRM panels. Those cataloged by NCGS meet similar requirements to the NGS monuments as described above. Most monuments that have been cataloged by NCGS have been established to NGS standards, but have not been submitted to NGS for inclusion into the NSRS. The qualifying criteria for depicting bench marks established by the State's contractors on the NC digital FIRM panels include:

- GPS surveying of permanent 3-D survey monuments to 5-centimeter or better local network accuracy guidelines, in accordance with NOAA Technical Memorandum NOS NGS-58 "Guidelines for Establishing GPS-Derived Ellipsoid Heights (Standards: 2 cm and 5 cm)," and conversion to NAVD 88 orthometric heights using NGS' latest geoid mode;
- Requiring a stability classification of "C" or better; and

- Submitting GPS files and station descriptions to NCGS.

To obtain current information for cataloging local bench marks in the NSRS, please visit the Data Sheet page of the NGS website at http://www.ngs.noaa.gov/cgi-bin/datasheet.prl, or contact the NGS Information Services Branch at:

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

Information regarding the NCGS or State contractor bench marks can be obtained through the NCGS website at www.ncgs.state.nc.us, or by phone at (919) 733-3836.

It is important to note that temporary vertical monuments, sometimes called Elevation Reference Marks, 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, interested individuals may contact FEMA to access this information.

Horizontal Datum and Control

The digital files that comprise the FIRM are georeferenced to an established coordinate system. The coordinate system used for the production of this FIRM is North Carolina State Plane (FIPSZONE 3200) referenced to the North American Datum of 1983 (NAD 83), GRS80 ellipsoid.

6.2 Base Map

For this revision, the Pitt County orthophotos, based on 2005 aerial photography, are used as the base maps for digital FIRM production for Pitt County. The base maps are supplemented with stream centerlines, shoreline, and political boundaries, and road name data from other sources; this includes locally available GIS data.

For the digital FIRMs dated January 2, 2004, the USGS Digital Orthophoto Quadrangles (DOQs), based on 1998 aerial photography, were used as the base maps for digital FIRM production for Pitt County. The base maps were supplemented with stream centerlines, shoreline, and political boundaries, and road name data from other sources; this includes locally available GIS data.

The projection used in the preparation of this map was the North Carolina State Plane Coordinate System. The horizontal datum was NAD83, GRS80 spheroid. Differences in datum, spheroid, or projection used in the production of FIRMs for adjacent states may result in slight positional differences in map features across the state boundary. These differences do not affect the accuracy of this FIRM.

As part of the North Carolina CTS Initiative, North Carolina digital FIRM panel numbers are consistent with the North Carolina Land Records Management Program (LRMP).

The 11-digit digital FIRM panel numbering system for North Carolina is: SS MM LLLL PP X, where SS = State Federal Information Processing Code (37); MM = Easting-Northing (EN) 1,000,000-foot coordinates; LLLL = LRMP map numbers to include the EN 100,000-foot coordinates, and the EN 10,000-foot coordinates; PP = place holders for additional EN 1,000-foot coordinates; and X = suffix ("J" for the initial edition). North Carolina's State Plane Coordinate System origin is outside the State boundary to the southwest (in Georgia), the eastings range from approximately 0,404,000 (Tennessee border) to 3,040,000 (Atlantic Ocean); and the northings range from approximately 0,045,000 (South Carolina border) to 1,043,000 (Virginia border). Digital FIRM panels were compiled at either 1"=1,000', covering an area of 20,000 feet x 20,000 feet (20" x 20" panels); or at 1"=500', covering an area of 10,000 feet x 10,000 feet (20" x 20" panels). An additional 2-digits (both zeros) are held in reserve as a "place holder" in the event that future FIRMs are printed at a larger scale; e.g., 1"=250', covering an area of 5,000 feet x 5,000 feet for which the 1,000-foot coordinates would either be 0 or 5.

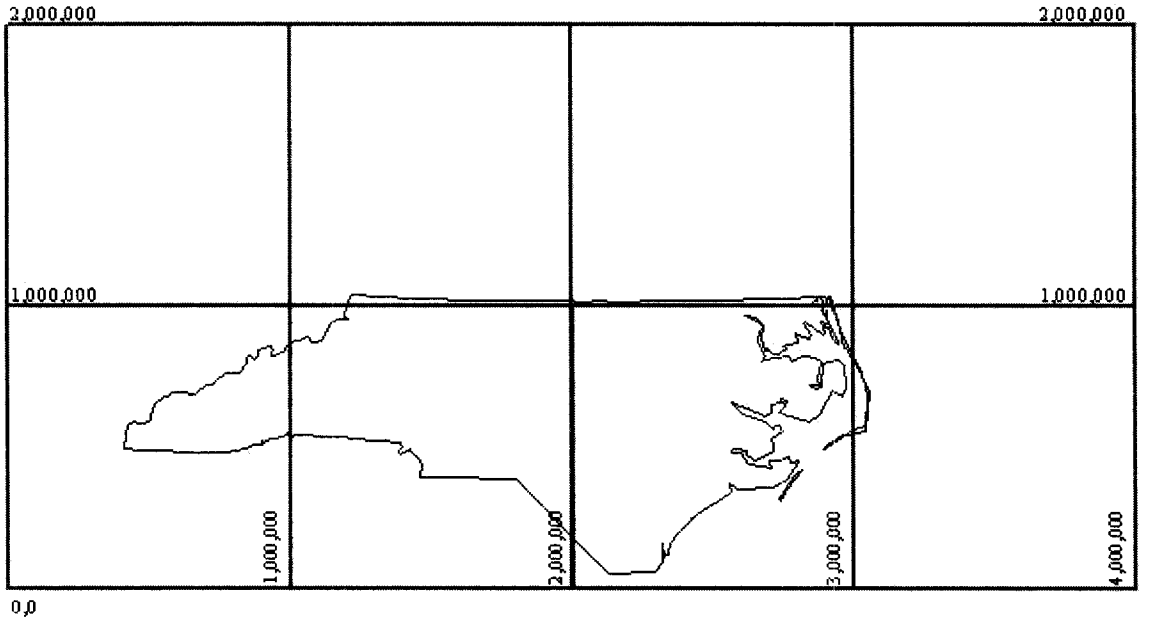

Figure 3—North Carolina's State Plane Coordinate System

6.3 Floodplain and Floodway Delineation

Floodplain Delineation

For streams restudied by detailed and limited detail methods, the 1% and 0.2% annual chance floodplains were delineated using flood elevations determined at each cross section. Between

cross sections, the boundaries were interpolated using topographic data acquired using airborne Light Detection and Ranging (LIDAR). This LIDAR data was acquired during the winter 2000-2001 flying season.

The topographic data satisfies a vertical root-mean-square error (RMSE) accuracy standard of 25cm (1.6 feet accuracy at the 95% confidence limit). These data could be contoured at roughly a 2-foot vertical contour interval. All elevations were referenced to the NAVD 88 and reflect orthometric heights. Variably spaced, bare-earth digital topographic data in ASCII point file format were combined with imagery (either flown concurrently with the LIDAR data or using existing digital orthophotos) to establish a Triangulated Irregular Network (TIN) of digital elevation points, which include selected breaklines to be used for hydraulic modeling. Furthermore, a uniformly spaced sampling of the TIN resulted in uniformly spaced Digital Elevation Models (DEMs), with 20ft x 20ft post spacing, which was generated in multiple file formats.

The 1% annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones VE, AO, AH, A99, AR, A, and AE), and the 0.2% annual chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundaries have been shown.

Floodway Delineation

The floodways presented in this FIS were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (Table 16, "Floodway Data"). The computed floodway is shown on the FIRM. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown. In areas where the top of the bridge or road is higher than the 1.0-percent annual chance (100-year) flood, the FIRM will show the flood discharge as contained within the structure for emergency management purposes. It is important to note that FEMA and community floodway regulations still apply in and around those areas.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Baldwin Swamp								
019	1,900	375	1,581	1.1	17.8	16.0[2]	17.0	1.0
031	3,100	483	2,714	0.6	17.8	16.7[2]	17.7	1.0
060	6,000	673	2,539	0.6	18.1	18.1	19.1	1.0
076	7,600	551	1,808	0.8	19.4	19.4	20.4	1.0
078	7,765	1,004	4,158	0.4	19.7	19.7	20.7	1.0
092	9,165	637	3,166	0.3	19.9	19.9	20.9	1.0
131	13,065	321	1,472	0.5	20.7	20.7	21.7	1.0
151	15,065	244	1,083	0.4	21.2	21.2	22.2	1.0
Baldwin Swamp - North Tributary								
005	500	143	463	1.1	19.8	17.7[3]	18.7	1.0
009	868	559	2,918	0.2	20.3	20.3	21.3	1.0
014	1,368	365	1,838	0.3	20.4	20.4	21.4	1.0
046	4,568	435	2,099	0.2	20.6	20.6	21.6	1.0

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects of Moyes Run-Cannon Swamp

[3]Elevation computed without consideration of backwater effects of Baldwin Swamp

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

BALDWIN SWAMP – BALDWIN SWAMP-NORTH TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Bates Branch								
011	1,134	300	1,840	1.6	31.8	31.8	32.2	0.4
029	2,934	300	1,348	1.2	34.3	34.3	34.6	0.3
033	3,334	300	1,947	0.8	34.5	34.5	34.8	0.3
039	3,934	300	1,917	0.9	36.8	36.8	36.9	0.1
047	4,734	129	661	2.3	38.2	38.2	38.4	0.2
055	5,534	194	801	1.9	40.8	40.8	41.2	0.4
072	7,234	194	954	1.2	43.5	43.5	44.1	0.6
074	7,434	250	1,380	0.8	45.9	45.9	46.0	0.1
Bells Branch								
003	305	75	289	7.3	20.0	12.6[2]	13.2	0.6
006	615	120	978	2.1	20.0	17.1[2]	17.2	0.1
018	1,810	160	963	2.2	20.0	19.0[2]	19.6	0.6
034	3,405	130	612	3.1	23.0	23.0	23.7	0.7
036	3,590	160	719	2.6	24.0	24.0	24.6	0.6
038	3,765	120	1,085	1.8	24.2	24.2	24.7	0.5
047	4,650	110	193	4.9	27.3	27.3	27.7	0.4
053	5,305	80	332	2.2	30.6	30.6	30.9	0.3
064	6,370	30	162	3.9	34.7	34.7	35.7	1.0
068	6,760	49	152	4.1	41.1	41.1	41.1	0.0
070	7,020	60	744	0.8	54.7	54.7	54.7	0.0
074	7,435	60	604	0.9	54.7	54.7	54.8	0.1

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects of Hardee Creek

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

BATES BRANCH – BELLS BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Chicod Creek								
183	18,254	735	11,221	0.6	14.7	14.2[2]	15.2	1.0
199	19,931	575	8,776	0.7	14.7	14.3[2]	15.3	1.0
218	21,780	715	10,391	0.6	14.7	14.4[2]	15.4	1.0
228	22,792	550	7,789	0.8	14.7	14.5[2]	15.4	0.9
234	23,395	620	8,971	0.7	14.7	14.5[2]	15.5	1.0
242	24,155	635	7,033	0.9	14.7	14.6[2]	15.6	1.0
246	24,589	800	9,470	0.7	14.7	14.7[2]	15.7	1.0
258	25,829	575	7,046	0.9	15.1	15.1	16.0	0.9
275	27,457	740	7,329	0.8	15.4	15.4	16.3	0.9
280	28,045	720	8,493	0.7	15.5	15.5	16.5	1.0
284	28,433	735	8,795	0.6	15.5	15.5	16.5	1.0
290	28,962	775	7,073	0.8	15.6	15.6	16.6	1.0
302	30,214	1,005	10,729	0.5	15.9	15.9	16.9	1.0
305	30,509	775	6,866	0.8	15.9	15.9	16.9	1.0
309	30,937	775	7,416	0.8	16.0	16.0	17.0	1.0
315	31,451	750	7,324	0.8	16.1	16.1	17.1	1.0
321	32,085	850	7,870	0.7	16.3	16.3	17.3	1.0
329	32,881	700	5,784	1.0	16.5	16.5	17.4	0.9
335	33,492	650	5,831	1.0	16.7	16.7	17.7	1.0
342	34,247	530	4,708	1.2	17.0	17.0	18.0	1.0
350	35,003	790	7,040	0.8	17.4	17.4	18.4	1.0

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

CHICOD CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Chicod Creek (continued)								
357	35,693	820	6,025	0.9	17.7	17.7	18.6	0.9
362	36,155	775	6,507	0.9	17.8	17.8	18.8	1.0
368	36,830	825	6,496	0.9	18.1	18.1	19.1	1.0
373	37,322	653	5,109	1.1	18.3	18.3	19.3	1.0
377	37,659	625	4,864	1.2	18.5	18.5	19.5	1.0
Contentnea Creek								
124	12,386	2,999	39,008	0.6	25.0	21.9[2]	22.9	1.0
191	19,051	2,503	24,781	0.9	25.2	22.5[2]	23.5	1.0
225	22,465	1,691	20,256	1.1	25.2	23.4[2]	24.4	1.0
238	23,838	1,794	17,931	1.3	25.2	23.7[2]	24.7	1.0
296	29,596	2,194	27,770	0.8	27.3	27.3	28.2	0.9
390	38,966	2,316	41,494	0.6	29.6	29.6	30.4	0.8
402	40,199	1,666	28,361	0.8	29.7	29.7	30.5	0.8
422	42,249	2,317	42,120	0.6	29.7	29.7	30.6	0.9

[1]Feet above mouth

[2]Elevations computed without consideration of backwater effects from Neuse River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

CHICOD CREEK – CONTENTNEA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Contentnea Creek (continued)								
444	44,449[1]	2,288	33,623	0.7	29.8	29.8	30.7	0.9
460	46,048[1]	2,682	45,877	0.5	29.9	29.9	30.8	0.9
474	47,380[1]	3,490	58,373	0.4	29.9	29.9	30.9	1.0
507	50,720[1]	2,900	49,953	0.5	30.0	30.0	31.0	1.0
526	52,621[1]	3,500	56,272	0.4	30.1	30.1	31.0	0.9
536	53,629[1]	3,500	53,757	0.4	30.1	30.1	31.1	1.0
545	54,542[1]	3,400	48,162	0.5	30.1	30.1	31.1	1.0
553	55,251[1]	3,000	41,155	0.6	30.1	30.1	31.1	1.0
567	56,685[1]	2,400	29,788	0.8	30.2	30.2	31.2	1.0
591	59,108[1]	2,685	36,762	0.6	30.5	30.5	31.5	1.0
602	60,200[1]	3,100	39,589	0.6	30.6	30.6	31.6	1.0
612	61,183[1]	4,100	57,290	0.4	30.7	30.7	31.7	1.0

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

CONTENTNEA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CONTENTNEA CREEK SOUTH TRIBUTARY								
050	4,957	32	192	2.7	25.2	24.8[2]	25.7	0.9
066	6,587	35	197	2.4	28.7	28.7	29.6	0.9
077	7,716	115	449	1.1	29.4	29.4	30.3	0.9
089	8,896	245	669	0.7	29.6	29.6	30.6	1.0
096	9,638	69	193	2.5	30.0	30.0	30.9	0.9
104	10,400	32	165	2.9	32.5	32.5	33.3	0.8

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from Contentnea Creek

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

CONTENTNEA CREEK SOUTH TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
EAGLE SWAMP								
058	5,788	130	595	2.3	25.2	20.1[2]	20.1	0.0
078	7,788	155	730	2.1	25.2	21.4[2]	22.0	0.6
089	8,943	98	666	2.3	25.2	22.5[2]	23.4	0.9
109	10,882	135	676	2.1	25.2	24.7[2]	25.6	0.9
119	11,939	50	336	4.1	25.6	25.6	26.5	0.9
128	12,791	73	442	3.1	27.5	27.5	28.3	0.8
135	13,546	35	330	4.2	29.4	29.4	30.2	0.8
147	14,739	125	736	1.9	30.4	30.3	31.2	0.9

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from Neuse River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

EAGLE SWAMP

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fork Swamp								
010	1,029	1,320	7,478	0.4	34.4	34.4	35.4	1.0
016	1,571	1,300	6,509	0.5	34.5	34.5	35.5	1.0
048	4,799	1,108	5,233	0.6	35.4	35.4	36.2	0.8
055	5,498	1,089	5,097	0.6	35.6	35.6	36.4	0.8
061	6,068	1,100	5,101	0.6	35.8	35.8	36.6	0.8
066	6,634	1,200	5,090	0.6	35.9	35.9	36.8	0.9
072	7,248	1,250	5,699	0.6	36.1	36.1	37.0	0.9
081	8,119	1,061	4,211	0.7	36.3	36.3	37.3	1.0
087	8,738	971	4,140	0.7	36.6	36.6	37.6	1.0
094	9,411	1,060	5,750	0.5	36.9	36.9	37.8	0.9
101	10,140	990	4,866	0.6	37.1	37.1	38.0	0.9
111	11,120	974	4,820	0.6	37.4	37.4	38.3	0.9
120	11,956	1,000	4,645	0.7	37.7	37.7	38.6	0.9
162	16,234	700	4,292	0.7	40.6	40.6	41.5	0.9
169	16,896	964	5,584	0.5	40.7	40.7	41.6	0.9
177	17,711	1,465	7,828	0.4	40.8	40.8	41.8	1.0
185	18,461	1,354	7,438	0.4	40.9	40.9	41.9	1.0
194	19,388	962	4,354	0.7	41.1	41.1	42.1	1.0
201	20,108	952	4,264	0.7	41.4	41.4	42.4	1.0
209	20,875	1,075	5,151	0.5	41.6	41.6	42.6	1.0
236	23,553	590	3,098	0.9	43.1	43.1	43.8	0.7
243	24,256	861	4,734	0.6	43.3	43.3	44.1	0.8

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

FORK SWAMP

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fork Swamp (continued)								
251	25,086	1,083	5,737	0.5	43.5	43.5	44.3	0.8
257	25,678	1,188	5,262	0.5	43.6	43.6	44.4	0.8
263	26,338	1,040	5,652	0.5	43.7	43.7	44.5	0.8
270	27,027	1,000	5,666	0.5	43.8	43.8	44.7	0.9
280	27,957	1,090	5,187	0.5	43.9	43.9	44.9	1.0
285	28,478	1,129	5,623	0.5	44.0	44.0	45.0	1.0
292	29,206	980	4,660	0.5	44.2	44.2	45.2	1.0
299	29,918	858	4,597	0.6	44.4	44.4	45.4	1.0
305	30,486	580	3,151	0.8	44.6	44.6	45.5	0.9
312	31,216	819	3,161	0.8	44.9	44.9	45.9	1.0
318	31,771	853	3,601	0.7	45.2	45.2	46.2	1.0
323	32,306	668	2,891	0.9	45.5	45.5	46.5	1.0
357	35,668	819	3,549	0.7	47.9	47.9	48.7	0.8
363	36,319	750	3,463	0.7	48.1	48.1	49.0	0.9
369	36,890	852	3,405	0.7	48.4	48.4	49.3	0.9
377	37,711	811	4,104	0.6	48.8	48.8	49.7	0.9
404	40,427	467	2,156	1.1	50.6	50.6	51.5	0.9
412	41,233	994	5,077	0.4	51.0	51.0	51.9	0.9
417	41,704	594	2,951	0.7	51.1	51.1	52.0	0.9
427	42,742	549	2,518	0.8	51.6	51.6	52.6	1.0
432	43,230	786	3,730	0.5	51.9	51.9	52.9	1.0
438	43,829	842	4,356	0.5	52.1	52.1	53.0	0.9

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

FORK SWAMP

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fork Swamp (continued)								
444	44,420	803	4,217	0.5	52.2	52.2	53.1	0.9
453	45,322	867	3,501	0.4	52.4	52.4	53.3	0.9
461	46,098	610	2,610	0.6	52.6	52.6	53.5	0.9
469	46,863	809	3,316	0.4	52.8	52.8	53.8	1.0
477	47,656	345	1,183	0.9	53.1	53.1	54.0	0.9
482	48,173	199	708	1.5	53.6	53.6	54.5	0.9
488	48,793	118	434	2.4	54.4	54.4	55.3	0.9
498	49,788	123	544	1.9	55.8	55.8	56.8	1.0
503	50,286	169	677	1.4	57.4	57.4	57.8	0.4
515	51,532	94	369	2.4	58.3	58.3	59.0	0.7
520	52,049	138	386	2.3	59.0	59.0	59.8	0.8
Fork Swamp Tributary 1								
013	1,256	136	517	1.8	52.3	52.9[2]	53.8	0.9
019	1,877	150	603	1.5	54.0	54.0	55.0	1.0
024	2,384	275	1,197	0.8	54.5	54.5	55.5	1.0
030	2,971	133	523	1.8	55.0	55.0	55.9	0.9
039	3,921	143	872	1.0	56.9	56.9	57.9	1.0
049	4,850	158	678	1.2	57.6	57.6	58.5	0.9
059	5,856	143	475	1.8	59.2	59.2	60.2	1.0
065	6,467	154	549	1.3	60.5	60.5	61.5	1.0
071	7,116	218	656	1.1	61.4	61.4	62.2	0.8

[1]Feet above mouth

[2]Elevations computed without consideration of backwater effects from Fork Swamp

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

FORK SWAMP - FORK SWAMP TRIBUTARY 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fork Swamp Tributary 2								
006	614	662	1,197	0.8	53.0	52.2[2]	53.2	1.0
010	1,000	665	1,650	0.6	53.0	52.8[2]	53.7	0.9
015	1,481	367	976	1.0	53.5	53.5	54.2	0.7
019	1,948	366	1,175	0.8	54.1	54.1	54.8	0.7
025	2,532	215	589	1.4	54.8	54.8	55.5	0.7
030	3,000	44	232	3.7	56.0	56.0	56.5	0.5
035	3,500	78	315	2.7	57.3	57.3	57.7	0.4
038	3,830	68	299	2.9	57.8	57.8	58.3	0.5
041	4,129	40	221	3.9	58.3	58.3	58.8	0.5
Fornes Run								
009	850	90	527	2.9	22.5	22.5	23.2	0.7
021	2,050	70	394	3.7	27.5	27.5	27.8	0.3
028	2,800	70	269	5.0	31.4	31.4	31.8	0.4
031	3,115	26	138	9.7	33.7	33.7	33.7	0.0
034	3,350	70	585	2.3	39.6	39.6	39.6	0.0
037	3,720	70	1,145	1.2	51.7	51.7	51.7	0.0
046	4,570	70	838	1.5	51.8	51.8	51.9	0.1
056	5,600	68	350	3.3	52.1	52.1	52.5	0.4
061	6,100	100	768	1.3	60.4	60.4	61.4	1.0

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from Fork Swamp

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

FORK SWAMP TRIBUTARY 2 - FORNES RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Green Mill Run								
019	1,891	361	2,386	1.8	20.8	10.1[2]	11.1	1.0
024	2,380	270	1,629	2.7	20.8	11.3[2]	12.1	0.8
030	2,950	240	1,833	2.4	20.8	12.8[2]	13.6	0.8
034	3,391	260	2,063	2.1	20.8	13.3[2]	14.3	1.0
045	4,500	178	1,795	2.5	20.8	16.2[2]	16.7	0.5
051	5,084	407	3,760	1.2	20.8	16.9[2]	17.5	0.6
055	5,498	352	2,877	1.5	20.8	17.1[2]	17.7	0.6
060	5,999	276	2,211	2.0	20.8	17.6[2]	18.1	0.5
070	7,000	231	1,834	2.4	20.8	18.9[2]	19.4	0.5
075	7,470	206	2,083	2.1	20.8	19.5[2]	20.1	0.6
085	8,501	140	1,155	3.3	21.3	21.3	21.9	0.6
094	9,376	188	1,272	3.0	22.6	22.6	23.1	0.5
100	10,000	420	3,374	1.1	25.8	25.8	26.4	0.6
105	10,529	403	2,891	1.3	26.1	26.1	26.7	0.6
110	11,048	307	2,145	1.8	27.5	27.5	27.8	0.3
115	11,502	52	568	6.7	27.5	27.5	27.8	0.3
119	11,891	153	939	4.1	30.4	30.4	30.5	0.1
124	12,396	258	3,523	1.1	31.1	31.1	32.0	0.9
130	13,004	302	3,278	1.2	31.3	31.3	32.2	0.9
135	13,505	388	3,771	1.0	31.6	31.6	32.5	0.9
140	14,006	535	4,623	0.8	31.7	31.7	32.6	0.9

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

GREEN MILL RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Green Mill Run (continued)								
145	14,523	255	1,914	2.0	33.0	33.0	33.7	0.7
153	15,301	696	5,191	0.7	34.0	34.0	34.7	0.7
160	16,003	541	3,619	1.1	34.4	34.4	35.0	0.6
168	16,839	609	4,359	0.9	35.2	35.2	35.7	0.5
175	17,503	459	3,249	1.2	35.7	35.7	36.2	0.5
180	18,003	389	2,042	1.9	36.1	36.1	36.6	0.5
190	19,003	80	594	6.5	36.5	36.5	37.1	0.6
194	19,413	106	1,040	3.7	39.3	39.3	40.0	0.7
200	20,002	208	1,948	1.8	40.0	40.0	40.8	0.8
207	20,658	160	1,260	2.8	40.4	40.4	41.3	0.9
215	21,544	235	1,868	1.9	43.0	43.0	43.7	0.7
220	22,004	375	2,686	1.3	43.2	43.2	44.1	0.9
223	22,292	270	2,203	1.6	43.3	43.3	44.3	1.0
229	22,900	325	2,883	1.2	45.2	45.2	46.1	0.9
235	23,507	270	2,273	1.5	45.5	45.5	46.4	0.9
240	24,006	300	2,456	1.4	45.8	45.8	46.7	0.9
245	24,506	375	3,149	1.1	46.1	46.1	47.0	0.9
250	25,007	475	3,736	0.8	46.3	46.3	47.3	1.0
256	25,646	280	2,242	1.4	47.6	47.6	48.5	0.9
260	26,007	225	2,132	1.4	47.8	47.8	48.7	0.9
265	26,508	225	1,937	1.3	47.9	47.9	48.8	0.9

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

GREEN MILL RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Green Mill Run (continued)								
270	27,007	225	1,866	1.4	48.0	48.0	48.9	0.9
276	27,624	225	1,616	1.6	48.1	48.1	49.0	0.9
280	28,008	225	1,711	1.5	48.2	48.2	49.2	1.0
285	28,488	225	1,822	1.4	48.4	48.4	49.3	0.9
290	29,007	225	1,940	1.3	48.5	48.5	49.4	0.9
295	29,452	108	388	6.7	48.5	48.5	49.4	0.9
305	30,500	223	1,708	1.0	54.9	54.9	55.7	0.8
310	31,001	283	1,875	0.9	55.3	55.3	56.1	0.8
314	31,436	386	2,503	0.7	55.6	55.6	56.3	0.7
321	32,067	249	1,384	1.2	56.2	56.2	56.8	0.6
326	32,568	274	1,500	1.2	57.0	57.0	57.5	0.5
331	33,125	221	1,106	1.6	58.0	58.0	58.4	0.4
335	33,502	202	1,032	1.7	58.8	58.8	59.2	0.4
340	34,019	202	1,005	1.7	59.9	59.9	60.4	0.5
345	34,501	195	1,009	1.7	61.1	61.1	61.4	0.3
350	35,041	270	1,420	1.2	61.9	61.9	62.3	0.4
355	35,475	206	1,028	1.4	62.4	62.4	62.9	0.5
360	36,000	204	1,053	1.3	63.0	63.0	63.5	0.5
365	36,501	163	899	1.6	63.7	63.7	64.2	0.5
370	37,000	151	824	1.7	64.4	64.4	64.9	0.5
373	37,334	80	394	3.6	65.0	65.0	65.5	0.5
379	37,896	161	1,373	1.0	70.5	70.5	71.4	0.9

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

GREEN MILL RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Grindle Creek								
061	6,110	1,759	11,214	0.5	13.8	9.6[2]	10.6	1.0
071	7,112	1,868	17,305	0.3	13.8	9.7[2]	10.6	0.9
084	8,353	1,081	8,888	0.6	13.8	9.8[2]	10.7	0.9
095	9,458	1480	10269	0.5	13.8	10.2[2]	11.1	0.9
115	11,496	364	2,659	2.1	13.8	10.6[2]	11.5	0.9
122	12,229	226	1,200	4.6	13.8	10.6[2]	11.5	0.8
139	13,881	576	5,859	1.0	13.8	13.0[2]	14.0	1.0
147	14,722	635	5,815	1.0	13.8	13.3[2]	14.3	1.0
159	15,942	1,215	10,870	0.5	13.8	13.4[2]	14.4	1.0
170	16,988	1,218	10,972	0.5	13.8	13.5[2]	14.5	1.0
181	18,110	1,358	11,715	0.5	13.8	13.6[2]	14.5	0.9
190	19,009	1,171	8,369	0.7	13.8	13.6[2]	14.6	1.0
200	19,977	970	7,040	0.8	13.8	13.7[2]	14.7	1.0
210	20,964	1,255	8,358	0.7	13.9	13.9	14.8	0.9
223	22,258	494	2,866	1.9	14.0	14.0	15.0	1.0
234	23,361	830	4,726	1.2	14.5	14.5	15.5	1.0
261	26,071	765	3,085	1.7	17.0	17.0	17.7	0.7
266	26,599	1,205	2,225	2.4	17.3	17.3	17.9	0.6
277	27,672	736	4,269	1.2	17.5	17.5	18.4	0.9
285	28,474	1,038	2,005	2.7	17.7	17.7	18.4	0.7
292	29,248	850	5,842	0.9	18.1	18.1	18.9	0.8

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

GRINDLE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Grindle Creek (continued)								
305	30,490	739	5,930	0.9	18.3	18.3	19.2	0.9
316	31,560	1,112	6,133	0.9	18.4	18.4	19.4	1.0
326	32,585	724	4,772	1.1	18.6	18.6	19.5	0.9
337	33,672	875	5,652	0.9	18.9	18.9	19.8	0.9
348	34,754	1,091	7,649	0.7	19.0	19.0	20.0	1.0
360	35,961	1,015	6,093	0.9	19.2	19.2	20.2	1.0
385	38,481	397	2,372	2.2	19.9	19.9	20.9	1.0
Hardee Creek								
035	3,500	443	2,487	1.4	19.6	10.2[2]	11.2	1.0
040	4,000	264	1,509	2.4	19.6	10.6[2]	11.6	1.0
056	5,550	289	3,453	0.8	20.2	20.2	21.1	0.9
061	6,136	182	1,974	1.5	20.3	20.3	21.2	0.9
067	6,693	241	2,925	1.0	20.5	20.5	21.4	0.9
072	7,182	158	1,825	1.6	20.6	20.6	21.5	0.9
079	7,869	176	1,813	1.6	21.0	21.0	21.9	0.9
081	8,107	205	1,688	1.7	21.2	21.2	22.1	0.9
087	8,676	179	1,861	1.6	21.7	21.7	22.5	0.8
092	9,162	246	2,250	1.3	22.0	22.0	22.9	0.9
098	9,756	221	1,803	1.6	22.5	22.5	23.2	0.7

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

GRINDLE CREEK – HARDEE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Hardee Creek (continued)								
106	10,647	193	1,595	1.8	24.8	24.8	25.4	0.6
113	11,268	138	1,145	2.5	25.6	25.6	26.3	0.7
119	11,882	102	863	3.4	26.8	26.8	27.5	0.7
123	12,295	232	2,114	1.4	27.7	27.7	28.4	0.7
126	12,608	239	2,123	1.4	27.9	27.9	28.6	0.7
130	12,951	185	1,253	2.3	28.4	28.4	29.0	0.6
134	13,353	189	1,252	2.3	29.3	29.3	29.8	0.5
136	13,575	320	2,650	1.1	29.7	29.7	30.2	0.5
139	13,928	465	3,242	0.8	29.9	29.9	30.4	0.5
143	14,299	510	3,545	0.7	30.0	30.0	30.5	0.5
149	14,886	206	1,325	1.8	30.2	30.2	30.8	0.6
153	15,310	192	1,234	2.0	31.0	31.0	31.5	0.5
158	15,815	188	1,317	1.8	31.9	31.9	32.5	0.6
163	16,335	178	1,207	2.0	32.7	32.7	33.3	0.6
169	16,946	251	1,775	1.4	33.5	33.5	34.1	0.6
174	17,439	230	1,516	1.6	34.0	34.0	34.6	0.6
179	17,917	366	2,507	1.0	35.6	35.6	36.5	0.9
191	19,062	189	958	1.7	36.4	36.4	37.0	0.6
196	19,562	119	620	2.6	37.8	37.8	38.2	0.4
201	20,062	156	800	2.0	39.2	39.2	39.8	0.6

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

HARDEE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Hardee Creek (continued)								
207	20,678	276	3,075	0.5	46.5	46.5	47.5	1.0
211	21,061	236	2,329	0.7	46.6	46.6	47.6	1.0
216	21,561	171	1,260	1.3	46.7	46.7	47.7	1.0
221	22,062	181	1,645	1.0	47.1	47.1	48.0	0.9
226	22,563	185	1,299	1.2	47.3	47.3	48.2	0.9
231	23,064	185	1,231	1.1	48.0	48.0	48.9	0.9
236	23,564	131	713	1.9	48.6	48.6	49.4	0.8
241	24,064	133	726	1.8	50.0	50.0	50.6	0.6
246	24,566	152	793	1.7	51.2	51.2	51.8	0.6
251	25,130	85	498	2.7	52.7	52.7	53.3	0.6
257	25,674	65	435	3.0	54.7	54.7	55.6	0.9
262	26,182	40	320	4.1	56.8	56.8	57.8	1.0

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

HARDEE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Hardee Creek Tributary								
005	452[1]	73	396	3.3	35.7	34.7[3]	35.5	0.8
009	945[1]	37	217	6.1	37.2	37.2	37.9	0.7
011	1,097[1]	92	842	1.6	42.5	42.5	43.4	0.9
015	1,451[1]	96	636	2.1	42.8	42.8	43.6	0.8
Indian Well Swamp								
000	0[2]	699	2,179	0.7	38.5	38.5	39.5	1.0
034	3,400[2]	600	2,204	0.7	41.8	41.8	42.5	0.7
038	3,800[2]	600	2,201	0.7	42.2	42.2	42.8	0.6
040	4,000[2]	400	2,918	0.5	45.6	45.6	46.5	0.9
047	4,700[2]	400	2,658	0.5	45.7	45.7	46.7	1.0
086	8,600[2]	450	2,112	0.7	47.3	47.3	48.3	1.0
090	9,000[2]	450	2,276	0.6	47.5	47.5	48.5	1.0
092	9,200[2]	600	2,464	0.6	47.6	47.6	48.6	1.0
096	9,600[2]	600	2,686	0.5	47.8	47.8	48.8	1.0
126	12,600[2]	350	1,095	1.0	51.3	51.3	52.1	0.8
130	13,000[2]	350	1,073	0.7	51.8	51.8	52.5	0.7
132	13,200[2]	350	1,259	0.6	52.3	52.3	52.9	0.6
136	13,600[2]	350	1,159	0.7	52.4	52.4	53.2	0.8
158	15,800[2]	200	388	1.0	57.0	57.0	57.4	0.4

[1]Feet above mouth

[2]Stream stationing begins approximately 3,900 feet downstream of Highway 43

[3]Elevation computed without consideration of backwater effects from Hardee Creek

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

HARDEE CREEK TRIBUTARY - INDIAN WELL SWAMP

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Johnsons Mill Run								
034	3,405	193	1,928	1.6	25.0	22.5[2]	23.0	0.5
045	4,503	185	1,717	1.8	25.0	23.5[2]	24.3	0.8
048	4,837	185	1,615	1.9	25.0	23.9[2]	24.7	0.8
070	6,997	130	1,052	2.5	26.4	26.4	27.2	0.8
075	7,501	88	776	3.4	27.0	27.0	27.8	0.8
080	7,972	62	657	4.0	27.5	27.5	28.3	0.8
088	8,756	45	471	5.6	27.9	27.9	28.7	0.8
093	9,255	80	813	3.2	28.9	28.9	29.8	0.9
096	9,552	44	563	4.7	29.1	29.1	30.0	0.9
100	10,022	100	708	3.7	29.7	29.7	30.6	0.9
105	10,501	280	970	2.7	30.5	30.5	31.3	0.8
110	11,001	280	984	2.7	31.4	31.4	32.1	0.7
112	11,229	290	988	2.7	31.7	31.7	32.4	0.7
123	12,334	656	1,894	1.4	32.2	32.2	33.2	1.0

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

JOHNSONS MILL RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Juniper Branch								
003	290	346	1,961	1.8	15.3	11.1[2]	12.1	1.0
010	1,002	221	1,251	2.9	15.3	12.8[2]	13.6	0.8
013	1,345	394	2,836	1.3	15.3	13.6[2]	14.6	1.0
019	1,887	109	693	5.1	15.3	14.0[2]	14.8	0.8
024	2,405	248	1,800	2.0	16.3	16.3	17.2	0.9
028	2,828	117	880	4.1	17.0	17.0	17.8	0.8
037	3,681	315	2,585	1.4	18.8	18.8	19.7	0.9
043	4,257	272	2,044	1.6	19.3	19.3	20.2	0.9
048	4,847	403	2,878	1.2	21.1	21.1	21.8	0.7
057	5,661	180	1,027	3.2	21.4	21.4	22.1	0.7
063	6,332	255	1,270	2.6	22.6	22.6	23.2	0.6
072	7,167	223	1,413	2.3	24.3	24.3	24.7	0.4
077	7,657	280	2,086	1.6	25.2	25.2	25.6	0.4
083	8,274	315	2,191	1.5	25.9	25.9	26.2	0.3
096	9,579	370	1,984	1.7	27.3	27.3	27.4	0.1
103	10,253	615	3,428	1.0	27.9	27.9	28.2	0.3
116	11,569	247	1,386	1.7	28.5	28.5	29.2	0.7
123	12,309	206	1,610	1.5	31.7	31.7	32.7	1.0
130	13,006	240	1,585	1.5	32.4	32.4	33.4	1.0
140	14,023	251	1,754	1.3	33.4	33.4	34.3	0.9
148	14,758	182	1,214	1.9	34.2	34.2	35.1	0.9

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from Chicod Creek

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

JUNIPER BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Juniper Branch (continued)								
153	15,301	257	1,897	1.2	34.9	34.9	35.8	0.9
159	15,928	221	1,452	1.4	35.4	35.4	36.3	0.9
165	16,481	186	1,251	1.6	36.0	36.0	36.9	0.9
172	17,230	150	846	2.4	37.2	37.2	38.0	0.8
176	17,643	237	1,421	1.4	38.1	38.1	39.0	0.9
185	18,453	183	1,016	2.0	39.3	39.3	40.1	0.8
194	19,354	99	607	3.3	40.7	40.7	41.5	0.8
199	19,943	324	2,181	0.9	43.4	43.4	44.3	0.9
206	20,593	218	1,346	1.5	43.8	43.8	44.6	0.8
213	21,253	118	668	3.0	44.9	44.9	45.6	0.7
221	22,127	124	712	1.7	47.4	47.4	48.3	0.9

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

JUNIPER BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Lateral No. 1								
015	1,530	215	1,038	1.2	22.8	18.1[2]	19.1	1.0
027	2,741	210	738	1.7	23.3	20.3[2]	21.0	0.7
029	2,868	180	578	2.1	23.7	21.2[2]	21.4	0.2
038	3,796	100	617	2.0	23.8	21.5[2]	22.4	0.9
Lateral No. 2								
023	2,271	90	504	1.7	24.5	24.5	25.4	0.9

[1]Feet above mouth
[2]Elevation computed without consideration of flooding controlled by the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

LATERAL NO. 1 – LATERAL NO. 2

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE CONTENTNEA CREEK								
014	1,413	1,048	8,560	1.1	30.7	28.9[2]	29.6	0.7
037	3,727	1,070	7,727	1.2	30.7	29.1[2]	29.9	0.8
078	7,799	700	7,809	1.1	30.7	29.5[2]	30.3	0.8
145	14,468	944	8,396	1.1	30.7	29.8[2]	30.6	0.8
186	18,620	327	3,680	2.4	30.7	30.6[2]	31.4	0.8
219	21,884	614	11,265	0.8	32.2	32.2	33.1	0.9
245	24,494	770	11,666	0.7	32.4	32.4	33.2	0.8
282	28,175	1,886	14,795	0.6	32.5	32.5	33.4	0.9
310	30,997	1,815	17,959	0.5	32.6	32.6	33.5	0.9
347	34,741	1,715	17,553	0.5	32.7	32.7	33.7	1.0
371	37,068	1,597	15,773	0.5	32.8	32.8	33.8	1.0
398	39,752	1,838	16,455	0.5	32.9	32.9	33.9	1.0
431	43,146	1,023	8,111	1.0	33.1	33.1	34.1	1.0
463	46,267	1,533	10,775	0.8	33.6	33.6	34.5	0.9
487	48,723	1,354	9,132	0.9	33.9	33.9	34.8	0.9
519	51,864	518	3,847	2.2	35.1	35.1	35.9	0.8
544	54,391	1,352	4,538	1.8	35.9	35.9	36.7	0.8
580	58,023	803	5,729	1.5	37.3	37.3	38.2	0.9
641	64,117	899	9,536	0.9	38.4	38.4	39.4	1.0

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from Contentnea Creek

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE CONTENTNEA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE CONTENTNEA CREEK								
706	70,551	843	7,730	1.1	39.0	39.0	40.0	1.0
736	73,634	848	4,835	1.7	41.0	41.0	41.7	0.7
758	75,752	1,130	7,885	0.8	41.9	41.9	42.6	0.7
773	77,324	1,500	9,401	0.7	42.2	42.2	42.9	0.7
1106	110,642	470	3,555	1.4	52.2	52.2	53.0	0.8
1121	112,140	980	5,423	0.9	53.2	53.2	53.7	0.5
1153	115,309	1,060	7,236	0.7	54.4	54.4	55.2	0.8
1181	118,130	1,130	8,174	0.6	56.3	56.3	57.0	0.7
1193	119,291	1,050	7,249	0.7	56.5	56.5	57.3	0.8
1208	120,752	1,260	7,675	0.6	56.8	56.8	57.7	0.9
1222	122,247	1,220	7,645	0.6	57.2	57.2	58.0	0.8
1253	125,303	1,110	6,782	0.7	58.5	58.5	59.2	0.7
1269	126,921	1,110	5,925	0.8	58.8	58.8	59.7	0.9
1290	128,964	870	3,977	1.1	59.7	59.7	60.5	0.8
1312	131,196	1,035	5,578	0.8	60.9	60.9	61.9	1.0
1322	132,208	1,050	6,153	0.6	61.3	61.3	62.3	1.0
1343	134,325	620	4,556	0.8	64.9	64.9	65.2	0.3
1358	135,843	1,115	8,244	0.4	64.9	64.9	65.3	0.4

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE CONTENTNEA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE CONTENTNEA CREEK								
1375	137,483	1,200	5,271	0.7	65.0	65.0	65.3	0.3
1392	139,212	940	5,610	0.6	65.9	65.9	66.4	0.5
1405	140,459	1,020	5,692	0.6	66.1	66.1	66.8	0.7
1421	142,117	890	5,166	0.7	66.5	66.5	67.4	0.9
1446	144,591	810	4,811	0.7	67.6	67.6	68.5	0.9
1467	146,695	750	4,170	0.8	68.4	68.4	69.3	0.9
1485	148,462	380	1,835	1.8	69.4	69.4	70.4	1.0
1507	150,704	797	4,137	0.6	71.2	71.2	71.9	0.7
1521	152,054	523	3,098	0.7	71.3	71.3	72.2	0.9
1532	153,208	478	2,724	0.8	71.6	71.6	72.5	0.9
1542	154,214	579	2,732	0.8	71.9	71.9	72.9	1.0
1557	155,708	563	3,117	0.7	72.4	72.4	73.4	1.0
1572	157,230	300	1,504	1.5	73.6	73.6	74.4	0.8
1587	158,727	475	2,368	1.0	74.1	74.1	75.0	0.9
1603	160,258	279	1,781	1.3	74.6	74.6	75.6	1.0
1613	161,301	406	1,559	1.3	75.3	75.3	76.2	0.9
1621	162,075	343	1,537	1.4	76.0	76.0	76.9	0.9
1631	163,122	500	2,057	1.0	76.9	76.9	77.8	0.9

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE CONTENTNEA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE CONTENTNEA CREEK								
1643	164,277	371	1,631	1.2	77.8	77.8	78.7	0.9
1652	165,164	410	1,762	1.1	78.6	78.6	79.5	0.9
1666	166,557	357	1,744	0.9	79.3	79.3	80.2	0.9
1678	167,764	315	1,682	0.9	80.5	80.5	81.4	0.9
1686	168,627	447	2,210	0.7	80.8	80.8	81.7	0.9
1698	169,784	393	2,005	0.8	81.2	81.2	82.2	1.0
1714	171,375	388	1,781	0.6	81.9	81.9	82.8	0.9

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE CONTENTNEA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Meeting House Branch								
019	1,890	100	372	3.5	31.7	32.0	32.0	0.0
020	2,045	80	222	5.9	32.6	32.6	32.6	0.0
023	2,260	70	399	3.3	33.7	33.7	33.7	0.0
029	2,860	50	170	7.3	34.5	34.5	34.8	0.3
033	3,310	70	374	3.3	35.4	35.4	35.5	0.1

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

MEETING HOUSE BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MIDDLE SWAMP								
021	2,127	310	2,938	1.4	41.7	39.6[2]	40.5	0.9
046	4,582	470	3,793	1.1	41.7	40.8[2]	41.7	0.9
067	6,720	725	4,096	1.0	41.7	41.6[2]	42.5	0.9
084	8,407	600	4,003	1.0	42.4	42.4	43.4	1.0
101	10,058	454	2,971	1.3	43.6	43.6	44.6	1.0
126	12,623	301	1,865	1.2	45.1	45.1	46.1	1.0
139	13,920	143	974	2.3	45.8	45.8	46.7	0.9
159	15,935	180	1,197	1.9	47.1	47.1	48.1	1.0
175	17,545	302	1,470	1.5	48.2	48.2	49.0	0.8
195	19,467	230	1,046	2.1	49.5	49.5	50.4	0.9
216	21,555	138	798	2.8	51.2	51.2	52.2	1.0
235	23,451	147	820	2.5	52.8	52.8	53.7	0.9
261	26,097	216	979	1.9	55.1	55.1	56.0	0.9
286	28,563	342	1,626	1.2	57.1	57.1	58.1	1.0
312	31,242	374	1,334	1.4	59.0	59.0	60.0	1.0
336	33,627	372	2,078	0.8	62.0	62.0	62.9	0.9
360	35,969	642	3,648	0.5	63.5	63.5	64.5	1.0

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from Little Contentnea Creek

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

MIDDLE SWAMP

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Moyes Run-Cannon Swamp								
124	12,362[1]	639	3,434	1.1	17.0	16.0[3]	17.0	1.0
125	12,543[1]	1,405	5,058	0.7	17.0	16.2[3]	17.1	0.9
143	14,343[1]	290	2,354	1.5	17.7	17.7	18.7	1.0
151	15,093[1]	938	4,617	0.6	18.1	18.1	19.1	1.0
154	15,394[1]	1,042	6,691	0.4	20.6	20.6	21.6	1.0
163	16,294[1]	440	3,350	0.6	20.8	20.8	21.8	1.0
296	29,594[1]	499	2,113	0.6	24.8	24.8	25.8	1.0
298	29,765[1]	554	2,297	0.6	24.9	24.9	25.9	1.0
328	32,765[1]	222	1,191	1.0	25.9	25.9	26.9	1.0
Neuse River								
1494	149,376[2]	3,175	54,524	0.9	21.8	21.8	22.8	1.0
1510	151,037[2]	3,227	50,349	1.0	22.1	22.1	23.1	1.0
1530	152,990[2]	2,821	47,978	1.0	22.4	22.4	23.4	1.0
1546	154,640[2]	2,605	42,303	1.2	22.7	22.7	23.7	1.0
1564	156,388[2]	2,804	45,979	1.1	23.0	23.0	24.0	1.0
1581	158,070[2]	2,750	49,144	1.0	23.3	23.3	24.3	1.0
1598	159,831[2]	3,760	67,696	0.7	23.5	23.5	24.5	1.0
1614	161,425[2]	3,811	63,726	0.8	23.7	23.7	24.7	1.0
1626	162,580[2]	3,890	65,823	0.7	23.9	23.9	24.9	1.0
1642	164,224[2]	4,052	67,741	0.7	24.1	24.1	25.1	1.0
1658	165,767[2]	4,104	69,932	0.7	24.3	24.3	25.3	1.0
1673	167,281[2]	4,400	81,486	0.6	24.4	24.4	25.4	1.0

[1]Feet above confluence with Tar River
[2]Feet above US Highway 17
[3]Elevation computed without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

MOYES RUN-CANNON SWAMP - NEUSE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
North Fork Green Mill Run								
020	1,998	95	682	2.0	57.8	57.8	58.1	0.3
025	2,497	117	795	1.7	58.0	58.0	58.4	0.4
031	3,086	84	526	2.5	58.9	58.9	59.7	0.8
036	3,582	140	713	1.9	60.0	60.0	60.9	0.9
041	4,074	377	4,220	0.3	68.7	68.7	69.4	0.7
045	4,497	290	2,995	0.4	68.7	68.7	69.4	0.7
051	5,149	321	2,692	0.5	68.7	68.7	69.4	0.7
060	5,998	198	1,280	1.0	68.8	68.8	69.5	0.7
065	6,499	118	837	1.0	69.0	69.0	69.7	0.7
Parkers Creek								
060	5,985	560	1,624	1.4	22.4	15.8[2]	16.7	0.9
073	7,250	450	3,498	0.6	22.4	16.3[2]	17.2	0.9
091	9,050	425	3,614	0.6	22.4	17.0[2]	17.9	0.9
132	13,216	225	1,211	1.9	22.4	18.9[2]	19.8	0.9
180	18,018	250	1,213	1.8	23.7	23.7	24.4	0.7

[1]Feet above mouth

[2]Elevation without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

NORTH FORK GREEN MILL RUN – PARKERS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PINELOG BRANCH								
004	400	500	1,947	0.8	51.6	48.9[2]	49.9	1.0
028	2,800	270	1,530	1.1	52.1	52.1	52.9	0.8
040	4,000	256	1,301	1.3	52.6	52.6	53.6	1.0
053	5,297	260	1,440	1.1	54.0	54.0	54.8	0.8
064	6,400	350	1,658	0.9	54.4	54.4	55.3	0.9
072	7,200	270	1,165	1.3	54.9	54.9	55.7	0.8
084	8,400	273	1,085	1.4	55.7	55.7	56.7	1.0
101	10,077	324	1,559	1.0	57.8	57.8	58.7	0.9
112	11,200	336	1,684	0.9	58.6	58.6	59.5	0.9
120	12,000	218	1,067	1.2	59.0	59.0	59.9	0.9
128	12,800	228	1,047	1.2	59.3	59.3	60.3	1.0
140	14,000	205	1,116	1.2	60.6	60.6	61.4	0.8
148	14,800	196	1,270	0.8	60.9	60.9	61.8	0.9
156	15,600	125	598	1.8	61.3	61.3	62.2	0.9
164	16,400	184	871	0.8	62.5	62.5	63.4	0.9
172	17,200	177	744	1.0	62.8	62.8	63.7	0.9
180	18,000	187	629	1.1	63.9	63.9	64.8	0.9
188	18,800	251	826	0.9	64.6	64.6	65.6	1.0

[1]Feet above mouth

[2]Elevation computed without consideration of backwater effects from Little Contentnea Creek

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

PINELOG BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PINELOG BRANCH								
197	19,700	143	362	1.2	65.7	65.7	66.7	1.0
207	20,710	55	152	2.8	68.7	68.7	69.4	0.7
217	21,714	43	127	2.9	71.5	71.5	72.1	0.6
226	22,600	82	271	1.3	75.1	75.1	75.5	0.4
236	23,600	67	221	1.5	76.6	76.6	77.3	0.7
245	24,452	66	282	1.2	78.4	78.4	79.2	0.8

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

PINELOG BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PINELOG BRANCH NORTH TRIBUTARY								
007	708	128	351	1.4	65.7	65.7	65.8	0.1
010	989	156	443	1.1	66.1	66.1	66.5	0.4
016	1,600	125	436	1.1	66.7	66.7	67.4	0.7
019	1,938	61	192	2.5	67.3	67.3	68.1	0.8
024	2,400	89	369	1.3	68.3	68.3	69.2	0.9
028	2,800	60	257	1.9	68.8	68.8	69.8	1.0
031	3,128	37	224	2.1	70.5	70.5	71.1	0.6

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

PINELOG BRANCH NORTH TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PINELOG BRANCH SOUTH TRIBUTARY								
002	158	24	56	2.6	69.2	69.2	70.1	0.9
007	684	21	66	2.2	73.8	73.8	74.1	0.3
010	1,027	16	54	2.7	75.0	75.0	75.2	0.2
013	1,336	10	48	3.0	75.9	75.9	76.1	0.2
019	1,878	17	62	2.3	78.4	78.4	78.6	0.2
023	2,292	22	82	1.8	79.9	79.9	80.2	0.3
028	2,813	26	81	1.8	80.4	80.4	81.1	0.7
032	3,188	39	105	1.4	80.8	80.8	81.7	0.9

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

PINELOG BRANCH SOUTH TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Reedy Branch								
005	500	125	286	3.5	20.8[2]	17.4	18.4	1.0
006	625	125	611	1.6	20.8[2]	18.1	19.1	1.0
010	950	120	1,746	0.5	34.9	34.9	34.9	0.0
020	1,950	90	1,064	0.8	34.9	34.9	35.0	0.1
028	2,780	80	519	1.4	34.9	34.9	35.1	0.2
031	3,140	50	143	4.8	35.6	35.6	36.2	0.6
038	3,840	50	79	7.7	41.6	41.6	41.6	0.0
046	4,640	60	150	3.5	49.9	49.9	50.3	0.4
050	4,976	50	106	4.9	54.8	54.8	54.8	0.0
054	5,375	50	103	4.3	57.6	57.6	58.3	0.7
058	5,825	50	125	3.5	60.7	60.7	61.1	0.4
062	6,225	60	275	1.4	66.3	66.3	66.6	0.3

[1]Feet above mouth

[2]Elevation without consideration of backwater effects from the Tar River

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

REEDY BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Swift Creek								
1757	175,682	1,750	9,922	0.5	33.8	33.8	34.8	1.0
1780	177,957	2,159	10,797	0.4	34.3	34.3	35.3	1.0
1792	179,189	1,699	8,162	0.7	34.8	34.8	35.7	0.9
1814	181,389	1,140	5,096	0.8	35.8	35.8	36.7	0.9
1825	182,540	1,596	7,569	0.6	36.3	36.3	37.2	0.9
1837	183,695	2,007	10,522	0.5	36.8	36.8	37.5	0.7
1851	185,125	1,970	9,948	0.5	37.2	37.2	37.8	0.6
1862	186,242	1,311	6,994	0.6	37.5	37.5	38.1	0.6
1879	187,856	1,434	6,990	0.6	38.0	38.0	38.6	0.6
1886	188,628	1,238	6,129	0.7	38.3	38.3	38.8	0.5
1894	189,427	1,274	5,482	0.7	38.5	38.5	39.1	0.6
1905	190,514	1,295	6,501	0.7	38.9	38.9	39.5	0.6
1919	191,852	1,476	7,949	0.6	39.4	39.4	40.0	0.6
1932	193,214	1,404	6,383	0.6	39.9	39.9	40.4	0.5
1939	193,920	1,662	8,606	0.5	40.1	40.1	40.7	0.6
1949	194,919	1,156	5,846	0.6	40.3	40.3	40.9	0.6
1962	196,182	1,188	5,824	0.6	40.7	40.7	41.3	0.6
1974	197,387	926	4,213	0.8	41.1	41.1	41.8	0.7
1986	198,572	700	4,137	0.8	41.5	41.5	42.3	0.8
2013	201,294	1,067	6,568	0.5	43.8	43.8	44.2	0.4
2018	201,780	1,114	6,188	0.5	43.9	43.9	44.3	0.4

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

SWIFT CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Swift Creek (continued)								
2054	205,429	1,239	7,717	0.4	44.6	44.6	45.0	0.4
2065	206,533	1,022	4,825	0.7	44.8	44.8	45.3	0.5
2076	207,592	995	5,613	0.6	45.2	45.2	45.7	0.5
2081	208,095	1,065	5,819	0.6	45.3	45.3	45.8	0.5
2112	211,225	1,083	6,148	0.5	47.1	47.1	47.8	0.7
2154	215,418	925	6,284	0.4	49.1	49.1	49.7	0.6
2168	216,757	1,497	8,620	0.3	49.2	49.2	49.8	0.6
2185	218,540	1,315	5,513	0.4	49.4	49.4	50.0	0.6
2195	219,453	1,040	3,596	0.6	49.7	49.7	50.3	0.6
2203	220,301	762	2,963	0.8	50.0	50.0	50.7	0.7
2213	221,331	637	2,652	0.8	50.6	50.6	51.4	0.8
2221	222,138	561	2,402	0.9	51.1	51.1	51.9	0.8
2228	222,790	512	2,314	0.9	51.5	51.5	52.3	0.8
2249	224,909	381	1,950	1.0	53.1	53.1	53.7	0.6
2255	225,495	341	1,871	1.0	53.4	53.4	54.0	0.6
2260	226,015	416	2187	0.9	53.6	53.6	54.2	0.6
2266	226,570	453	2,181	0.9	53.8	53.8	54.4	0.6
2278	227,820	237	1,038	1.7	54.3	54.3	55.0	0.7

[1]Feet above mouth

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

SWIFT CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Swift Creek (continued)								
2291	229,129[1]	393	1,718	1.1	55.6	55.6	56.2	0.6
2299	229,882[1]	365	1,753	1.0	56.0	56.0	56.7	0.7
2305	230,460[1]	317	1,491	1.2	56.4	56.4	57.0	0.6
2317	231,702[1]	174	862	1.5	57.9	57.9	58.5	0.6
2326	232,620[1]	297	1,205	1.1	58.6	58.6	59.3	0.7
2332	233,221[1]	197	1,016	1.3	58.9	58.9	59.6	0.7
Tar River								
281	28,145[2]	5,700	75,300	0.7	12.3	12.3	13.3	1.0
293	29,287[2]	5,550	74,461	0.7	12.4	12.4	13.3	0.9
314	31,359[2]	5,248	69,991	0.8	13.4	13.4	14.3	0.9
433	43,347[2]	4,561	69,002	0.8	14.7	14.7	15.6	0.9
470	46,977[2]	4,278	59,861	0.9	15.1	15.1	15.9	0.8
502	50,247[2]	5,099	69,809	0.8	15.5	15.5	16.3	0.8
531	53,127[2]	5,549	66,376	0.8	15.8	15.8	16.6	0.8
557	55,678[2]	5,098	61,989	0.9	16.1	16.1	16.8	0.7
579	57,866[2]	4,907	64,002	0.8	16.3	16.3	17.1	0.8
616	61,617[2]	4,531	65,895	0.8	16.8	16.8	17.5	0.7

[1]Feet above mouth
[2]Feet above County boundary

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

SWIFT CREEK – TAR RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tar River								
914	91,433	4,180	65,543	0.8	21.3	21.3	22.2	0.9
933	93,259	3,735	43,879	1.2	21.5	21.5	22.4	0.9
973	97,288	3,441	61,354	0.9	22.0	22.0	22.9	0.9
1106	110,600	4,196	77,589	0.7	24.4	24.4	25.2	0.8
1165	116,460	5,196	92,315	0.6	24.6	24.6	25.5	0.9
1204	120,353	4,233	66,794	0.8	24.8	24.8	25.7	0.9
1220	121,965	4,455	67,599	0.8	25.0	25.0	25.9	0.9
1250	124,995	5,120	83,234	0.6	25.2	25.2	26.1	0.9
1271	127,057	4,559	66,259	0.8	25.3	25.3	26.2	0.9
1318	131,841	3,500	54,775	1.0	26.7	26.7	27.6	0.9
1345	134,486	3,000	43,964	1.2	27.0	27.0	27.9	0.9
1381	138,060	2,000	37,317	1.4	27.7	27.7	28.6	0.9
1404	140,441	2,310	39,681	1.3	28.2	28.2	29.1	0.9
1444	144,427	2,785	44,788	1.2	28.9	28.9	29.9	1.0
1482	148,211	3,000	50,698	1.1	29.5	29.5	30.5	1.0
1514	151,411	2,800	53,518	1.0	29.9	29.9	30.9	1.0
1557	155,657	3,900	67,150	0.8	30.6	30.6	31.5	0.9
1580	158,032	3,865	62,828	0.9	30.9	30.9	31.8	0.9
1630	162,963	2,820	47,120	1.1	31.9	31.9	32.8	0.9
1659	165,854	3,500	52,178	1.0	32.8	32.8	33.7	0.9
1676	167,604	3,840	52,998	1.0	33.1	33.1	34.1	1.0

[1]Feet above County boundary

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

TAR RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tar River (continued)								
1712	171,226[1]	2,800	41,426	1.2	33.8	33.8	34.8	1.0
1756	175,647[1]	3,000	50,842	1.0	34.5	34.5	35.5	1.0
1806	180,617[1]	2,500	44,329	1.1	35.4	35.4	36.3	0.9
1847	184,663[1]	2,700	44,410	1.1	36.1	36.1	37.1	1.0
1904	190,400[1]	3,470	48,563	1.0	37.2	37.2	38.1	0.9
Tranters Creek								
118	11,804[2]	562	5,814	1.9	9.3	5.4[3]	6.4	1.0
136	13,586[2]	227	5,023	2.2	9.3	5.6[3]	6.6	1.0
180	18,043[2]	512	5,447	2.0	9.3	6.0[3]	7.0	1.0
224	22,441[2]	571	5,840	1.9	9.4	6.9[3]	7.9	1.0
245	24,535[2]	646	6,296	1.7	9.5	7.3[3]	8.3	1.0
270	27,041[2]	1,074	9,917	1.1	9.6	7.7[3]	8.7	1.0
304	30,364[2]	772	7,340	1.5	9.7	8.2[3]	9.2	1.0
343	34,304[2]	1,436	12,911	0.8	9.9	8.7[3]	9.7	1.0
401	40,104[2]	1,631	15,588	0.7	10.0	8.9[3]	9.9	1.0

[1]Feet above County boundary

[2]Feet above mouth

[3]Elevation computed without consideration of storm surge effects from the Atlantic Ocean

TABLE 16

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

TAR RIVER – TRANTERS CREEK

This FIS is based on the most up-to-date data available to FEMA or the State at the time of production; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time; certain types of revisions will require the submission of supporting data. FEMA or the State may also initiate a revision. FIS revisions may take several forms; these include Letters of Map Amendment (LOMAs), Letters of Map Revision - based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs), Physical Map Revisions (PMRs), and FEMA or the State-contracted restudies.

7.1 Letters of Map Amendment and Letters of Map Revision - Based on Fill

LOMAs and LOMR-Fs are documents issued by FEMA that officially remove a property and/or a structure from a Special Flood Hazard Area (SFHA), if data supporting the removal are submitted. LOMAs and LOMR-Fs are generally determinations regarding areas that are too small to be shown on a FIRM panel; consequently, the changes they describe become official without revising the FIRM or the FIS Report.

NFIP regulations require that the lowest adjacent grade (the lowest ground touching the structure) be at or above the 1% annual chance flood elevation for a LOMA to be issued. Currently, there is no fee for FEMA's review of a LOMA request, but the requester of a LOMA is responsible for providing all the information needed for the review, which may include structure and/or property elevations certified by a licensed land surveyor or professional engineer. Therefore, LOMA requesters may need to retain the services of a land surveyor or engineer.

A LOMA cannot be used for property on which fill has been placed. For those situations, a LOMR-F must be used. As a participant in the NFIP, a local government must adopt ordinances that meet the minimum Federal floodplain management standards, which are outlined in Section 60.3 of the NFIP regulations. For a number of reasons, these ordinances generally vary from community to community. Nonetheless, because the placement of fill within the floodplain can affect flood hazards in the surrounding area, additional information is needed before FEMA can process a LOMR-F request. Among the data required for a LOMR-F is the community acknowledgment form. This form is FEMA's assurance that all appropriate Federal, State, and local floodplain management requirements have been met. Furthermore, NFIP regulations require that the lowest adjacent grade (the lowest ground touching the structure) be at or above the 1% annual chance flood elevation for a LOMR-F to be issued removing the structure from the floodplain. Because LOMR-F requests are the result of changed physical conditions rather than limitations of scale or topographic definition, FEMA charges a fee for the review of a LOMR-F request. As with the LOMA, the requester of a LOMR-F is responsible for providing all supporting information, including structure and/or property elevation data.

In cases where property owners plan to add fill in the SFHA, NFIP regulations require plans and technical information to be submitted for review by FEMA before construction takes place. FEMA will issue a conditional LOMR-F stating how flood hazards would change and what portions of the property, if any, would remain in the SFHA if the project were built according to the submitted plans.

The issuance of a LOMA or LOMR-F ends the property owner's obligation to purchase flood insurance as a condition of Federal or federally backed financing. However, the property owner's mortgage company maintains the prerogative to require flood insurance as a condition of providing financing. Before attempting to obtain a LOMA or LOMR-F, property owners are advised to consult their mortgage companies regarding this policy. Even if the mortgage

company indicates that it will require flood insurance if a LOMA or LOMR-F is issued, it may be advantageous for property owners to request a LOMA or LOMR-F because flood insurance premiums are lower for properties removed from the SFHA than for properties that remain within the SFHA.

For additional information regarding LOMAs, LOMR-Fs, conditional LOMR-Fs, or current application fees, please call the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627).

7.2 Letters of Map Revision

A Letter of Map Revision (LOMR) is a document issued by FEMA and the NCFMP that revises an FIS Report and/or FIRM. A LOMR is used to change flood risk zones, floodplain and/or floodway delineations, flood elevations, or planimetric features such as road systems or corporate limits. A LOMR provides FEMA and the NCFMP with a cost-effective means of revising the FIS information without physically changing and reprinting the map or report itself. A portion of the FIRM panel or FIS Report showing the revised information is issued with the LOMR. The LOMR is sent to all affected communities and is archived in the communities' NFIP map repository for public reference.

In cases where a proposed project (such as construction in the 1% annual chance floodplain) would result in a significant rise in 1% annual chance water-surface elevations, NFIP regulations require the community to submit plans and technical information for review by FEMA and the NCFMP before construction takes place. This assures communities participating in the NFIP that proposed projects meet minimum NFIP requirements. The result of FEMA and the NCFMP reviews is documented in a conditional LOMR.

For additional information regarding LOMRs, conditional LOMRs, or current application fees, please call the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627) or the NCFMP at 919-715-5711.

7.3 Physical Map Revisions

Physical Map Revisions (PMRs) are processed to incorporate information concerning conditions present in the community that are not reflected in the FIS, and involve distributing republished FISs that supersede the most current NFIP data in the community repository. PMRs may be initiated by a request from a community resident or agency, or FEMA may initiate a PMR to incorporate one or more LOMRs, to reflect significant changes in corporate limits, to correct errors, or to update flood hazards to match new information from an adjacent community's FIS. Due to the costs associated with updating and distributing FISs, map revisions will be processed as LOMRs rather than PMRs whenever possible. For more information regarding PMRs, please contact the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627) or the FEMA Regional Office at the address listed on the Notice to Flood Insurance Study Users page at the front of this report, or the NCFMP at 919-715-5711.

7.4 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards in a given community. FEMA accomplishes this through a national mapping needs assessment process that assigns priorities and allocates funds to sponsor or subsidize new flood hazard analyses used to update

FIS Reports. For map maintenance restudies within the state of North Carolina, scoping will be performed by county approximately 2.5-3.5 years after the previous effective date. Scoping will focus on streams with restudy needs within those previously effective counties rather than on full countywide restudies. A restudy refers specifically to updating or reevaluating engineering analyses that were performed for a flood mapping project that directly impact BFEs and/or flood hazard boundary extents or analysis of previously unstudied flood prone areas. Restudy project evaluation triggers and prioritization values are an essential component of the map maintenance program. For more information regarding NCFMP-contracted restudies, please contact the NCFMP at 919-715-5711 or at www.ncfloodmaps.com. For more information regarding FEMA-contracted restudies, please contact the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP(1-877-336-2627) or the FEMA Regional Office at the address listed on the Notice to Flood Insurance Study Users page at the front of this report.

7.5 Map Revision History

The current FIRM is a subset of the Statewide FIRM, showing presents flood hazard information for the entire geographic area of Pitt County. Previously, separate Flood Hazard Boundary Maps (FHBMs), Flood Boundary and Floodway Maps (FBFMs), and/or FIRMs were prepared for each identified flood prone jurisdiction within the county. Historical data relating to the NFIP maps prepared for each community prior to the January 2, 2004, North Carolina Statewide FIRM, which includes Pitt County are presented in Table 17, "Community Map History."

Table 17—Community Map History

Community Name	Initial Identification Date	FHBM Revision Date	FIRM Effective Date	FIRM Revision Date
Ayden, Town of	May 24, 1974	April 2, 1976	August 4, 1987	
Farmville, Town of	April 12, 1974	June 25, 1976	April 1,1982	April 17, 1989
Greenville, City of	June 14, 1974	None	July 3, 1978	April 30, 1986
Grifton, Town of	December 17, 1973	January 23, 1976	February 17, 1982	November 16, 1983 November 20, 1998
Pitt County (Unincorporated Areas)	June 30, 1978	None	January 6, 1983	September 14, 1990
Winterville, Town of	June 7, 1974	July 2, 1976	February 24, 1978	

Section 8.0 – Study Contracting and Community Coordination

8.1 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.

This FIS revises and updates the previous countywide FIS for the geographic area of Pitt County and Incorporated Areas. Table 18, "Authority and Acknowledgments," includes information for the previous countywide FIS and for this revision. This table also includes information for the single-jurisdiction FISs published for each community included in this countywide FIS (if available) as compiled from their previously printed FIS Reports

Table 18—Authority and Acknowledgments

Community	FIS Dated	Study Contracted by	Data Source *(Study Contractor or Source of Data)*	Contract or Inter-Agency Agreement (IAA) Number	Work Completed in *(month and/or year)*
Pitt County and Incorporated Areas	April 16, 2013	FEMA and North Carolina Floodplain Mapping Program	North Carolina Floodplain Mapping Program	N/A	May 2009
Pitt County and Incorporated Areas	January 2, 2004	FEMA	North Carolina Floodplain Mapping Program	N/A	March 2003
Pitt County (Unincorporated Areas)	September 14, 1990	FEMA	H.D. Nottingham & Associates, Inc., Moorman, Little & Kizer, Inc. and USACE, Wilmington District	H-4580	June 1979

Table 18—Authority and Acknowledgments

Community	FIS Dated	Study Contracted by	Data Source *(Study Contractor or Source of Data)*	Contract or Inter-Agency Agreement (IAA) Number	Work Completed in *(month and/or year)*
Town of Farmville	April 17, 1989	FEMA	H.D. Nottingham & Associates, Inc., Moorman, Little & Kizer, Inc. and USACE, Wilmington District	H-4580	June 1979
Town of Grifton	November 16, 1983	FEMA	H.D. Nottingham & Associates, Inc. and Moorman, Little & Kizer, Inc.	H-4580	June 1979
	November 20, 1998	FEMA	U.S. Army Corps of Engineers (USACE), Wilmington District	IAA-14-9-79	June 1981
City of Greenville	April 30, 1986	FEMA	U.S. Army Corps of Engineers (USACE), Wilmington District	IAA-H-16-75 and IAA-H-7-76	November 1976

This FIS Report was produced through a unique cooperative partnership between the State of North Carolina and FEMA. The State of North Carolina, through FEMA's Cooperating Technical State (CTS) Initiative, will assume primary ownership of the NFIP FIRM panels for all North Carolina communities. This role has traditionally been fulfilled by FEMA. The North Carolina Floodplain Mapping Program is conducting flood hazard analyses and producing updated, digital FIRM panels. The hydrologic and hydraulic analyses and the FIRM panels for the initial statewide mapping for Pitt County were produced by Watershed Concepts under contract with the State of North Carolina and issued on effective January 2, 2004. For this revision, the

hydrologic and hydraulic analyses and the FIRM panels were produced by AECOM, under contract with the State of North Carolina.

To date, more than $200 million has been allocated for the NCFMP. The State has provided approximately $90 million, and FEMA has contributed over $110 million in funding.

8.2 Consultation Coordination Officer's Meetings/Scoping Meetings

In general, for each FIS an initial Consultation Coordination Officer's (CCO) meeting is held with representatives from FEMA, the communities, and the study contractors to explain the nature and purpose of the FIS and to identify the streams to be studied by detailed methods. A final CCO meeting is held with representatives from FEMA, the communities, and the study contractors to review the results of the study.

The dates of the initial and final CCO meetings held for Pitt County and Incorporated Areas were compiled from their previous FIS Reports and are shown in Table 19, "Consultation Coordination Officer's Meetings." Dates are not shown for the Towns of Ayden, Bethel, Falkland, Winterville, and Fountain, and the Village of Simpson because these communities never had previously printed FISs.

Table 19—Consultation Coordination Officer's Meetings

Community Name	For FIS Dated	Initial CCO Date	Attended by	Final CCO Date	Attended by
Pitt County (Unincorporated Areas)	September 14,1990	July 1977	Representatives of FEMA, the study contractor, and the County	2/3/1982	Representatives of FEMA, the study contractor, and the County
Farmville, Town of	April 17, 1989	July 1977	Representatives of FEMA, the study contractor, and the community	2/27/1981	Town residents, representatives of FEMA, the study contractor, and the town
Greenville, City of	April 30, 1986	2/11/1975	FIA and local interests	9/28/1976	Representatives of FIA, community officials, and local residents
Grifton, Town of	November 20, 1998	Notified by letter July 22, 1997	*	*	*

*Data Not Available.

For each FIS produced during the initial phase of statewide, an Initial Scoping Meeting was held with representatives from FEMA, the county, the incorporated communities, and the State of North Carolina. A Final Scoping meeting was held to review the Draft Basin Plan and finalize the streams to be studied by detailed methods. This information was then used to create the Final Basin Plan.

For map maintenance revisions, only one scoping meeting was held to identify the streams to be newly studied by detailed methods, redelineated, or to be studied by limited detailed methods. This information was then used to create the Map Maintenance Plan.

The historical dates of the Initial and Final Scoping Meetings held during the first round of statewide mapping for Pitt County are shown in Table 20, "Scoping Meetings." Meetings held for the map maintenance revision are also included below for Pitt County.

Table 20—Scoping Meetings

Community Name	Basin	Initial Scoping Date	Attended by	Final Scoping Date	Attended by
Pitt County and Incorporated Areas	Neuse and Tar-Pamlico	May 2, 2006	Representatives of the State, FEMA, Dewberry and Davis, and Pitt County	*	*
Pitt County (Unincorporated Areas)	Tar-Pamlico	November 14, 2000	Representatives from the State, community, and FEMA-MCC/D&D	Jan. 30 & 31, 2001	Representatives from the State, community, and FEMA-MCC/D&D
Bethel, Town of	Tar-Pamlico	November 14, 2000	Representatives from the State, community, and FEMA-MCC/D&D	Jan. 30 & 31, 2001	Representatives from the State, community, and FEMA-MCC/D&D
Greenville, Town of	Tar-Pamlico	November 14, 2000	Representatives from the State, community, and FEMA-MCC/D&D	Jan. 30 & 31, 2001	Representatives from the State, community, and FEMA-MCC/D&D
Grimesland, Town of	Tar-Pamlico	November 14, 2000	Representatives from the State, community, and FEMA-MCC/D&D	Jan. 30 & 31, 2001	Representatives from the State, community, and FEMA-MCC/D&D

*Data Not Available

Preliminary Meetings are held in each county to disseminate and review the FIS Report and FIRM panels. This meeting is required by FEMA. Public Participation Meetings are not required by FEMA, but provide an opportunity to review and discuss the FIS Report and FIRM panels for each jurisdiction in a public setting. The dates for the preliminary and public participation meetings are shown in Table 21, "Preliminary and Public Participation Meetings."

Table 21—Preliminary and Public Participation Meetings

Community Name	For FIS Dated	Meeting Location	Preliminary Meeting Date	Attended by	Public Participation Meeting	Attended by
Pitt County and Incorporated Areas	April 16, 2013	City of Greenville	August 23, 2011	Representatives of the State, FEMA, Dewberry, and Pitt County and Incorporated Areas	October 19, 2011	Representatives of the State, FEMA, Dewberry, and Pitt County and Incorporated Areas
Pitt County and Incorporated Areas	January 2, 2004	City of Greenville	July 9, 2002	Representatives of the State, FEMA, Dewberry and Davis, Watershed Concepts and Pitt County	September 3, 2002	*

*Data Not Available

Section 9.0 – Guide to Additional Information

All FIRM panels created for the State of North Carolina are produced in a seamless statewide format; however, FIS Reports are produced for individual counties.

Copies of FIRM panels are available for a nominal fee. To obtain a copy of the current flood map for a specific community, contact the FEMA Map Service Center at 1-800-358-9616. To facilitate the processing of your request, please review the current flood map on file at your local community repository and obtain the panel number in which you are interested. If necessary, users may also order a FIRM Index from the Map Service Center to determine the appropriate panel numbers. The Map Service Center also accepts orders for the Community Status Book and the Flood Insurance Manual. The FIS Report, FIRM panels, and digital data used to produce the FIRM panels are available online at www.ncfloodmaps.com.

Information concerning the data used in the preparation of this FIS, contained in an Engineering Study Data Package, may be obtained by contacting the FEMA Regional Office at the address listed on the Notice to Flood Insurance Study Users page at the front of this report.

Table 22, "Additional Information," contains useful contact information regarding this FIS, the FIRM, and data.

Table 22—Additional Information

FEMA and the NFIP	
FEMA website	www.fema.gov
NFIP Internet website	http://www.fema.gov/business/nfip/
Other Federal Agencies	
USGS website	www.usgs.gov/
Hydraulic Engineering Center website	www.hec.usace.army.mil/
State Agencies and Organizations	
NCGS website	www.ncgs.state.nc.us/
NCFMP website	www.ncfloodmaps.com

Section 10.0 – Bibliography and References

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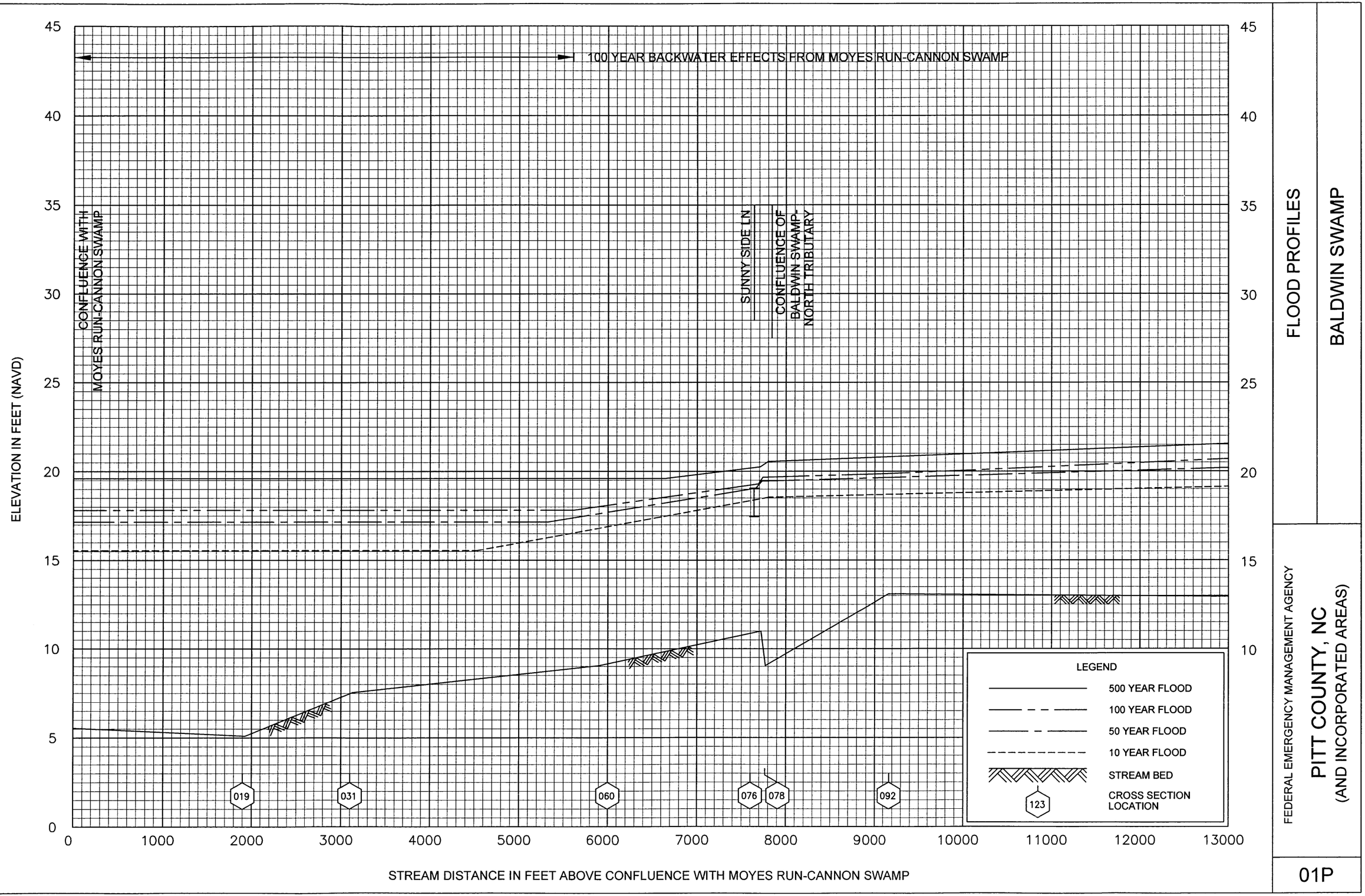


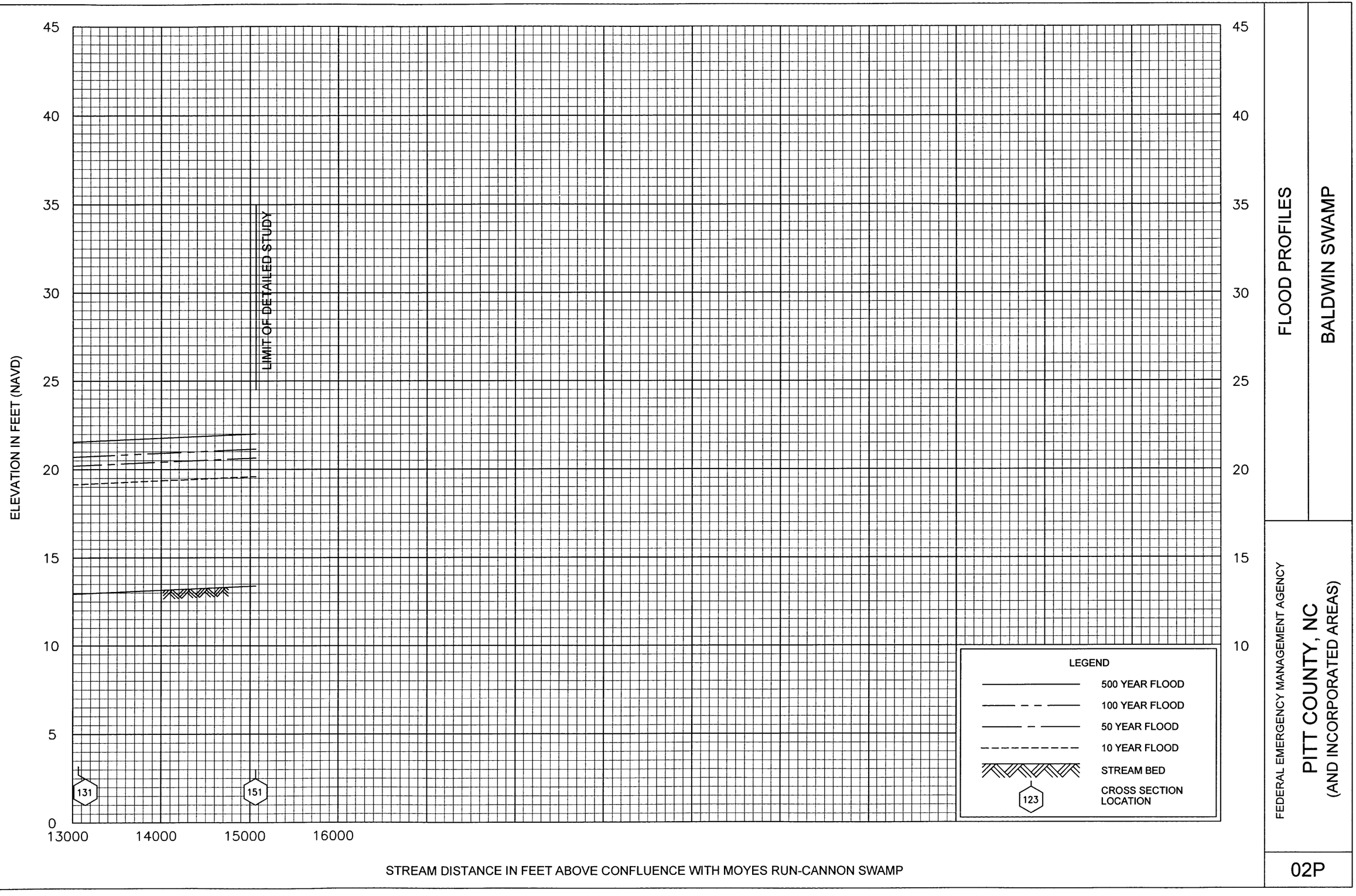
FLOOD PROFILES

BALDWIN SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

01P



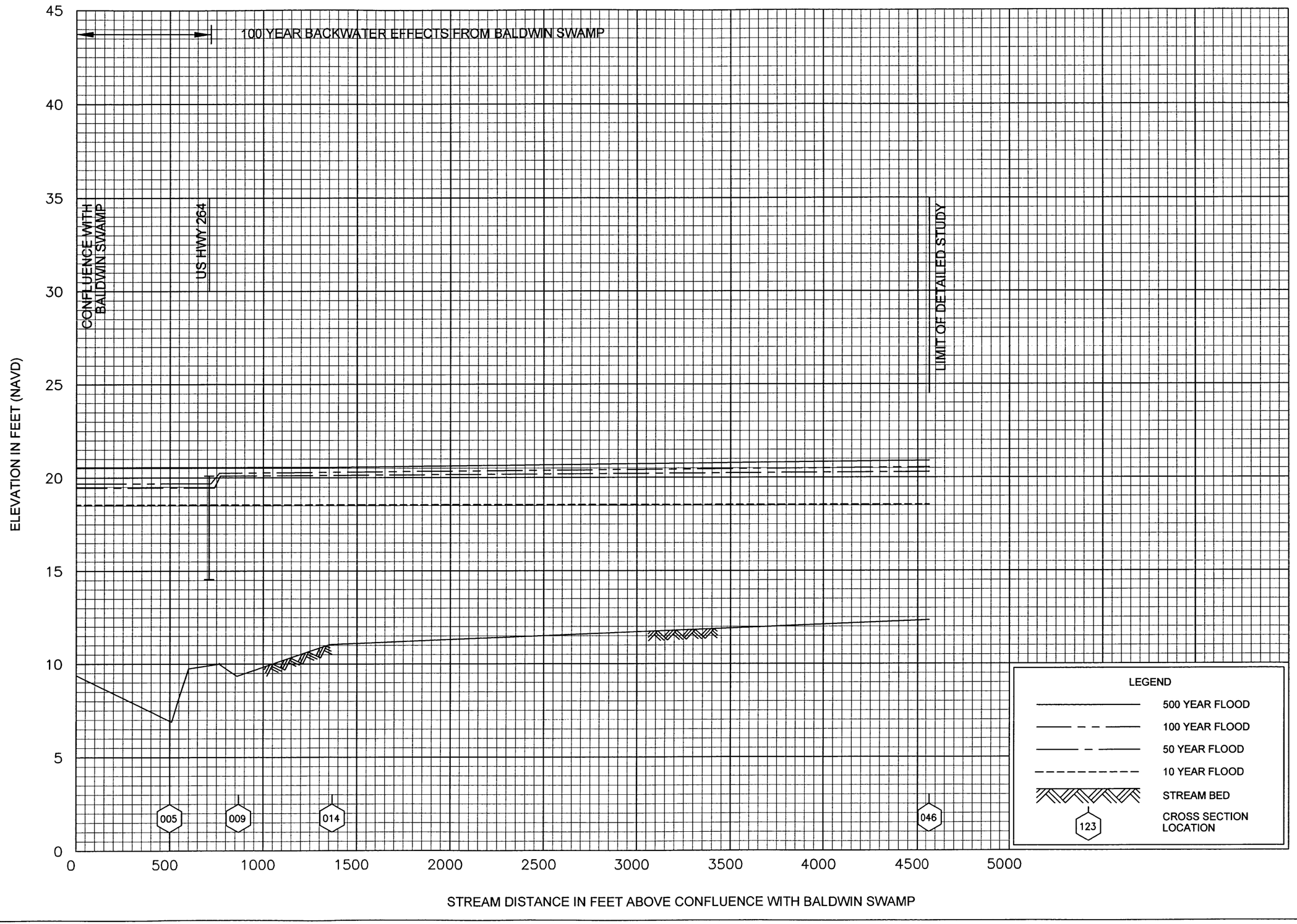
FLOOD PROFILES

BALDWIN SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

02P



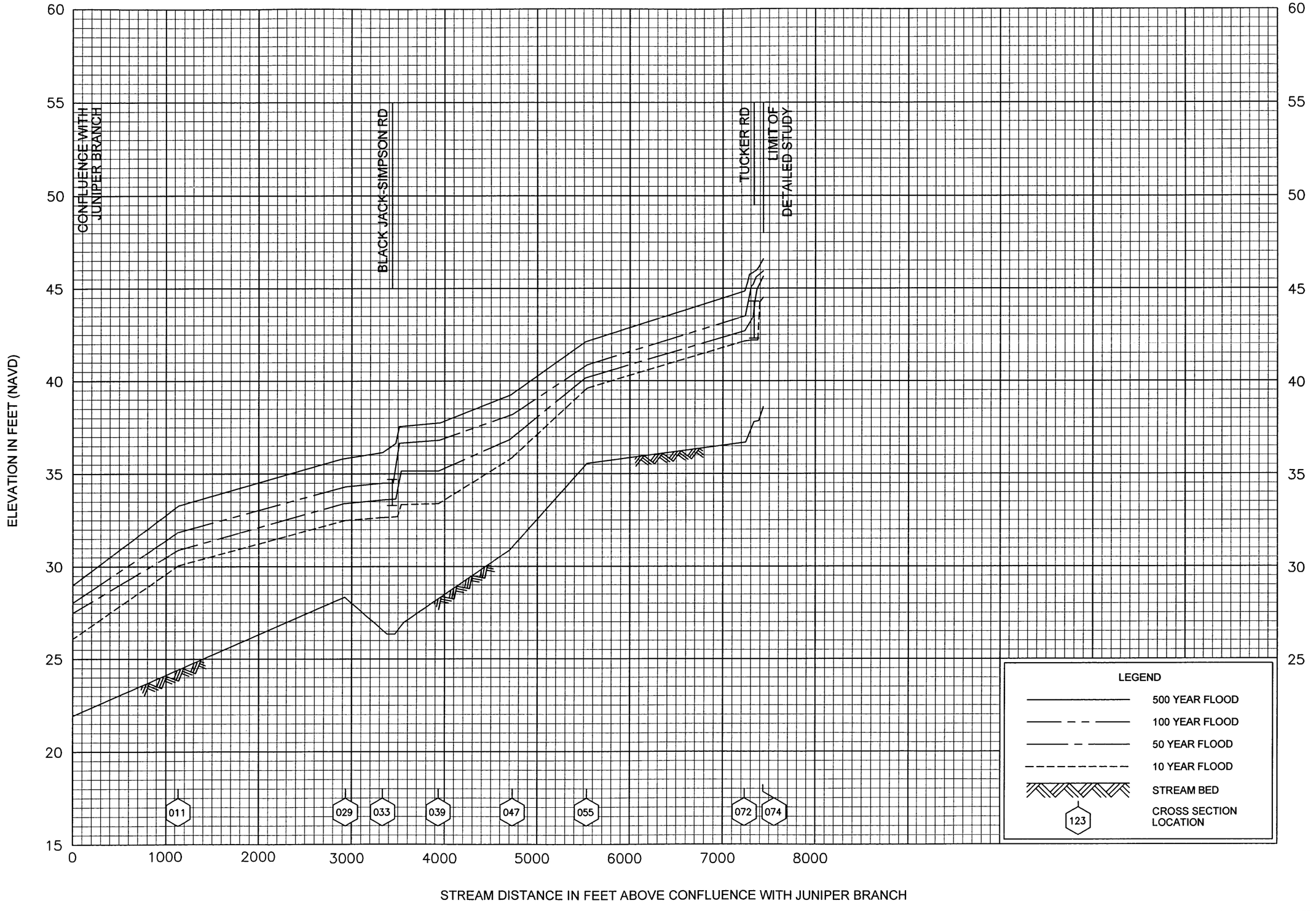
FLOOD PROFILES

BALDWIN SWAMP-NORTH TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

03P



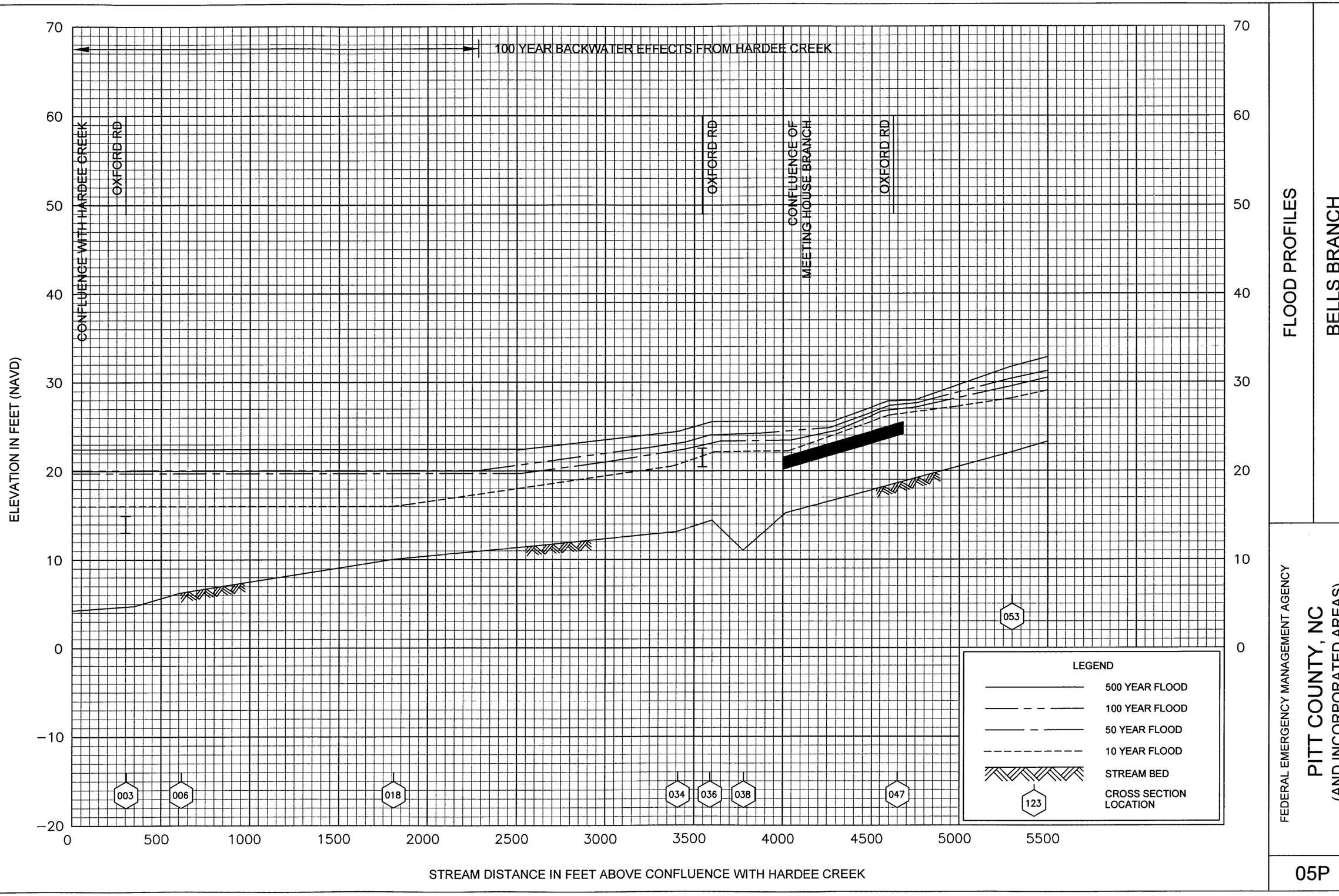
FLOOD PROFILES

BATES BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

04P



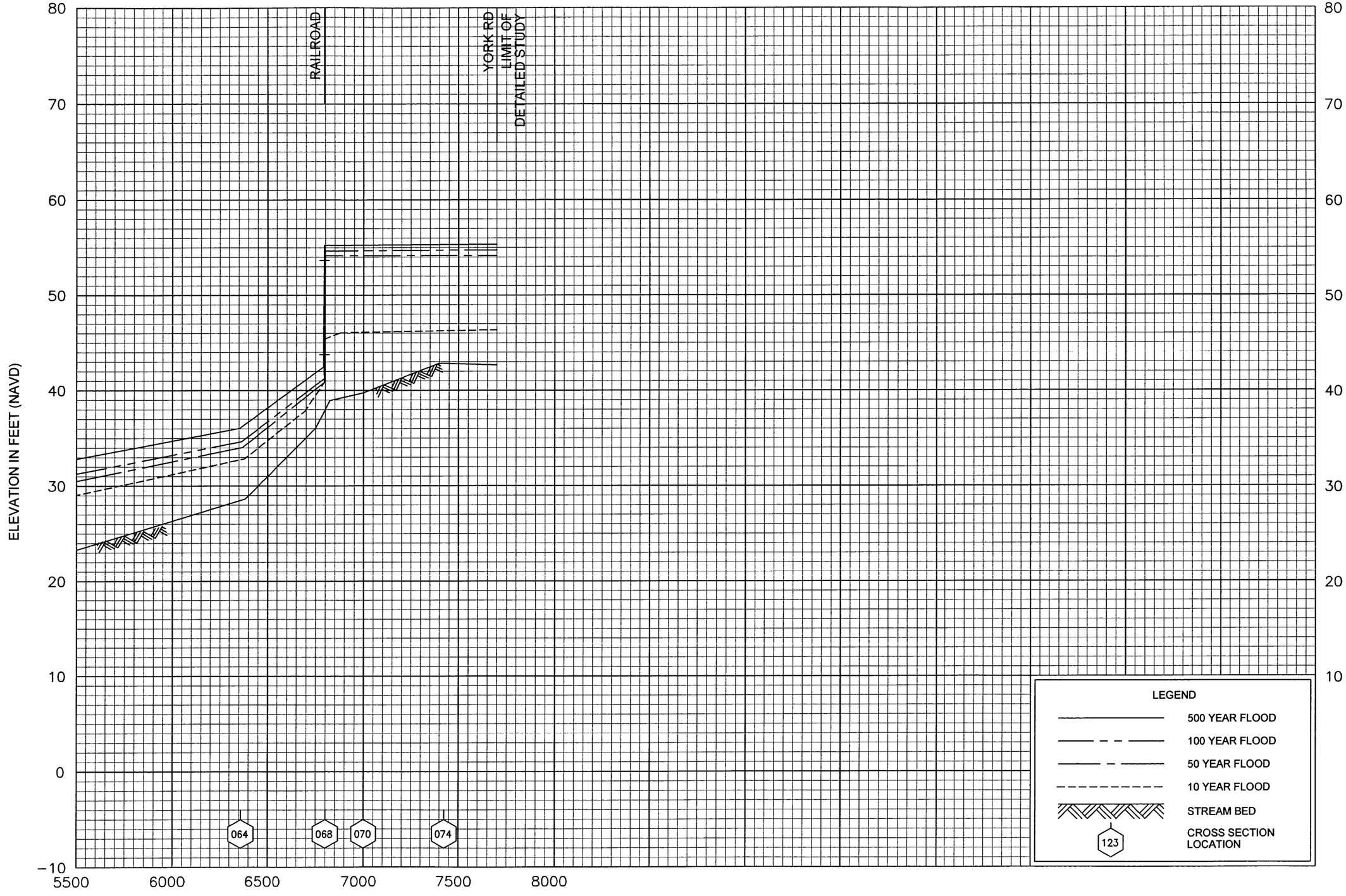
FLOOD PROFILES

BELLS BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

05P



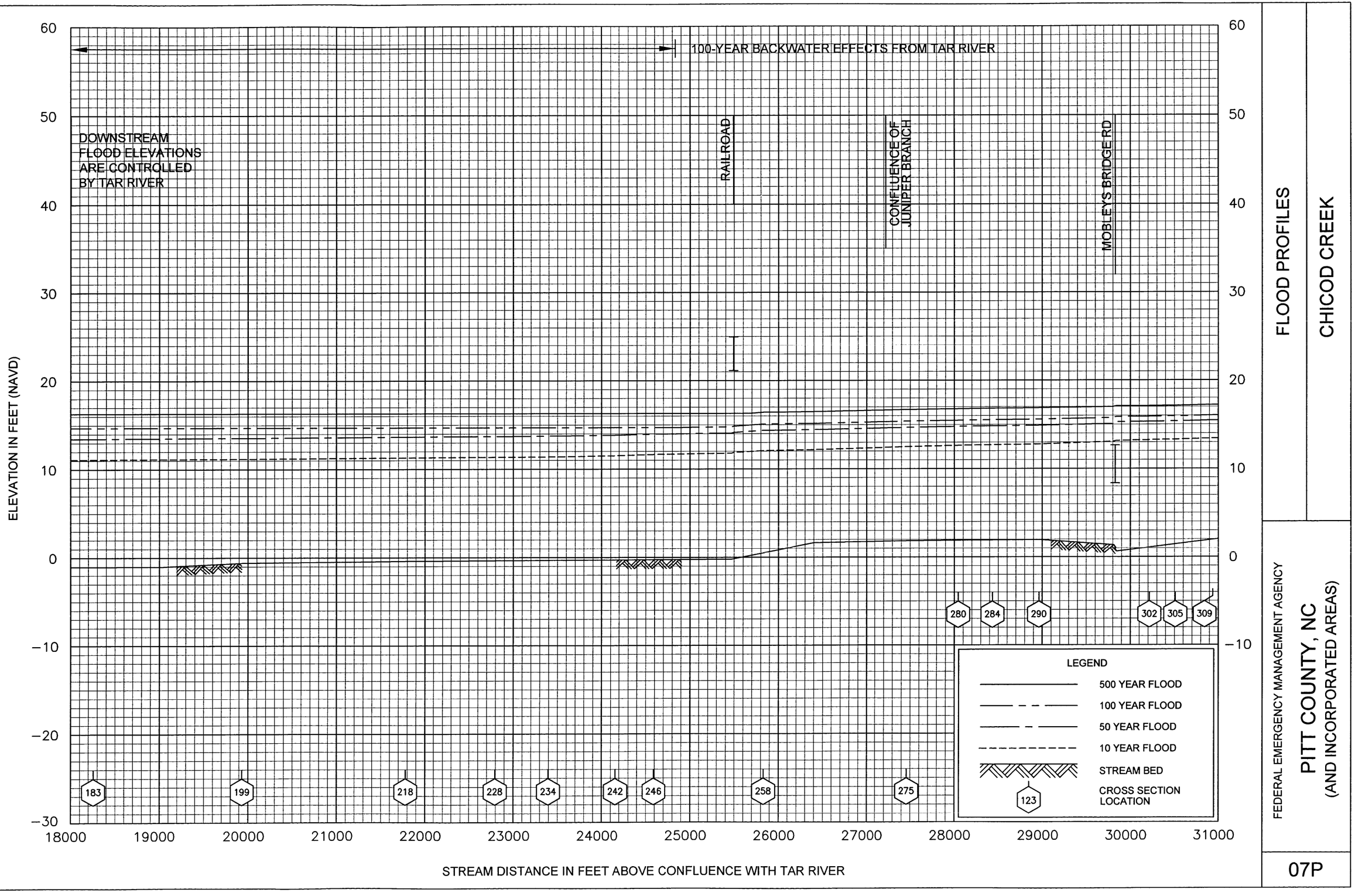
FLOOD PROFILES

BELLS BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

06P



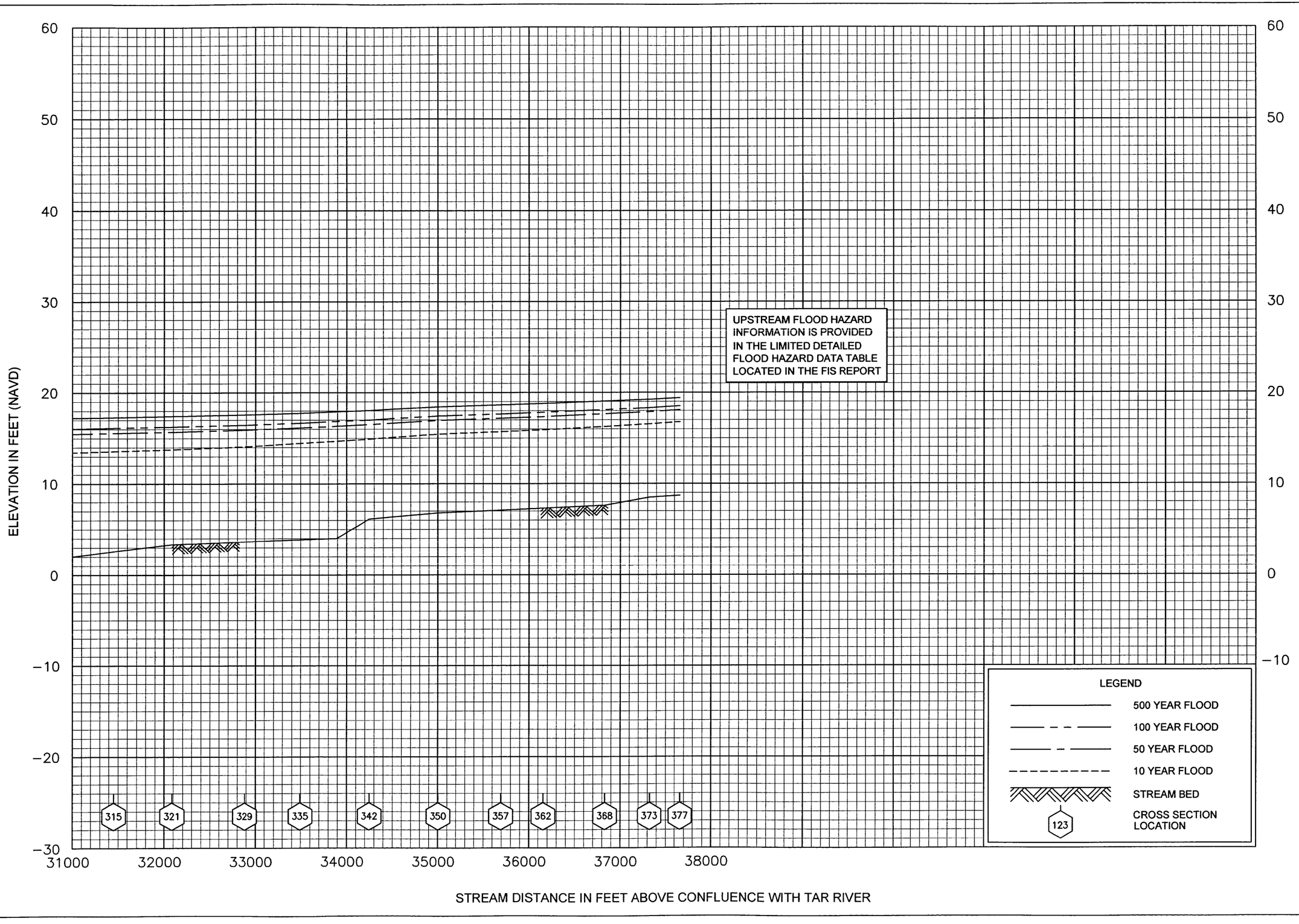
FLOOD PROFILES

CHICOD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

07P



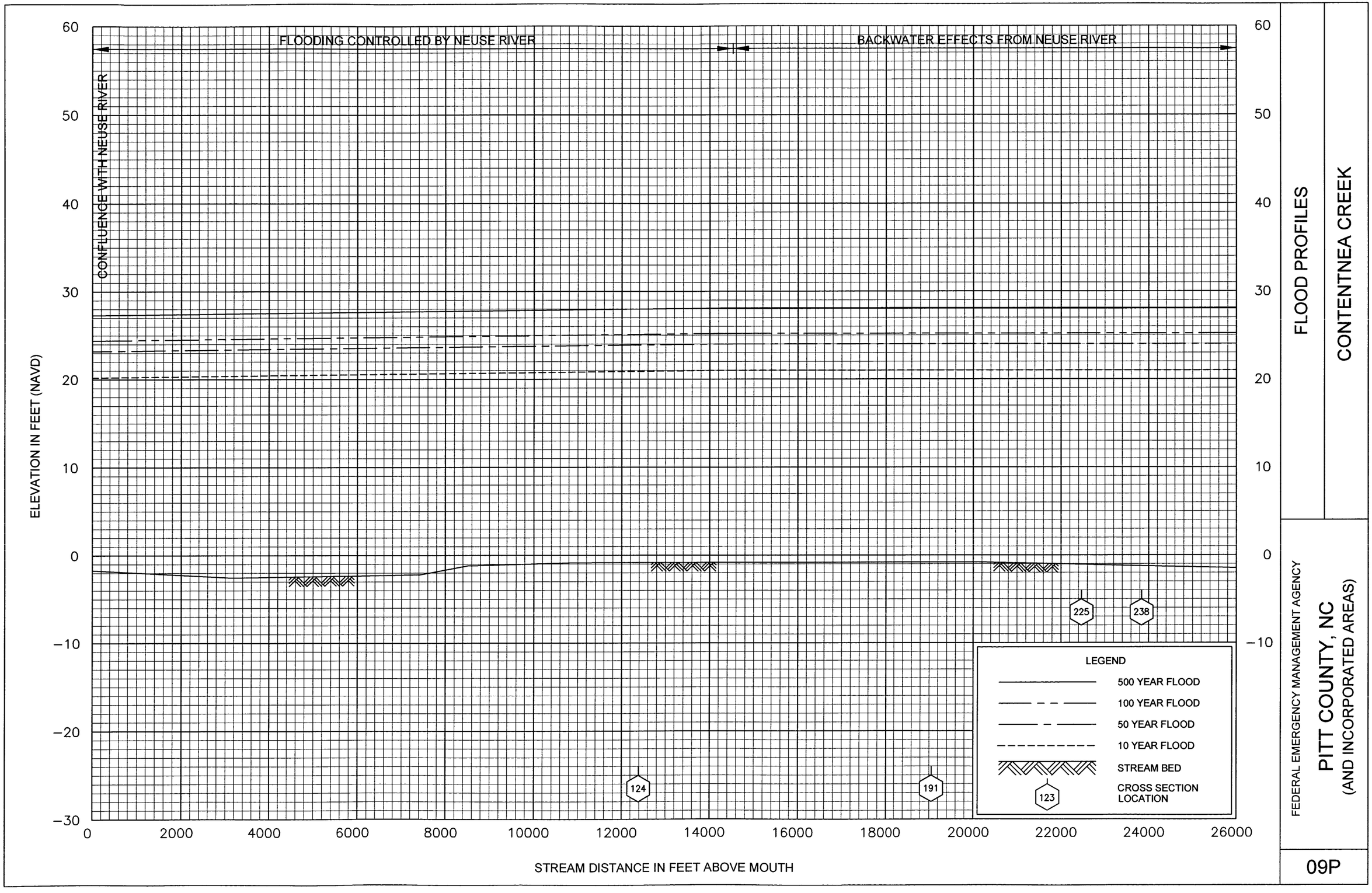
FLOOD PROFILES

CHICOD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

08P



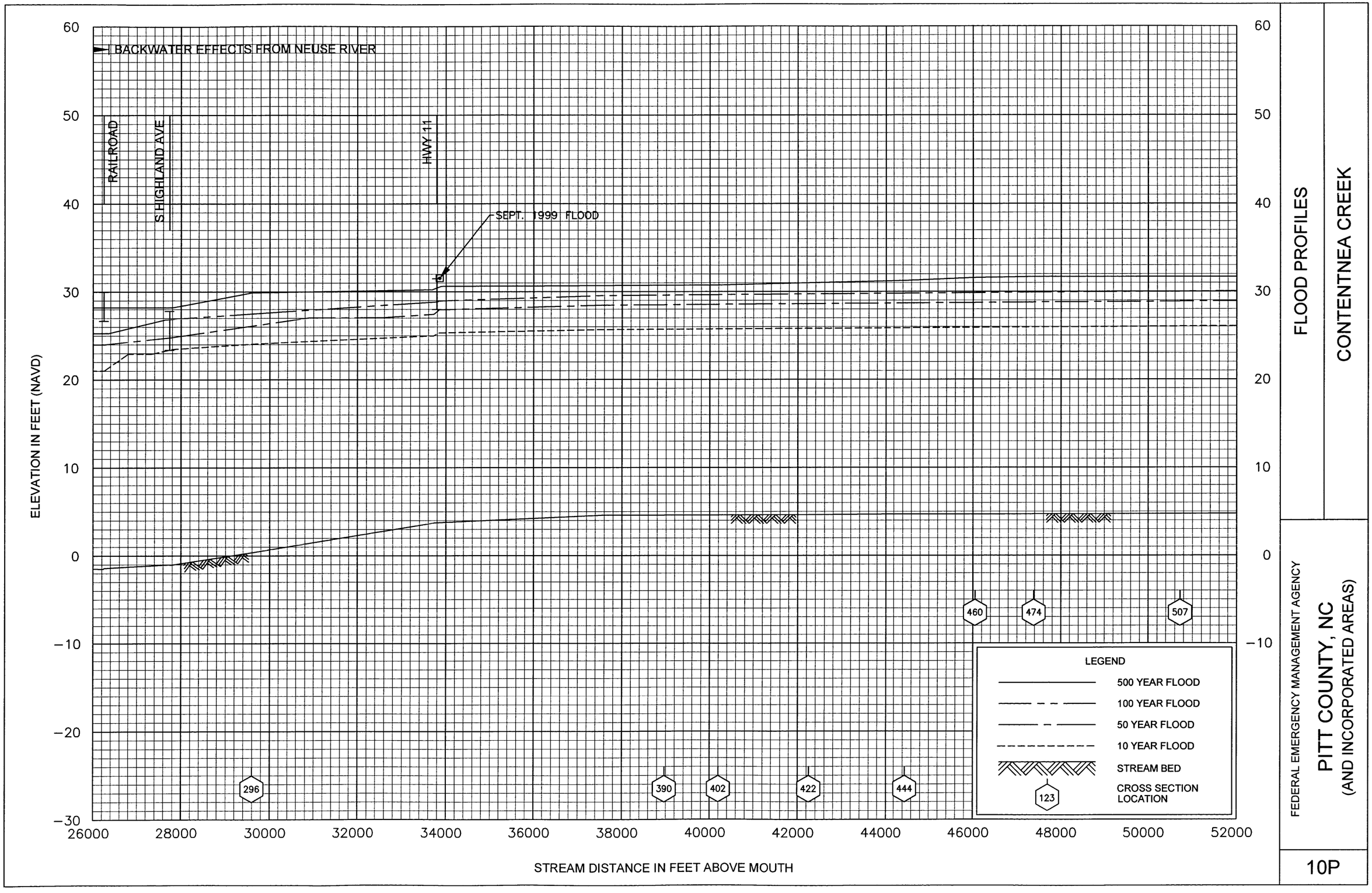
FLOOD PROFILES

CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

09P



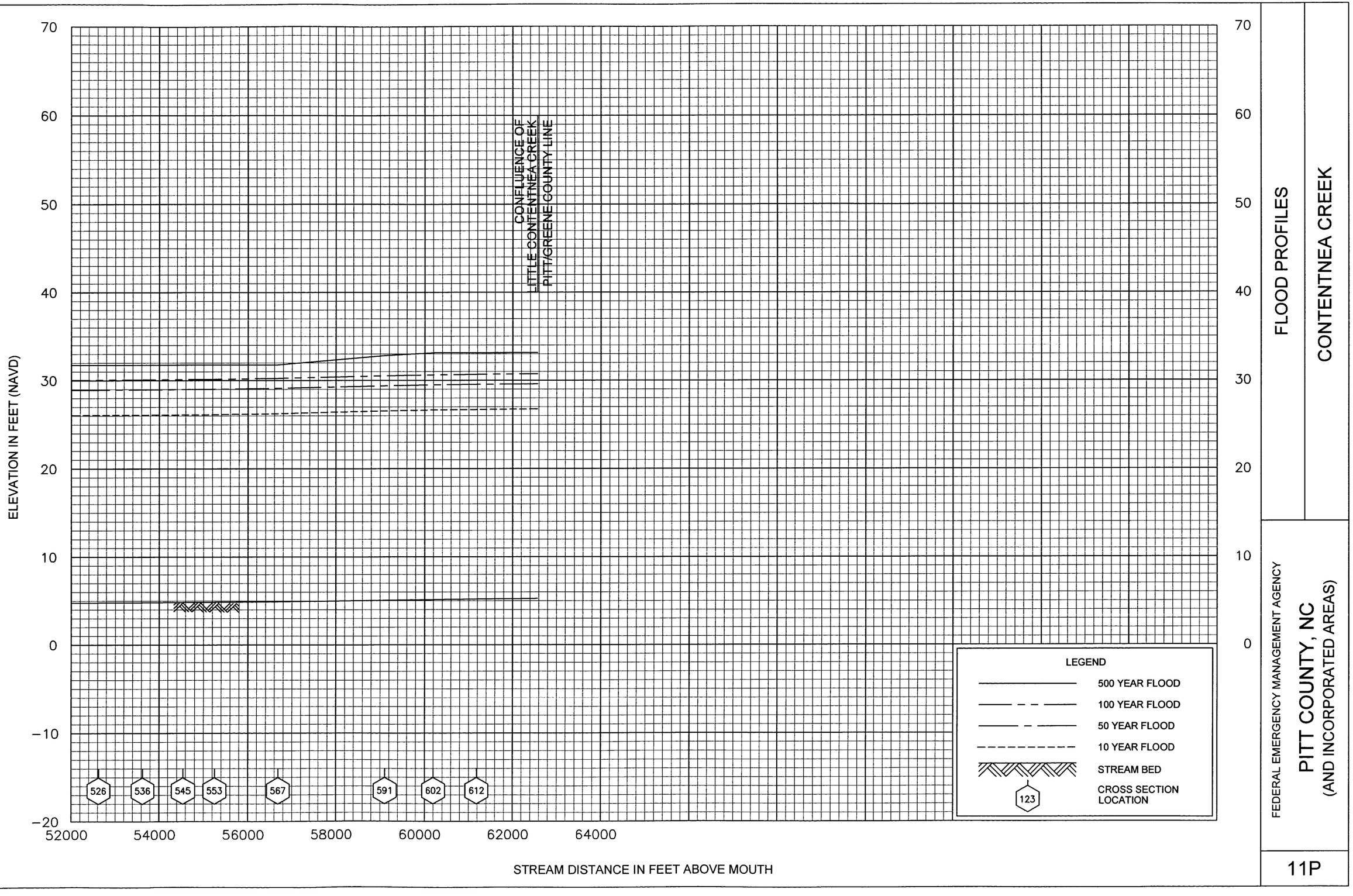
FLOOD PROFILES

CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

10P



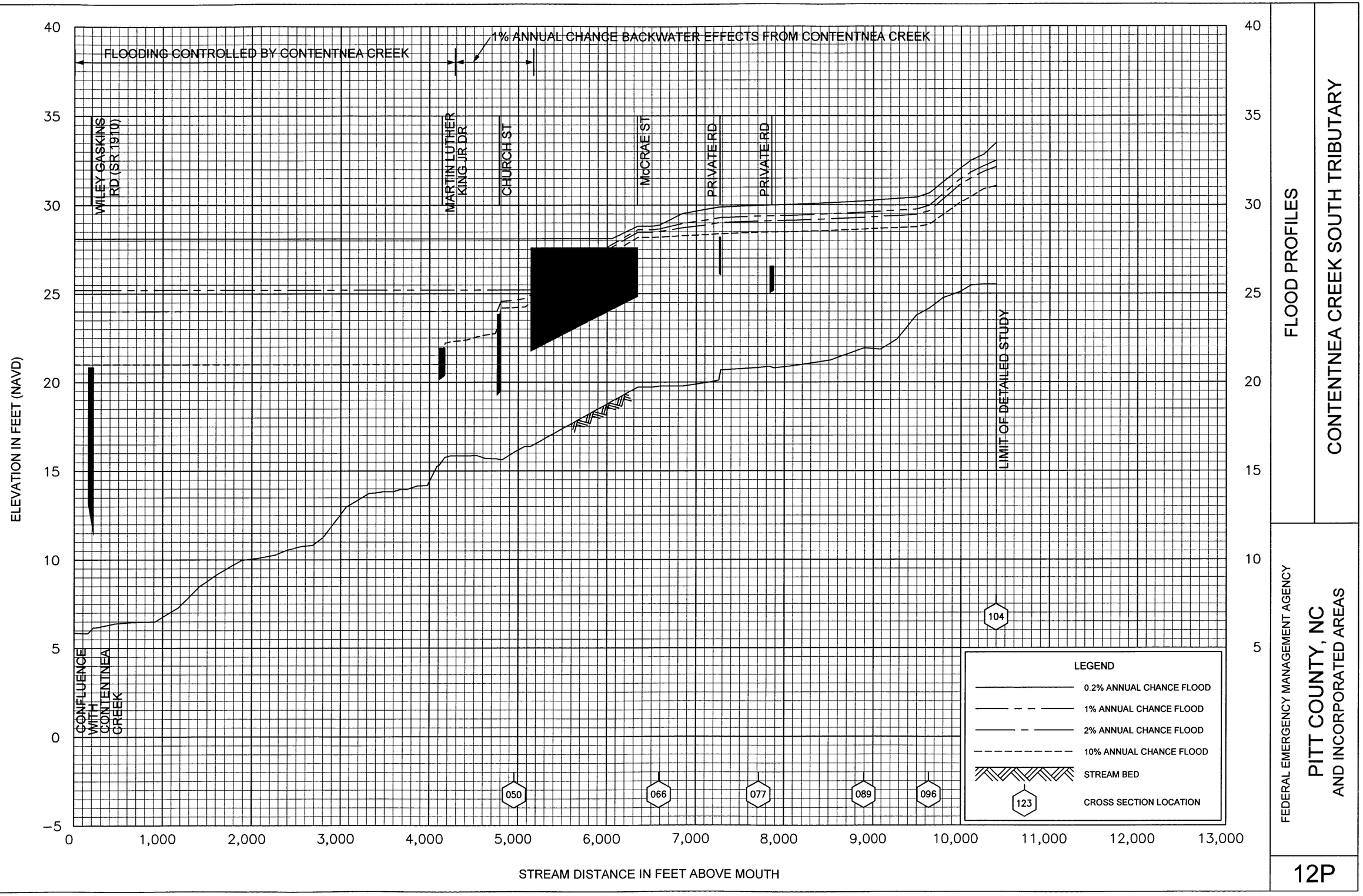
FLOOD PROFILES

CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

11P



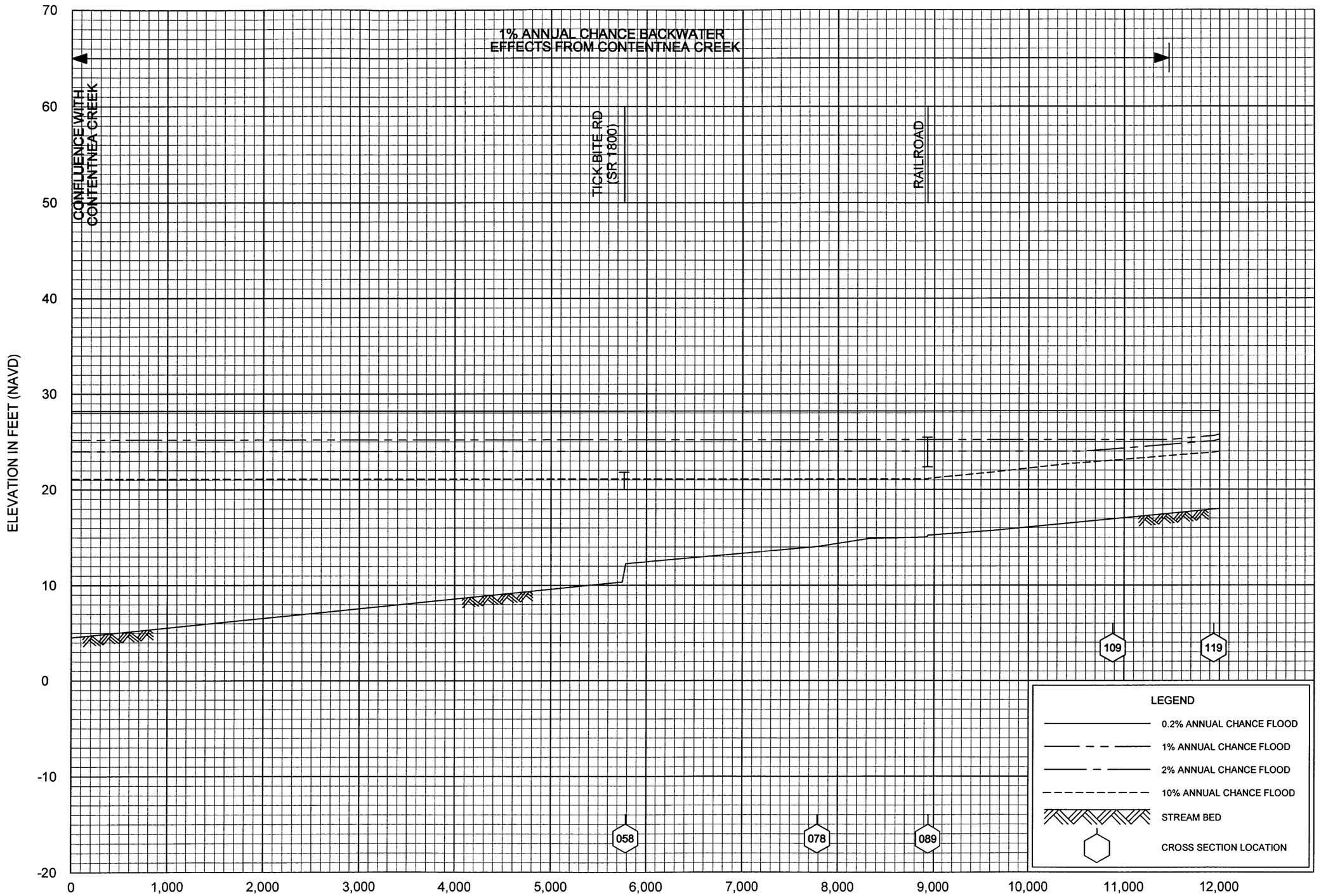
FLOOD PROFILES

CONTENTNEA CREEK SOUTH TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

12P



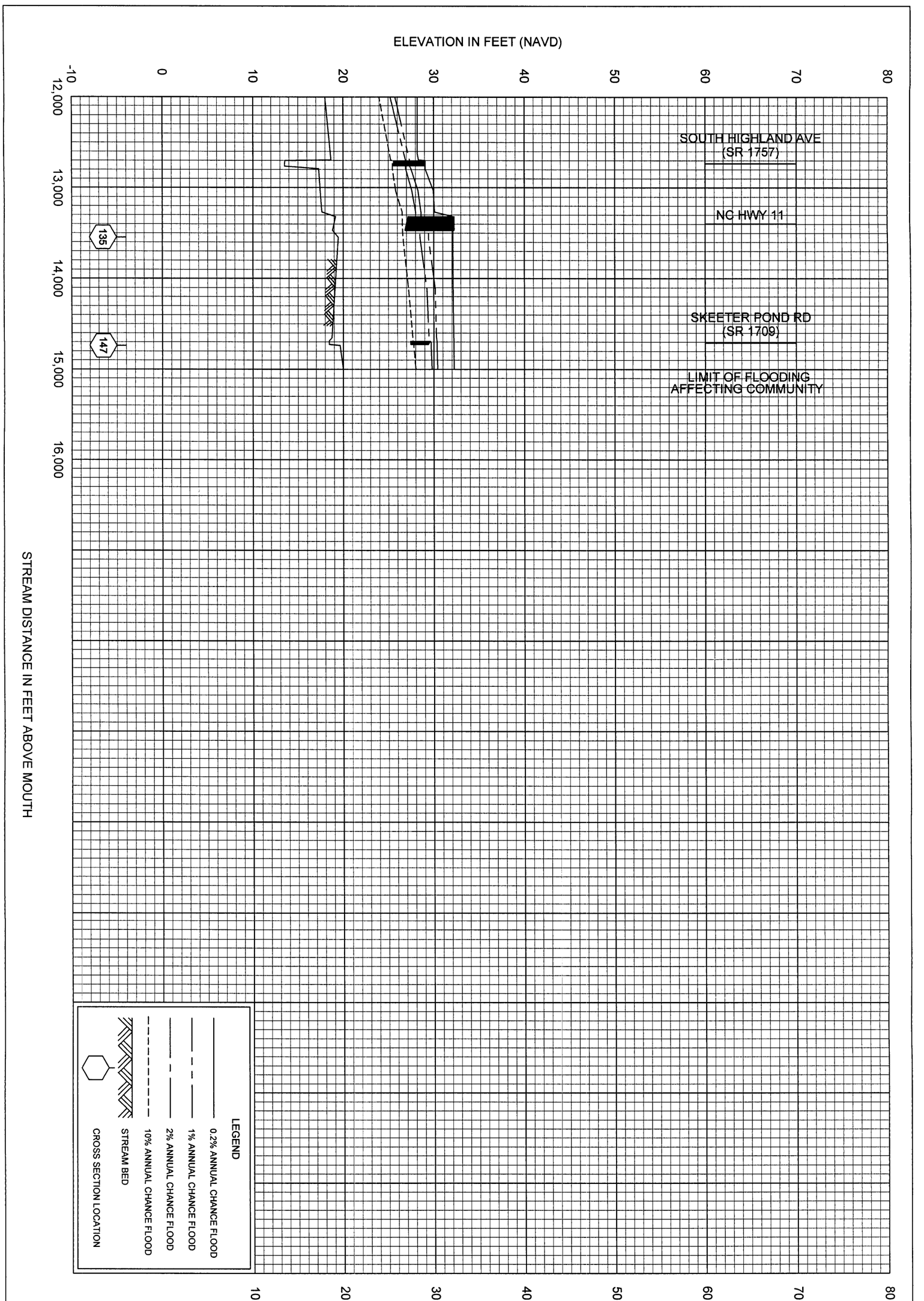
FLOOD PROFILES

EAGLE SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

13P



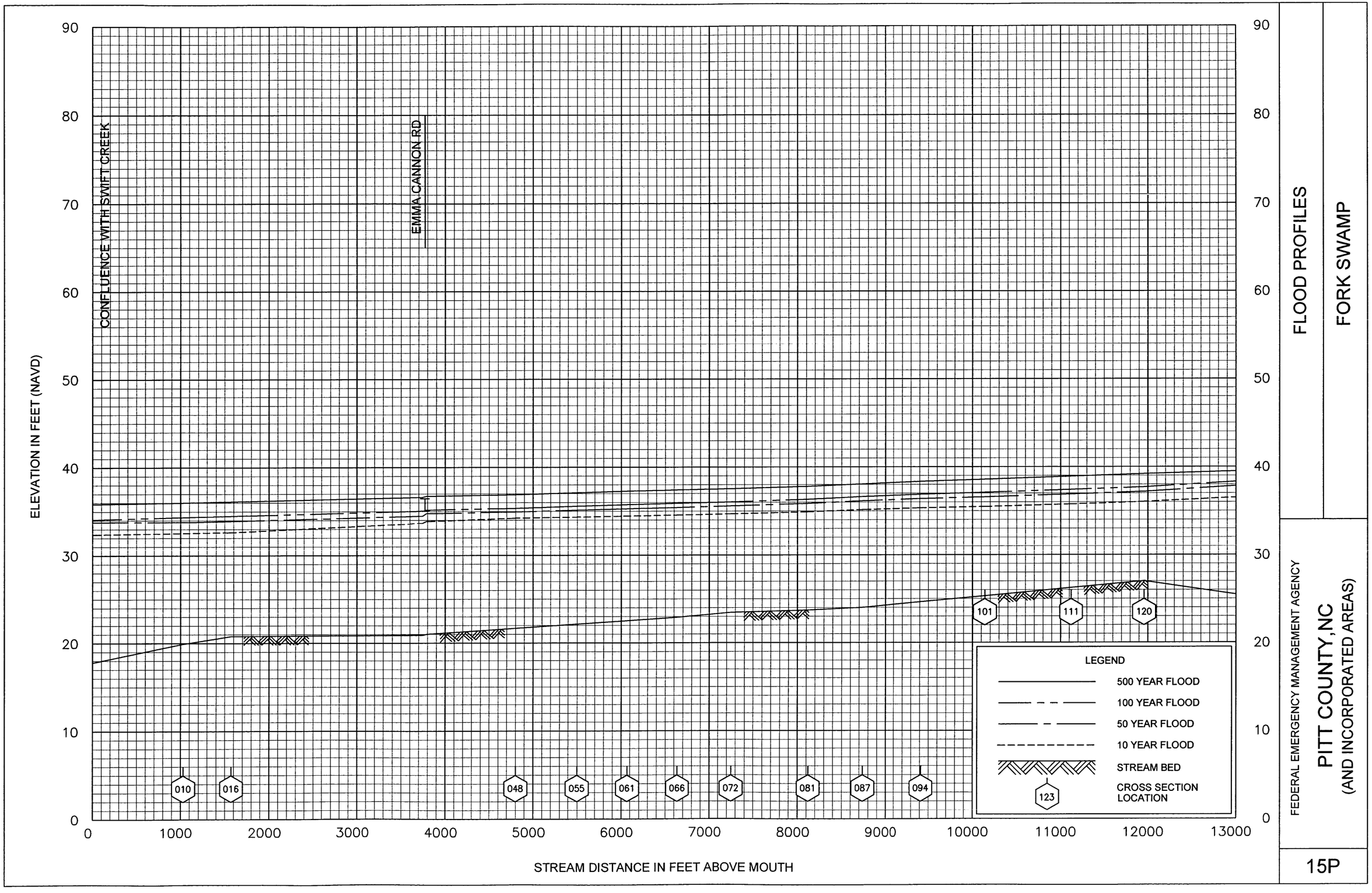
14P

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

FLOOD PROFILES

EAGLE SWAMP



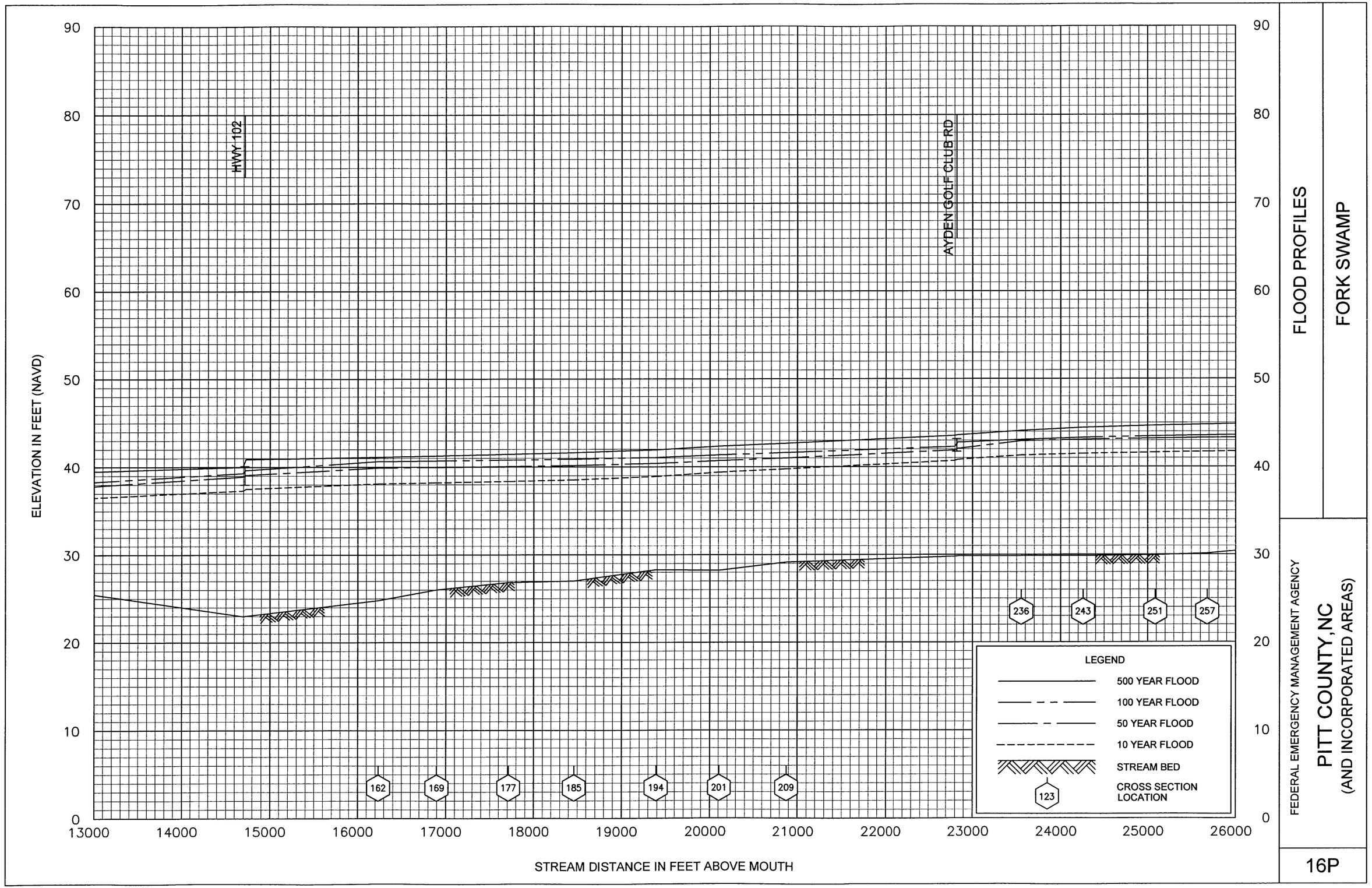
FLOOD PROFILES

FORK SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

15P



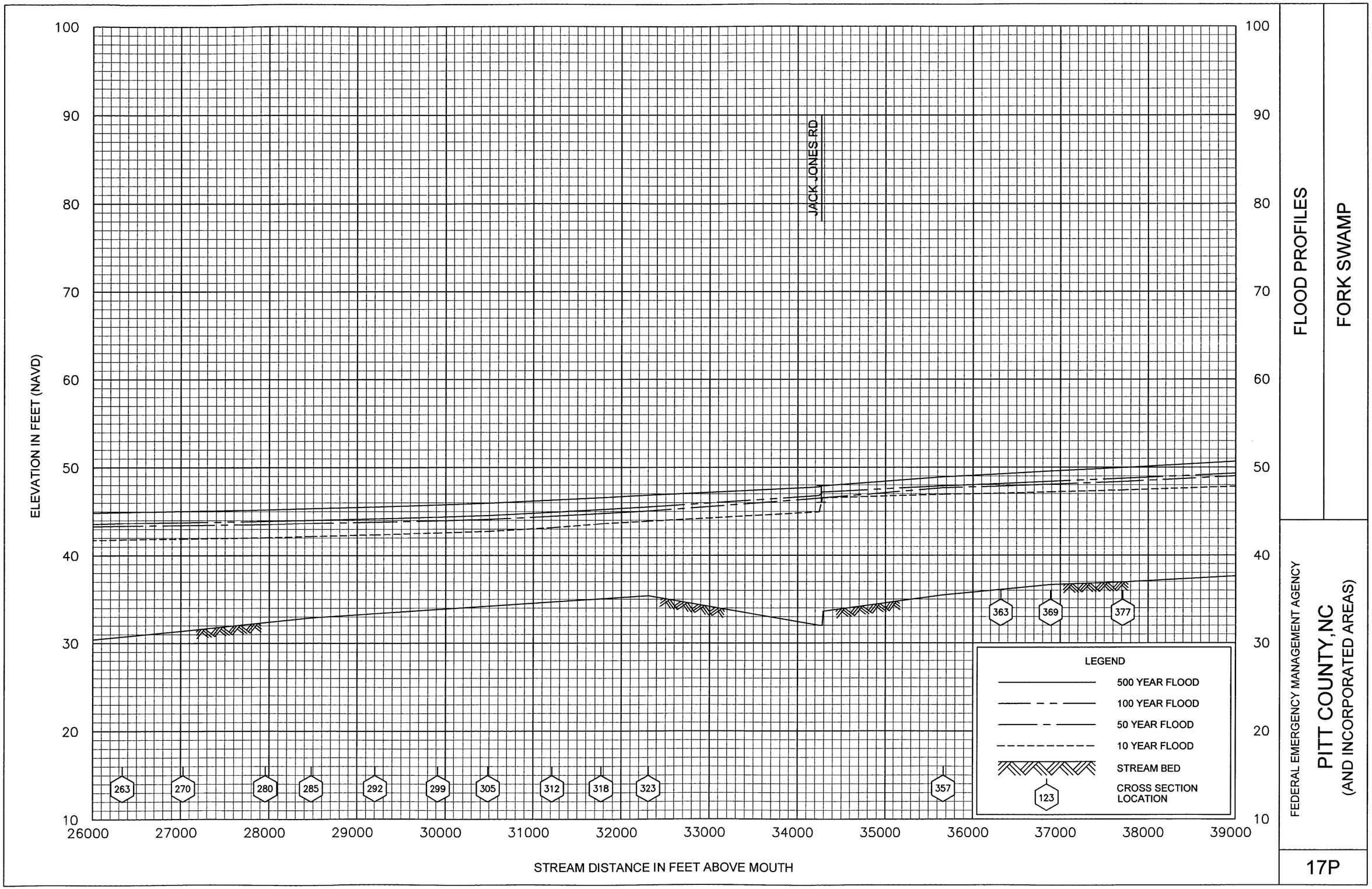
FLOOD PROFILES

FORK SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

16P



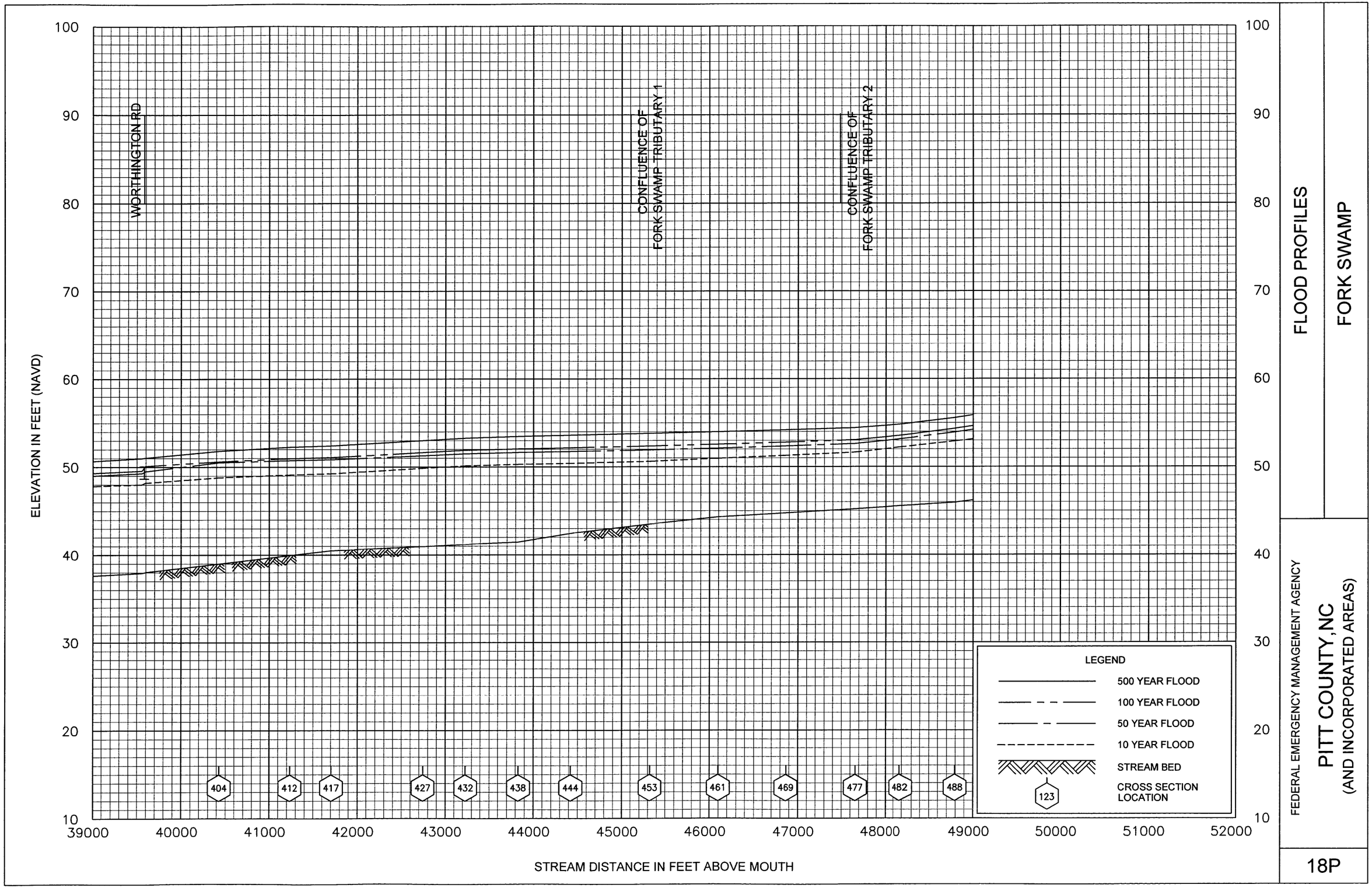
FLOOD PROFILES

FORK SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

17P



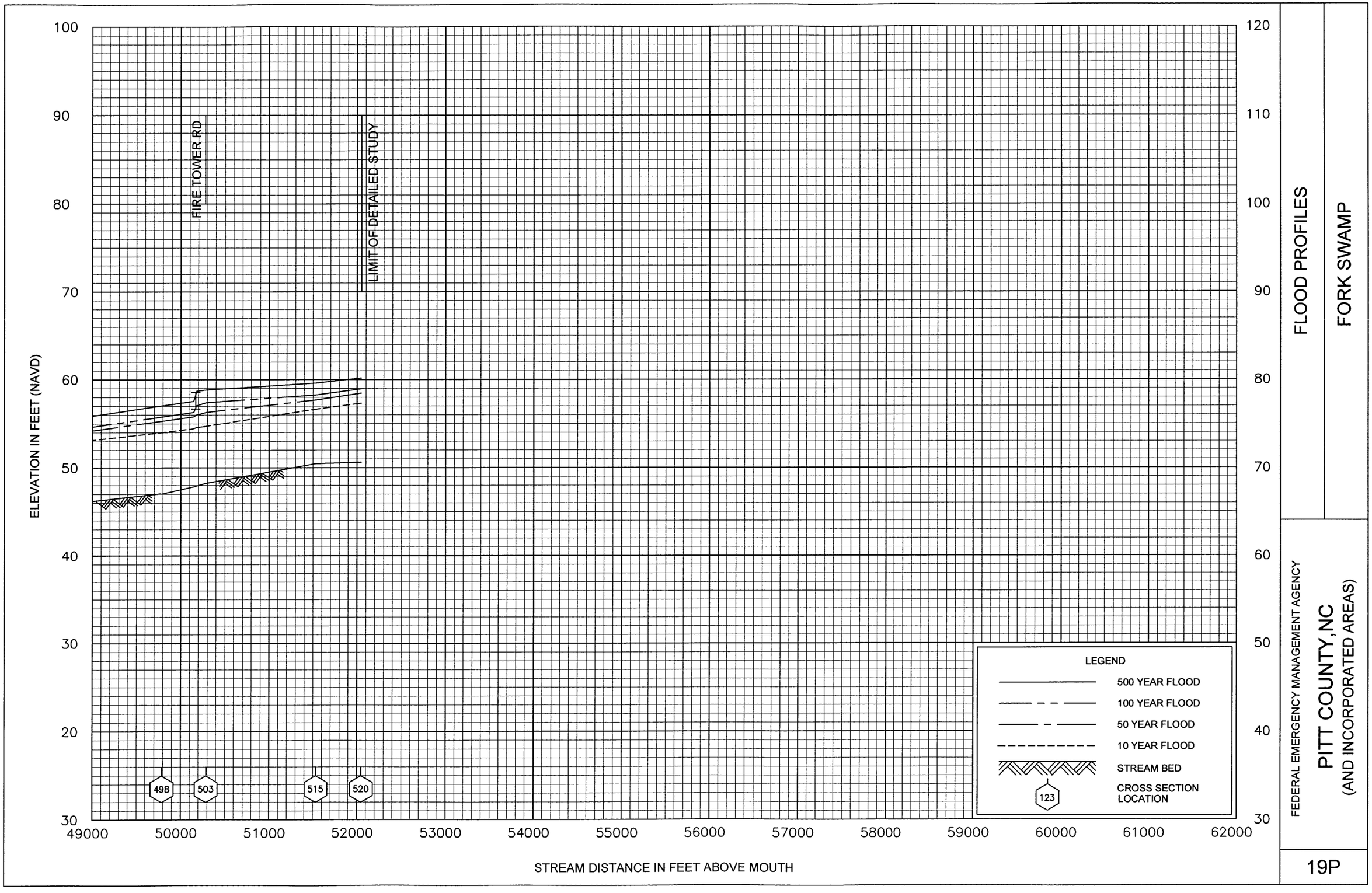
FLOOD PROFILES

FORK SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

18P



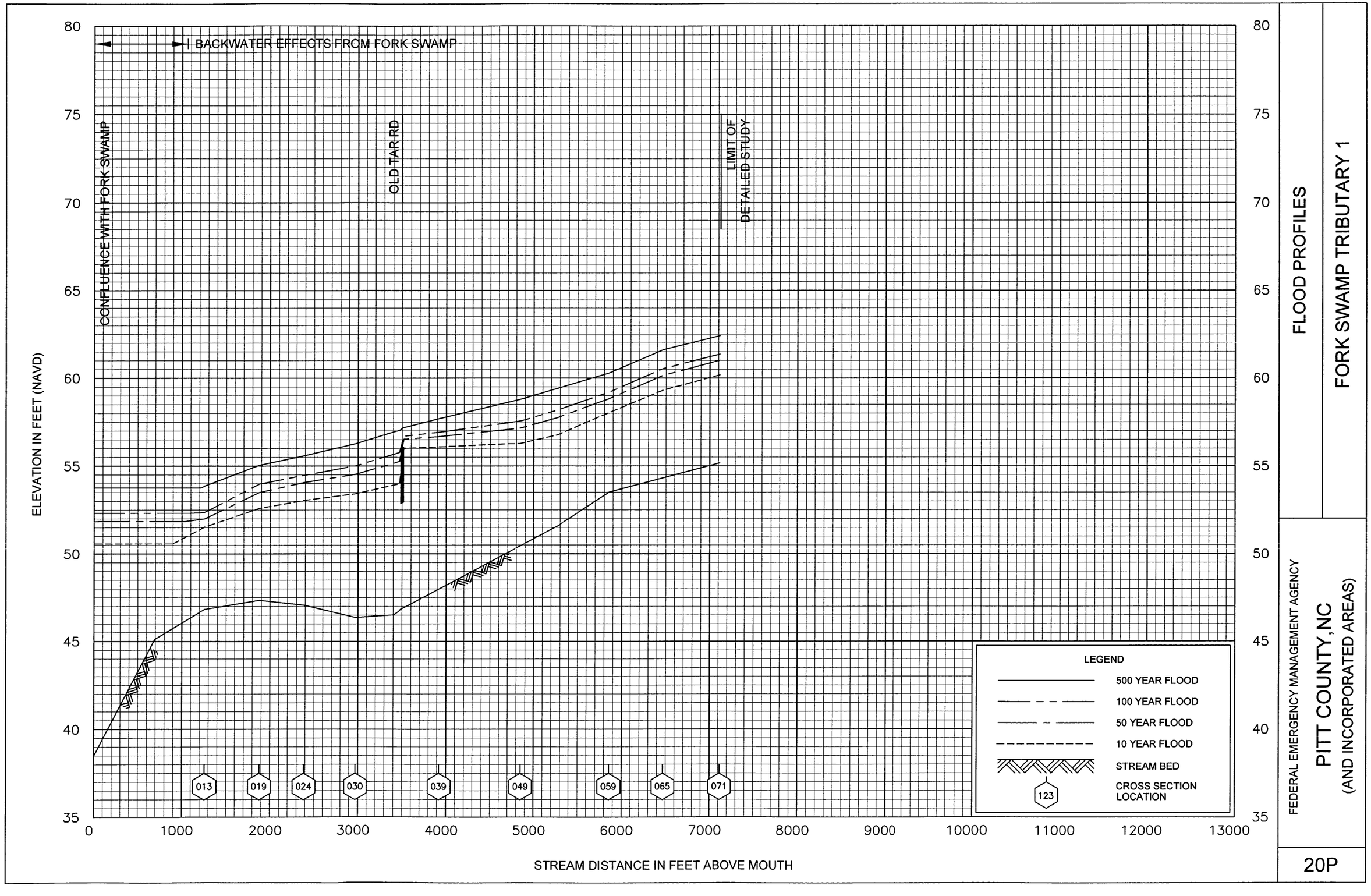
FLOOD PROFILES

FORK SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

19P



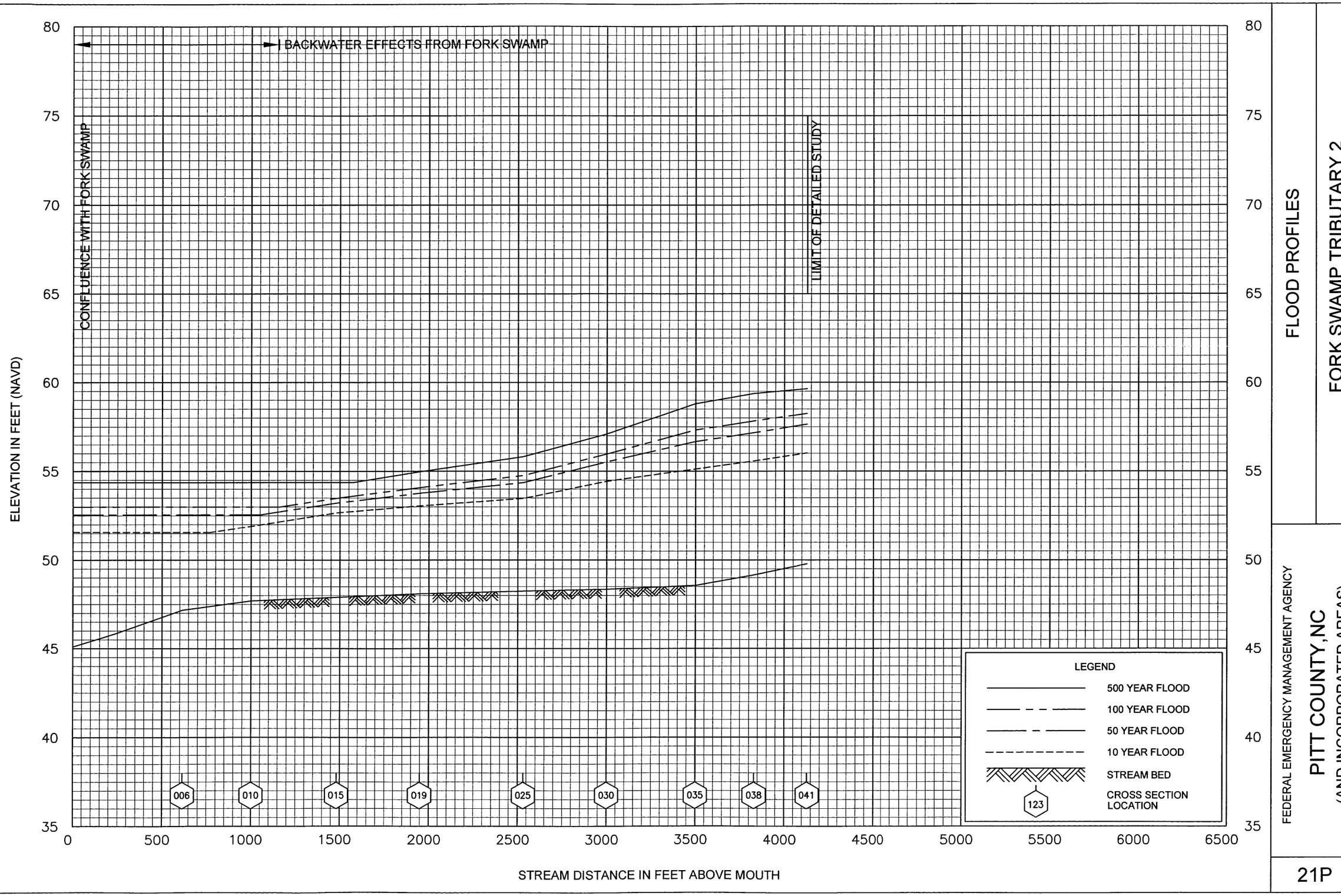
FLOOD PROFILES

FORK SWAMP TRIBUTARY 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

20P



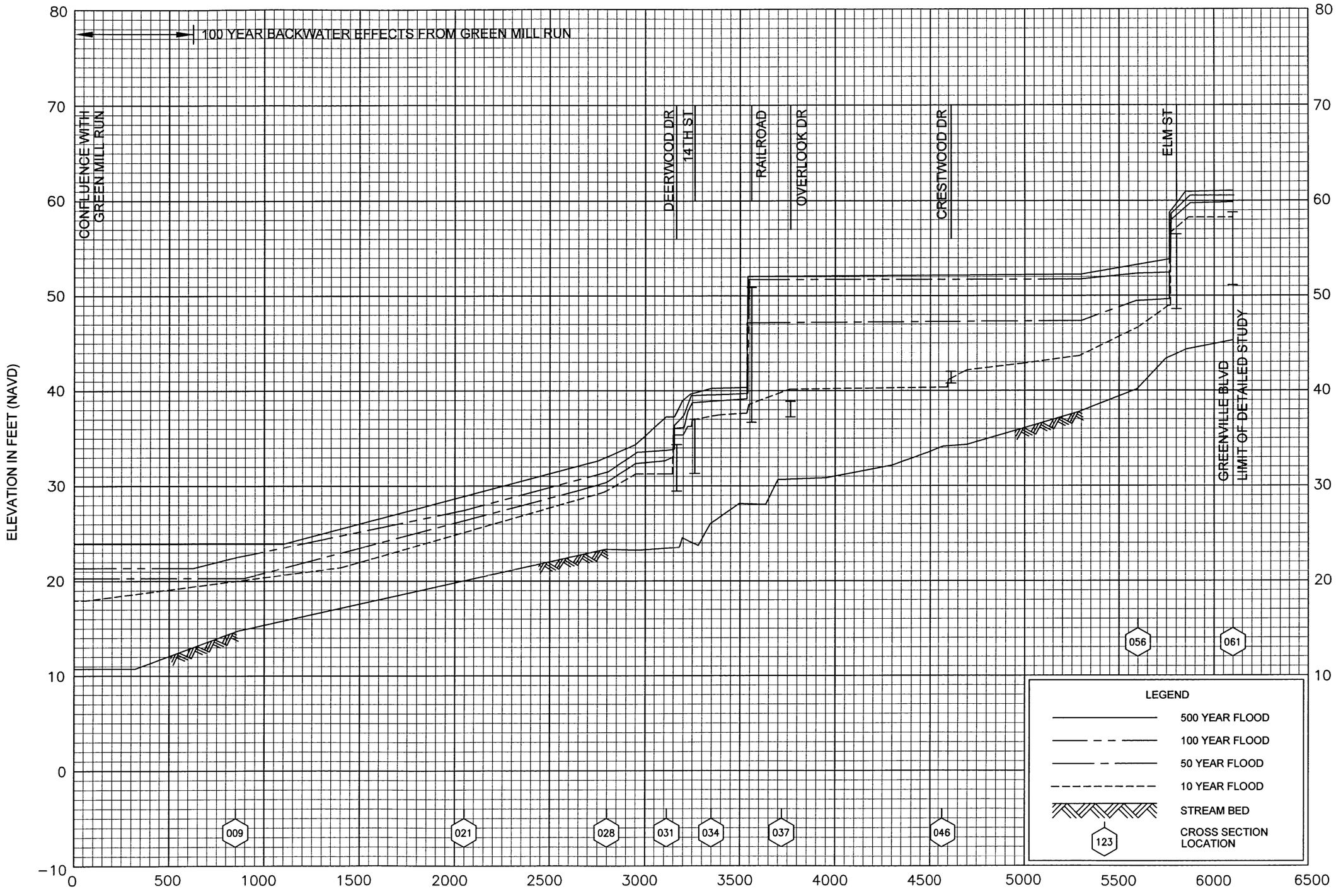
FLOOD PROFILES

FORK SWAMP TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

21P



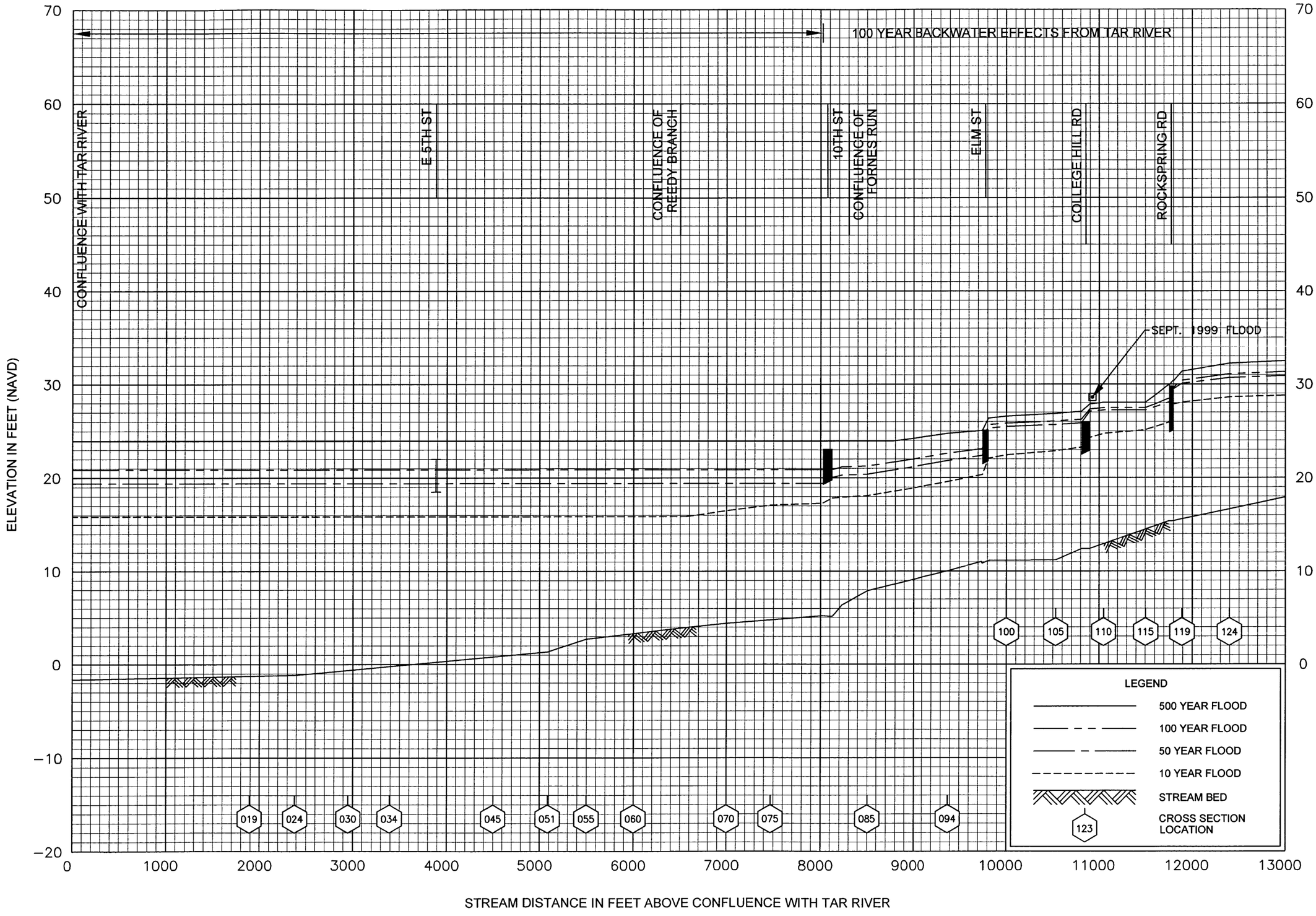
FLOOD PROFILES

FORNES RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

22P



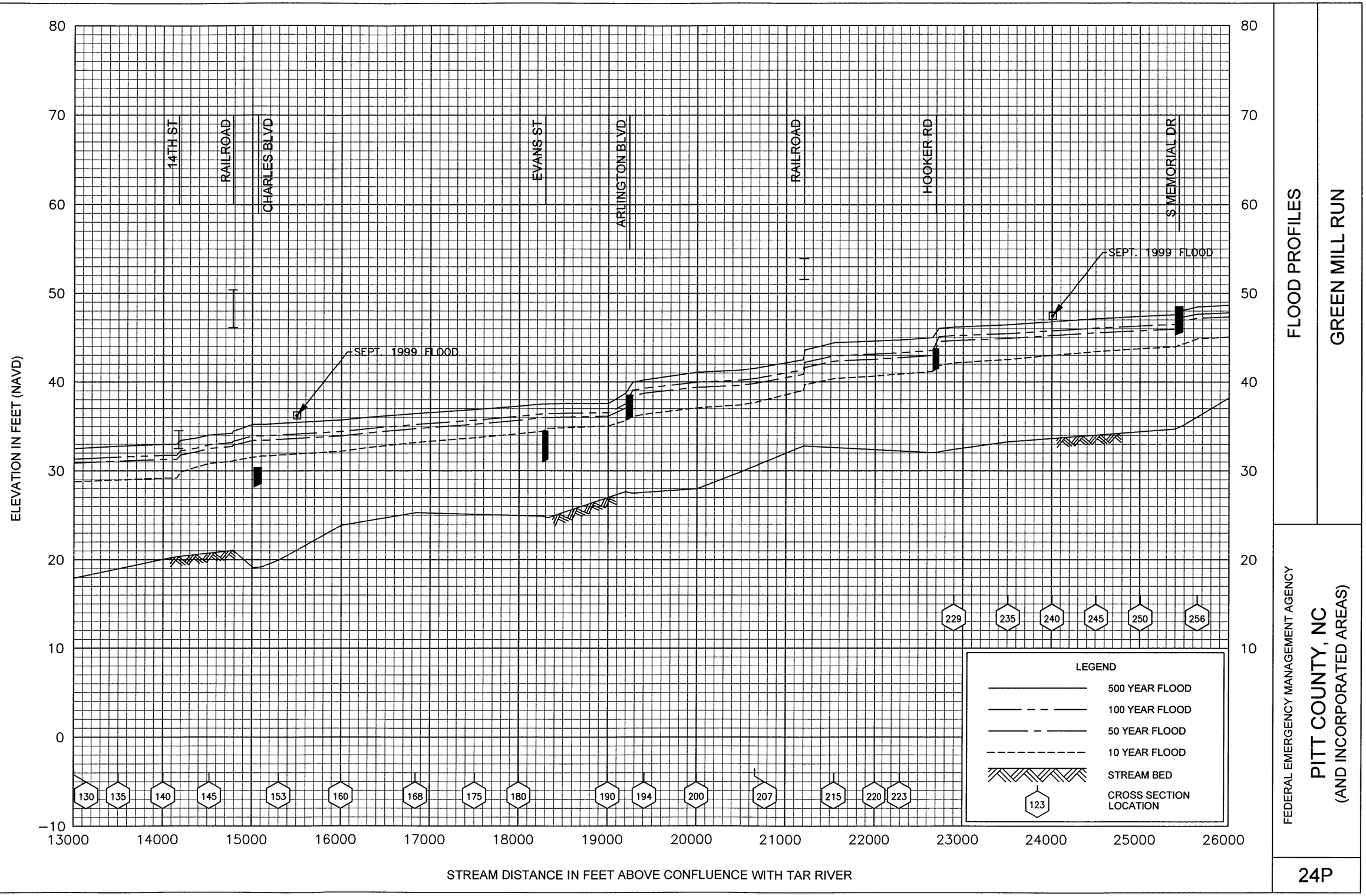
FLOOD PROFILES

GREEN MILL RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

23P



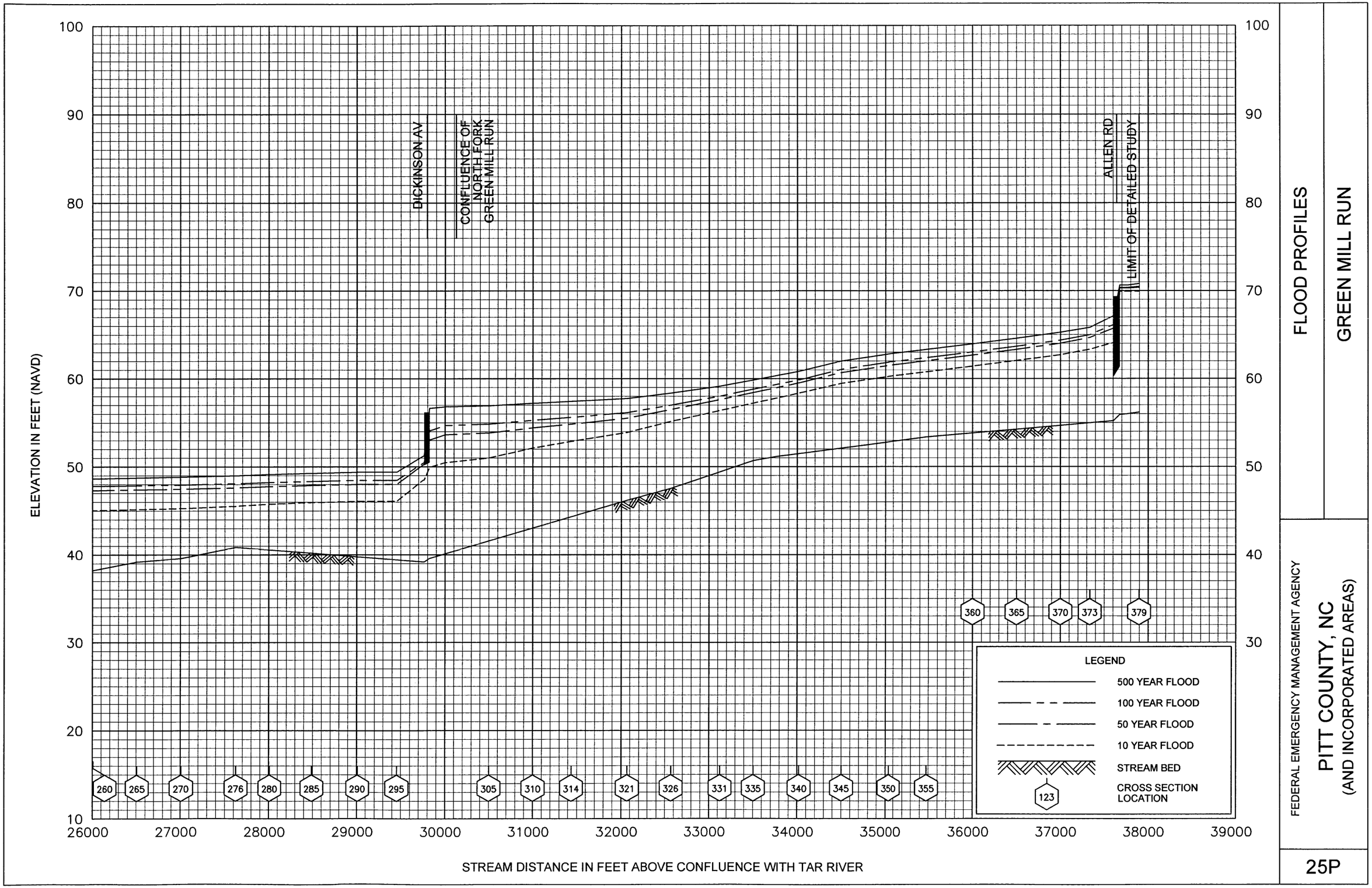
FLOOD PROFILES

GREEN MILL RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

24P

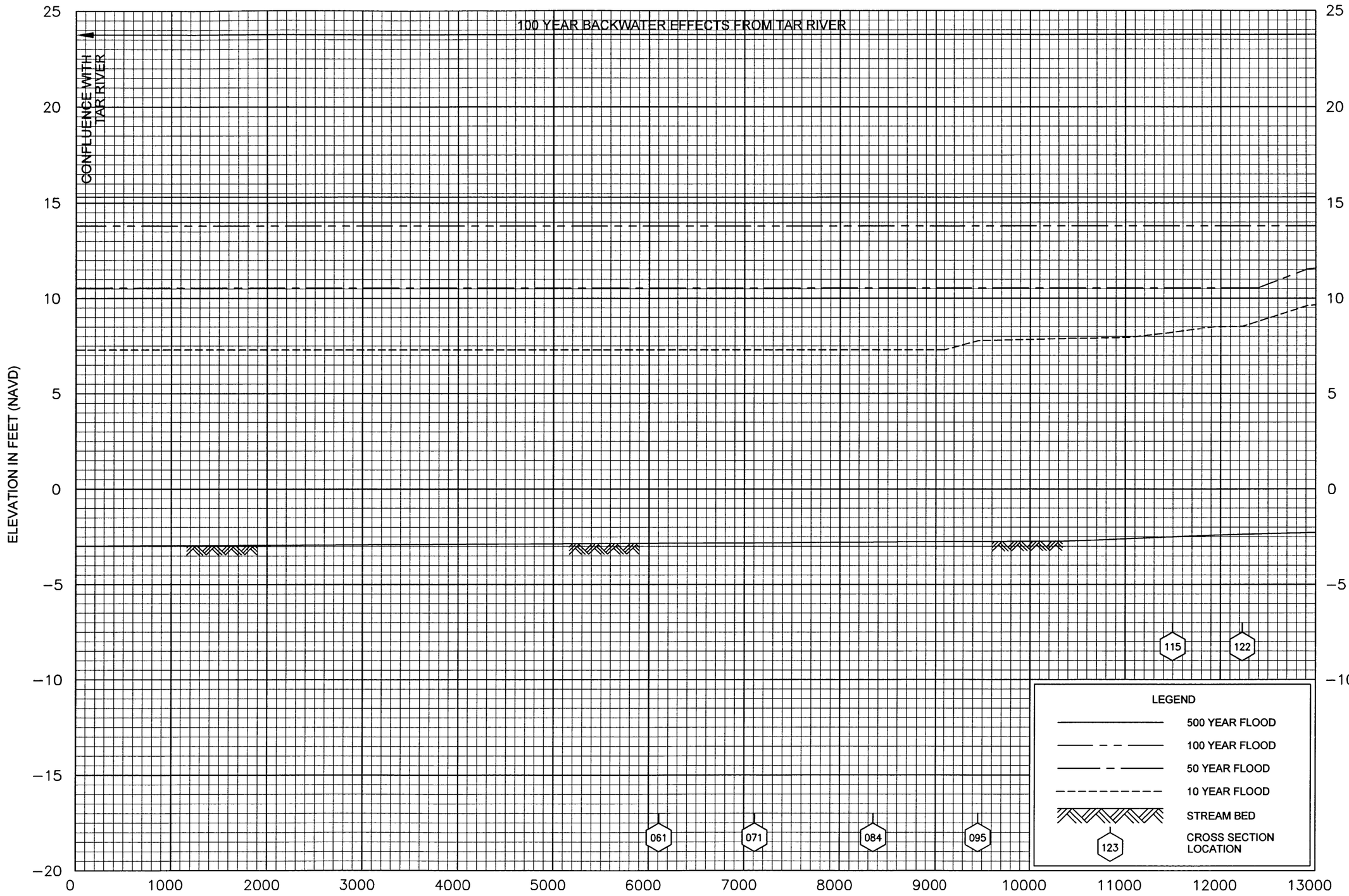


FLOOD PROFILES

GREEN MILL RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

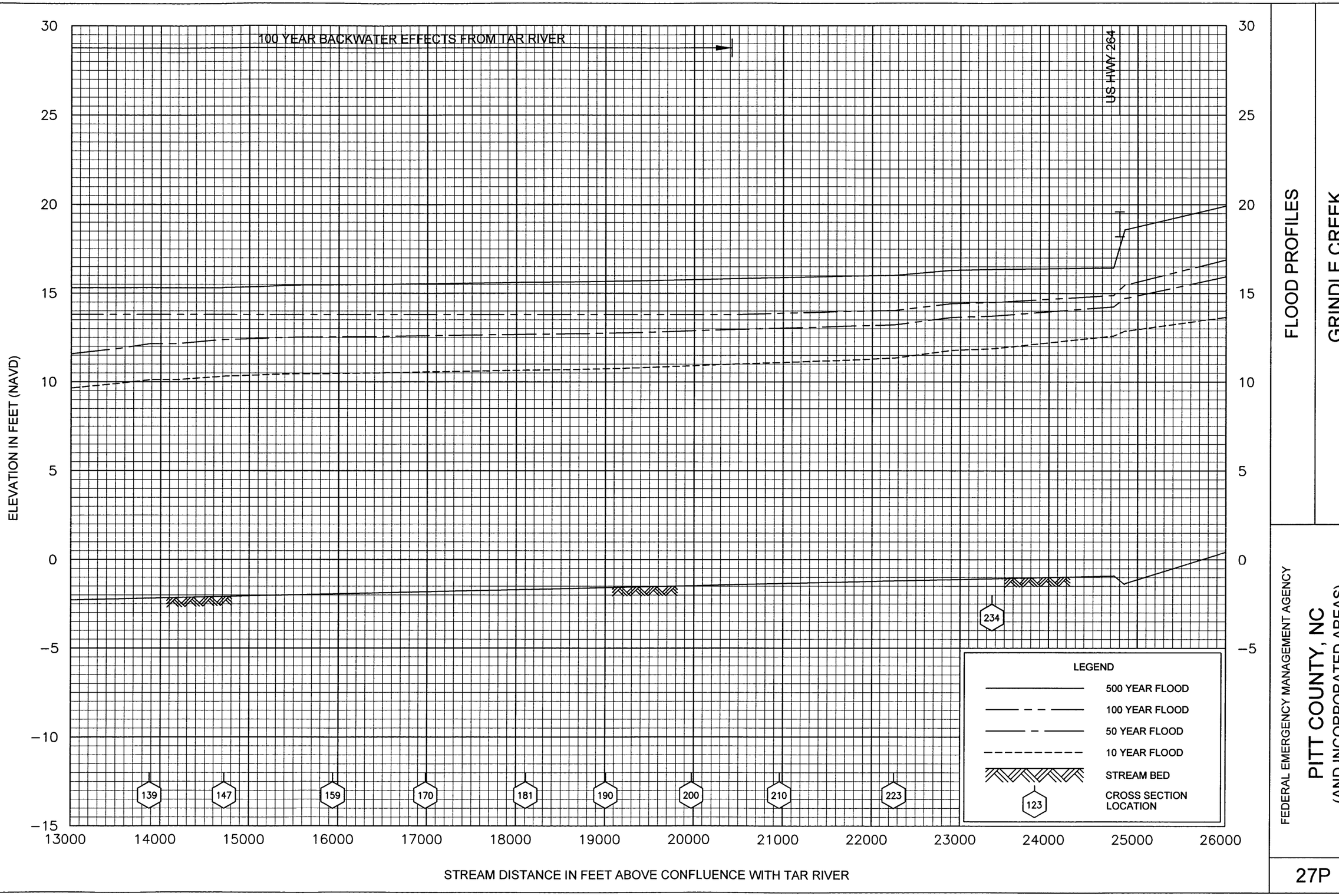


FLOOD PROFILES

GRINDLE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

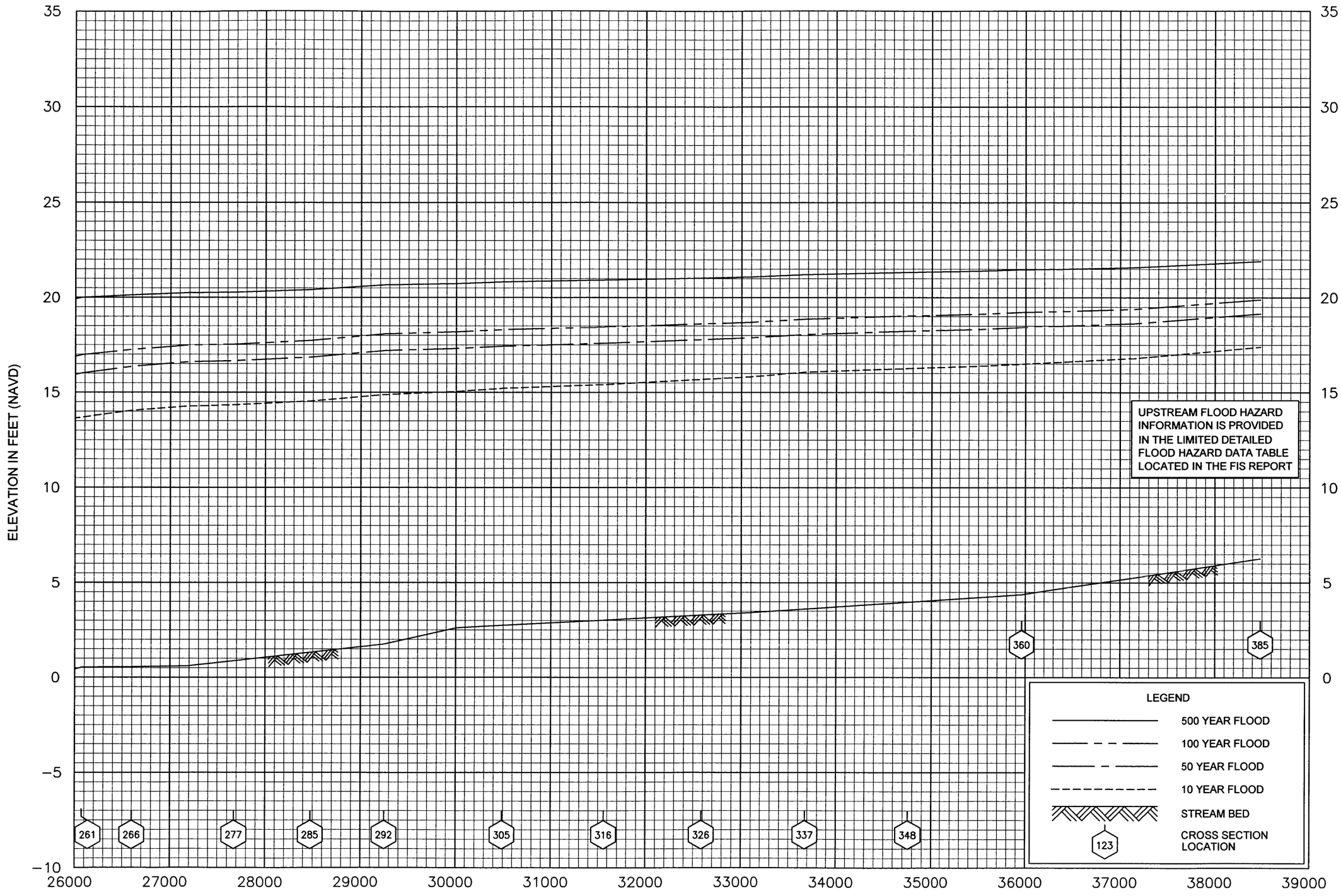


FLOOD PROFILES

GRINDLE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)



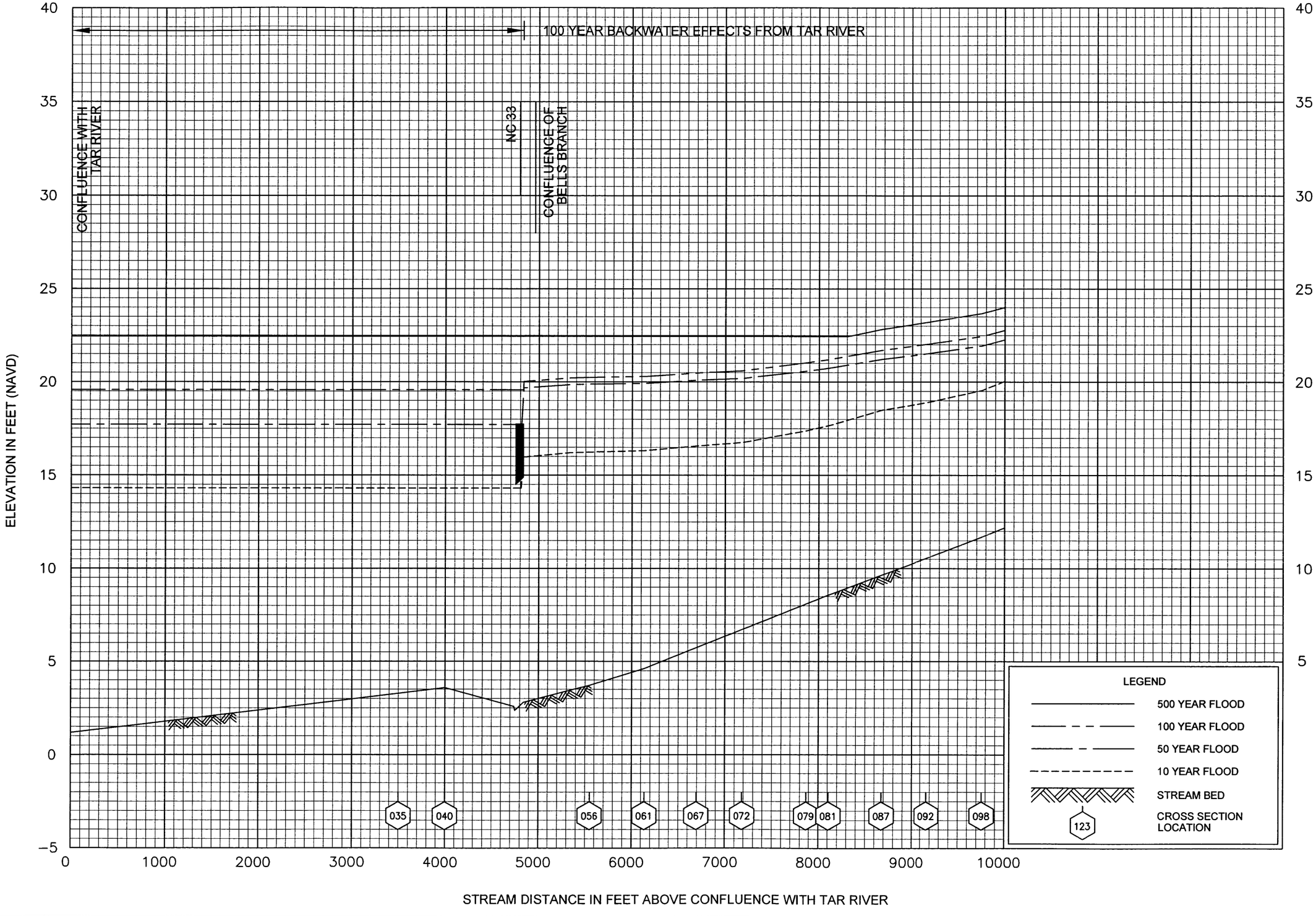
FLOOD PROFILES

GRINDLE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

28P



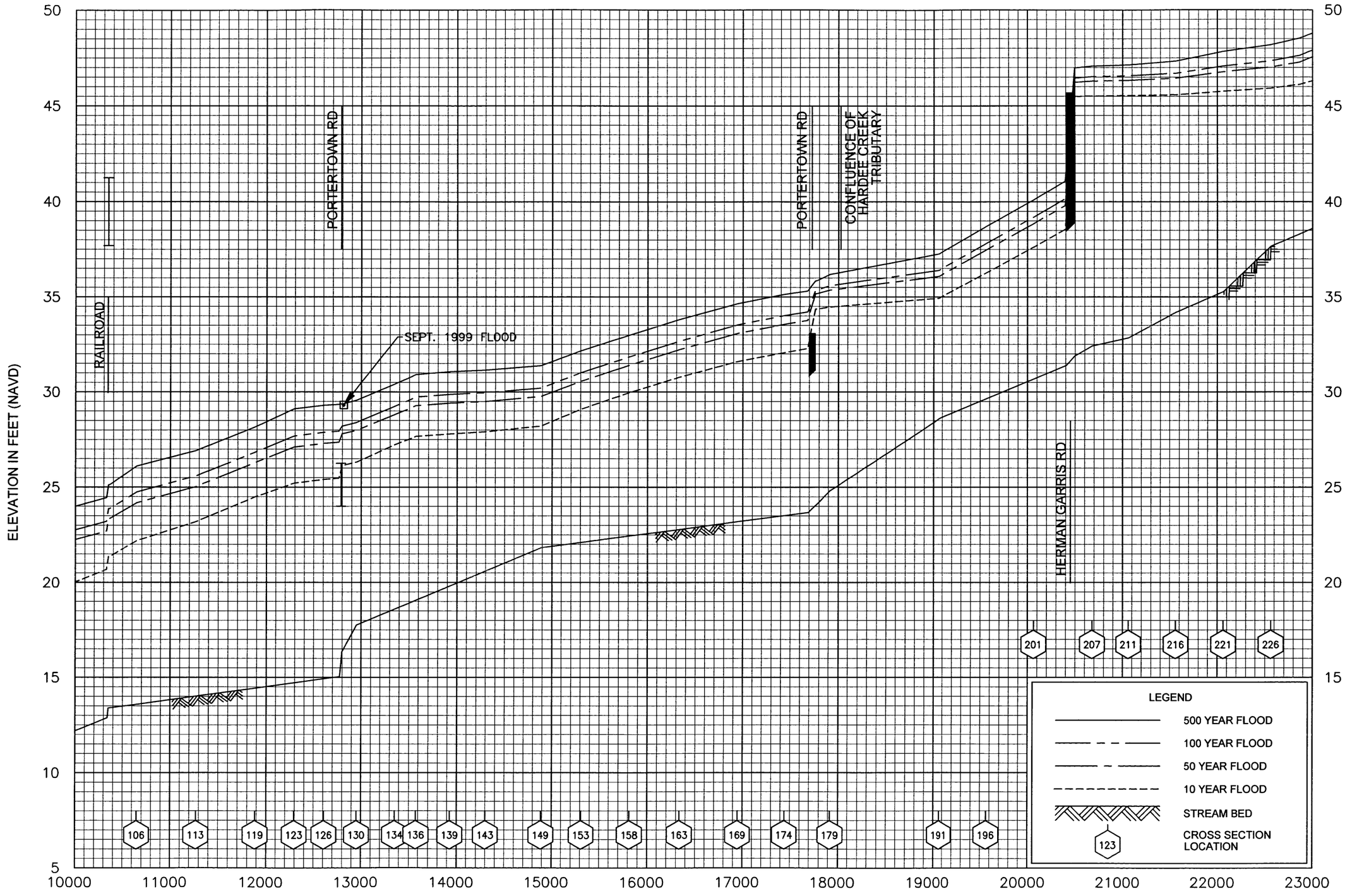
FLOOD PROFILES

HARDEE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

29P



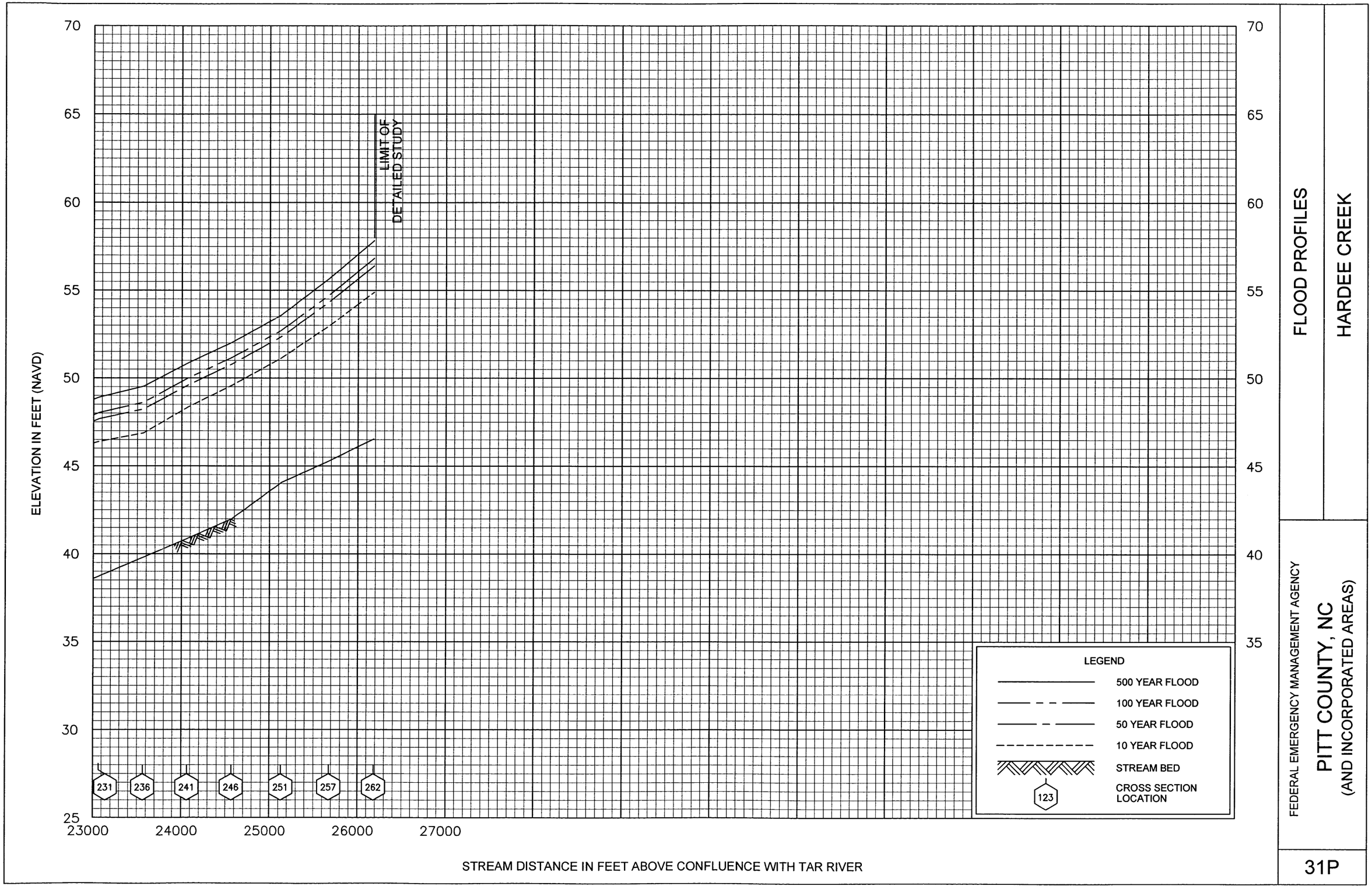
FLOOD PROFILES

HARDEE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

30P

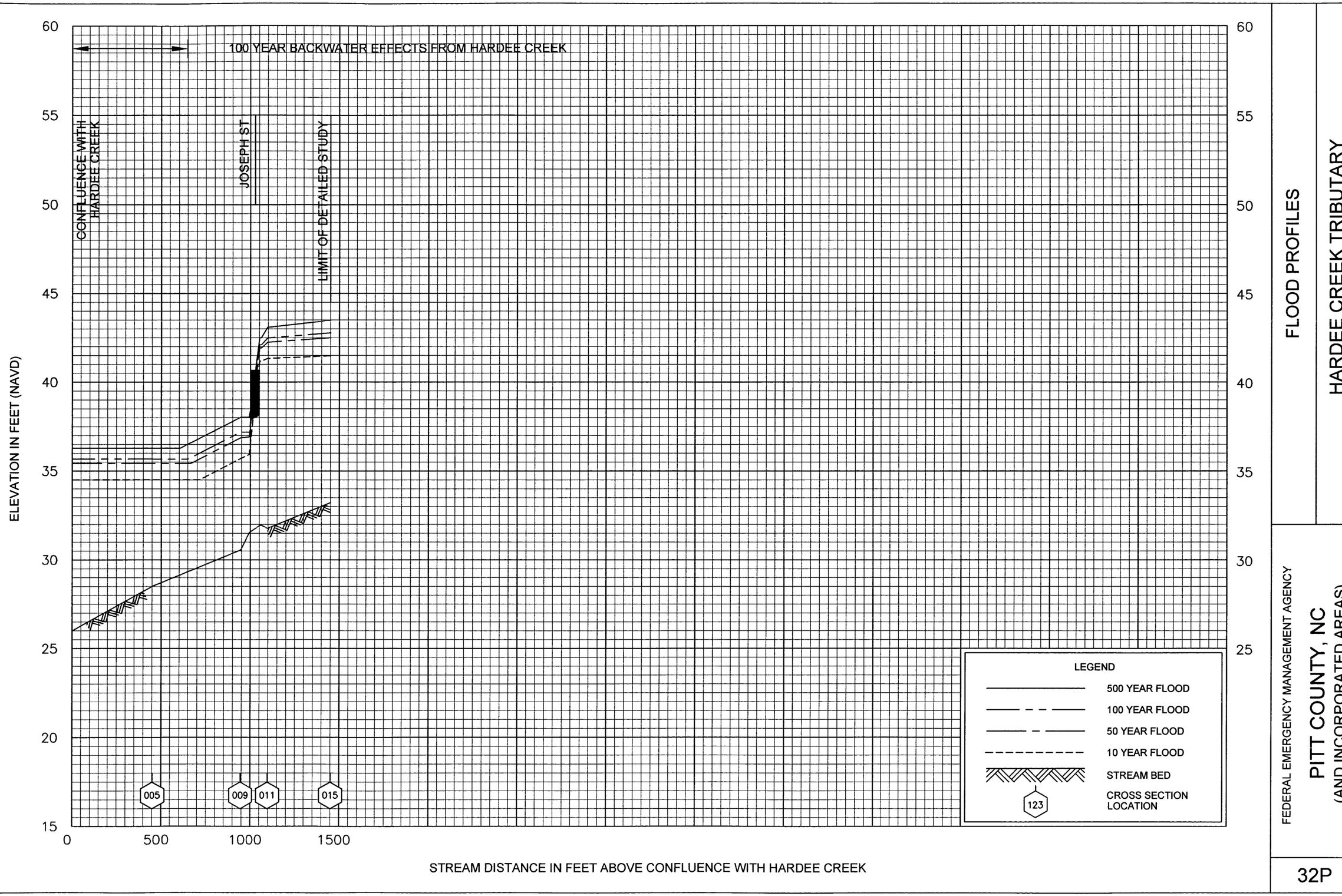


FLOOD PROFILES

HARDEE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)



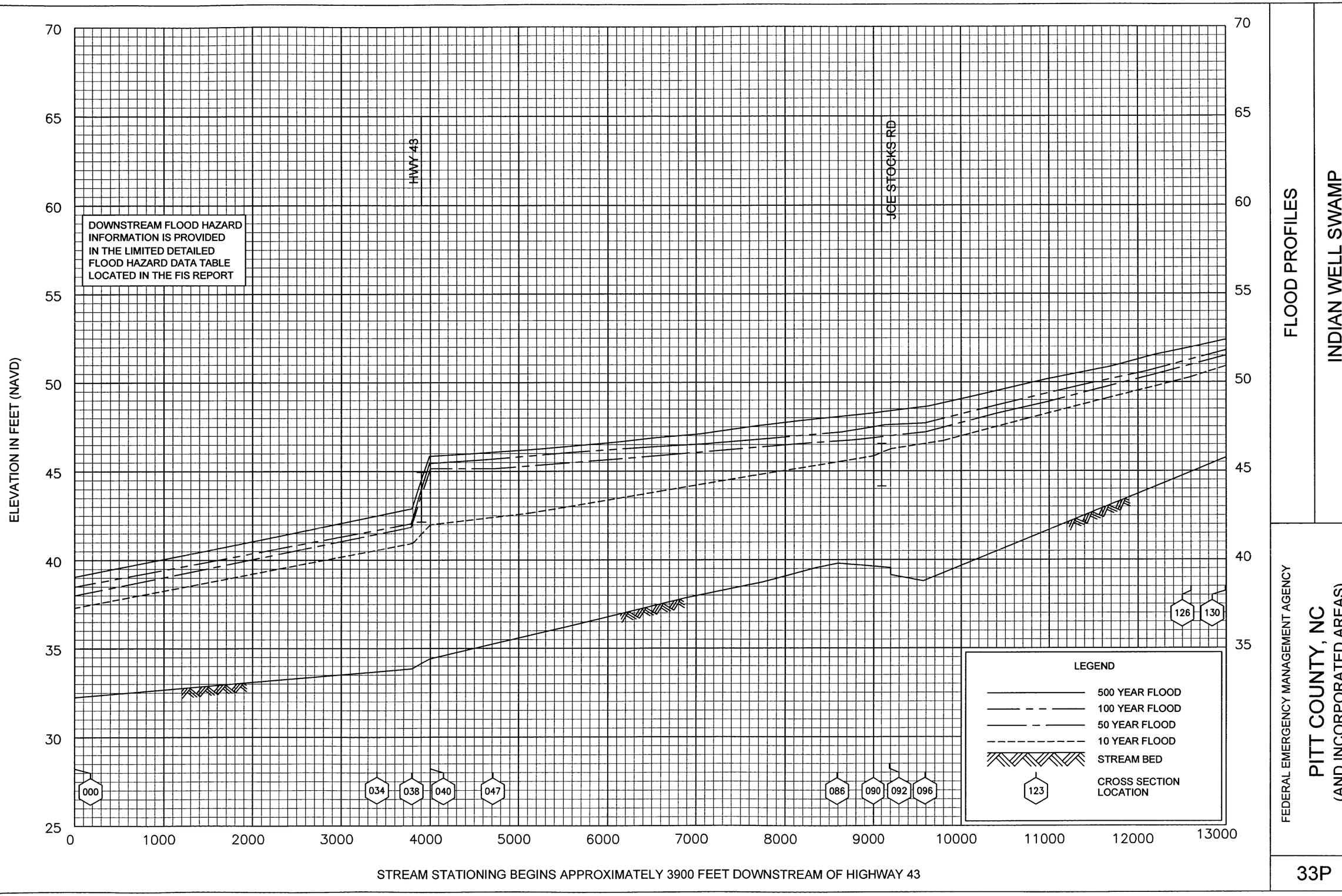
FLOOD PROFILES

HARDEE CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

32P



STREAM STATIONING BEGINS APPROXIMATELY 3900 FEET DOWNSTREAM OF HIGHWAY 43

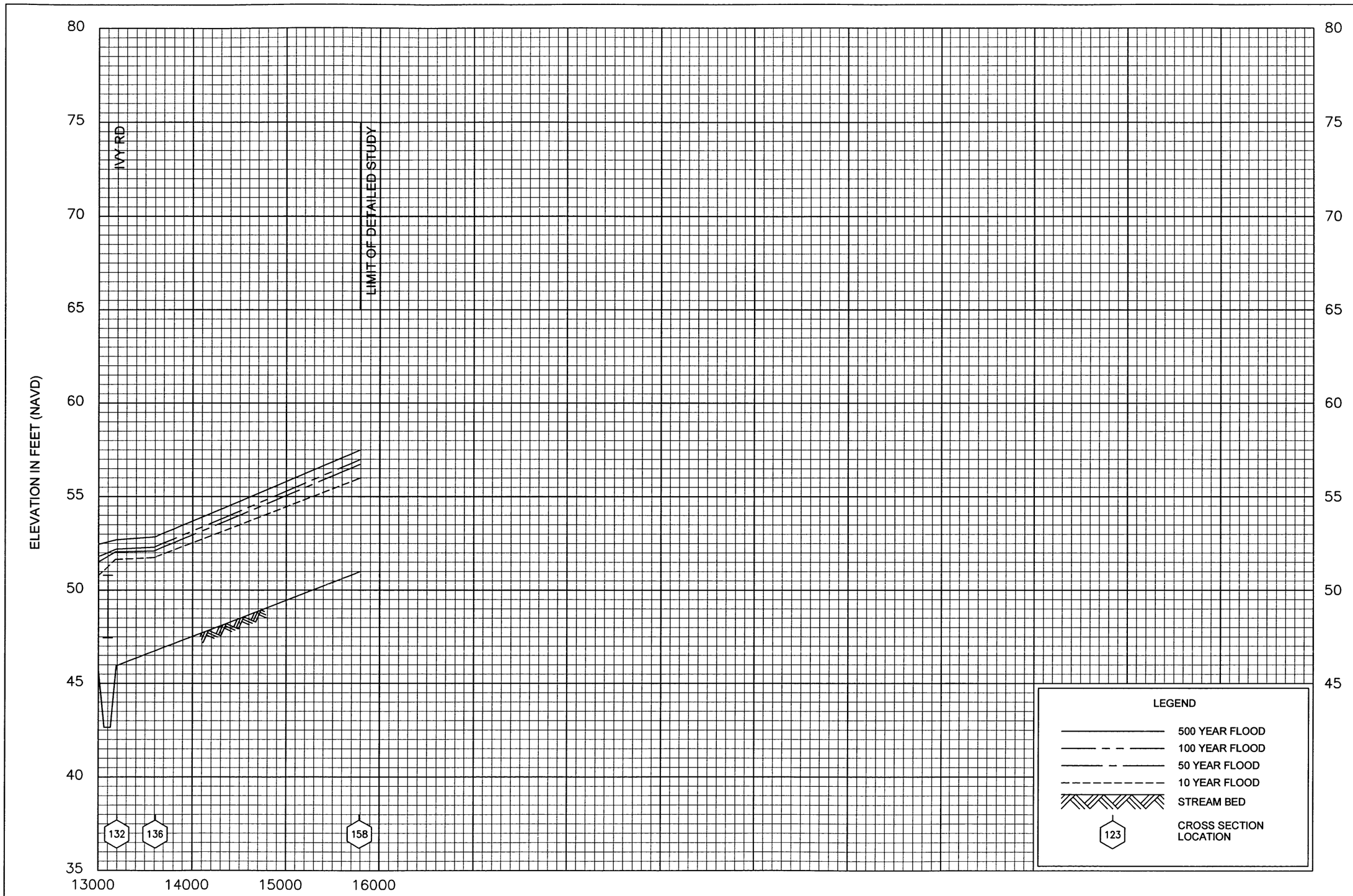
FLOOD PROFILES

INDIAN WELL SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

33P



STREAM STATIONING BEGINS APPROXIMATELY 3900 FEET DOWNSTREAM OF HIGHWAY 43

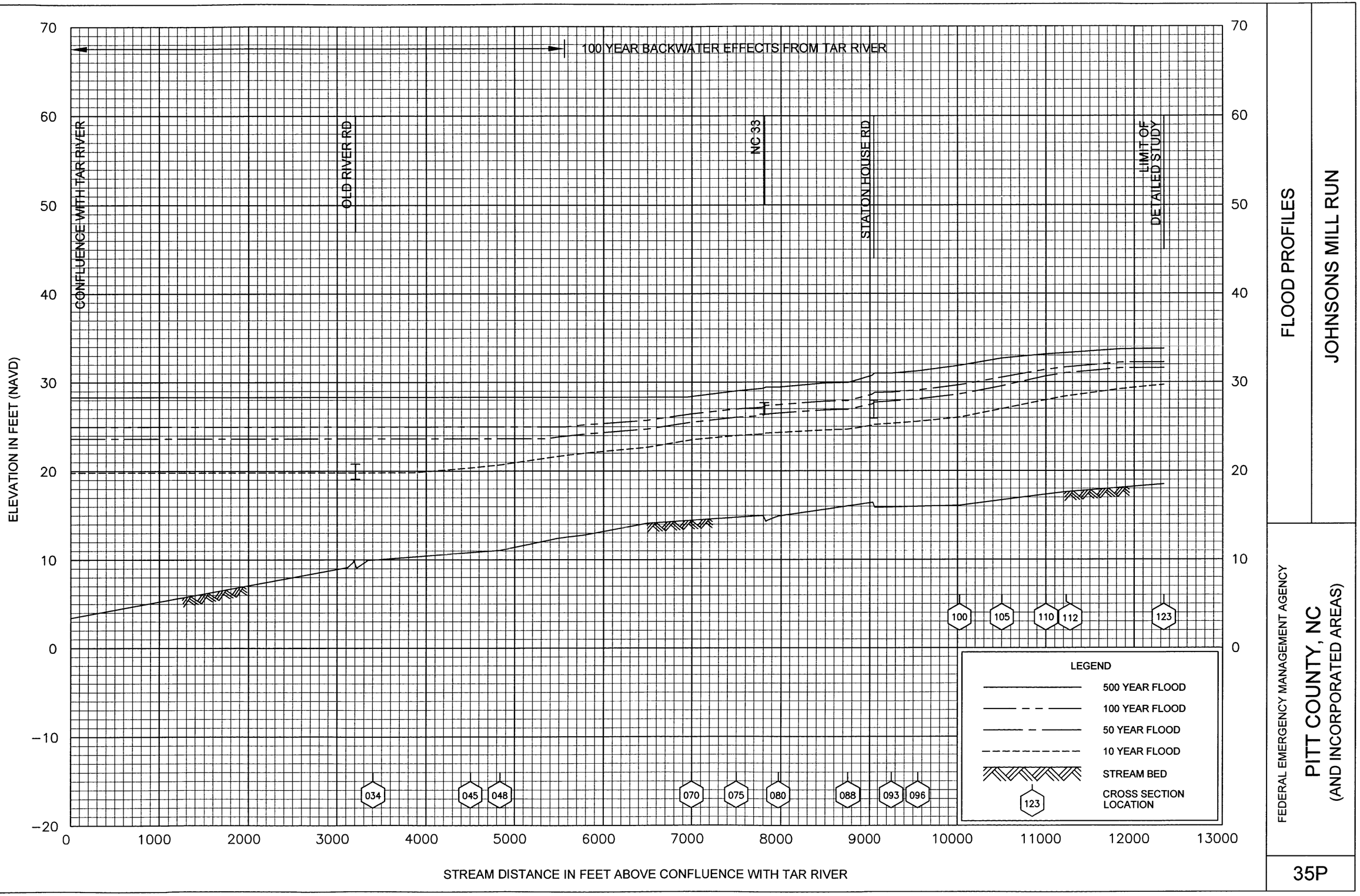
FLOOD PROFILES

INDIAN WELL SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

34P



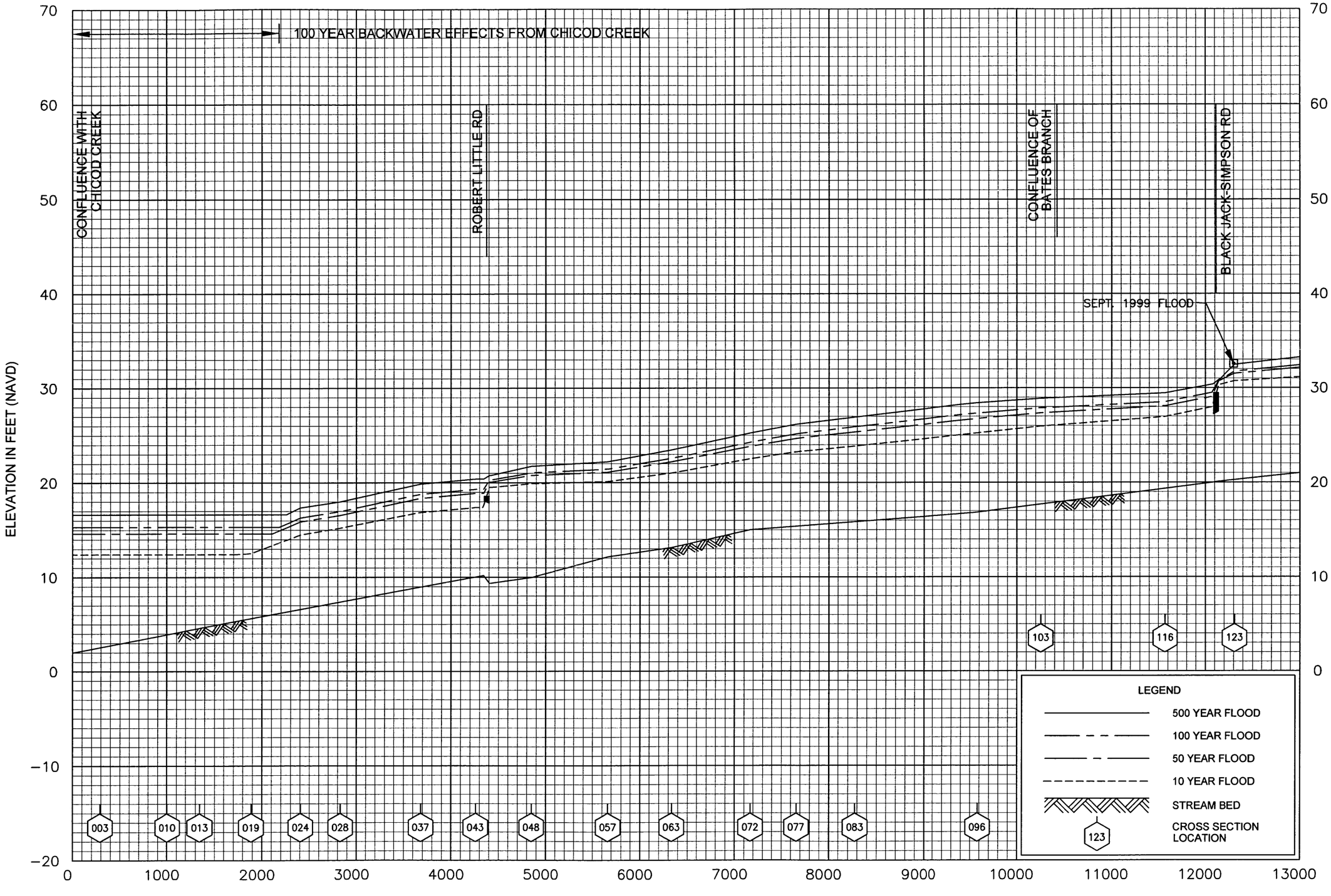
FLOOD PROFILES

JOHNSONS MILL RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

35P



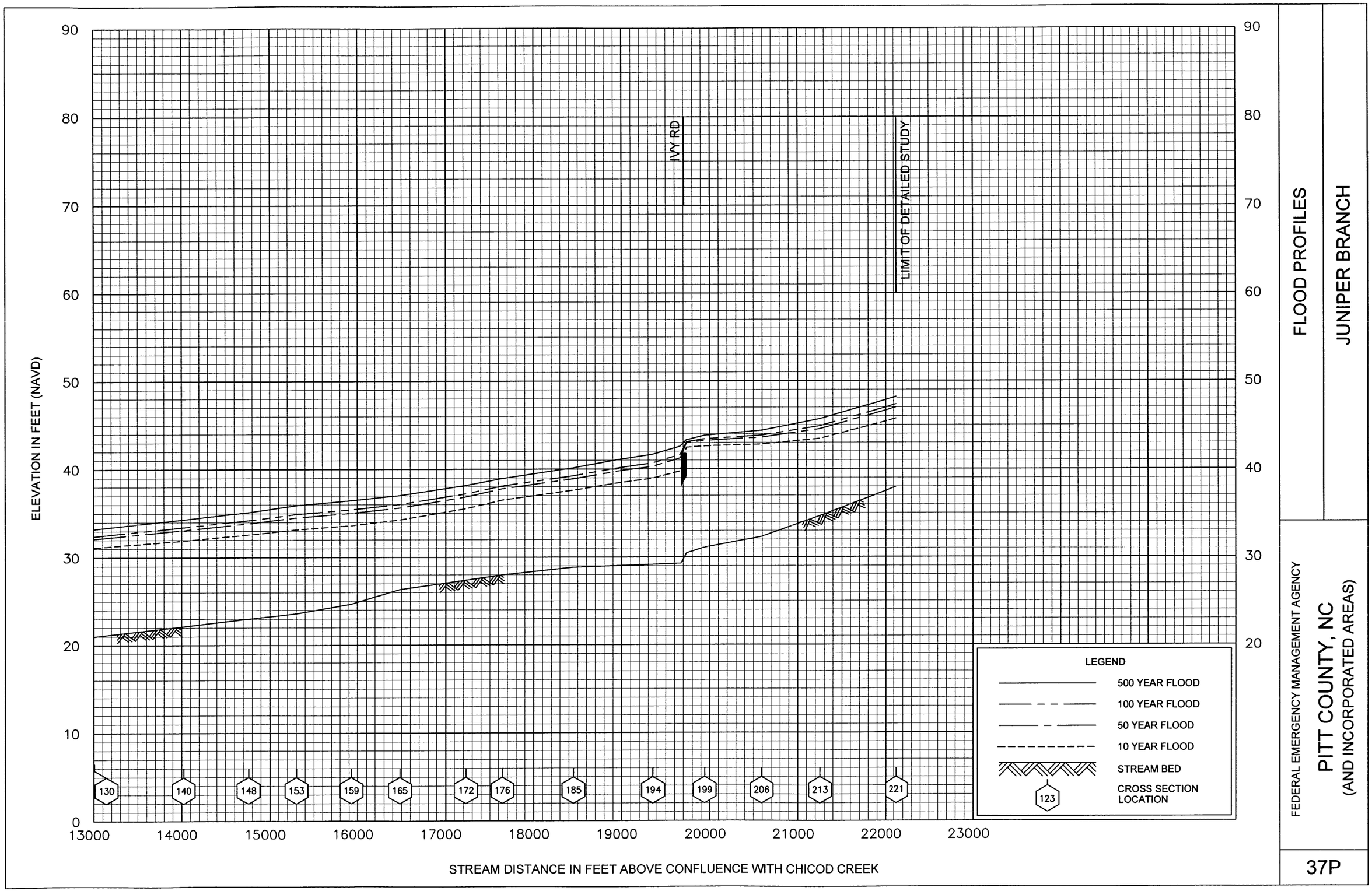
FLOOD PROFILES

JUNIPER BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

36P



FLOOD PROFILES

JUNIPER BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

37P

FLOODING CONTROLLED BY TAR RIVER

CONFLUENCE WITH PARKERS CREEK

GREENE ST RAILROAD

US HWY 13

LIMIT OF DETAILED STUDY

ELEVATION IN FEET (NAVD)

45
40
35
30
25
20
15
10
5
0

0
1000
2000
3000
4000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH PARKERS CREEK

015
027
029
038

LEGEND

- 500 YEAR FLOOD
- 100 YEAR FLOOD
- 50 YEAR FLOOD
- 10 YEAR FLOOD
- STREAM BED
- 123 CROSS SECTION LOCATION

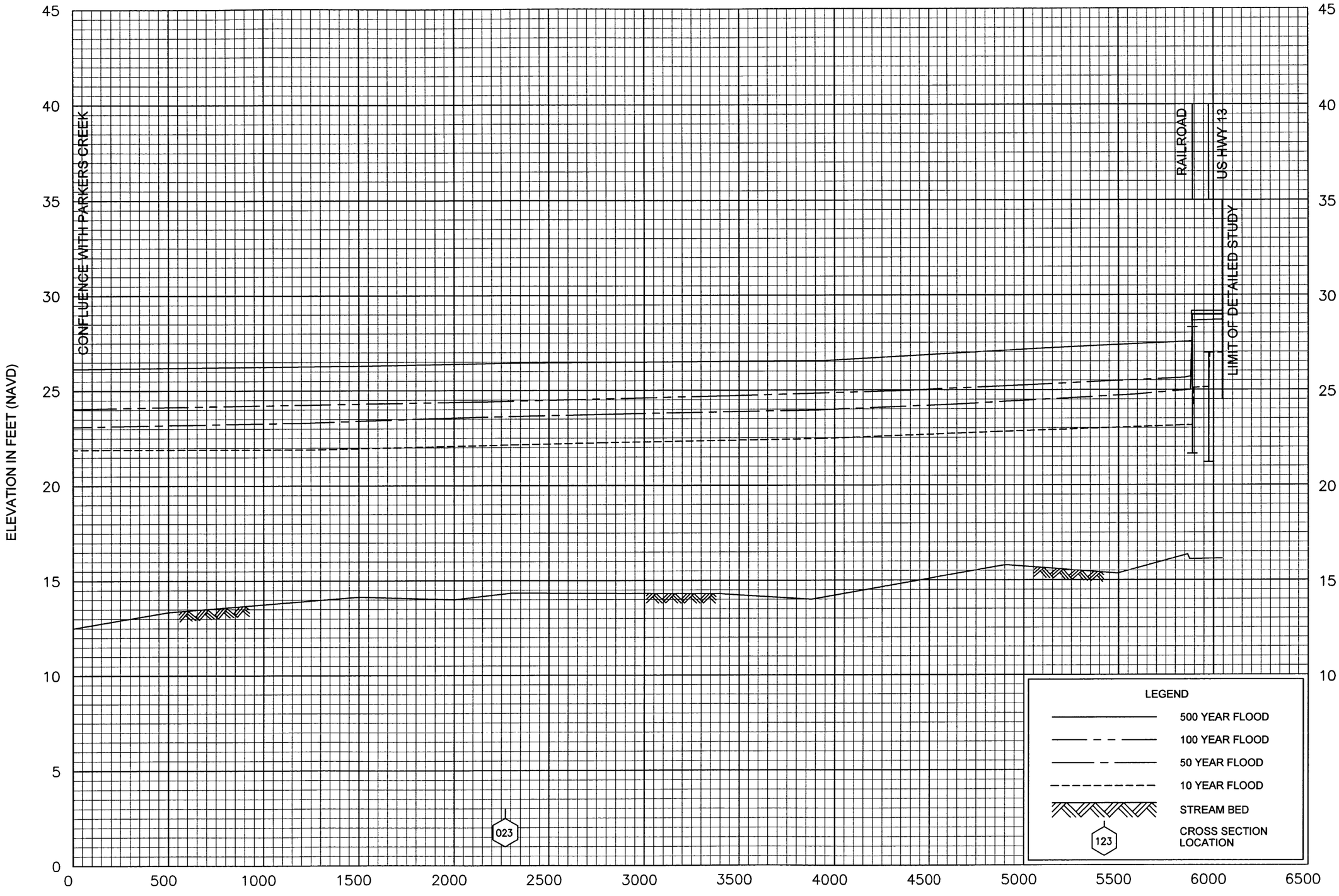
FLOOD PROFILES

LATERAL NO. 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

38P



FLOOD PROFILES

LATERAL NO. 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

39P

1% ANNUAL CHANCE BACKWATER EFFECTS FROM CONTENTNEA CREEK

CONFLUENCE WITH CONTENTNEA CREEK

ELEVATION IN FEET (NAVD)

70
60
50
40
30
20
10
0
−10
−20

0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
9,000
10,000
11,000
12,000
13,000

STREAM DISTANCE IN FEET ABOVE MOUTH

014
037
078

LEGEND

- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- 123 CROSS SECTION LOCATION

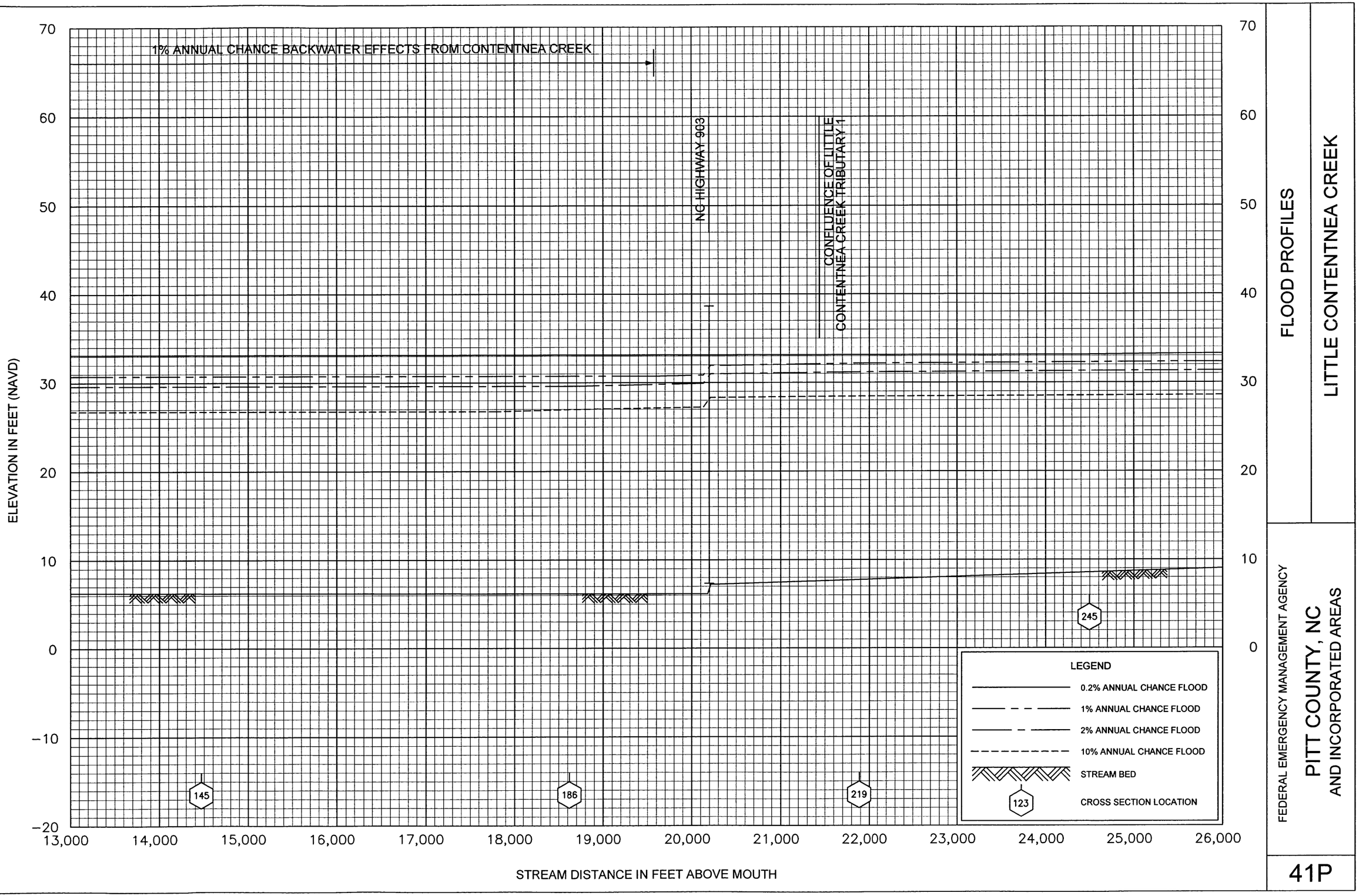
FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

40P



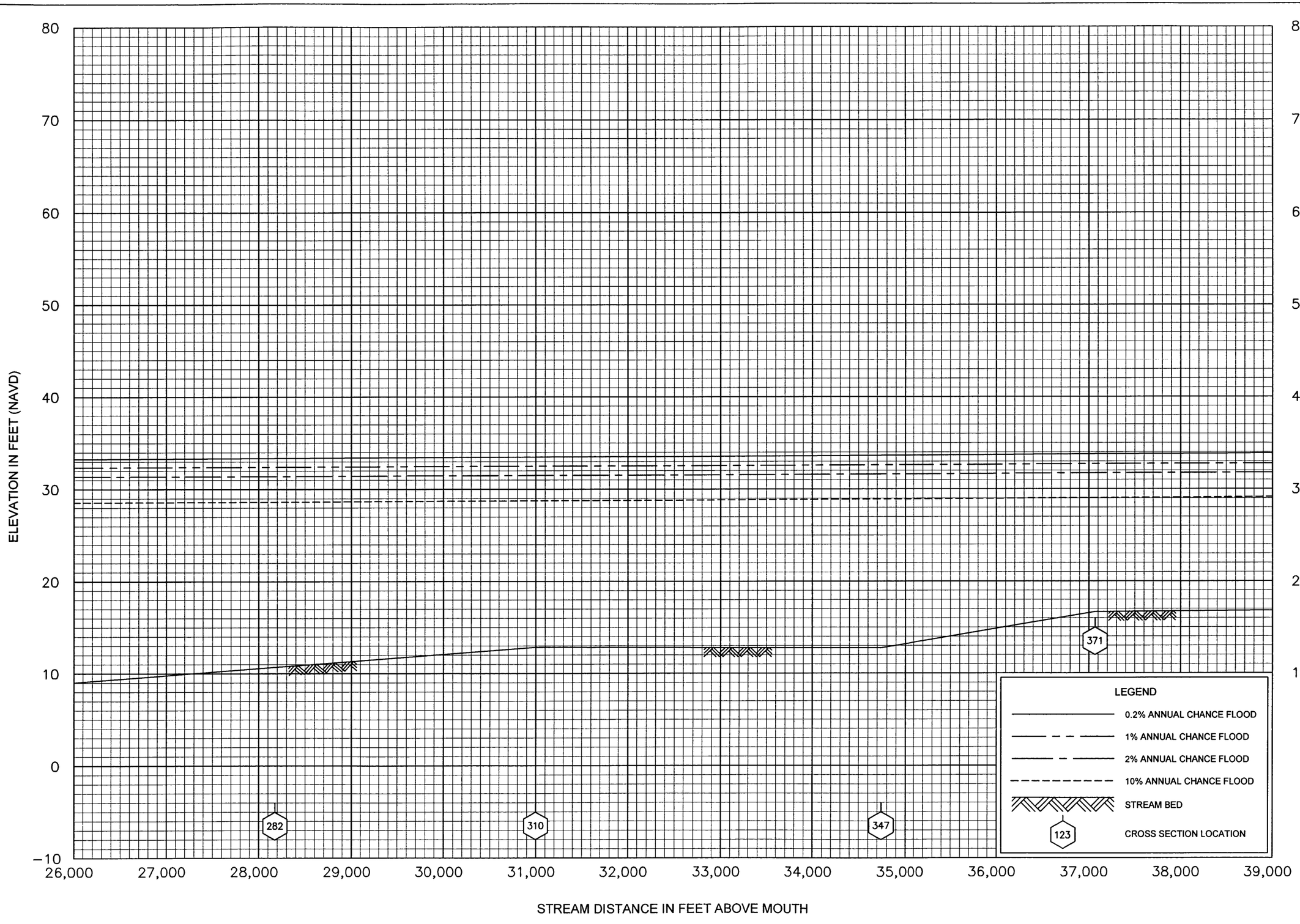
FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

41P

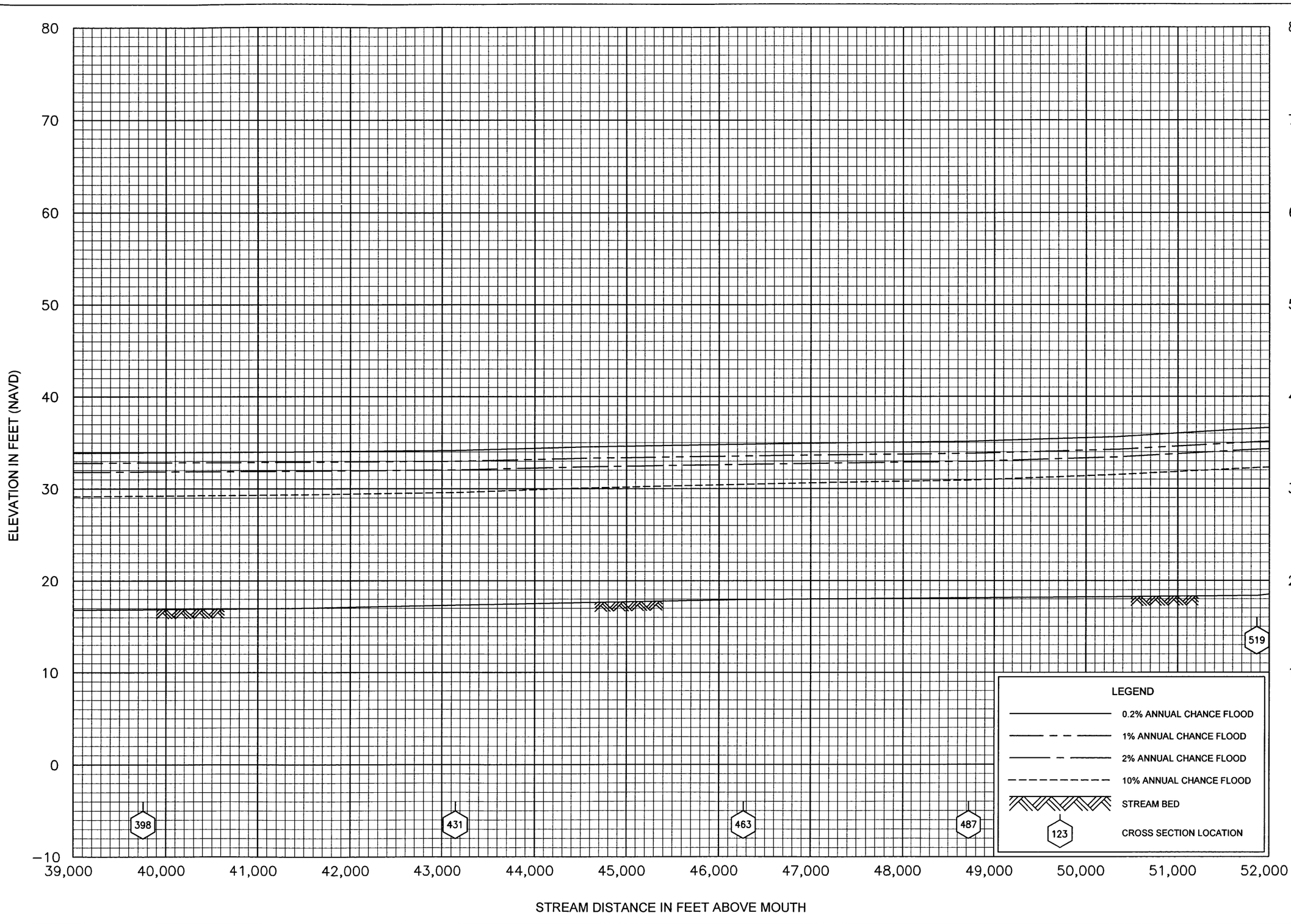


FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS



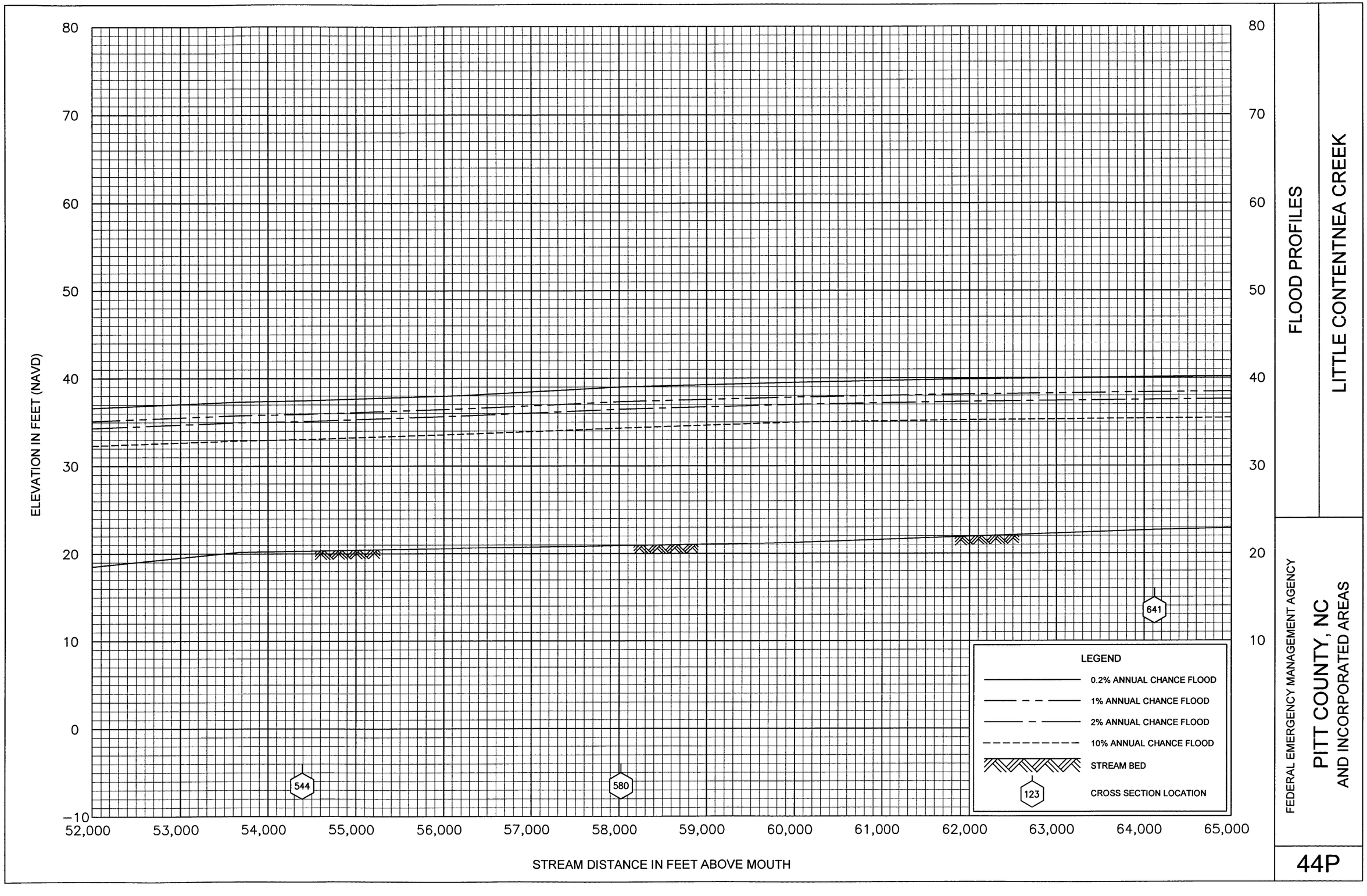
FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

43P

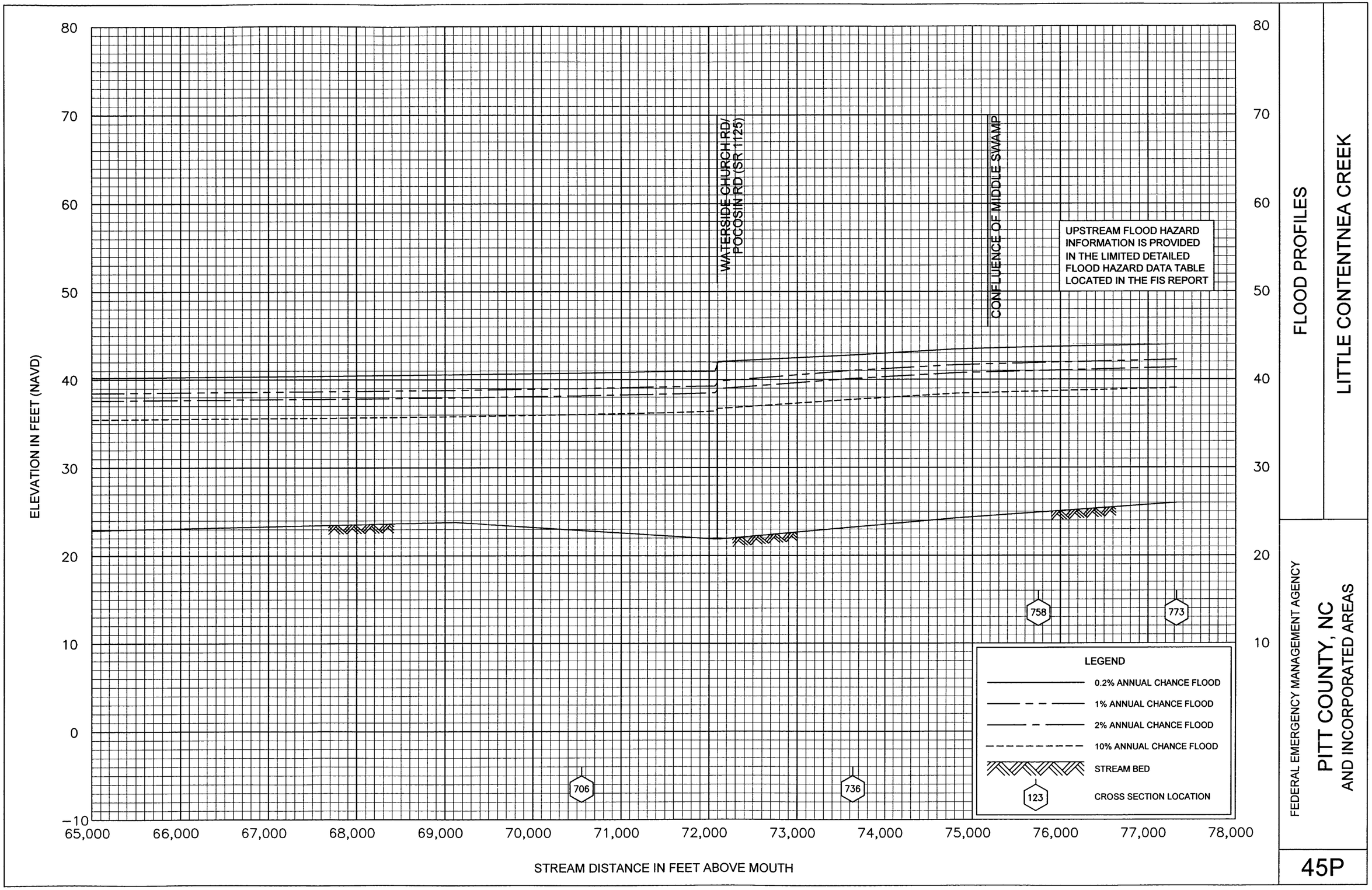


FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

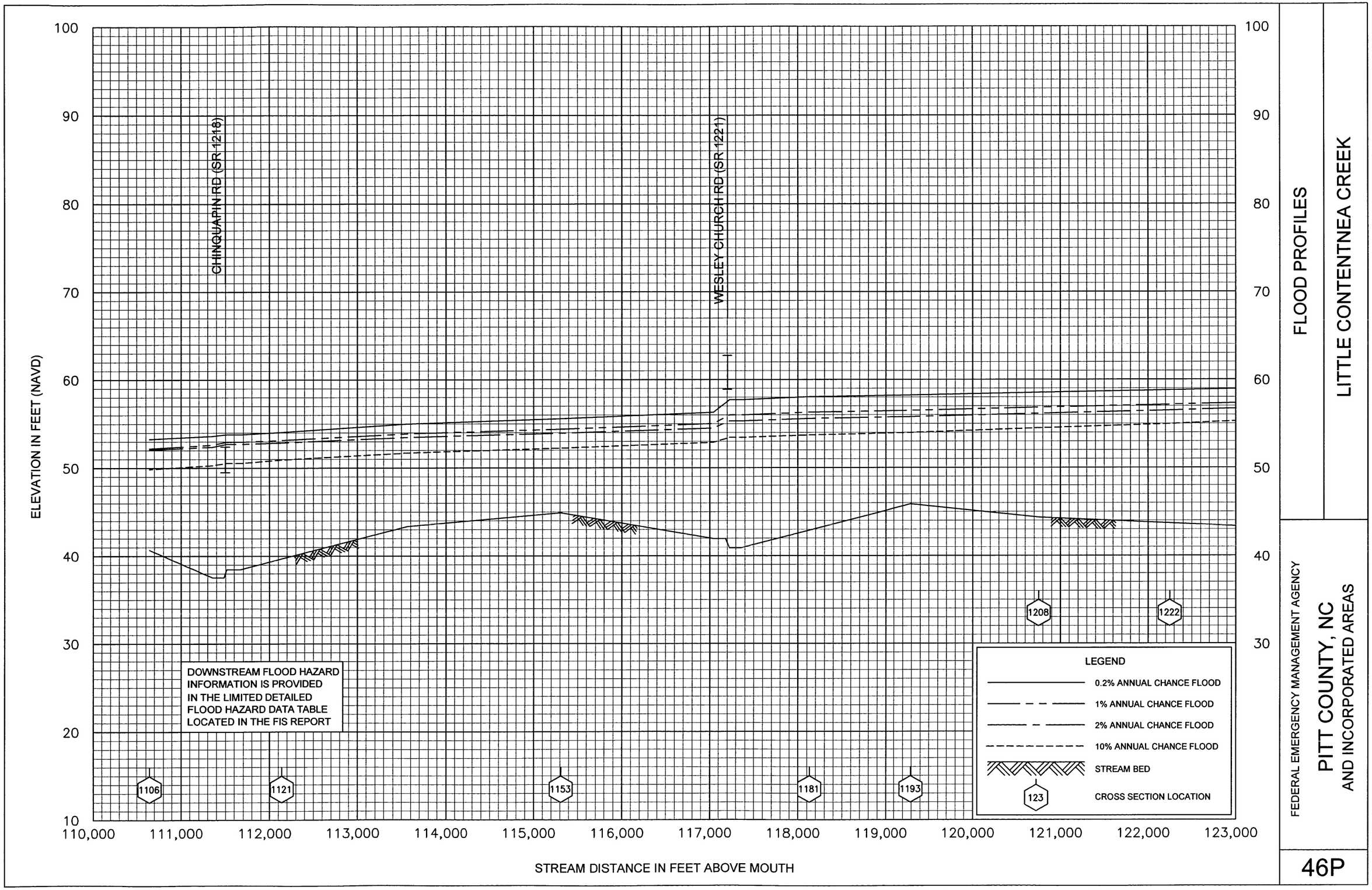


FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

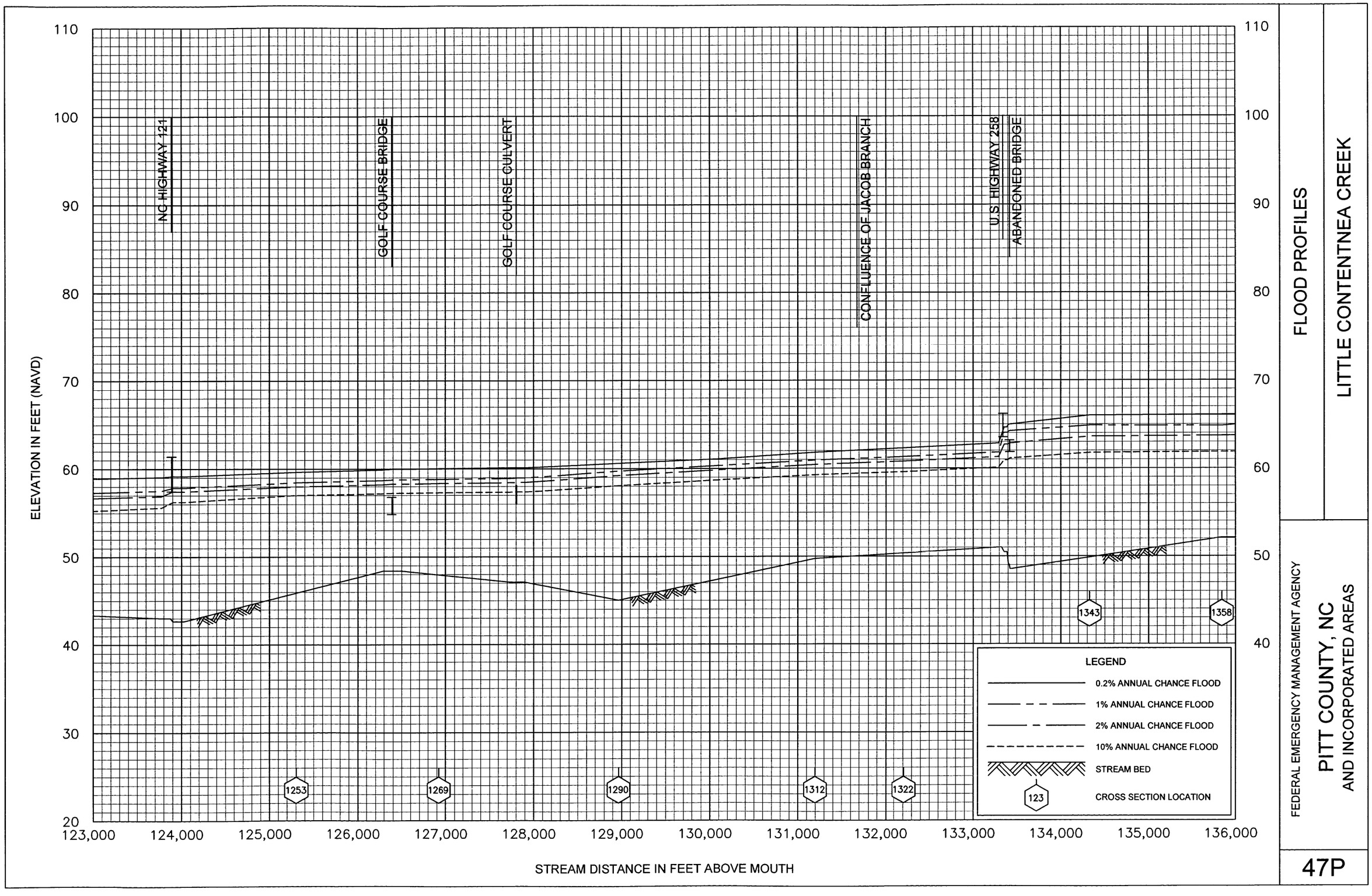


FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS



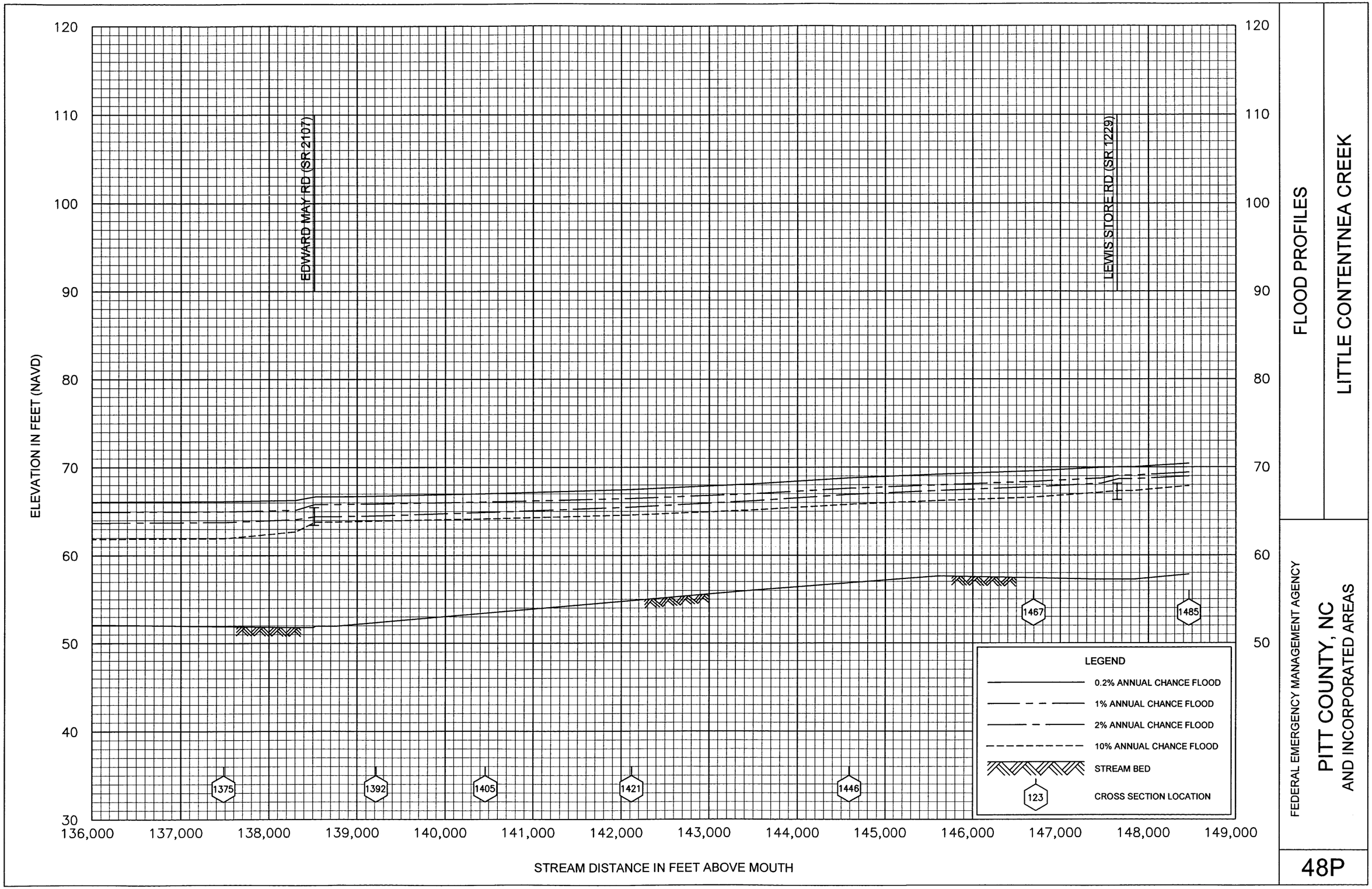
FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

47P



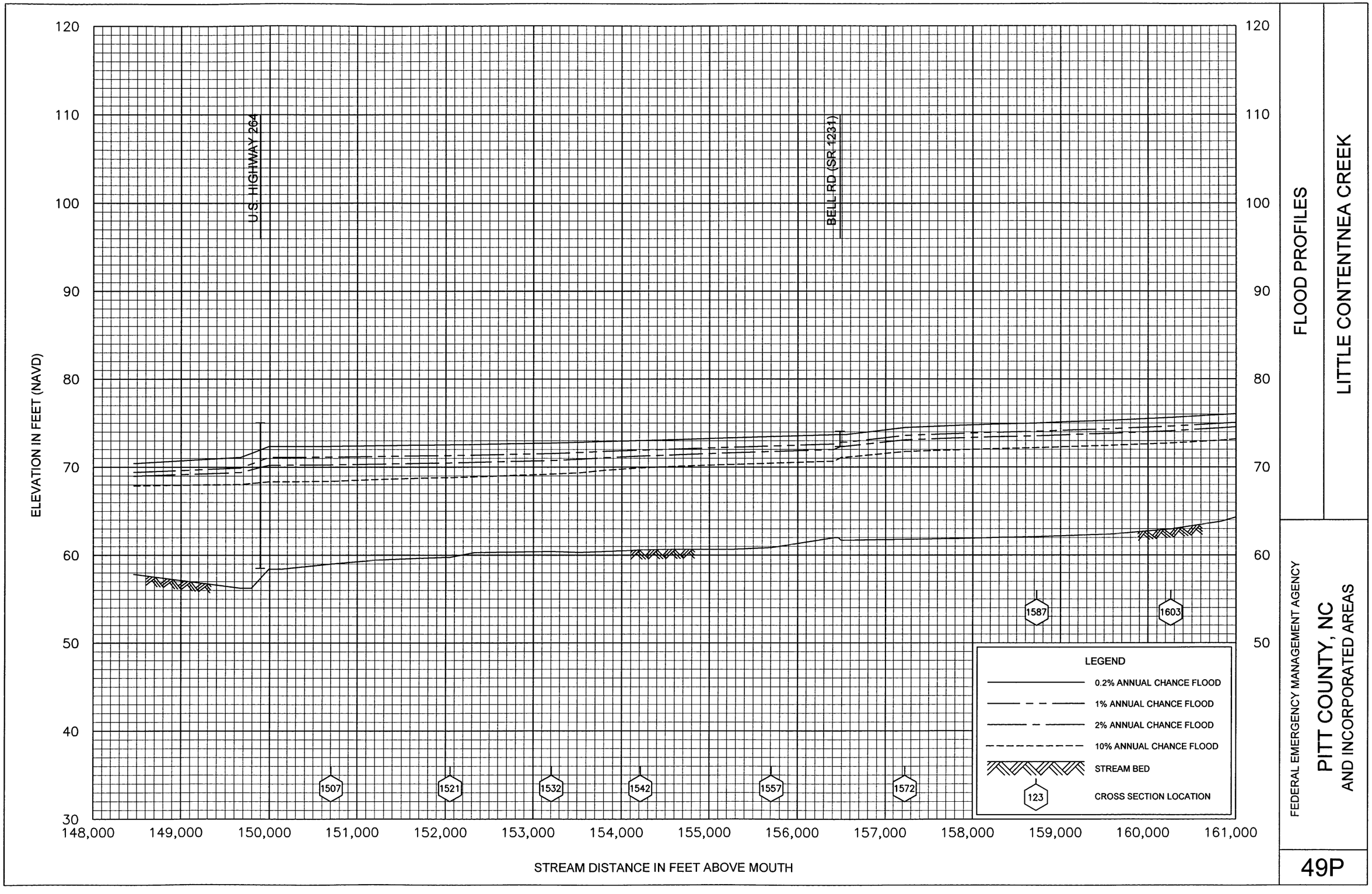
FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

48P



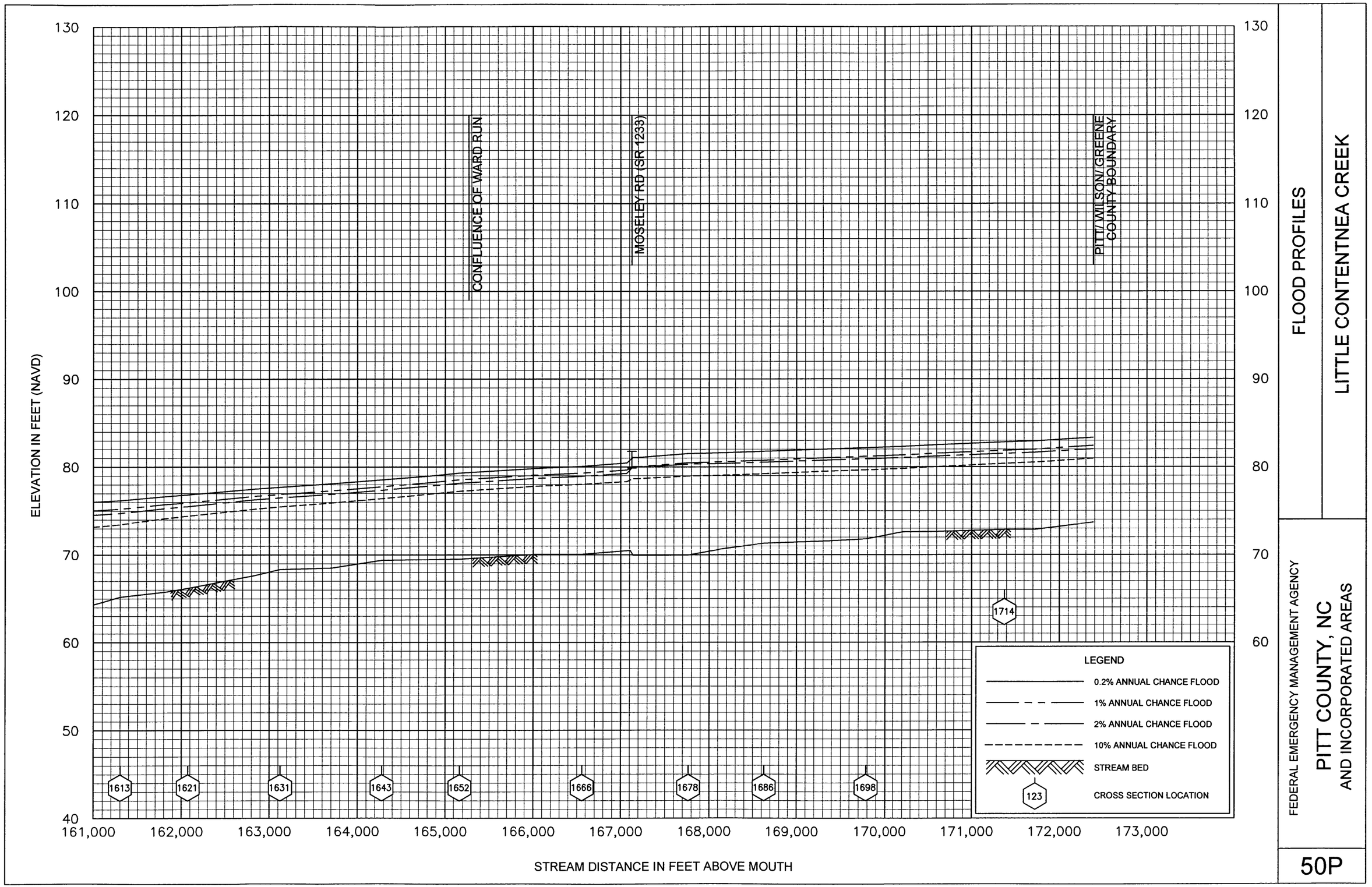
FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

49P



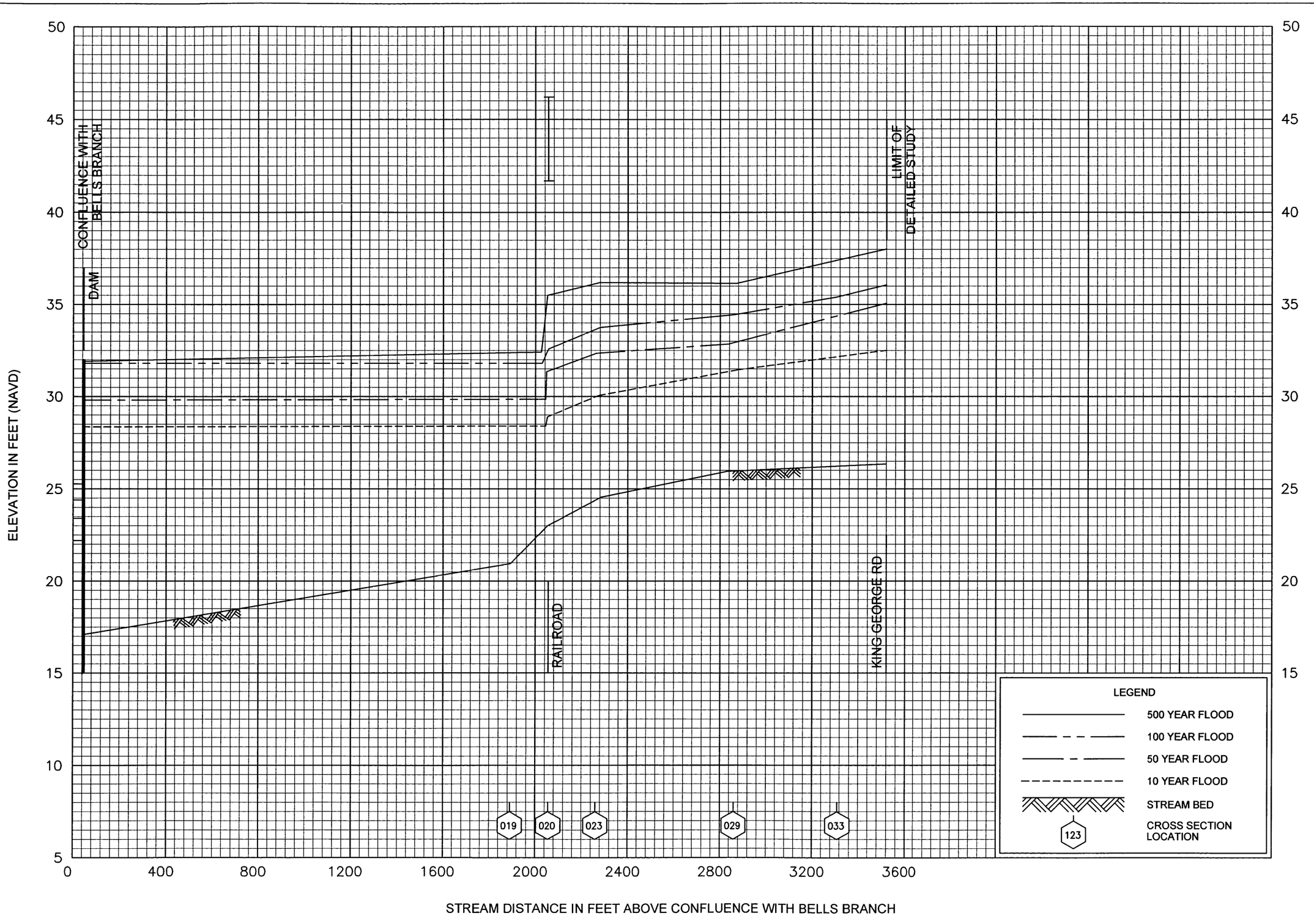
FLOOD PROFILES

LITTLE CONTENTNEA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

50P

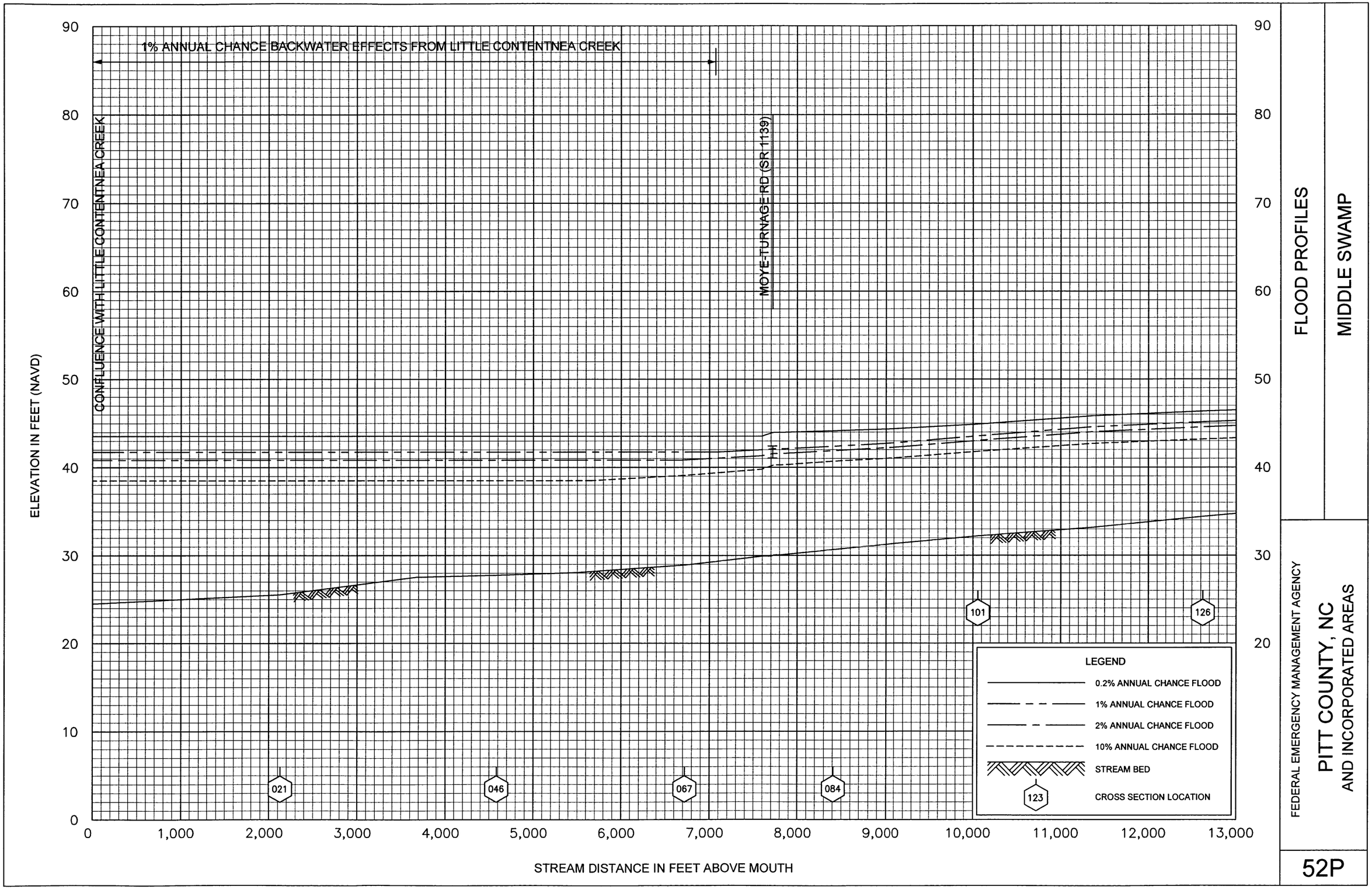


FLOOD PROFILES

MEETING HOUSE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)



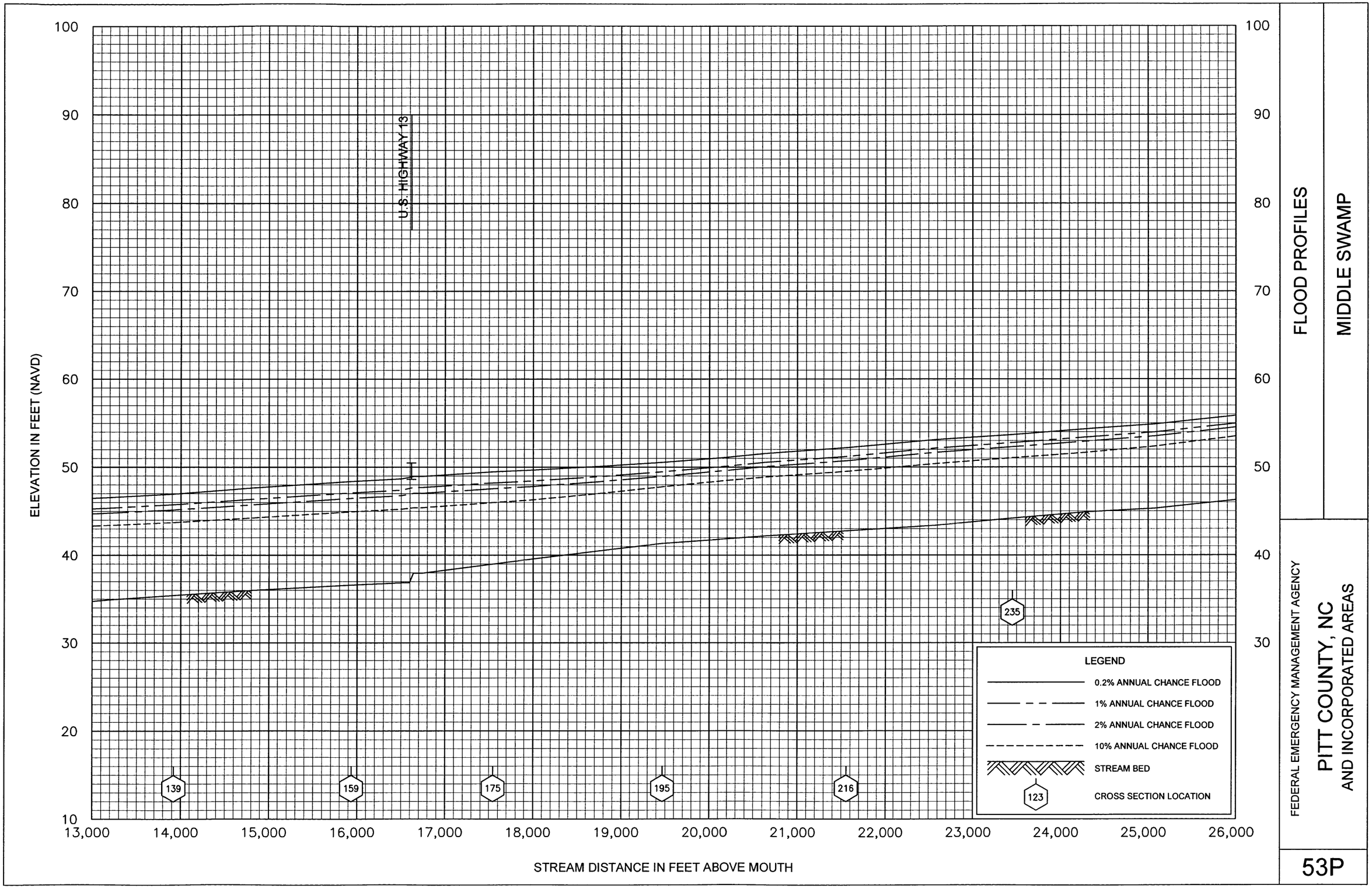
FLOOD PROFILES

MIDDLE SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

52P



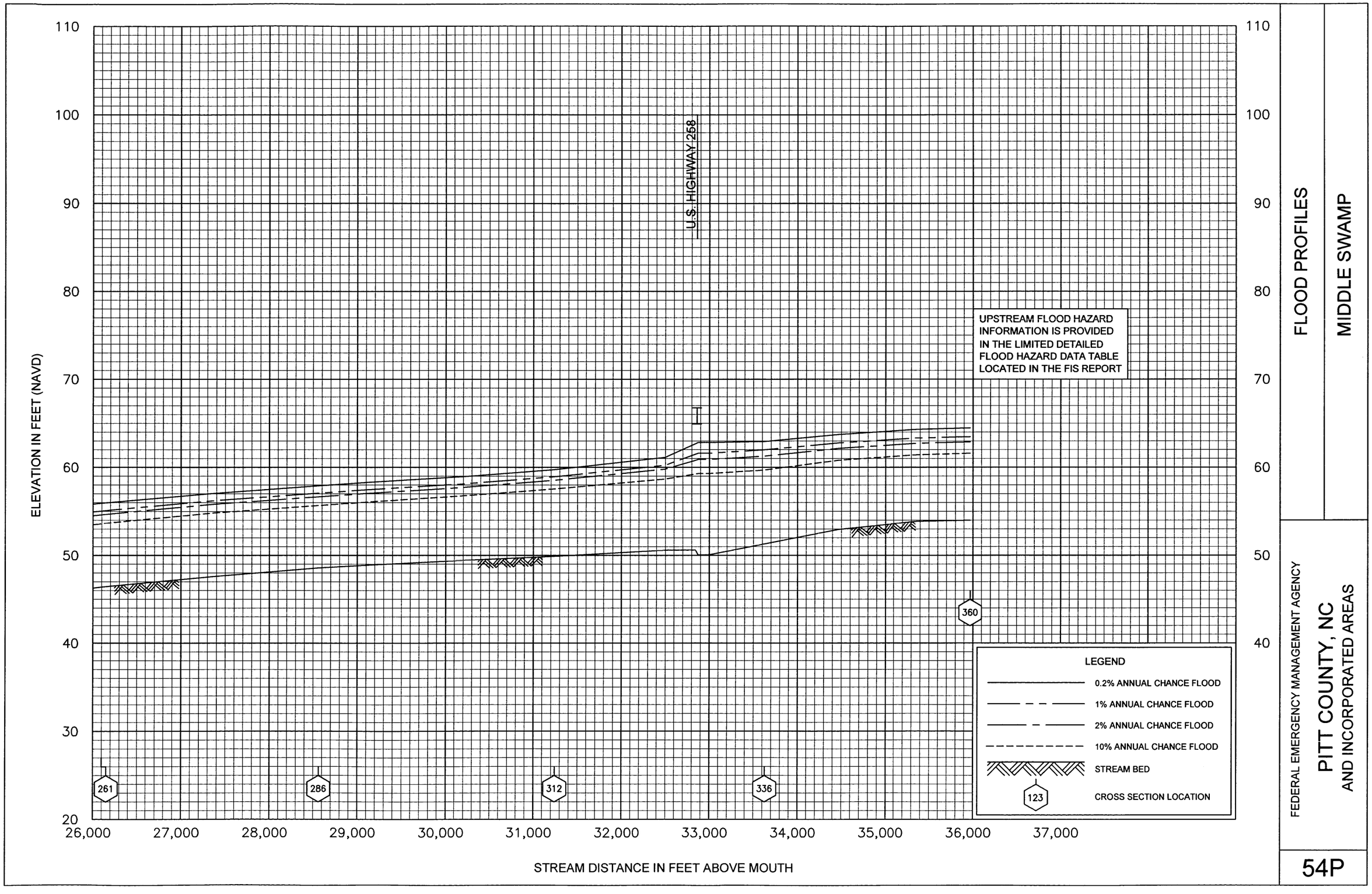
FLOOD PROFILES

MIDDLE SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

53P



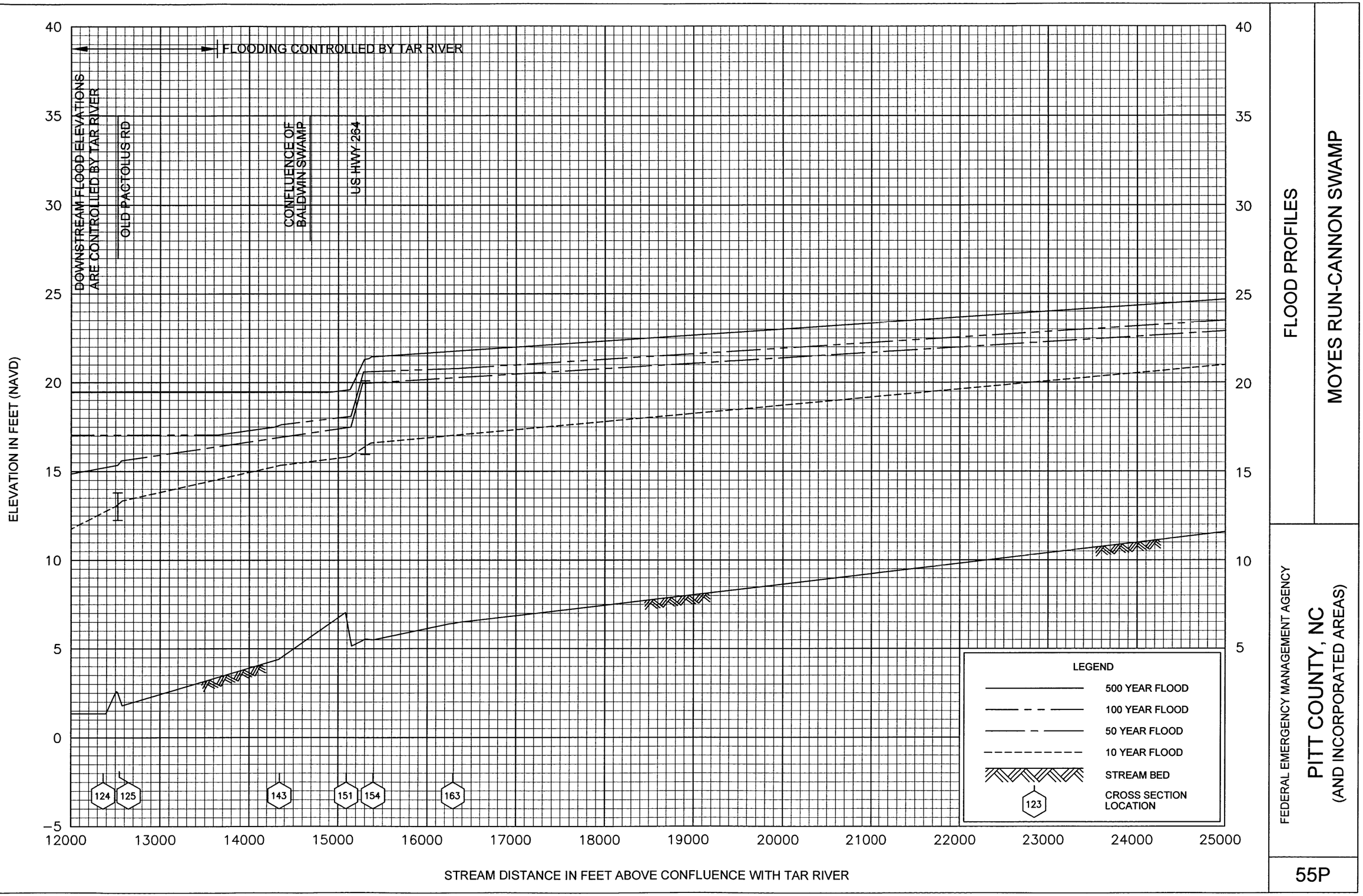
FLOOD PROFILES

MIDDLE SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

54P



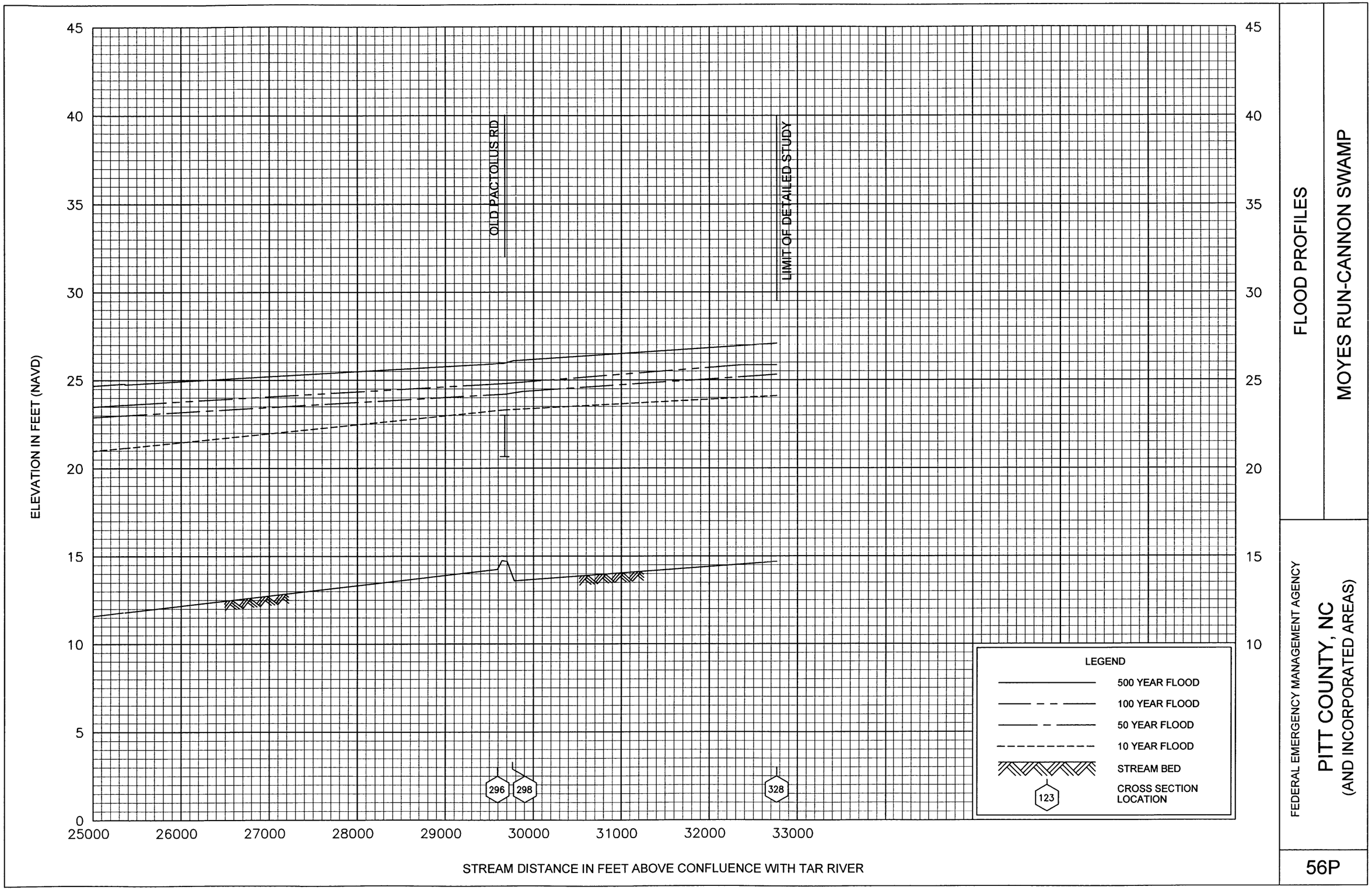
FLOOD PROFILES

MOYES RUN-CANNON SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

55P



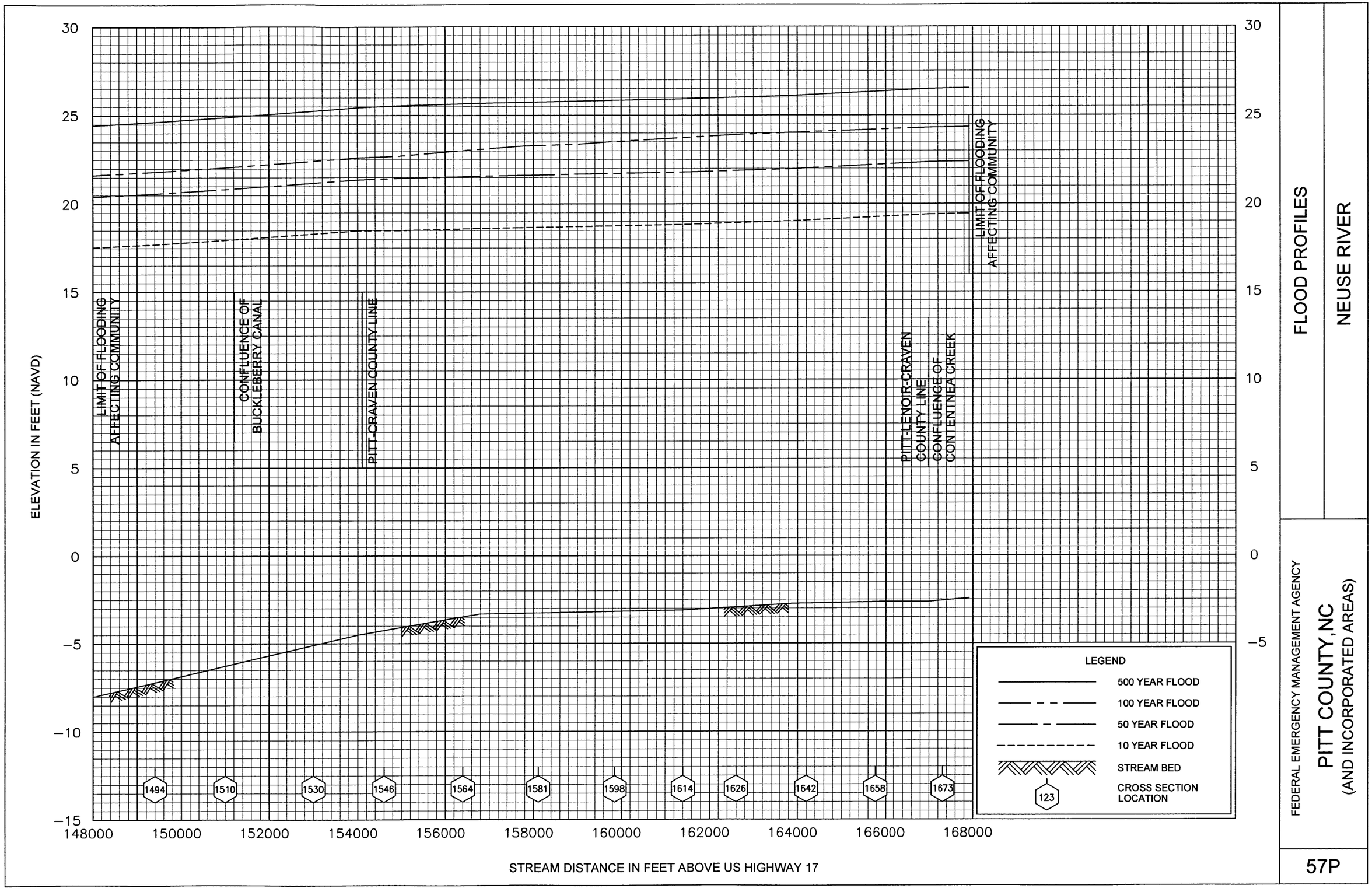
FLOOD PROFILES

MOYES RUN-CANNON SWAMP

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

56P



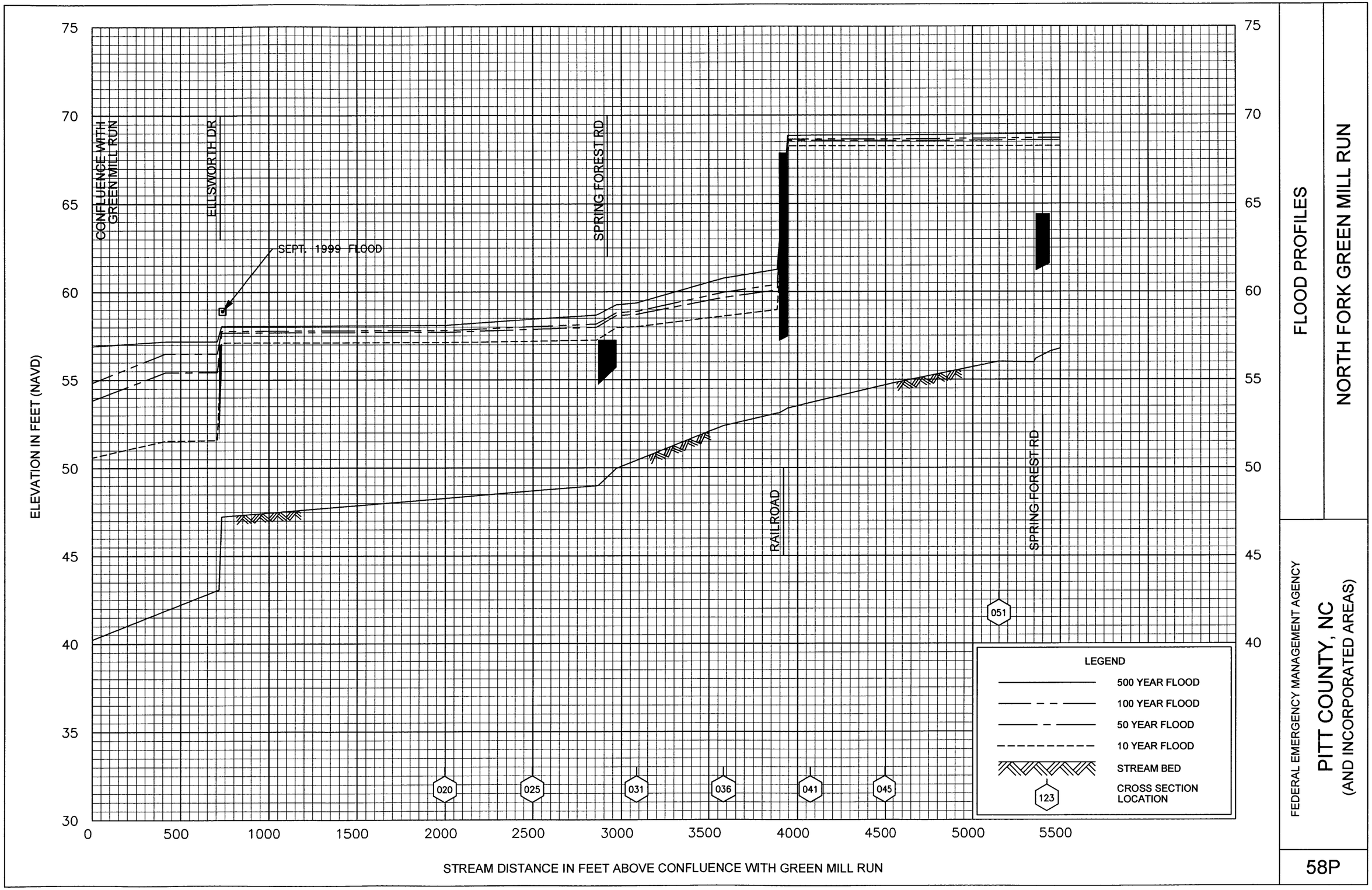
FLOOD PROFILES

NEUSE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

57P



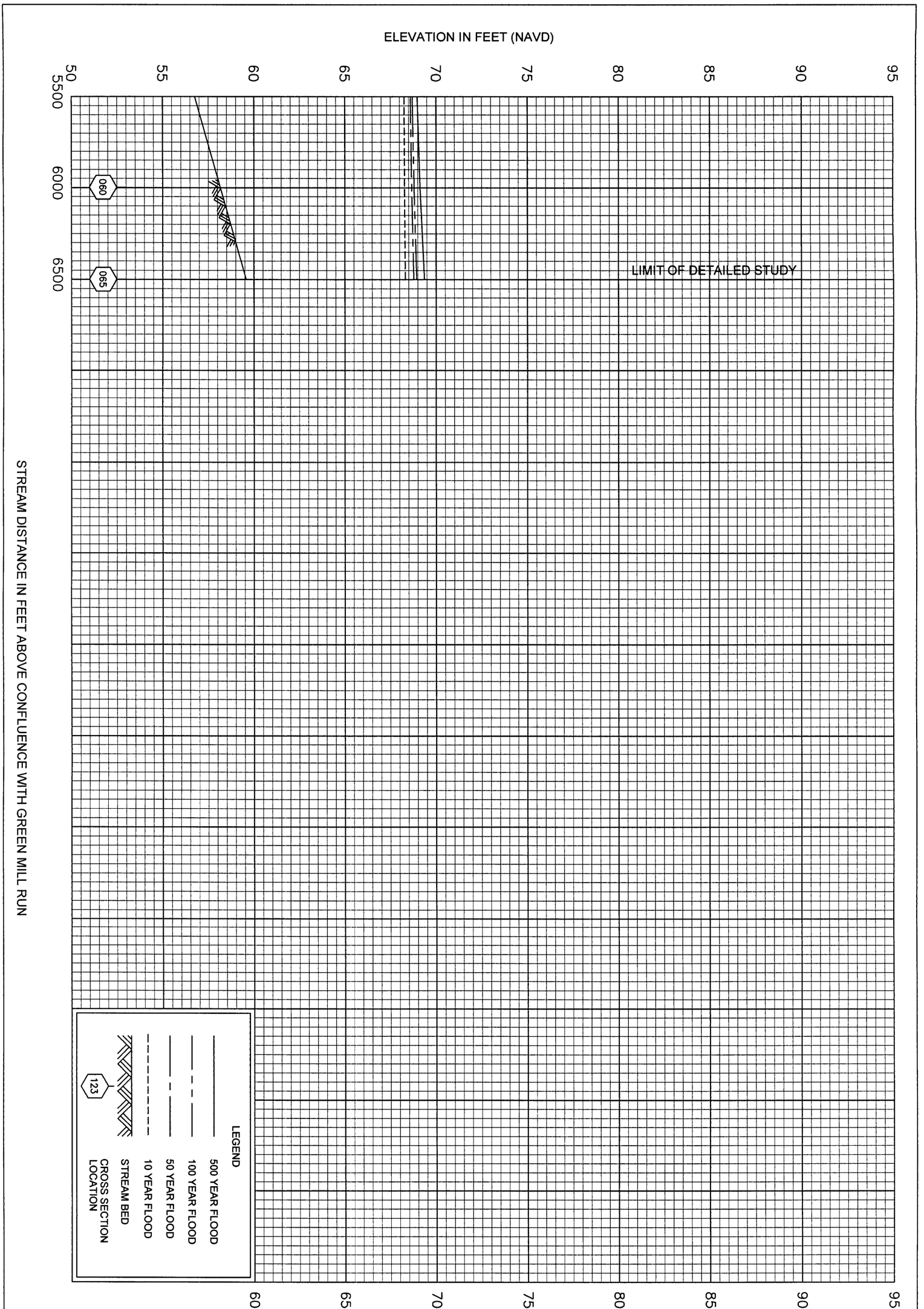
FLOOD PROFILES

NORTH FORK GREEN MILL RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

58P

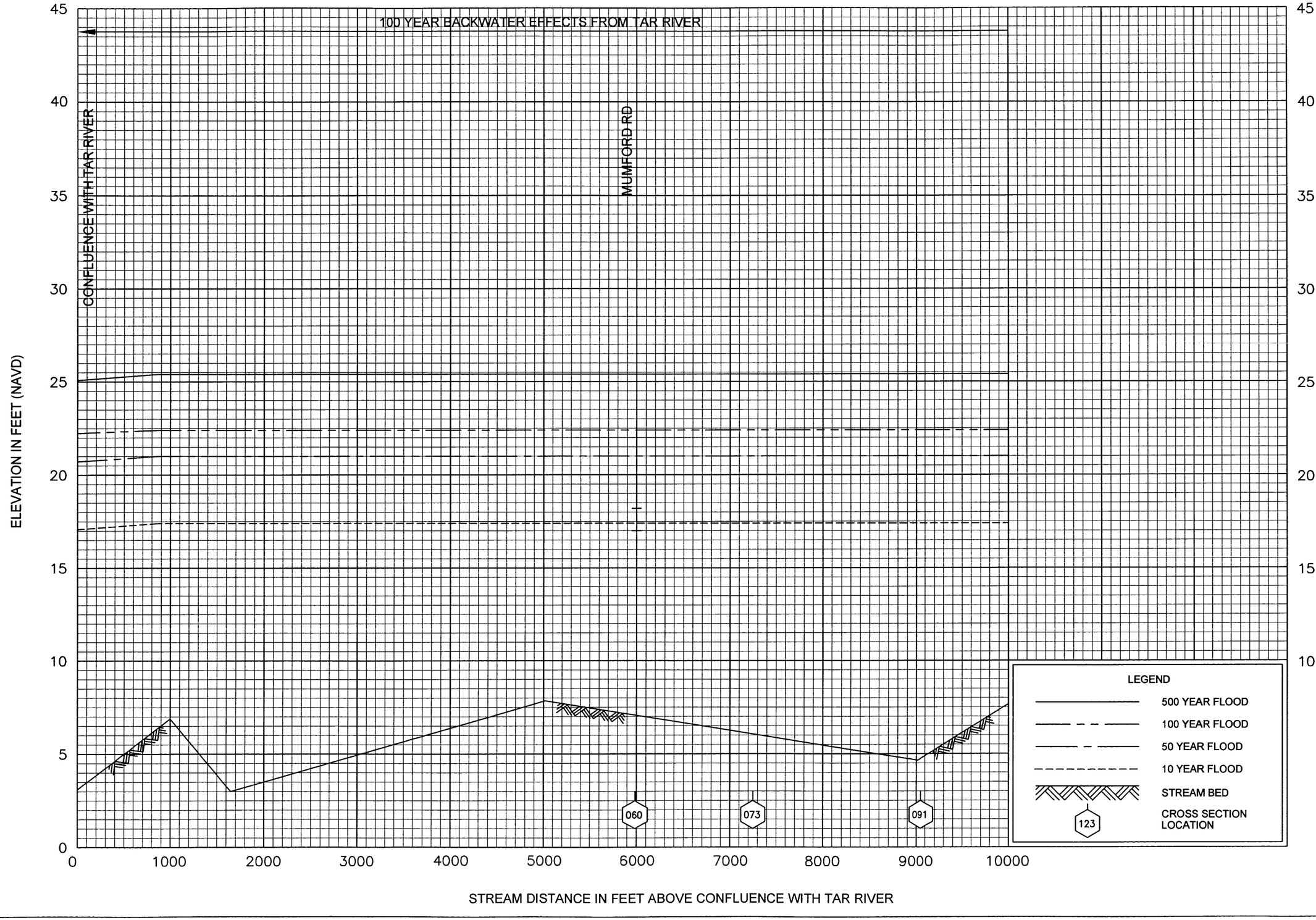


FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

FLOOD PROFILES

NORTH FORK GREEN MILL RUN



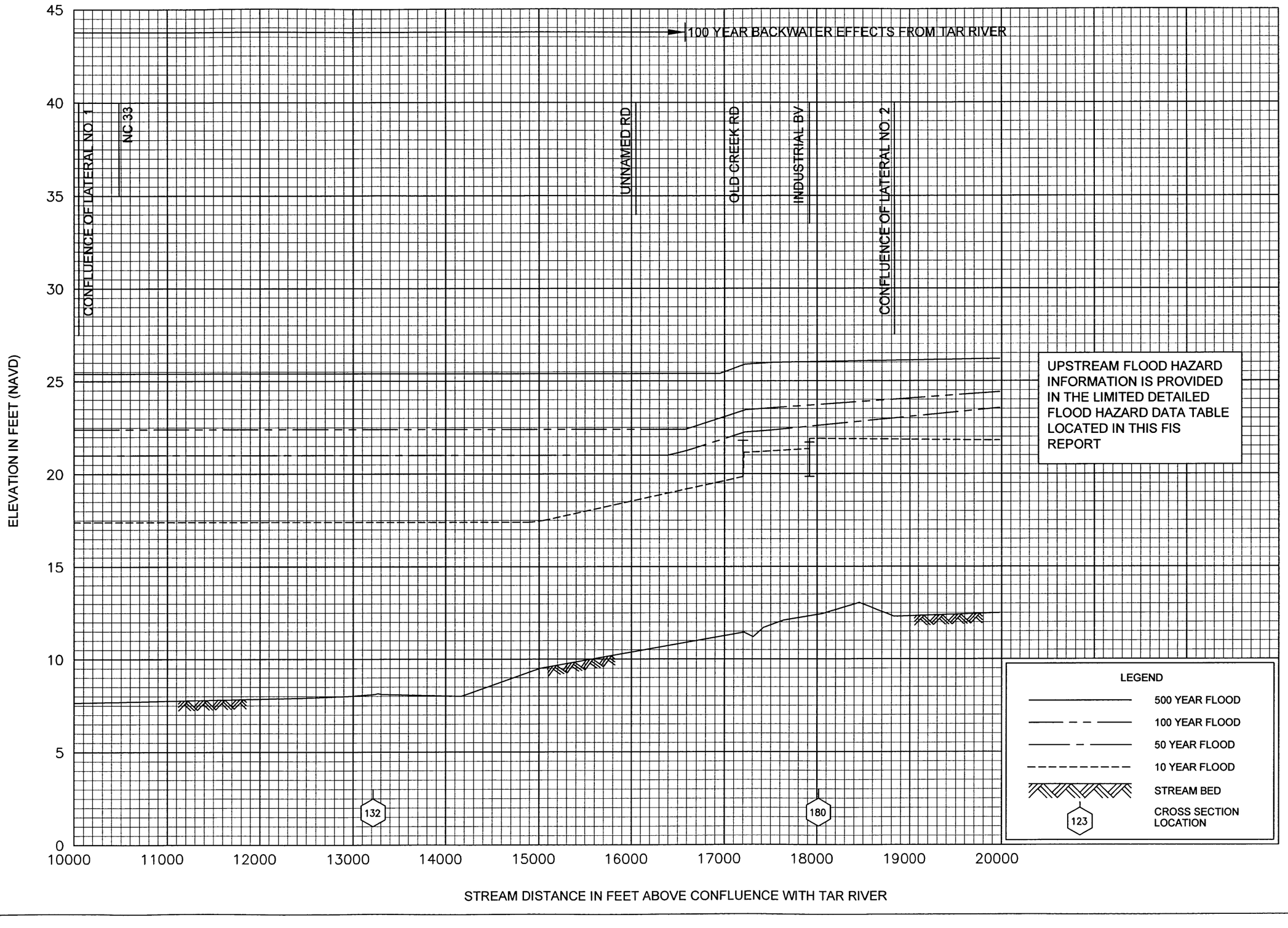
FLOOD PROFILES

PARKERS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

60P



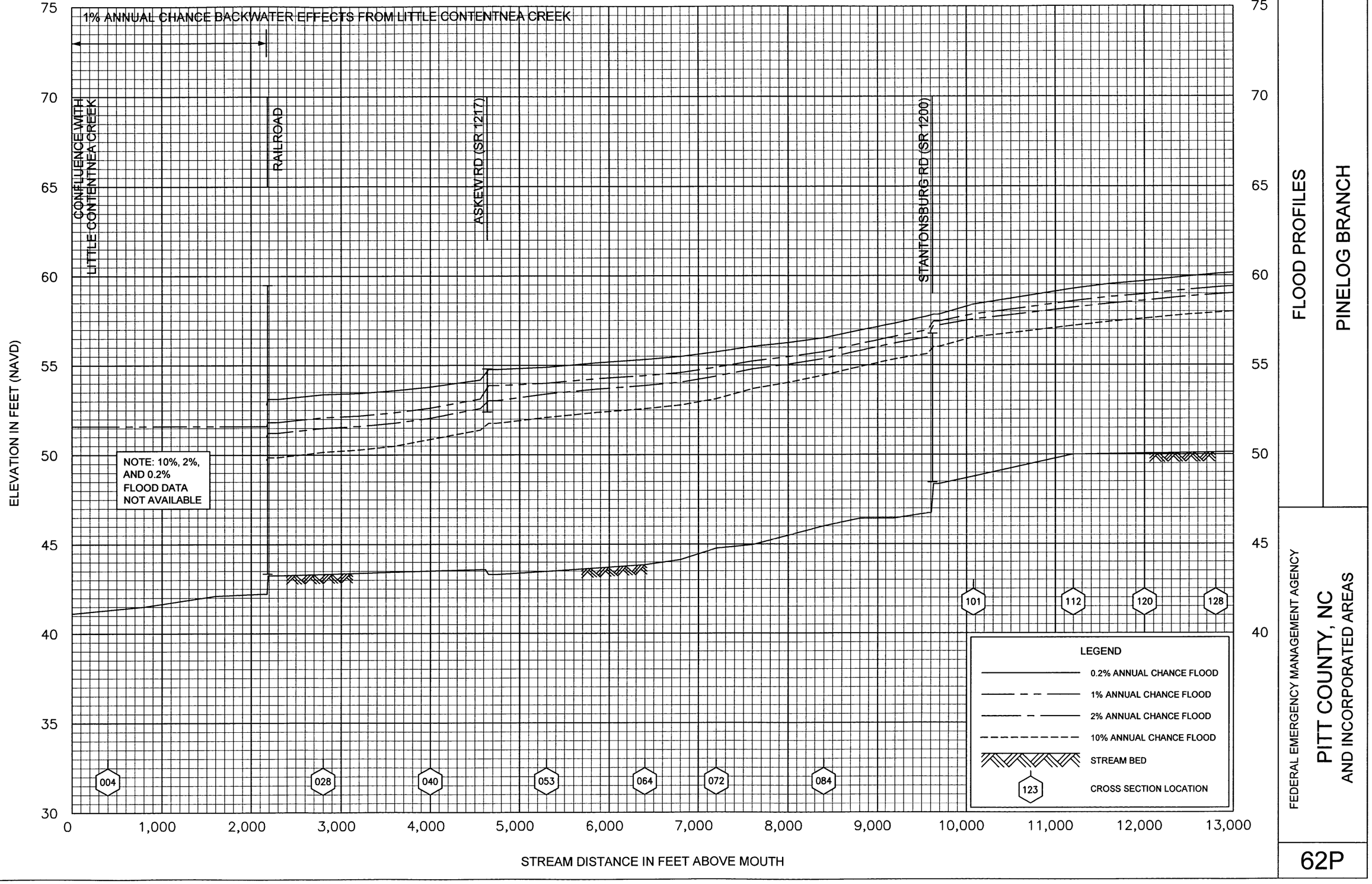
FLOOD PROFILES

PARKERS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

61P



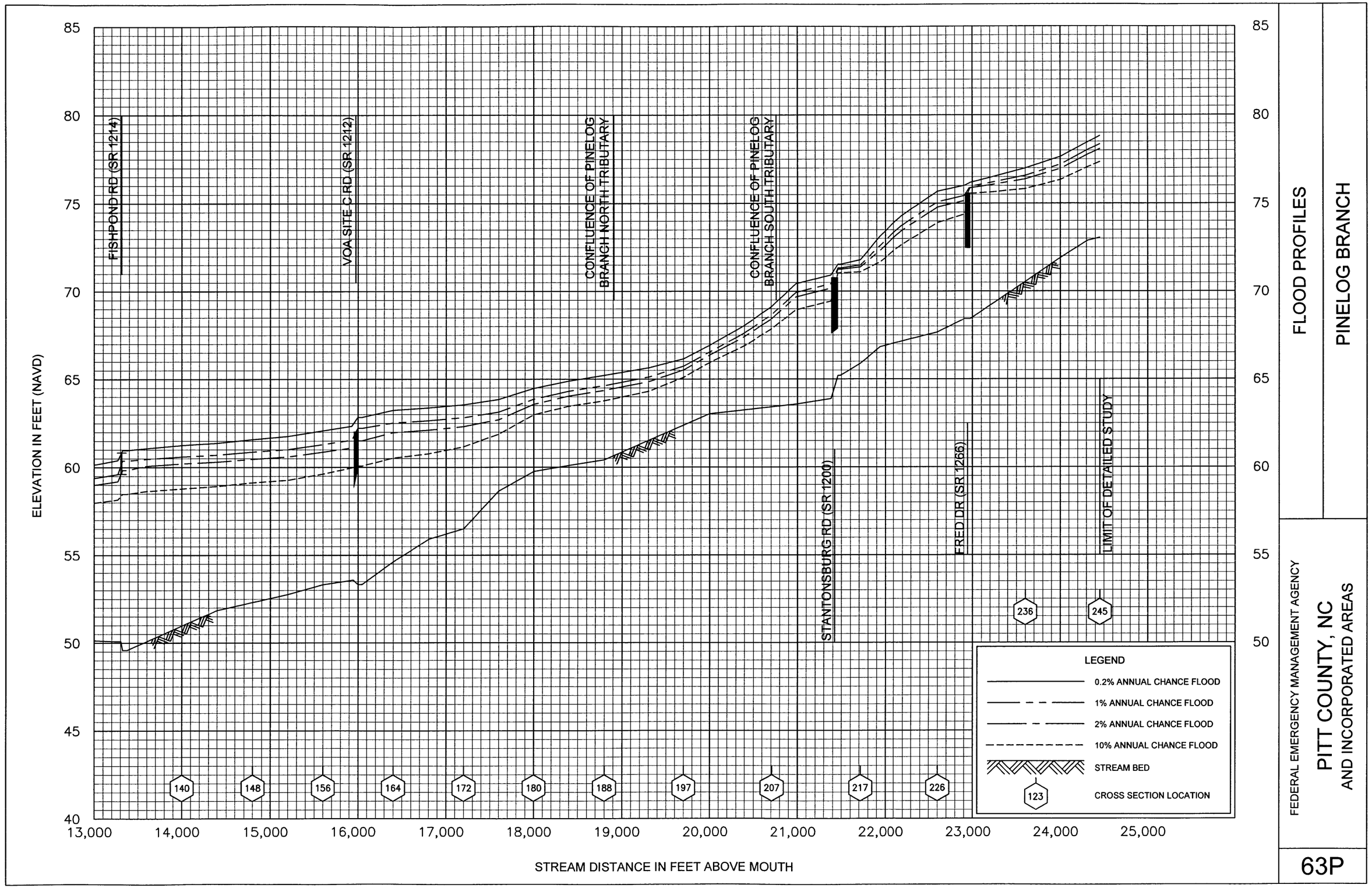
FLOOD PROFILES

PINELOG BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

62P

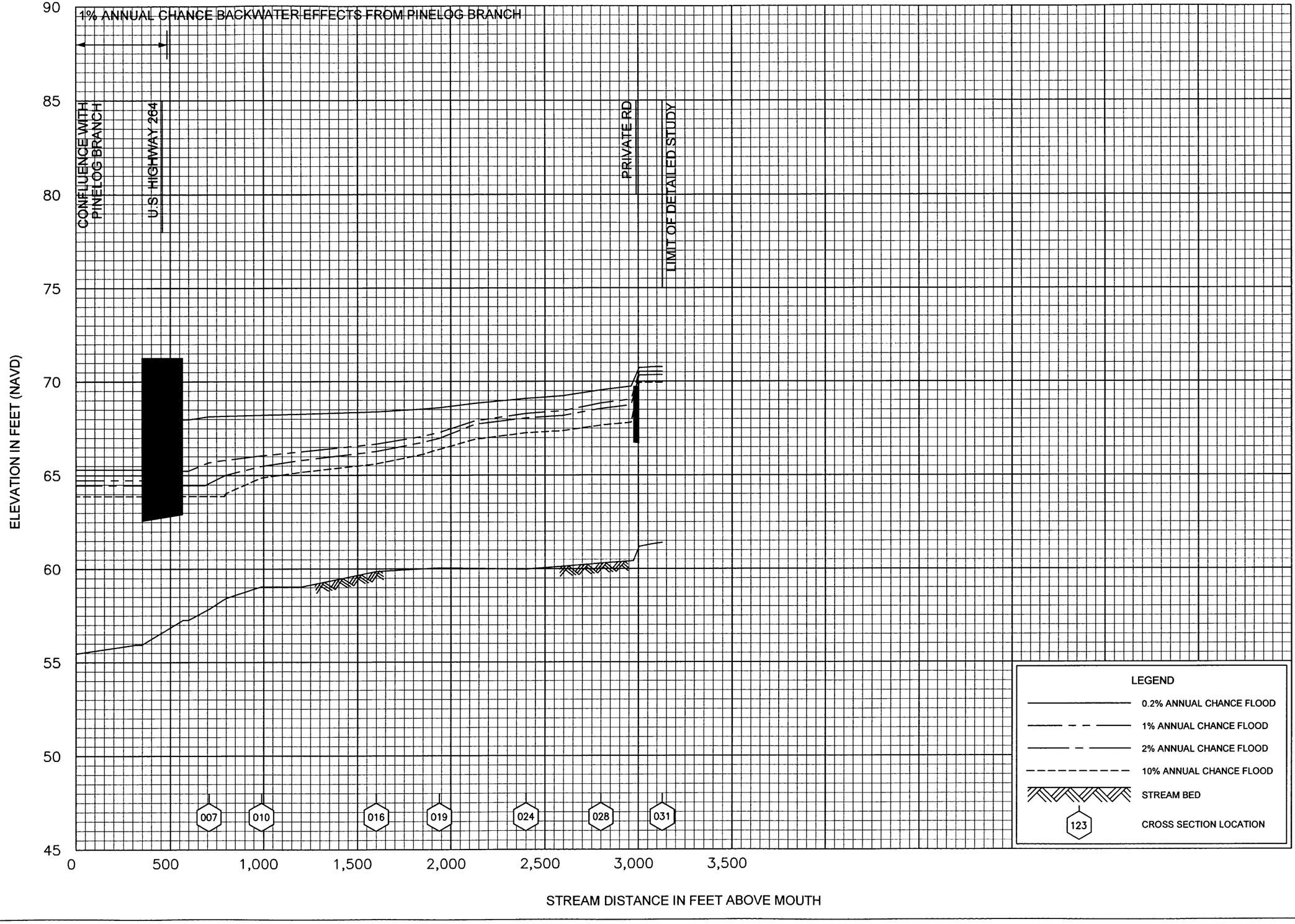


FLOOD PROFILES

PINELOG BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS



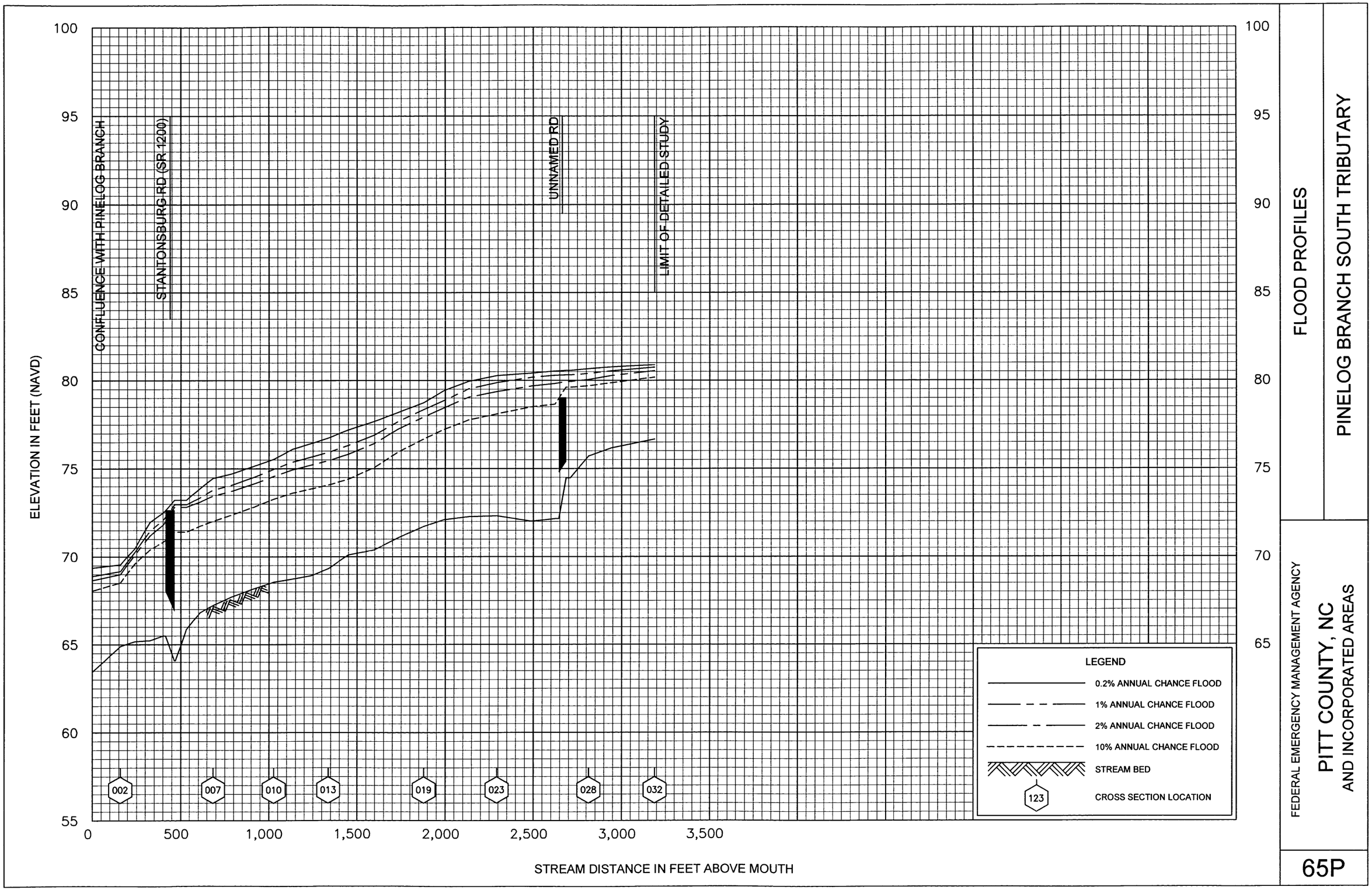
FLOOD PROFILES

PINELOG BRANCH NORTH TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

64P



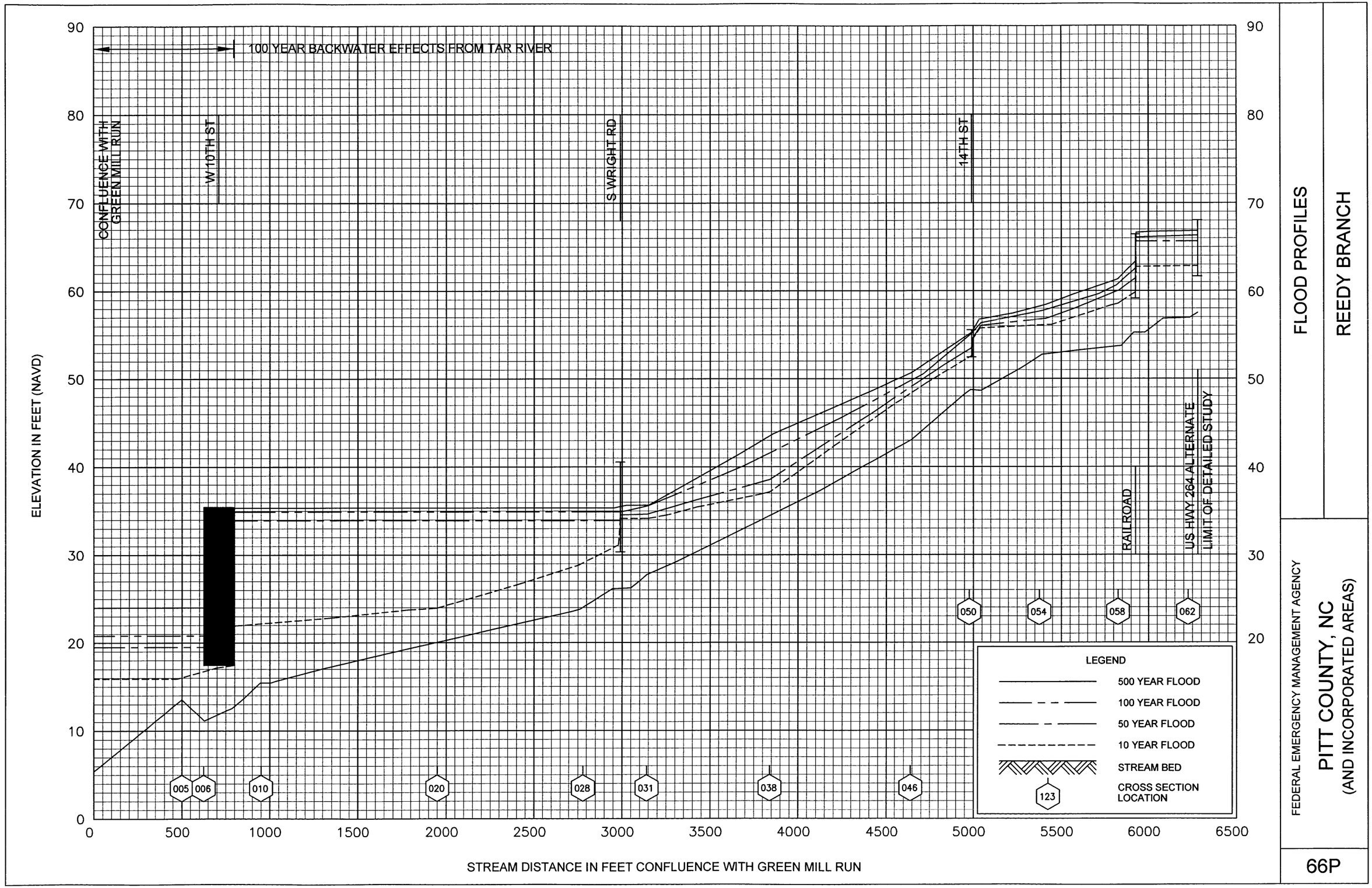
FLOOD PROFILES

PINELOG BRANCH SOUTH TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
AND INCORPORATED AREAS

65P



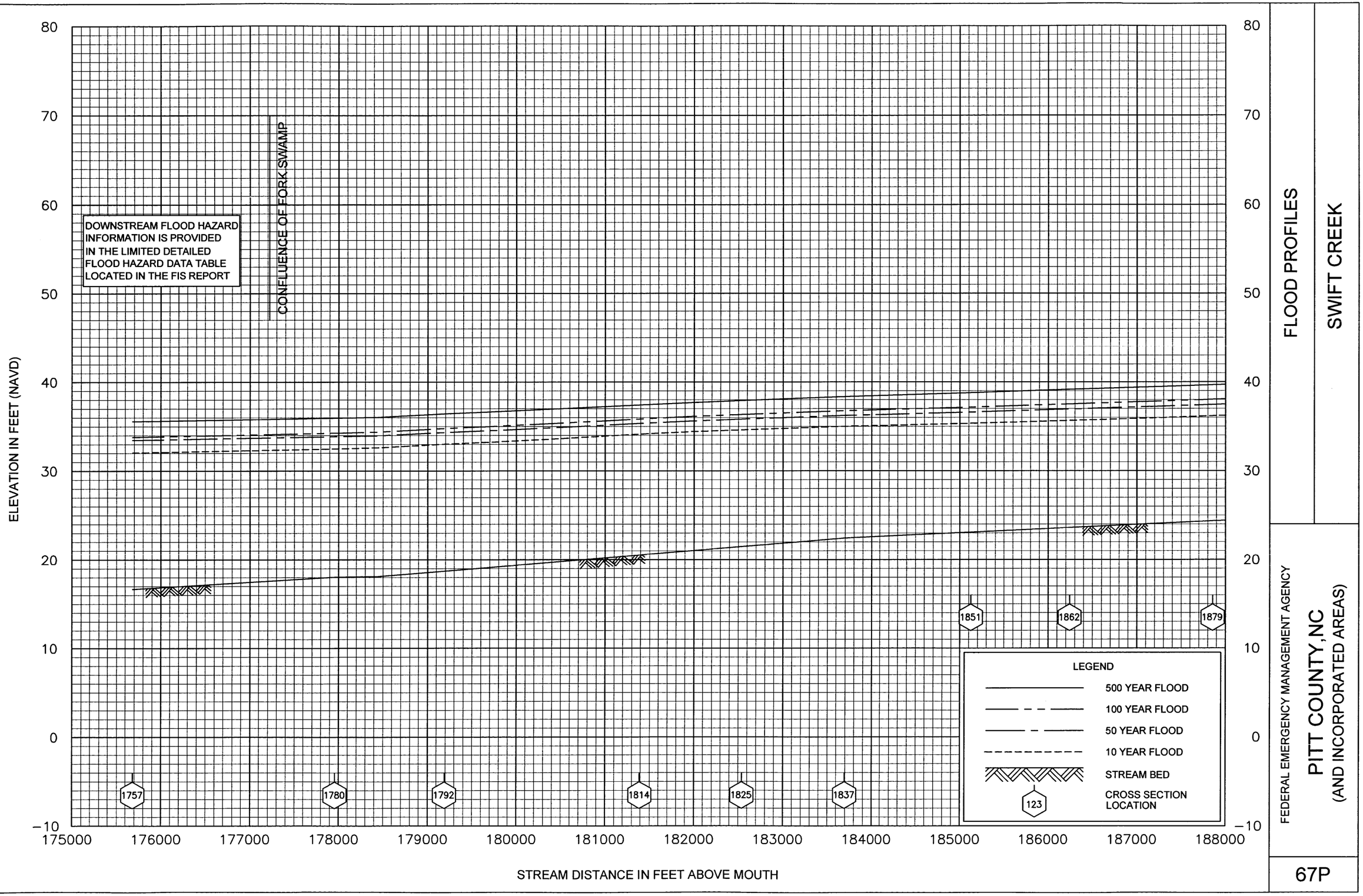
FLOOD PROFILES

REEDY BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

66P



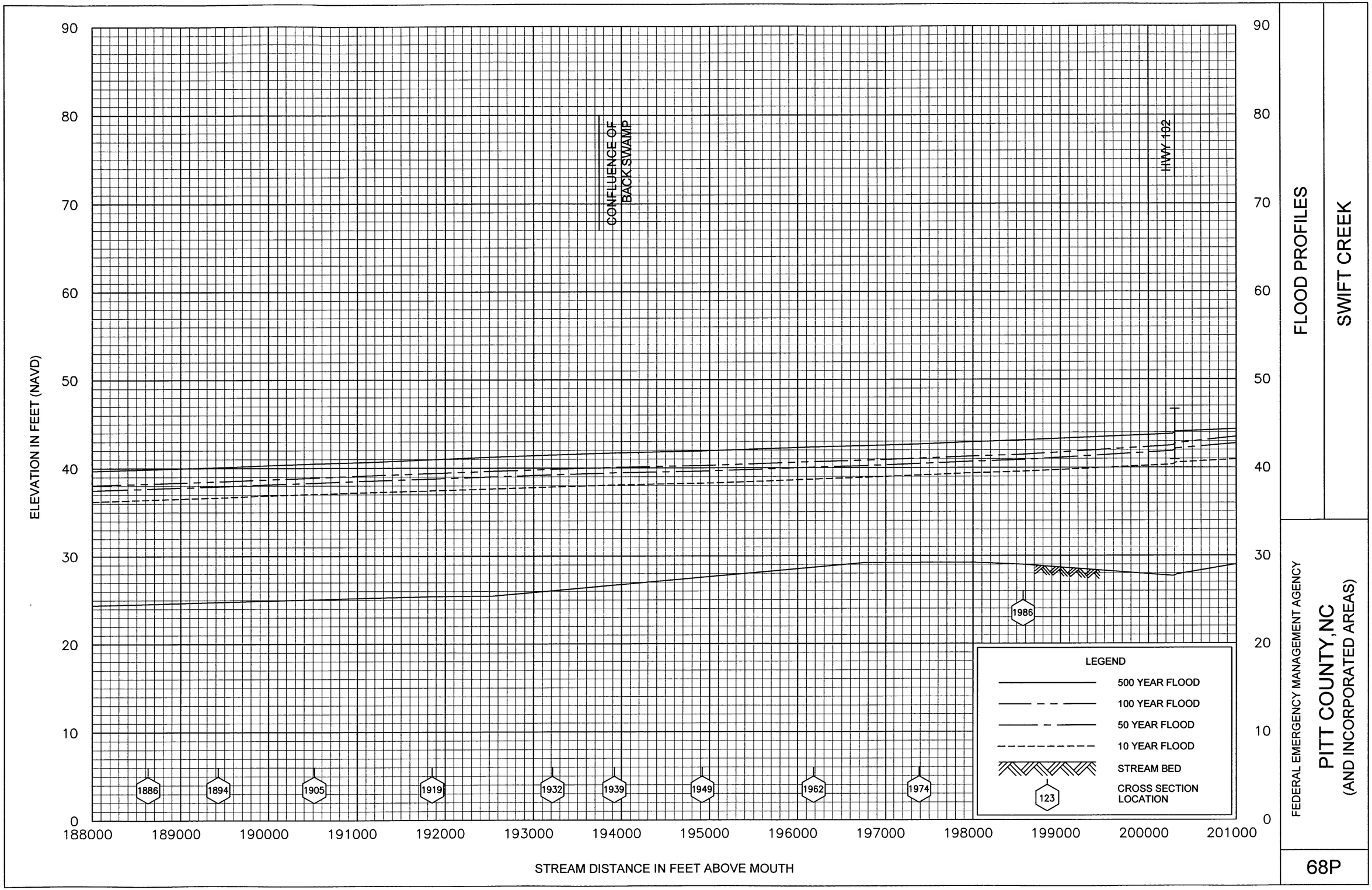
FLOOD PROFILES

SWIFT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

67P



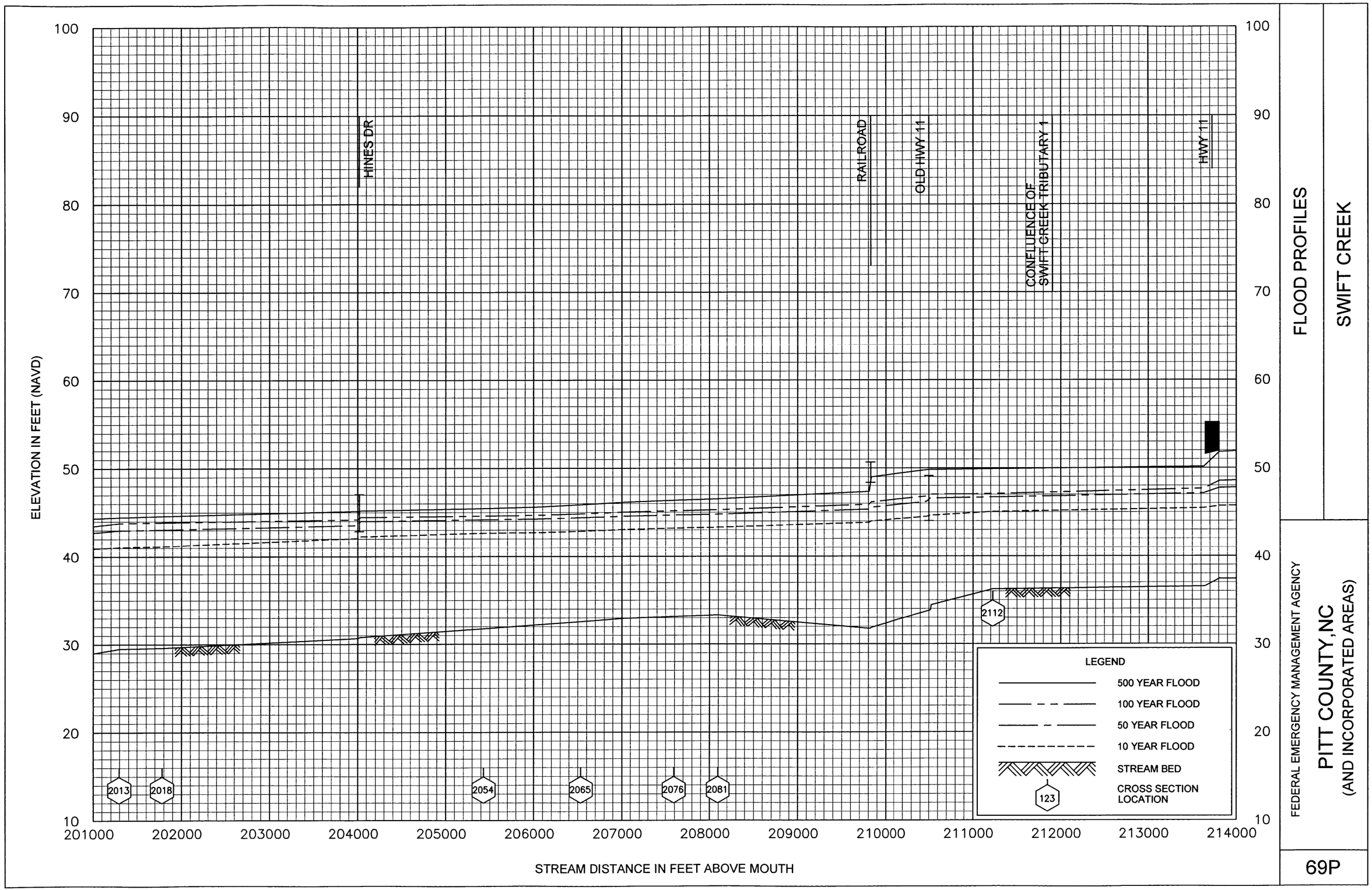
FLOOD PROFILES

SWIFT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

68P



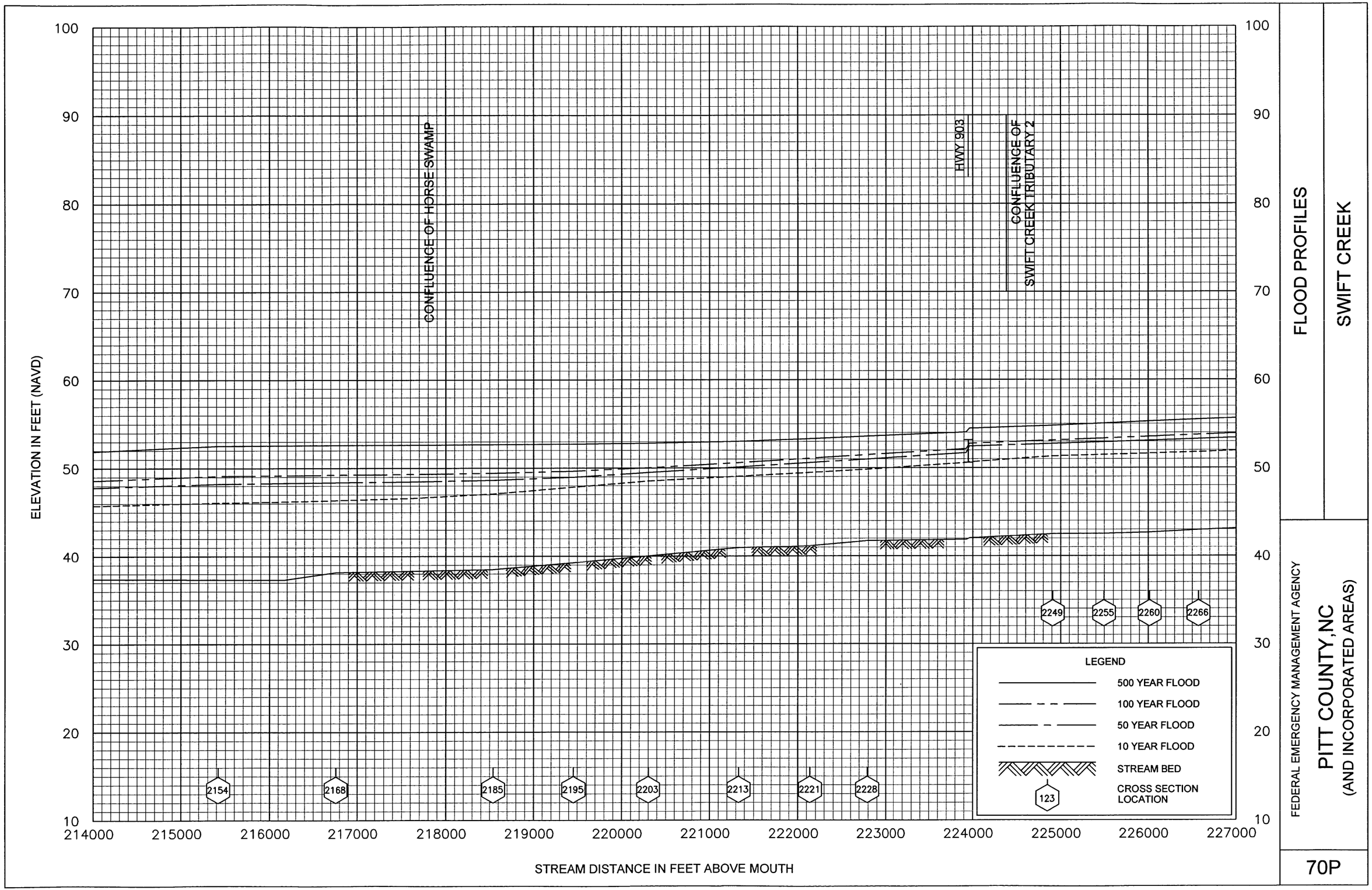
FLOOD PROFILES

SWIFT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

69P



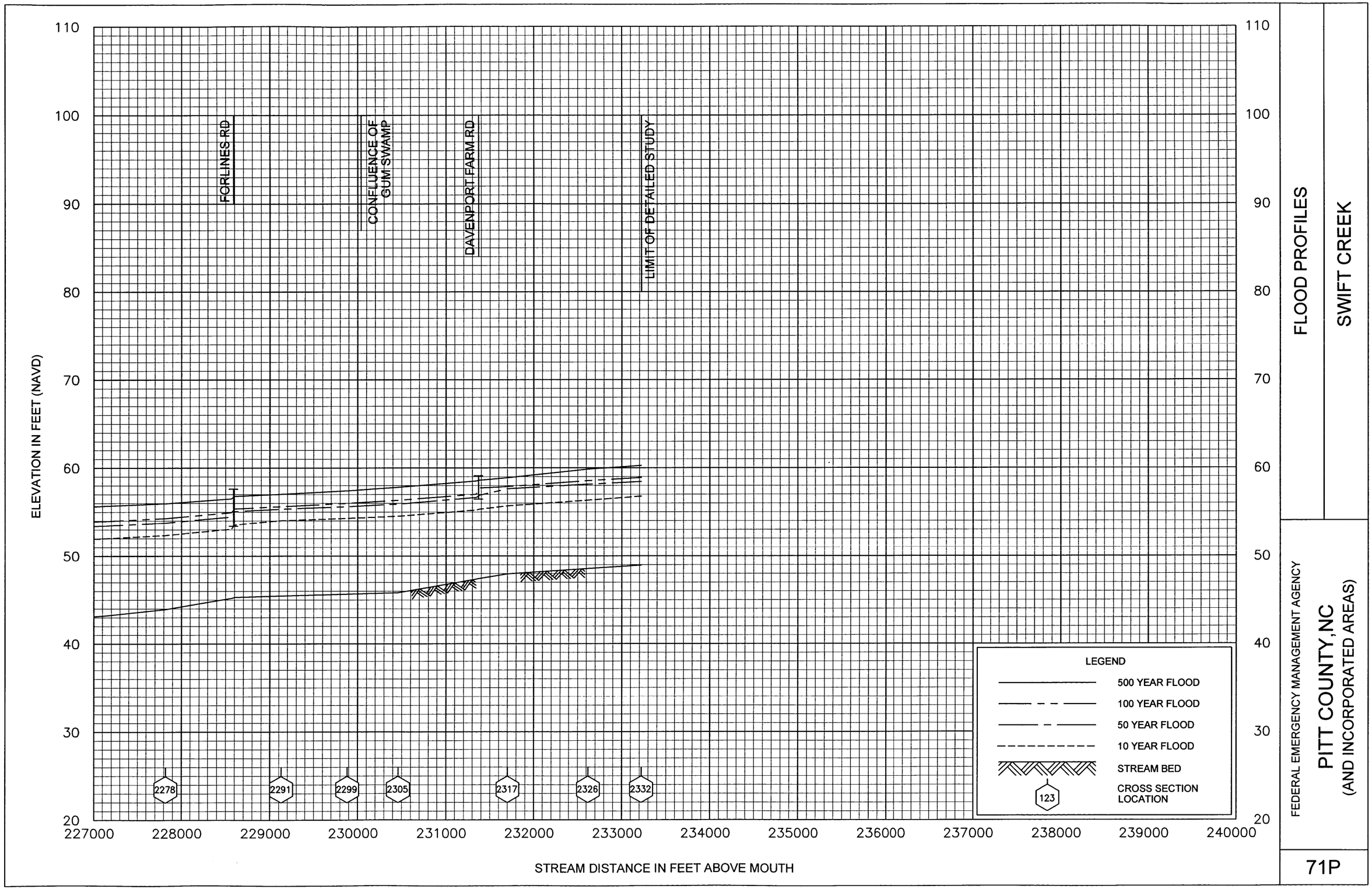
FLOOD PROFILES

SWIFT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

70P



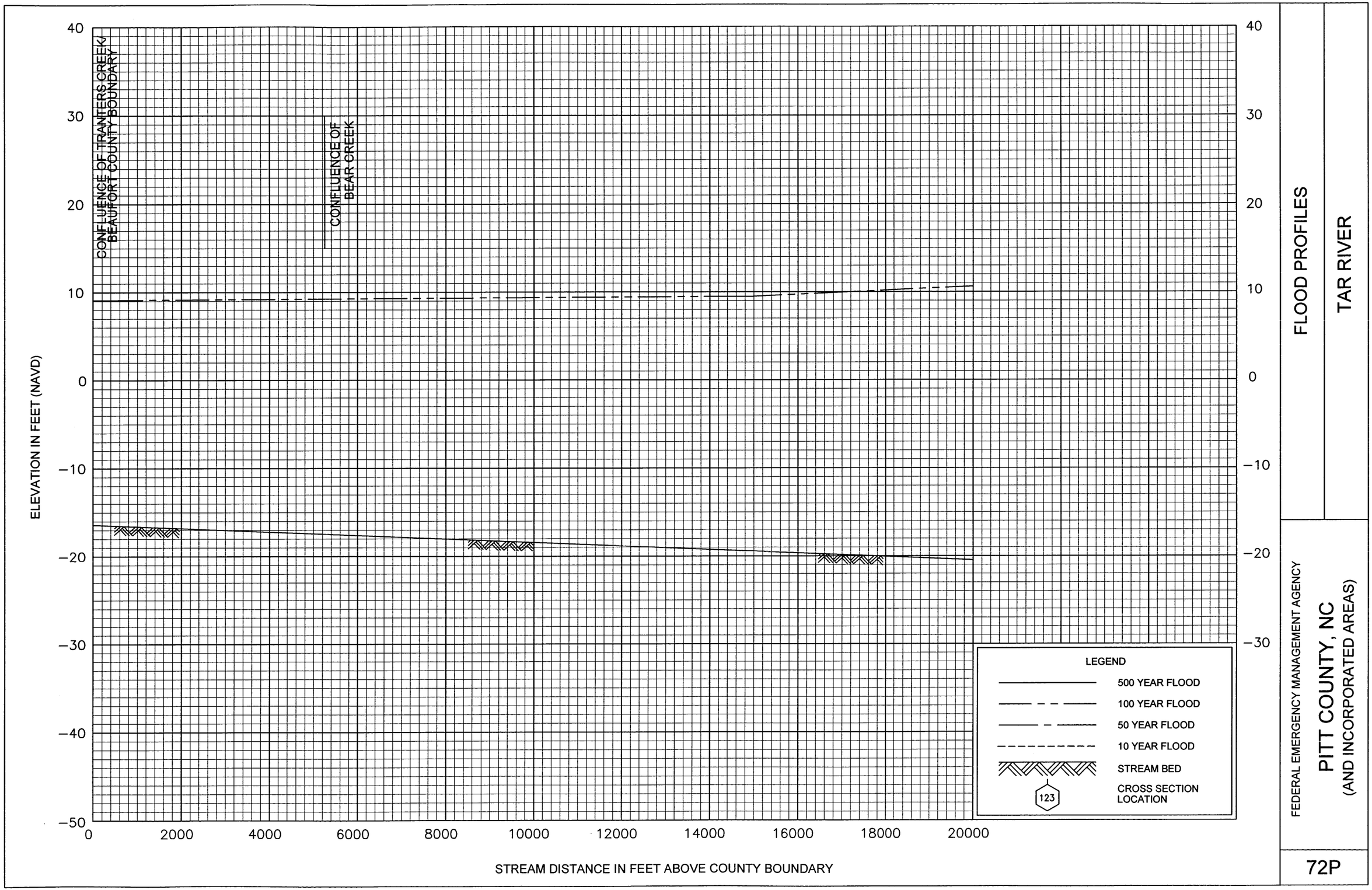
FLOOD PROFILES

SWIFT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

71P



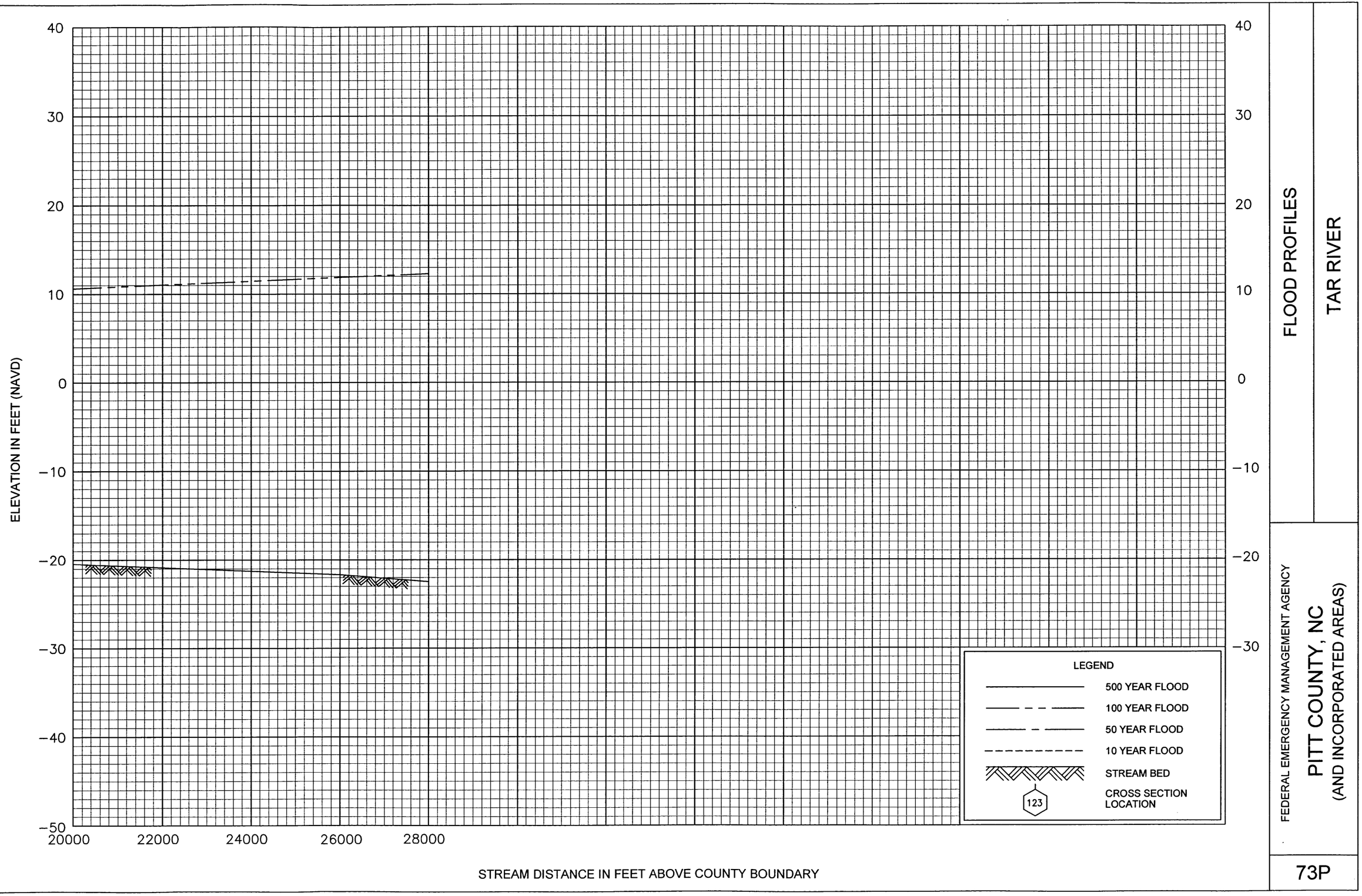
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

72P



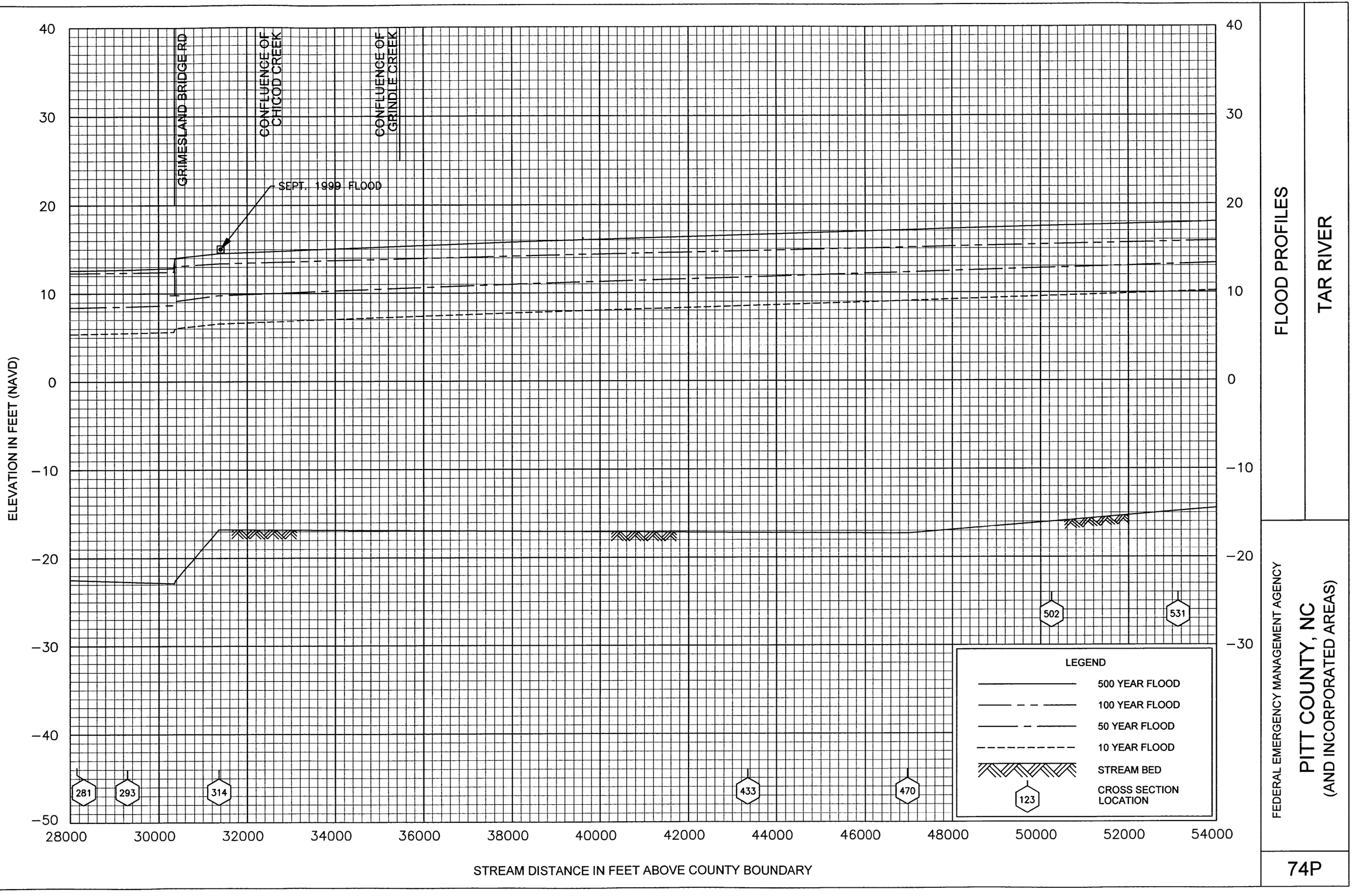
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

73P



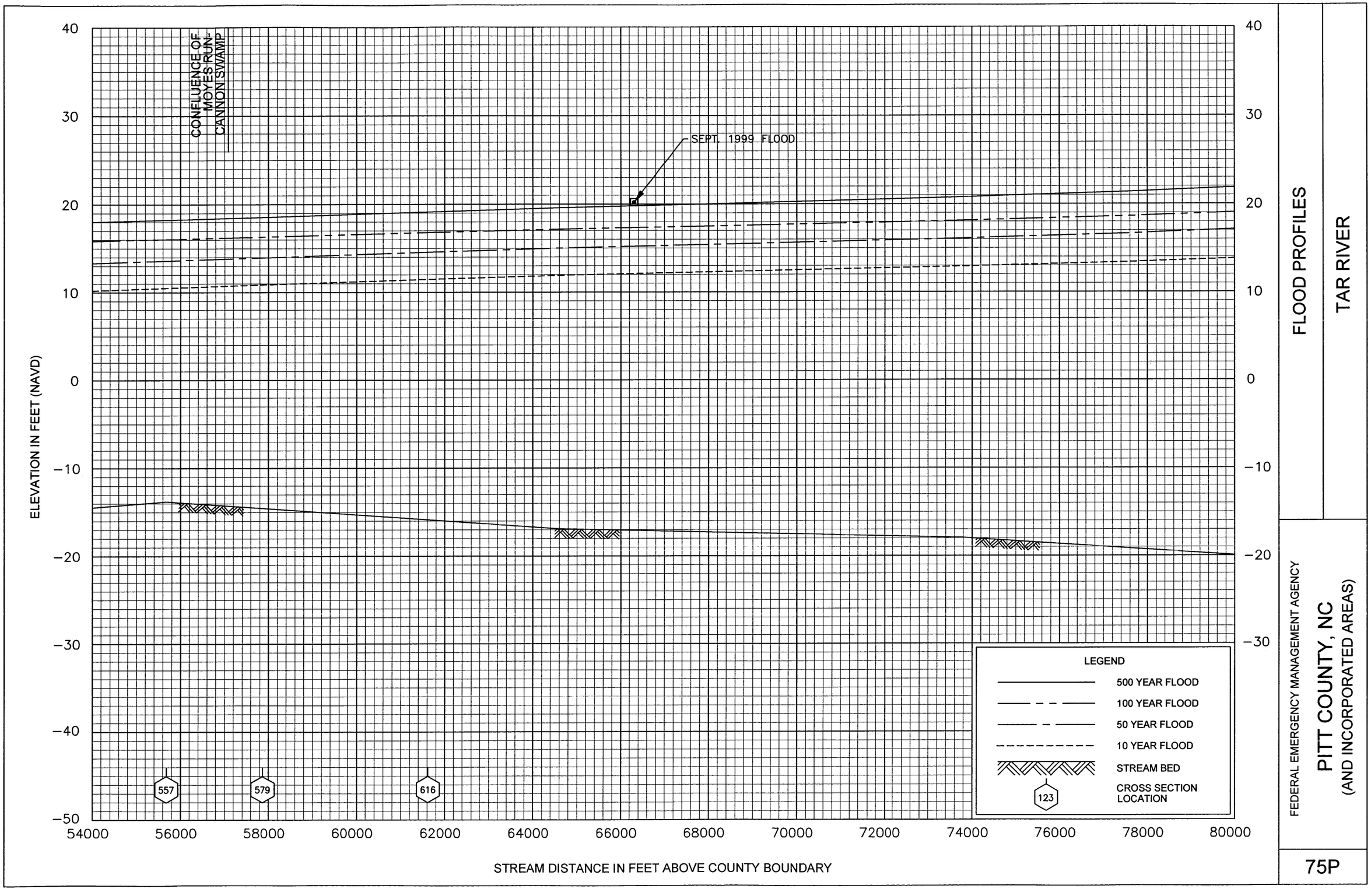
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

74P



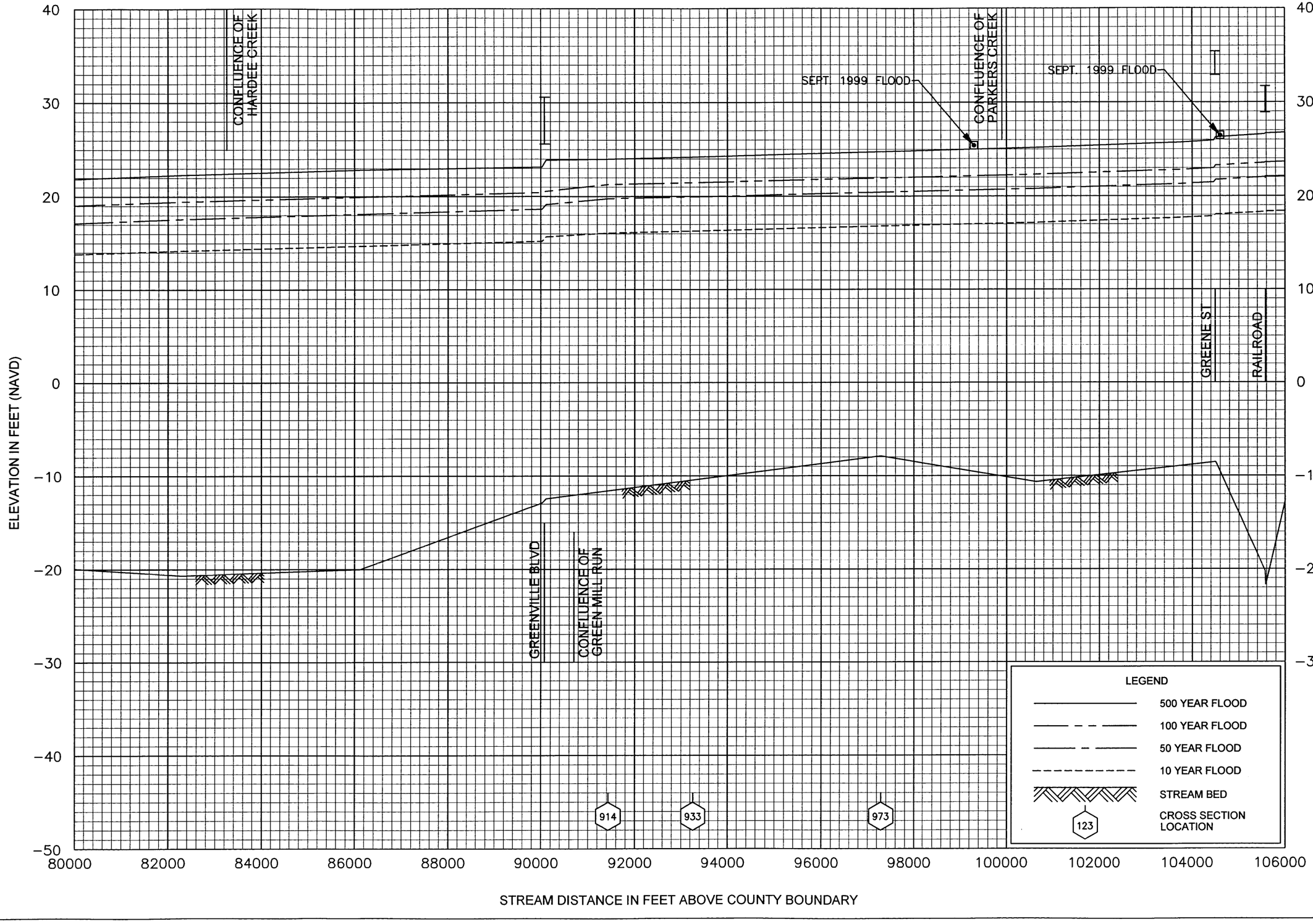
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

75P



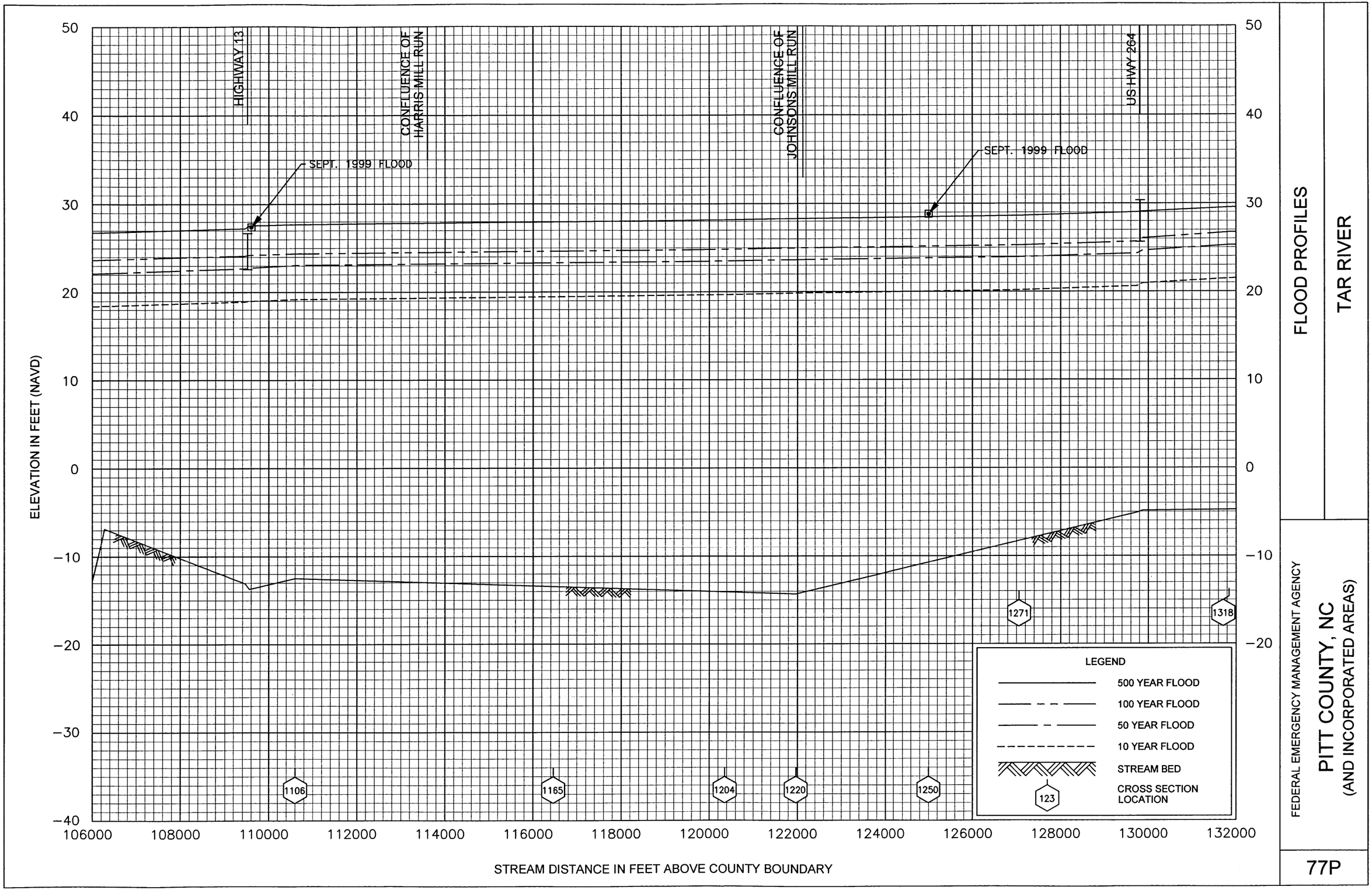
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

76P



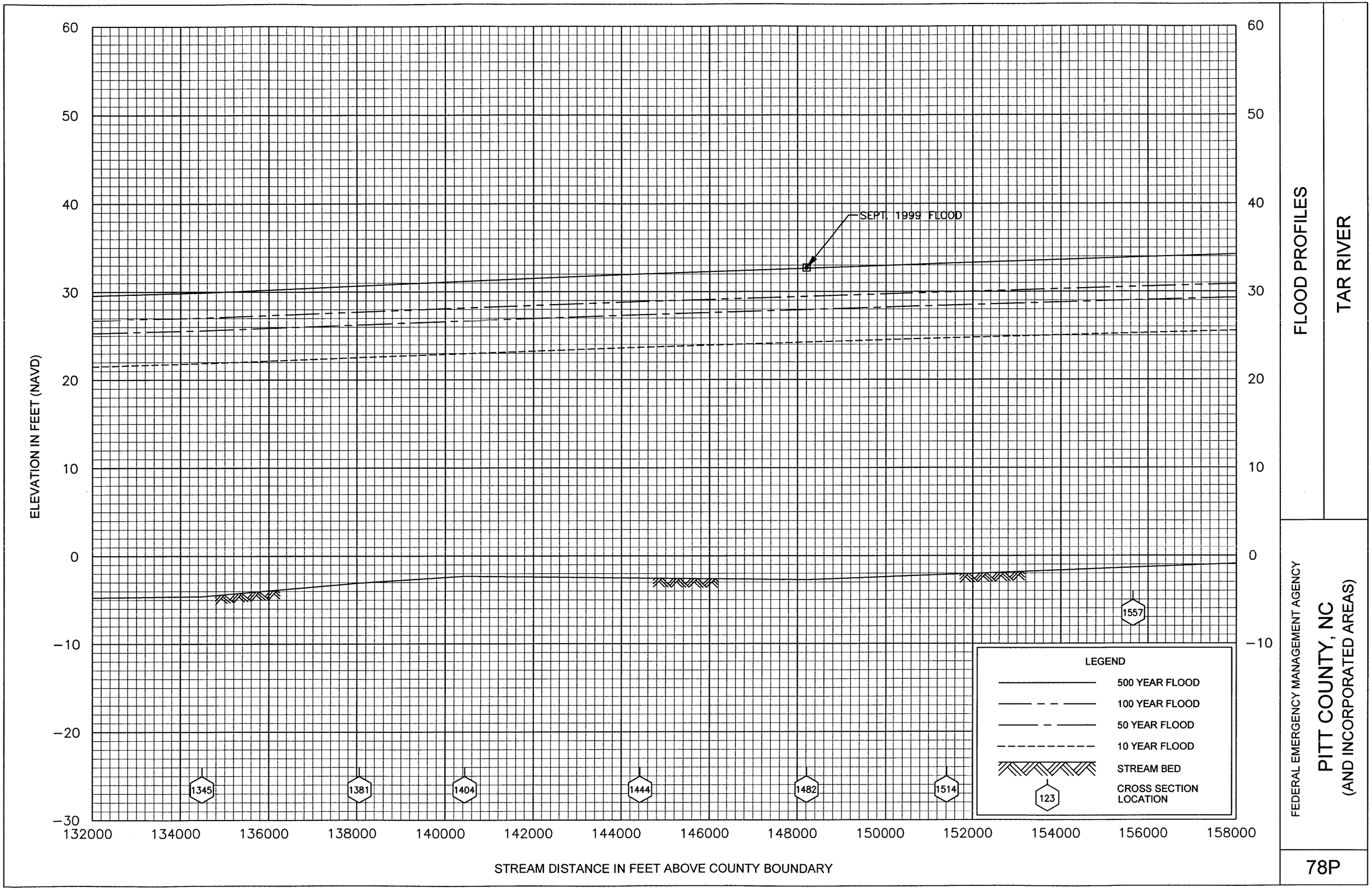
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

77P



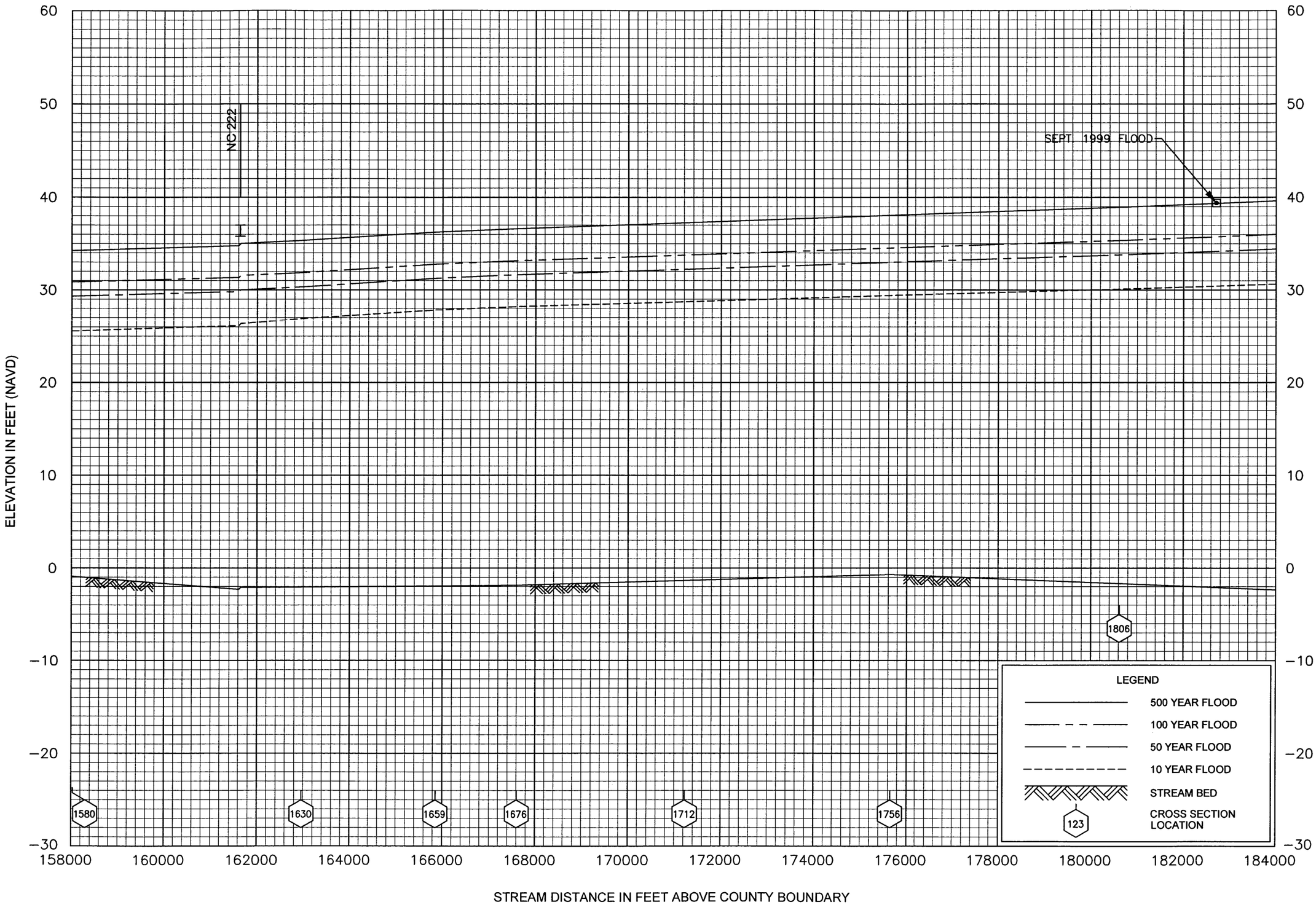
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

78P



FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

79P

ELEVATION IN FEET (NAVD)

70
60
50
40
30
20
10
0
−10
−20

EDGECOMBE COUNTY LINE

1847
1904

184000
186000
188000
190000
192000

STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY

LEGEND

- 500 YEAR FLOOD
- 100 YEAR FLOOD
- 50 YEAR FLOOD
- 10 YEAR FLOOD
- STREAM BED
- 123 CROSS SECTION LOCATION

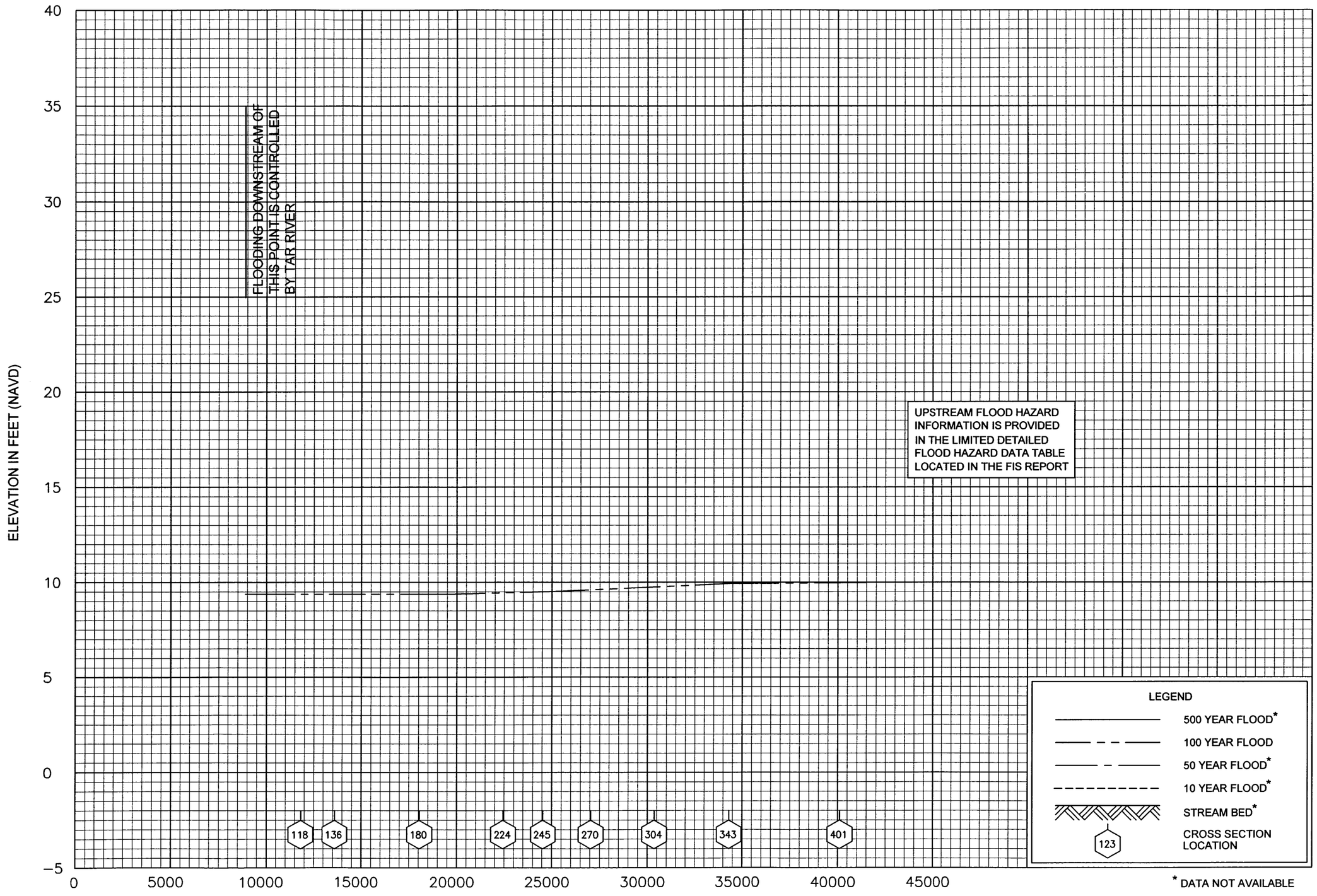
FLOOD PROFILES

TAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

80P



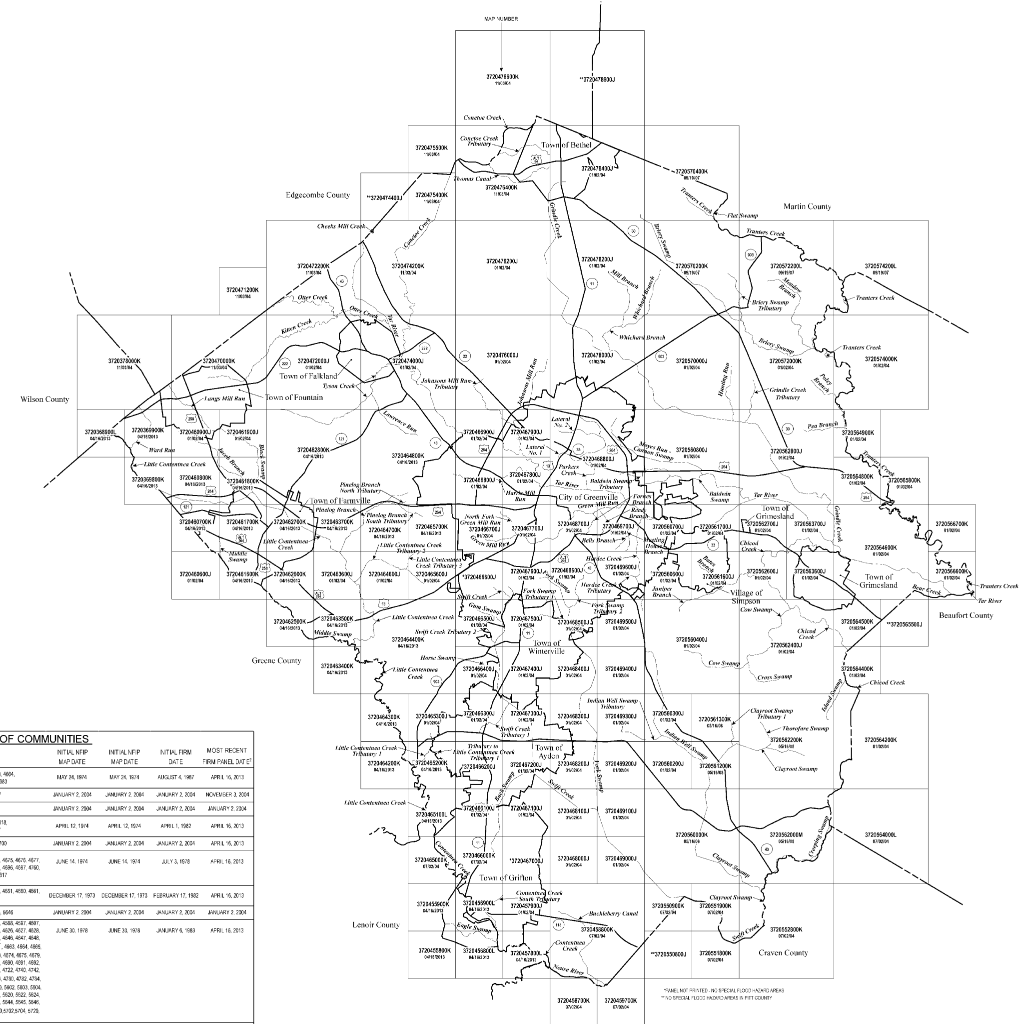
FLOOD PROFILES

TRANTERS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

PITT COUNTY, NC
(AND INCORPORATED AREAS)

81P



MAP DATES

This FIRM Index displays the map date for each FIRM panel at the time that this Index was printed. Because this Index may not be distributed to unaffected communities in subsequent revisions, users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center (MSC) website at http://msc.fema.gov or by calling the FEMA Map Information eXchange (FMIX) at 1-877-336-2627.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

NOTE TO USER

Future revisions to this FIRM Index will only be issued to communities that are located on FIRM panels being revised. This FIRM Index remains valid for FIRM panels dated April 16, 2013 or earlier. Please refer to the "MOST RECENT FIRM PANEL DATE" column in the Listing of Communities table to determine the most recent FIRM Index date for each community.

MAP REPOSITORIES

(Maps available for reference only, not for distribution.)

AYDEN, TOWN OF:
Pitt County Planning Department
1717 West 5th Street
Greenville, North Carolina 27834

BETHEL, TOWN OF:
Pitt County Planning Department
1717 West 5th Street
Greenville, North Carolina 27834

FALKLAND, TOWN OF:
Pitt County Planning Department
1717 West 5th Street
Greenville, North Carolina 27834

FARMVILLE, TOWN OF:
Farmville Town Hall
3672 North Main Street
Farmville, North Carolina 27828

FOUNTAIN, TOWN OF:
Pitt County Planning Department
1717 West 5th Street
Greenville, North Carolina 27834

GREENVILLE, CITY OF:
Greenville City Hall
200 West Fifth Street
Greenville, North Carolina 27834

GRIFTON, TOWN OF:
Pitt County Planning Department
1717 West 5th Street
Town of Grimesland, North Carolina 27834

GRIMESLAND, TOWN OF:
Grimesland Town Hall
7592 Pitt Street
Grimesland, North Carolina 27837

PITT COUNTY (UNINCORPORATED AREAS):
Pitt County Planning Department
1717 West 5th Street
Greenville, North Carolina 27834

SIMPSON, VILLAGE OF:
Pitt County Planning Department
1717 West 5th Street
Greenville, North Carolina 27834

WINTERVILLE, TOWN OF:
Pitt County Planning Department
1717 West 5th Street
Greenville, North Carolina 27834

ATTENTION: The corporate limits shown on this FIRM Index are based on the best information available at the time of publication. As such, they may be more current than those shown on FIRM panels previously issued before April 16, 2013.

LISTING OF COMMUNITIES

COMMUNITY NAME	COMMUNITY NUMBER	LOCATED ON PANEL(S)	INITIAL NFIP MAP DATE	INITIAL NFIP MAP DATE	INITIAL FIRM DATE	MOST RECENT FIRM PANEL DATE[2]
AYDEN, TOWN OF	370189	4652, 4653, 4661, 4662[1], 4663, 4664, 4671, 4672, 4673, 4682, 4683	MAY 24, 1974	MAY 24, 1974	AUGUST 4, 1987	APRIL 16, 2013
BETHEL, TOWN OF	370546	4764, 4766, 4784, 4786[1]	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004	NOVEMBER 3, 2004
FALKLAND, TOWN OF	370666	4720, 4740	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004
FARMVILLE, TOWN OF	370190	4606, 4607, 4616, 4617, 4618, 4626, 4627, 4628, 4637	APRIL 12, 1974	APRIL 12, 1974	APRIL 1, 1982	APRIL 16, 2013
FOUNTAIN, TOWN OF	370631	3699, 3780, 4609, 4619, 4700	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004	APRIL 16, 2013
GREENVILLE, CITY OF	370191	4648, 4657, 4665, 4666, 4667, 4668, 4669, 4675, 4676, 4677, 4678, 4679, 4685, 4686, 4687, 4688, 4695, 4696, 4697, 4760, 4780, 5606, 5607, 5608, 5617	JUNE 14, 1974	JUNE 14, 1974	JULY 3, 1978	APRIL 16, 2013
GRIFTON, TOWN OF	370192	4558, 4559, 4568, 4569, 4578, 4579, 4650, 4651, 4660, 4661, 4670[1], 4671	DECEMBER 17, 1973	DECEMBER 17, 1973	FEBRUARY 17, 1982	APRIL 16, 2013
GRIMESLAND, TOWN OF[3]	370535	5624, 5627, 5636, 5637, 5645, 5646	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004
PITT COUNTY (UNINCORPORATED AREAS)	370372	3689, 3698, 3699, 3780, 4578, 4579, 4587, 4588, 4597, 4607, 4608, 4609, 4616, 4617, 4618, 4619, 4625, 4626, 4627, 4628, 4634, 4635, 4636, 4637, 4642, 4643, 4644, 4646, 4647, 4648, 4651, 4652, 4653, 4656, 4657, 4661, 4662[1], 4663, 4664, 4665, 4666, 4667, 4669, 4670[1], 4671, 4672, 4673, 4674, 4675, 4679, 4680, 4681, 4682, 4683, 4684, 4685, 4688, 4690, 4691, 4692, 4693, 4694, 4695, 4696, 4700, 4712, 4720, 4722, 4740, 4742, 4744[1], 4754, 4755, 4760, 4762, 4764, 4766, 4780, 4782, 4784, 4786[1], 5508[1], 5509, 5518, 5519, 5528, 5600, 5602, 5603, 5604, 5606, 5607, 5608, 5612, 5613, 5616, 5617, 5620, 5622, 5624, 5626, 5627, 5628, 5636, 5637, 5640, 5642, 5644, 5645, 5646, 5648, 5649, 5655[1], 5658, 5666, 5667, 5700,5702,5704, 5720, 5722, 5740, 5742	JUNE 30, 1978	JUNE 30, 1978	JANUARY 6, 1983	APRIL 16, 2013
SIMPSON, VILLAGE OF	370615	5606, 5607, 5616, 5617	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004	JANUARY 2, 2004
WINTERVILLE, TOWN OF	370193	4663, 4664, 4665, 4673, 4674, 4675, 4676, 4684, 4685	JUNE 7, 1974	JUNE 7, 1974	FEBRUARY 27, 1978	JANUARY 2, 2004

[1] PANEL NOT PRINTED
[2] INCLUDES MOST RECENT MAP INDEX
[3] NO SPECIAL FLOOD HAZARD AREAS IDENTIFIED

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

MAP INDEX

FIRM

FLOOD INSURANCE RATE MAP

PITT COUNTY, NORTH CAROLINA AND INCORPORATED AREAS

(SEE LISTING OF COMMUNITIES TABLE)

MAP INDEX

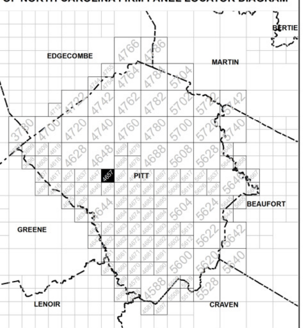
PANELS PRINTED: 3689, 3698, 3699, 3780, 4558, 4559, 4568, 4569, 4578, 4579, 4587, 4588, 4597, 4606, 4607, 4608, 4609, 4616, 4617, 4618, 4619, 4625, 4626, 4627, 4628, 4634, 4635, 4636, 4637, 4642, 4643, 4644, 4646, 4647, 4648, 4650, 4651, 4652, 4653, 4656, 4657, 4660, 4661, 4663, 4664, 4665, 4666, 4667, 4668, 4669, 4671, 4672, 4673, 4674, 4675, 4676, 4677, 4678, 4679, 4680, 4681, 4682, 4683, 4684, 4685, 4686, 4687, 4688, 4690, 4691, 4692, 4693, 4694, 4695, 4696, 4697, 4700, 4712, 4720, 4722, 4740, 4742, 4754, 4755, 4760, 4762, 4764, 4766, 4780, 4782, 4784, 5509, 5518, 5519, 5528, 5600, 5602, 5603, 5604, 5606, 5607, 5608, 5612, 5613, 5616, 5617, 5620, 5622, 5624, 5626, 5627, 5628, 5636, 5637, 5640, 5642, 5644, 5645, 5646, 5648, 5649, 5658, 5666, 5667, 5700, 5702, 5704, 5720, 5722, 5740, 5742

MAP REVISED APRIL 16, 2013

MAP NUMBER 37147CIND0F

State of North Carolina
Federal Emergency Management Agency

OF NORTH CAROLINA FIRM PANEL LOCATOR DIAGRAM



DATUM INFORMATION

ojection used in the preparation of this map was the North Carolina State (FIPSZONE 3200). The **horizontal datum** was the North American Datum of GRS80 ellipsoid. Differences in datum, ellipsoid, projection, or Universal erse Mercator zones used in the production of FIRMS for adjacent tions may result in slight positional differences in map features across tional boundaries. These differences do not affect the accuracy of this All coordinates on this map are in U.S. Survey Feet, where Survey Foot = 1200/3937 Meters.

elevations on this map are referenced to the North American Vertical of 1988 (NAVD 88). These flood elevations must be compared to structure ound elevations referenced to the same **vertical datum**. An average offset n NAVD 88 and the National Geodetic Vertical Datum of 1929 (NGVD 29) en computed for each North Carolina county. This offset was then applied NGVD 29 flood elevations that were not revised during the creation of this de format FIRM. The offsets for each county shown on this FIRM panel are in the vertical datum offset table below. Where a county boundary and a g source with unrevised NGVD 29 flood elevations are coincident, an ual offset has been calculated and applied during the creation of this de format FIRM. See Section 6.1 of the accompanying Flood Insurance report to obtain further information on the conversion of elevations n NAVD 88 and NGVD 29. To obtain current elevation, description, and/or n information for **bench marks** shown on this map, please contact the Carolina Geodetic Survey at the address shown below. You may also the Information Services Branch of the National Geodetic Survey at **(301) 42**, or visit its website at http://www.ngs.noaa.gov.

Carolina Geodetic Survey
est Jones Street
n, NC 27601
33-3836
ww.ncgs.state.nc.us

County Average Vertical Datum Offset Table

County	Vertical Datum Offset (ft)
PITT	-1.15

Example: NAVD 88 = NGVD 29 + (-1.15)

ams listed in the **Flood Hazard Data Table** below were studied by detailed ls using field survey. Other flood hazard data shown on this map may een derived using either a coastal analysis or limited detailed Riverine s. More information on the flooding sources studied by these analyses is ed in the Flood Insurance Study report.

LOOD HAZARD DATA TABLE

n	Stream Station[1]	Flood Discharge (cfs)	1% Annual Chance (100-year) Water-Surface Elevation (feet NAVD 88)	Floodway Width (feet) Left/Right Distance From the Center of Stream to Encroachment Boundary (Looking Downstream) or Total Floodway Width
OG BRANCH				
	21,714	365	71.5	30 / 13
	22,600	365	75.1	9 / 73
	23,600	330	76.6	56 / 11
	24,452	330	78.4	55 / 11
OG BRANCH SOUTH TRIBUTARY				
	1,878	145	78.4	9 / 8
	2,292	145	79.9	11 / 11
	2,813	145	80.4	15 / 11
	3,188	145	80.8	30 / 9

ove mouth

2 450 000 FEET 275000 M 77°29'00" 77°28'30" 276000 M JOINS PANEL 4648 77°28'00" 277000 M 2 457 500 FEET 77°27'30" 2 460 000 FEET

680 000 FEET 35°36'30"

3943000 M DYNAMITE DR 71 72 ZONE AE ZONE AE ZONE X 78 35°36'00" 79 ZONE X ZONE X ZONE X Unnamed Rd 3942000 M JOINS PANEL 4647 35°35'30" 672 500 FEET 3941000 M 35°35'00" 670 000 FEET

3943000 M 677 500 FEET 35°36'00" 3942000 M JOINS PANEL 4657 35°35'30" 3941000 M 35°35'00" 670 000 FEET

77°29'00" 275000 M 2 450 000 FEET 77°28'30" 2 452 500 FEET 276000 M JOINS PANEL 4656 77°28'00" 277000 M 77°27'30" 2 460 000 FEET

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJEC INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT

The 1% annual chance flood (100-year flood), also known as the base flood, is the has a 1% chance of being equaled or exceeded in any given year. The Special Floo Area is the area subject to flooding by the 1% annual chance flood. Areas of Spe Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevati water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevation determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain) depths determined. For areas of alluvial fan flooding, veloc determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annua flood by a flood control system that was subsequently decertified. indicates that the former flood control system is being restored t protection from the 1% annual chance or greater flood.
ZONE A99	Areas to be protected from 1% annual chance flood by a Fede protection system under construction; no Base Flood Elevations deter
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that mus free of encroachment so that the 1% annual chance flood can be carried without s increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance f average depths of less than 1 foot or with drainage areas less than mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and dividing Special Flood Hazard Areas of different B Elevations, flood depths or flood velocities.

513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; e feet*

* Referenced to the North American Vertical Datum of 1988

012	Cross section line
23 - - - 23	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American 1983 (NAD 83)
4275000 M	1000-meter Universal Transverse Mercator grid ticks, zone
1 477 500 FEET	2500-foot grid values: North Carolina State Plane coordina (FIPSZONE 3200, State Plane NAD 83 feet)
BM5510 ×	North Carolina Geodetic Survey bench mark (for more i visit http://www.ncgs.state.nc.us)
BM5510 ⊗	National Geodetic Survey bench mark (for more inform http://www.ngs.noaa.gov)
BM5510	NGS-58 GPS 2-5 cm Vertical Control Marks or Contractor-E NCFMP Bench Marks (for more informati http://www.ncgs.state.nc.us)
● M1.5	River Mile

GRID NORTH

MAP SCALE 1" = 500' (1 : 6,000)

250 0 250 500 750 1,000 FEET

150 0 150 300 METERS

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles, Floodway Data, Limited Detailed Flood Hazard Data, and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of **regulatory floodways** shown on the FIRM for flooding sources studied by detailed methods were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data for flooding sources studied by detailed methods as well as **non-encroachment widths** for flooding sources studied by limited detailed methods are provided in the Flood Insurance Study (FIS) report for this jurisdiction. The FIS report also provides instructions for determining a floodway using non-encroachment widths for flooding sources studied by limited detailed methods.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 4.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

Base map information and geospatial data used to develop this FIRM were obtained from various organizations, including the participating local community(ies), state and federal agencies, and/or other sources. The primary base for this FIRM is aerial imagery acquired by Pitt County. The time period of collection for the imagery is 2005. Information and geospatial data supplied by the local community(ies) that met FEMA base map specifications were considered the preferred source for development of the base map. See geospatial metadata for the associated digital FIRM for additional information about base map preparation.

Base map features shown on this map, such as **corporate limits**, are based on the most up-to-date data available at the time of publication. **Changes in the corporate limits may have occurred since this map was published**. Map users should consult the appropriate community official or website to verify current conditions of jurisdictional boundaries and base map features. This map may contain roads that were not considered in the hydraulic analysis of streams where no new hydraulic model was created during the production of this statewide format FIRM.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

If you have **questions about this map**, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange (FMIX) at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the **North Carolina Floodplain Mapping Program** website at http://www.ncfloodmaps.com, or the **FEMA Map Service Center** website at http://www.msc.fema.gov for information on all related products associated with this FIRM.

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index or visit http://www.ncfloodmaps.com.

EFFECTIVE DATE OF FLOOD INSURANCE RATE MAP PANEL

JANUARY 2, 2004

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

APRIL 16, 2013

For community map revision history prior to statewide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent, the North Carolina Division of Emergency Management or the National Flood Insurance Program at the following phone numbers or websites:

NC Division of Emergency Management
(919) 715-8000 http://www.nccrimecontrol.org/nfip

National Flood Insurance Program
1-800-638-6620 http://www.fema.gov/business/nfip/

NORTH CAROLINA
Cooperating Technical State
FEMA'S COOPERATING TECHNICAL PARTNER

igital Flood Insurance Rate Map (FIRM) was produced through a unique ative partnership between the State of North Carolina and the Federal ency Management Agency (FEMA). The State of North Carolina has ented a long term approach of floodplain management to decrease the ssociated with flooding. This is demonstrated by the State's commitment to oodplain areas at the local level. As a part of this effort, the state of North na has joined in a Cooperating Technical State agreement with FEMA to e and maintain this digital FIRM.

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NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 4657K

FIRM

FLOOD INSURANCE RATE M

NORTH CAROLINA

PANEL 4657

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL
GREENVILLE, CITY OF	370191	4657
PITT COUNTY	370372	4657

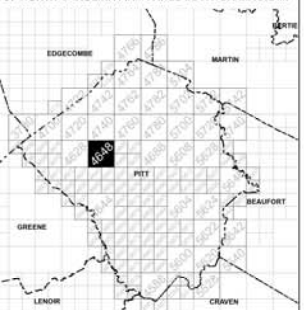
Notice to User: The **Map Number** shown below shoul when placing map orders; the **Community Number** sh should be used on insurance applications for th community.

MAP REVISED APRIL 16, 2013

MAP NUM 3720465

State of North Carolina
Federal Emergency Management A

OF NORTH CAROLINA FIRM PANEL LOCATOR DIAGRAM



DATUM INFORMATION

ojection used in the preparation of this map was the North Carolina State
FIPSZONE 3200). The **horizontal datum** was the North American Datum of
GRS80 ellipsoid. Differences in datum, ellipsoid, projection, or Universal
rse Mercator zones used in the production of FIRMS for adjacent
tions may result in slight positional differences in map features across
rizontal boundaries. These differences do not affect the accuracy of this
All coordinates on this map are in U.S. Survey Feet, where
Survey Foot = 1200/3937 Meters.

elevations on this map are referenced to the North American Vertical
of 1988 (NAVD 88). These flood elevations must be compared to structure
ound elevations referenced to the same **vertical datum**. An average offset
n NAVD 88 and the National Geodetic Vertical Datum of 1929 (NGVD 29)
en computed for each North Carolina county. This offset was then applied
NGVD 29 flood elevations that were not revised during the creation of this
te format FIRM. The offsets for each county shown on this FIRM panel are
n the vertical datum offset table below. Where a county boundary and a
source with unrevised NGVD 29 flood elevations are coincident, an
al offset has been calculated and applied during the creation of this
te format FIRM. See Section 6.1 of the accompanying Flood Insurance
report to obtain further information on the conversion of elevations
n NAVD 88 and NGVD 29. To obtain current elevation, description, and/or
information for **bench marks** shown on this map, please contact the
Carolina Geodetic Survey at the address shown below. You may also
the Information Services Branch of the National Geodetic Survey at **(301)**
42, or visit its website at http://www.ngs.noaa.gov.

Carolina Geodetic Survey
st Jones Street
, NC 27601
33-3836
ww.ngs.state.nc.us

County Average Vertical Datum Offset Table

County	Vertical Datum Offset (ft)
PITT	-1.15

Example: NAVD 88 = NGVD 29 + (-1.15)

ams listed in the **Flood Hazard Data Table** below were studied by detailed
ls using field survey. Other flood hazard data shown on this map may
been derived using either a coastal analysis or limited detailed Riverine
s. More information on the flooding sources studied by these analyses is
ed in the Flood Insurance Study report.

LOOD HAZARD DATA TABLE

Stream Station	Flood Discharge (cfs)	1% Annual Chance (100-year) Water-Surface Elevation (Feet NAVD 88)	Floodway Width (Feet) Left/Right Distance From the Center of Stream to Encroachment Boundary (Looking Downstream) or Total Floodway Width
OG BRANCH			
14,000[1]	1,267	60.6	45 / 160
14,800[1]	1,050	60.9	54 / 142
15,600[1]	1,050	61.3	90 / 35
16,400[1]	705	62.5	126 / 58
17,200[1]	705	62.8	73 / 104
18,000[1]	705	63.9	74 / 113
18,800[1]	705	64.6	238 / 13
OG BRANCH NORTH TRIBUTARY			
708[1]	478	65.7	47 / 81
989[1]	478	66.1	111 / 45
1,600[1]	478	66.7	9 / 116
1,938[1]	478	67.3	11 / 50
2,400[1]	478	68.3	11 / 78
2,800[1]	478	68.8	11 / 49
3,128[1]	478	70.5	36 / 20
IVER			
140,441[2]	53,100	28.2	2000 / 310
144,427[2]	53,100	28.9	2100 / 685

ove mouth [2] Elevation includes backw ater effects from Pineleg Branch

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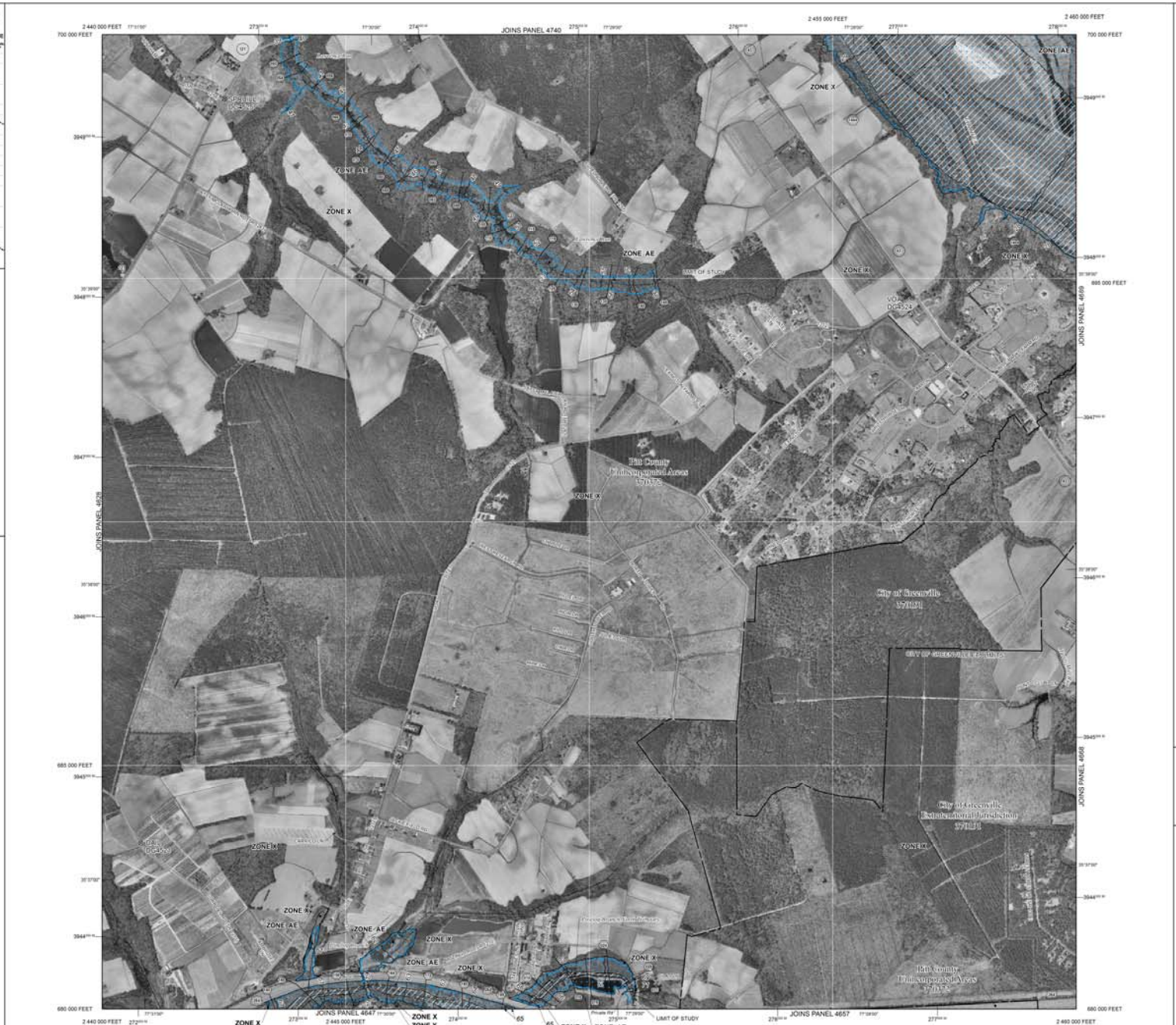
ative partnership between the State of North Carolina and the Federal
ency Management Agency (FEMA). The State of North Carolina has
ented a long term approach of floodplain management to decrease the
associated with flooding. This is demonstrated by the State's commitment to
oodplain areas at the local level. As a part of this effort, the state of North
a has joined in a Cooperating Technical State agreement with FEMA to
e and maintain this digital FIRM.

www.ncfloodmaps.com



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles, Floodway Data, Limited Detailed Flood Hazard Data, and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of **regulatory floodways** shown on the FIRM for flooding sources studied by detailed methods were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data for flooding sources studied by detailed methods as well as **non-encroachment widths** for flooding sources studied by limited detailed methods are provided in the Flood Insurance Study (FIS) report for this jurisdiction. The FIS report also provides instructions for determining a floodway using non-encroachment widths for flooding sources studied by limited detailed methods.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 4.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

Base map information and geospatial data used to develop this FIRM were obtained from various organizations, including the participating local community(ies), state and federal agencies, and/or other sources. The primary base for this FIRM is aerial imagery acquired by Pitt County. The time period of collection for the imagery is 2005. Information and geospatial data supplied by the local community(ies) that met FEMA base map specifications were considered the preferred source for development of the base map. See geospatial metadata for the associated digital FIRM for additional information about base map preparation.

Base map features shown on this map, such as **corporate limits**, are based on the most up-to-date data available at the time of publication. **Changes in the corporate limits may have occurred since this map was published.** Map users should consult the appropriate community official or website to verify current conditions of jurisdictional boundaries and base map features. This map may contain roads that were not considered in the hydraulic analysis of streams where no new hydraulic model was created during the production of this statewide format FIRM.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

If you have **questions about this map**, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange (FMIX) at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the **North Carolina Floodplain Mapping Program** website at http://www.ncfloodmaps.com, or the **FEMA Map Service Center** website at http://www.msc.fema.gov for information on all related products associated with this FIRM.

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index or visit http://www.ncfloodmaps.com

EFFECTIVE DATE OF FLOOD INSURANCE RATE MAP PANEL
JANUARY 2, 2004

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
APRIL 16, 2013

For community map revision history prior to statewide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent, the North Carolina Division of Emergency Management or the National Flood Insurance Program at the following phone numbers or websites:

NC Division of Emergency Management
(919) 715-8000 http://www.ncdcmecontrol.org/nfip

National Flood Insurance Program
1-800-638-6620 http://www.fema.gov/business/nfip

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJE
INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT

The 1% annual chance flood (100-year flood), also known as the base flood, is the
has a 1% chance of being equaled or exceeded in any given year. The Special Floo
Area is the area subject to flooding by the 1% annual chance flood. Areas of Spe
Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevatio
water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevation determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood E
determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain)
depths determined. For areas of alluvial fan flooding, veloc
determined.
ZONE AR Special Flood Hazard Area formerly protected from the 1% anna
flood by a flood control system that was subsequently decertified.
indicates that the former flood control system is being restored t
protection from the 1% annual chance or greater flood.
ZONE A99 Areas to be protected from 1% annual chance flood by a Fede
protection system under construction; no Base Flood Elevations dete
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood E
determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that mus
free of encroachment so that the 1% annual chance flood can be carried without s
increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance f
average depths of less than 1 foot or with drainage areas less than
mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and
dividing Special Flood Hazard Areas of different B
Elevations, flood depths or flood velocities.
513 Base Flood Elevation line and value; elevation in feet*
(EL 987) Base Flood Elevation value where uniform within zone; e
feet*

* Referenced to the North American Vertical Datum of 1988

Cross section line
Transect line
97°07'30", 32°22'30" Geographic coordinates referenced to the North Americar
1983 (NAD 83)
4275000 mN 2000-meter Universal Transverse Mercator grid ticks, zone
1 477 500 FEET 5000-foot grid values: North Carolina State Plane coordin
(FIPSZONE 3200, State Plane NAD 83 feet)
BM5510 North Carolina Geodetic Survey bench mark (for more i
x4 http://www.ncgs.state.nc.us)
BM5510 National Geodetic Survey bench mark (for more infor
http://www.ngs.noaa.gov)
BM5510 NGS-58 GPS 3-D or Vertical Control Marks or Contractor-
NCPHP Bench Marks (for more informati
http://www.ncgs.state.nc.us)
M1.5 River Mile

GRID NORTH
MAP SCALE 1" = 1,000' (1 : 12,000)
500 0 500 1,000 1,500 2,000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 4648K

FIRM
FLOOD INSURANCE RATE M
NORTH CAROLINA

PANEL 4648
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL
GREENVILLE, CITY OF	370191	4648
PITT COUNTY	370372	4648

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the community.

MAP REVISED APRIL 16, 2013

MAP NUM 3720464

State of North Carolina
Federal Emergency Management A