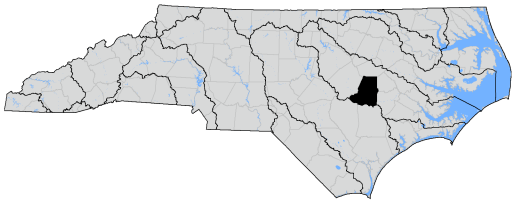
PRELIMINARY FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

A Report of Flood Hazards in

WAYNE COUNTY, NORTH CAROLINA AND INCORPORATED AREAS



Community Name	Community Number
CITY OF GOLDSBORO	370255
SEYMOUR JOHNSON AIR FORCE BASE	370255
TOWN OF EUREKA	370563
TOWN OF FREMONT	370492
TOWN OF MOUNT OLIVE	370369
TOWN OF PIKEVILLE	370429
TOWN OF SEVEN SPRINGS	370392
VILLAGE OF WALNUT CREEK	370435
WAYNE COUNTY	370254

NORTH CAROLINA
Cooperating Technical State
FEMA'S COOPERATING TECHNICAL PARTNER

PRELIMINARY: 4/30/2014
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www.fema.gov and 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.

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:

Date	Reason
12/2/2005	Initial Countywide FIS Report Effective Date

This FIS has been produced as part of the North Carolina Floodplain Mapping Program. Wayne 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 Assistance Center 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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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 Wayne County and the jurisdictions therein (hereinafter referred to collectively as Wayne 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 Wayne County, North Carolina, including the jurisdictions listed in Table 1.

Table 1 - Jurisdictions in Wayne County

Community	Included in this FIS	If Not Included, Location of Flood Hazard/Flood Insurance Rate Data
CITY OF GOLDSBORO	Yes	*
SEYMOUR JOHNSON AIR FORCE BASE	Yes	*
TOWN OF EUREKA	Yes	*
TOWN OF FREMONT	Yes	*
TOWN OF MOUNT OLIVE	Yes	*
TOWN OF PIKEVILLE	Yes	*
TOWN OF SEVEN SPRINGS	Yes	*
VILLAGE OF WALNUT CREEK	Yes	*
WAYNE COUNTY	Yes	*

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 and/or Water-surface elevation rasters.

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.

2.0 Floodplain Management Applications

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.

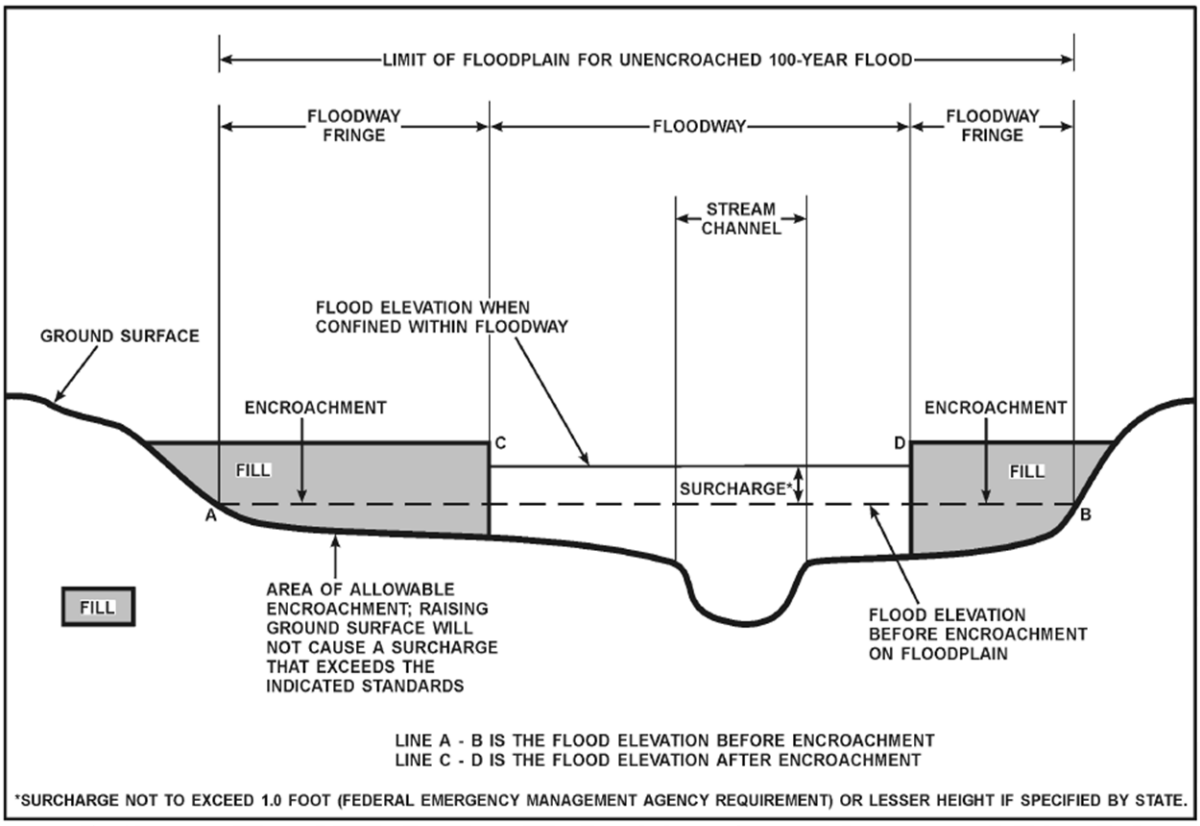

Figure 1- Floodway Schematic

2.3 Base Flood Elevations

The hydraulic characteristics of flooding sources were analyzed to provide estimates of the elevations of floods of the selected recurrence intervals. The Base Flood Elevation (BFE) is the elevation of the 1% annual chance flood. These BFEs are most commonly rounded to the whole foot, as shown on the FIRM, but in certain circumstances or locations they may be rounded to 0.1 foot. Cross section lines shown on the FIRM may also be labeled with the BFE rounded to 0.1 foot. Whole-foot BFEs derived from engineering analyses that apply to coastal areas, areas of ponding, or other static areas with little elevation change may also be shown at selected intervals on the FIRM. Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. BFEs are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM.

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.

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 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.
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.

3.1 Coastal Barrier Resources System

This section is not applicable to this FIS project.

4.0 Area Studied

Wayne County is found in the Coastal Plain region of North Carolina. It is surrounded by Wilson County to the north, Greene and Lenoir Counties to the east, Duplin County to the south, Sampson County to the southwest, and Johnston County to the west.

4.1 Basin Description

Table 3, "Basin Description" contains a description of the characteristics of the HUC-8 sub-basins within which each community falls. The table includes the main flooding sources within each basin, a brief description of the basin, and its area.

Table 3 - Basin Description

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description	HUC Area (square miles)
Contentnea	03020203	Contentnea Creek	The Contentnea Creek Basin begins in southern Franklin County and drains southeast through significant portions of Greene, Nash, Pitt, Wayne, and Wilson Counties. The basin ends at the confluence with Neuse River in Craven County.	1,008
Middle Neuse	03020202	Neuse River	The Middle Neuse River Basin headwaters are in Wayne and Pitt Counties. The basin also drains significant portions of Beaufort, Greene, Jones, and Lenoir Counties and ends near New Bern, North Carolina in Craven County.	1,065
Northeast Cape Fear	03030007	Northeast Cape Fear River	The Northeast Cape Fear River Basin begins in the northeastern region of Sampson County and along the Wayne/Duplin County boundary. The basin then drains south through Pender County, ending at the Cape Fear River in New Hanover County.	1,741
Upper Neuse	03020201	Neuse River	The Upper Neuse Basin is initially drained by the Eno and Flat Rivers in Orange County. Once they confluence near Falls Lake, the basin is then drained by the Neuse River which flows through Durham, Wake, and Johnston Counties.	2,406

4.2 Principal Flood Problems

Table 4, "Principal Flood Problems" contains a list of principal flooding problems in Wayne County.

Table 4 - Principal Flood Problems

Flooding Source	Problem
All Sources	Low-lying areas of Wayne County are subject to periodic flooding from the Neuse River, Northeast Cape Fear River, Thunder Swamp, Lee Branch, Little River, Nahunta Swamp, Stoney Creek, the Slough, Walnut Creek, Walnut Creek Tributary B, and other streams
All Sources	Low-lying areas of Wayne County are subject to periodic flooding from the Neuse River, Northeast Cape Fear River, Thunder Swamp, Lee Branch, Little River, Nahunta Swamp, Stoney Creek, the Slough, Walnut Creek, Walnut Creek Tributary B, and other streams included in this study. The most severe flooding results from heavy rains from tropical storms or large weather fronts, although smaller streams can flood from heavy thunderstorms.

4.3 Historic Flood Elevations

Hurricane Floyd

(9/16/1999)

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. Data from the USGS indicate that eleven of their stream gage monitoring sites in North Carolina (Ahoskie, Rocky Mount, Hilliardston, White Oak, Enfield, Tarboro, Lucama, Hookerton, Trenton, Chinquapin, and Freeland) exceeded 0.2% annual chance flood levels due to Floyd. Total losses in North Carolina approach $5 billion with an estimated $3.5 billion in damages to North Carolina homes, businesses, roads, and infrastructure. Floyd passed relatively close to the entire U.S. east coast, justifying hurricane warnings from Florida to Massachusetts and requiring an estimated two million people to evacuate. The last hurricane to require warnings for as large a stretch of coastline was Hurricane Donna in 1960.

Hurricane Bonnie

(8/26/1998)

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.

Hurricane Fran

(9/5/1996)

The landfall location of Fran 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.

Hurricane Bertha

(7/12/1996)

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.

Hurricane Gloria

(9/26/1985)

The landfall location of Gloria was Cape Hatteras, with 90 knot winds and a storm surge of approximately 6-8 feet.

Hurricane Diana

(9/13/1984)

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.

Table 5, “Historic Flood Elevations”, lists selected flooding sources in Wayne 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 5 - Historic Flood Elevations

Flooding Source/Tropical Storm	Location Description	Approx. Stream Station	Historic Peak (Feet NAVD 88)	Date	Approximate Recurrence Interval (in years)
Contentnea Creek / Hurricane Floyd	300 feet southeast of intersection of Saw Mill and Tick Bite Road	17467	27.3	9/1/1999	500
Contentnea Creek / Hurricane Floyd	Unknown	*	31.6	9/1/1999	100
Little River / Hurricane Floyd	4811 NC 231, Zebulon	334089	202.8	9/1/1999	100
Mill Creek (South) / Hurricane Floyd	1534 Olvens Grove Road, Four Oak	12558	151.5	9/1/1999	100
Mill Creek North / Hurricane Floyd	845 Buck Swamp Road	2700	88.0	9/1/1999	500
Neuse River / Hurricane Floyd	Downstream face of Main Street	591830	54.9	9/1/1999	50
Neuse River / Hurricane Floyd	Downstream face of NC 111	636585	61.7	9/1/1999	50
Neuse River / Hurricane Floyd	Upstream face of SR 1915	694195	71.1	9/1/1999	50
Neuse River / Hurricane Floyd	160 feet Southeast of Bryan Boulevard	710650	72.8	9/1/1999	50
Northeast Cape Fear River / Hurricane Floyd	Deep Bottom Road	433108	32.8	9/1/1999	500
Northeast Cape Fear River / Hurricane Floyd	Approximately 5.3 miles downstream of Deep Bottom Road	404913	35.2	9/1/1999	500
Northeast Cape Fear River / Hurricane Floyd	Window	455062	41.4	9/1/1999	500
Northeast Cape Fear River / Hurricane Floyd	At NC Highway 24 Westbound	532819	49.5	9/1/1999	500
Northeast Cape Fear River / Hurricane Floyd	At NC Highway 11	600379	68.3	9/1/1999	500
Northeast Cape Fear River / Hurricane Floyd	John Grady Road	624313	77.3	9/1/1999	500
Northeast Cape Fear River / Hurricane Floyd	Outlaw Road	640381	84.1	9/1/1999	500
Richland Creek / Hurricane Floyd	808 N. Berkley Boulevard	6642	100.7	9/1/1999	500
Stoney Creek / Hurricane Floyd	Slocumb Street	9910	74.4	9/1/1999	500
Stoney Creek / Hurricane Floyd	2011 Rose Street	22559	86.7	9/1/1999	500

* 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).

Table 6, “Non-Levee Flood Protection Measures”, lists the flood protection measures undertaken to mitigate flood damage in Wayne County.

Table 6 - Non-Levee Flood Protection Measures

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
Bear Creek	NP	CHANNEL	On Bear Creek that includes several small reservoirs and channel improvements. This project provides significant protection from the 10% and 2% annual chance floods but little protection from the 1% and 0.2% annual chance floods.	Watershed Improvement Project
Falls Lake	NP	DAM	Located upstream of Wayne County near Raleigh to lower the 1% annual chance flood elevation by approximately 1 foot	Falls Lake
Neuse River Cut-Off	NP	CHANNEL	Across a bend in the Neuse River southwest of Goldsboro	Cutoff channel
The Slough	NP	CHANNEL	Constructed by the Town of Pikeville on portions of the Slough to improve local drainage	Channel Improvements

N/A - Not Applicable

Table 7, “Levees” is not applicable in Wayne County.

4.5 Scope of Study

For this map maintenance revision, a scoping meeting was held in Wayne 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 Wayne County and posted to the State’s website at www.ncfloodmaps.com.

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 Wayne 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 Water-surface elevation rasters and/or the FIRM.

Table 8P, “Scope of Revisions: Revised or New Detailed Study -Preliminary”, lists flooding sources that were newly studied by detailed methods or were previously studied by detailed methods and had a change in backwater elevation due to flooding effects from a newly studied flooding source.

Table 8P - Scope of Revisions: Revised or New Detailed Study - Preliminary

Source	Riverine Sources		Affected Communties
	From	To	
Beaverdam Creek	At confluence with Neuse River	Approximately 390 feet upstream of Rosewood Road	Wayne County
Big Ditch	At confluence with Neuse River	Approximately 150 feet upstream of Royal Ave	City Of Goldsboro Seymour Johnson Air Force Base
Billy Bud Creek[1]	Confluece with Stoney Creek	Approximately 700 feet upstream of the confluence with Stoney Creek	City Of Goldsboro Seymour Johnson Air Force Base
Brooks Swamp	At confluence with Thoroughfare Swamp	Approximately 360 feet upstream Railroad	Wayne County
Brooks Swamp Tributary	At confluence with Brooks Swamp	Approximately 1.0 mile upstream of Brooks Swamp	Wayne County
Buck Swamp	The Wayne/Duplin County boundary	Approximately 100 feet upstream of the confluence of Pasture Branch River	Town Of Pikeville Wayne County
Burden Creek	At confluence with Moccasin Creek	Approximately 165 feet upstream of Old Smithfield Rd	Wayne County
Burnt Mill Branch	At confluence with Sleepy Creek	Approximately 0.5 mile upstream of Eagle Nest Road	Wayne County
Falling Creek	At confluence with Neuse River	Just upstream of Dobberville Rd	Wayne County
Howell's Branch	At the confluence with Stoney Creek	Approximately 940 feet upstream of Patetown Road	City Of Goldsboro Seymour Johnson Air Force Base
Lee Branch	At confluence with Brooks Swamp	Approximately 200 feet upstream of Baker Chapel Church Road	Town Of Mount Olive Wayne County
Little River	At confluence with Neuse River	Approximately 1.0 mile upstream of the Wayne/Johnston County Boundary	City Of Goldsboro Seymour Johnson Air Force Base Wayne County

Table 8P - Scope of Revisions: Revised or New Detailed Study - Preliminary

Source	Riverine Sources		Affected Communties
	From	To	
Little River	At confluence with Neuse River	Wayne/Johnston County Boundary	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Mill Branch	The confluence with Mill Creek (South)	Approximate 2.4 miles upstream of Harper House Road	Wayne County
Mill Creek (South)	The confluence with Neuse River	Approximate 0.8 mile upstream of confluence of Stone Creek	Wayne County
Mill Creek North[1]	Confluence with Buck Swamp	Approximately 5,000 feet upstream of the confluence with Buck Swamp	Town Of Pikeville Wayne County
Mills Creek	At the confluence with West Bear Creek	Approximately 1000 feet U/S of US 13	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Moccasin Creek	Approximately 3,425 feet downstream of Buckleberry Road	Approximately 0.4 mile upstream of U.S. Highway 70	Wayne County
Moccasin Creek	At confluence with Neuse River	Wayne/Johnston County boundary	Wayne County
Nahunta Swamp	Approximately 560 feet downstream of Big Daddy's Road	Approximately 0.14 miles upstream of NC Highway 581	Town Of Pikeville Wayne County
Neuse River	The Johnston/Wayne County boundary	Just downstream of Mial Plantation Road	Wayne County
Northeast Cape Fear River	Approximately 0.47 mile d/s of Bennets Bridge Road	Approximately 0.39 mile u/s of the confluence of Pasture Branch River	Town Of Mount Olive Wayne County
Pasture Branch River	At confluence of Northeast Cape Fear River	Approximately 110 feet u/s of Bell Avenue	Town Of Mount Olive
Peacock Branch	At confluence with Buck Swamp	Approximately 170 feet upstream of Nor-Am Road	Wayne County
Reedy Branch	At the confluence with Stoney Creek	At Wayne Memorial Drive	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Sleepy Creek	At confluence with Neuse River	Approximately 200 feet upstream of Eagle Nest Road	Wayne County
Slough Tributary	At confluence with The Slough	Approximately 0.5 miles upstream of Mount Carmel Church Road	Wayne County
Stoney Creek	At the confluence with the Neuse River	Just downstream of Stoney Creek Church Road	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Stoney Creek Tributary	At the confluence with Stoney Creek	At upstream of Stoney Creek Church Road	Wayne County
The Slough	At confluence with Nahunta Swamp	Approximately 0.3 miles upstream of South Mill Street	Town Of Pikeville Wayne County
Thoroughfare Swamp	At the confluence with Falling Creek	Approx 500 ft upstream of Grantham School Rd	Wayne County
Thunder Swamp	At the confluence with Thoroughfare Swamp	At the downstream side of Old Smith Chapel Rd	Town Of Mount Olive Wayne County
Thunder Swamp Tributary	At the confluence with Thoroughfare Swamp	Approximately 200 feet upstream of High Way 55	Town Of Mount Olive
Walnut Creek	At the confluence with Neuse River	Approximately 640 feet U/S of East US 70 Highway	Village Of Walnut Creek Wayne County
Walnut Creek Tributary A	At the confluence with Walnut Creek	At U/S South Beston Road	Village Of Walnut Creek Wayne County
Walnut Creek Tributary B	At the confluence with Walnut Creek	At U/S East US 70 Highway	Village Of Walnut Creek Wayne County
Walnut Creek Tributary C	At the confluence with Walnut Creek	At U/S of Lake Wackena Road	Village Of Walnut Creek Wayne County
West Bear Creek	At the confluence with Bear Creek	Approximately 240' U/S of North US 13 Highway	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Yellow Marsh Branch	At confluence with Thoroughfare Swamp	Approximately 200 ft upstream of Old Mount Olive Highway	Wayne County

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

Table 9P, "Scope of Revisions: Redelineated - Preliminary" is not applicable in Wayne County.

Table 10P, "Scope of Revisions: Limited Detailed - Preliminary", lists flooding sources that were newly studied by limited detailed methods or were previously studied by limited detailed methods and had a change in backwater elevation due to flooding effects from a newly studied flooding source.

Table 10P - Scope of Revisions: Limited Detailed - Preliminary

Source	Riverine Sources		Affected Communties
	From	To	
Beaverdam Creek	Approximately 390 feet upstream of Rosewood Road	Approximately 0.19 mil upstream of Oakland Church Rd	Wayne County

Table 10P - Scope of Revisions: Limited Detailed - Preliminary

Source	Riverine Sources		Affected Communties
	From	To	
Beaverdam Creek 1[1]	Confluence with Falling Creek	Approximately 1500 feet upstream of confluence	Wayne County
Big Ditch	Approximately 150 feet upstream of Royal Ave	Approximately 460 feet upstream of Frank St	City Of Goldsboro Seymour Johnson Air Force Base
Billy Bud Creek	Approximately 0.4 mile upstream of South Harding Drive	Approximately 0.7 mile upstream of North Berkeley Blvd	City Of Goldsboro Seymour Johnson Air Force Base
Charles Branch	Approximately 3,500' d/s of Rosewood Rd.	Approximately 550 feet upstream of Community Dr.	Wayne County
Eastern Tributary to Charles Branch	At confluence with Charles Branch	Approximately 200 feet upstream of Braswell Road	Wayne County
Falling Creek	Just upstream of Dobberville Rd	Approximately 1000 feet upstream of S Jordans Chapel Rd	Wayne County
Great Swamp Tributary 2	Approximately 0.3 miles downstream of Edmundson Springs Rd.	Approximately 0.2 miles upstream of Edmundson Springs Rd.	Town Of Fremont
Howell's Branch	Approximately 940 feet upstream of Patetown Road	Approximately 1700 feet upstream of Patetown Road	City Of Goldsboro Seymour Johnson Air Force Base
Jumping Run Branch[1]	Confluence with Northeast Cape Fear River	Approximately 2,500 feet upstream of the confluence with Northeast Cape Fear River	Wayne County
Lee Branch	Approximately 200 feet upstream of Baker Chapel Church Road	Approximately 0.33 miles upstream of Hatchs Hill Ln	Town Of Mount Olive
Nahunta Swamp	Approximately 0.14 miles upstream of NC Highway 581	Approximately 0.9 miles upstream of NC Highway 581	Wayne County
Northeast Cape Fear River Tributary[1]	Confluence with Northeast Cape Fear River	Approximetely 2,000 feet above the confluence with Northeast Cape Fear River	Wayne County
Richland Creek	Approximately 650 feet upstream of US HWY-70	Just downstream of Gateway Dr.	City Of Goldsboro Seymour Johnson Air Force Base
Stoney Creek	Just downstream of Stoney Creek Church Rd	Approximately 0.6 miles upstream of Stoney Creek Church Rd	Wayne County
Stoney Creek Tributary	At upstream of Stoney Creek Church Road	Approximately 0.5 miles upstream of Stoney Creek Church Road	Wayne County
Thoroughfare Swamp	Approximately 500 ft upstream of Grantham School Rd	Approximately 1.73 miles upstream of Odom Mill Rd	Wayne County
Thunder Swamp Tributary	Approximately 200 feet upstream of High Way 55	Approximately 0.77 miles upstream of High Way 55	Town Of Mount Olive
Unnamed Tributary to Little River	At confluence with Little River	Approximately 1.5 miles upstream of Claridge Nursery Road	Wayne County
Yellow Marsh Branch	Approximately 200 ft upstream of Old Mount Olive Highway	Approximately 0.35 miles upstream of Old Mount Olive Highway	Wayne County

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

Table 8, "Flooding Sources Studied by Detailed Methods", lists all flooding sources within the county that were studied by detailed methods for this FIS and previous FISs.

Table 8 - Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communties
	From	To	
Bear Creek	Approximately 1,500 feet downstream of Parkstown Road	Approximately 560 feet upstream of Apple Tree Road (SR 1215)	Wayne County
Bear Creek	At the confluence with Neuse River	At the Lenoir/Wayne County boundary	Wayne County
Beaverdam Creek	At confluence with Neuse River	Approximately 390 feet upstream of Rosewood Road	Wayne County
Big Ditch	At confluence with Neuse River	Approximately 150 feet upstream of Royal Ave	City Of Goldsboro Seymour Johnson Air Force Base
Billy Bud Creek	At confluence with Stoney Creek	Approximately 0.4 mile upstream of South Harding Drive	City Of Goldsboro Seymour Johnson Air Force Base
Brooks Swamp	At confluence with Thoroughfare Swamp	Approximately 360 feet upstream Railroad	Wayne County
Brooks Swamp Tributary	At confluence with Brooks Swamp	Approximately 1.0 mile upstream of Brooks Swamp	Wayne County
Buck Swamp	The Wayne/Duplin County boundary	Approximately 100 feet upstream of the confluence of Pasture Branch River	Town Of Pikeville Wayne County
Burden Creek	At confluence with Moccasin Creek	Approximately 165 feet upstream of Old Smithfield Rd	Wayne County
Burnt Mill Branch	At confluence with Sleepy Creek	Approximately 0.5 mile upstream of Eagle Nest Road	Wayne County
Contentnea Creek	The Greene/Wilson County boundary	Approximately 0.3 mile upstream of the confluence of Little Swamp	Wayne County

Table 8 - Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communties
	From	To	
Falling Creek	At confluence with Neuse River	Just upstream of Dobberville Rd	Wayne County
Howell's Branch	At the confluence with Stoney Creek	Approximately 940 feet upstream of Patetown Road	City Of Goldsboro Seymour Johnson Air Force Base
Lee Branch	At confluence with Brooks Swamp	Approximately 200 feet upstream of Baker Chapel Church Road	Town Of Mount Olive Wayne County
Little River	At confluence with Neuse River	Approximately 1.0 mile upstream of the Wayne/Johnston County Boundary	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Little River	At confluence with Neuse River	Wayne/Johnston County Boundary	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Little River	The Johnston/Wayne County boundary	Approximately 1,600 feet upstream of State Highway 42	Wayne County
Mill Branch	The confluence with Mill Creek (South)	Approximate 2.4 miles upstream of Harper House Road	Wayne County
Mill Creek (South)	The confluence with Neuse River	Approximate 0.8 mile upstream of confluence of Stone Creek	Wayne County
Mill Creek North	At confluence with Little River	Approximately 0.51 mile upstream of Pikeville Princeton Road	Town Of Pikeville Wayne County
Mill Creek North Tributary 1	At confluence with Mill Creek North	Approximately 1.12 miles upstream of confluence with Mill Creek North	Wayne County
Mill Creek North Tributary 2	At confluence with Mill Creek North	Approximately 0.47 mile upstream of Hinnant Road	Wayne County
Mill Creek North Tributary 3	At confluence with Mill Creek North	Approximately 0.43 mile upstream of Nahunta Road	Wayne County
Mill Creek North Tributary 4	At confluence with Mill Creek North	Approximately 550 feet upstream of Nahunta Road	Town Of Pikeville
Mill Creek North Tributary 5	At confluence with Mill Creek North	Approximately 0.3 mile upstream of Nahunta Road	Town Of Pikeville
Mills Creek	At the confluence with West Bear Creek	Approximately 1000 feet U/S of US 13	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Moccasin Creek	Approximately 3,425 feet downstream of Buckleberry Road	Approximately 0.4 mile upstream of U.S. Highway 70	Wayne County
Moccasin Creek	At confluence with Neuse River	Approximately 3,425 feet downstream of Buckleberry Road	Wayne County
Nahunta Swamp	Approximately 560 feet downstream of Big Daddy's Road	Approximately 0.14 miles upstream of NC Highway 581	Town Of Pikeville Wayne County
Nahunta Swamp	The confluence with Contentnea Creek	The Greene/ Wayne County boundary	Wayne County
Neuse River	Craven/Lenoir/Pitt County boundary	Wayne/Lenoir County boundary	Wayne County
Neuse River	The Johnston/Wayne County boundary	Just downstream of Mial Plantation Road	Wayne County
Neuse River	Wayne/Lenoir County boundary	Wayne/Johnston County boundary	City Of Goldsboro Seymour Johnson Air Force Base Town Of Seven Springs Wayne County
Northeast Cape Fear River	Approximately 0.47 mile d/s of Bennets Bridge Road	Approximately 0.39 mile u/s of the confluence of Pasture Branch River	Town Of Mount Olive Wayne County
Pasture Branch River	At confluence of Northeast Cape Fear River	Approximately 110 feet u/s of Bell Avenue	Town Of Mount Olive
Peacock Branch	At confluence with Buck Swamp	Approximately 170 feet upstream of Nor-Am Road	Wayne County
Reedy Branch	At the confluence with Stoney Creek	At Wayne Memorial Drive	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Richland Creek	At confluence with Stoney Creek	Approximately 650 feet upstream of U.S. Highway 70	City Of Goldsboro Seymour Johnson Air Force Base
Sleepy Creek	At confluence with Neuse River	Approximately 200 feet upstream of Eagle Nest Road	Wayne County
Slough Tributary	At confluence with The Slough	Approximately 0.5 miles upstream of Mount Carmel Church Road	Wayne County
Stoney Creek	At the confluence with the Neuse River	Just downstream of Stoney Creek Church Road	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Stoney Creek Tributary	At the confluence with Stoney Creek	At upstream of Stoney Creek Church Road	Wayne County
The Slough	At confluence with Nahunta Swamp	Approximately 0.3 miles upstream of South Mill Street	Town Of Pikeville Wayne County
Thoroughfare Swamp	At the confluence with Falling Creek	Approx 500 ft upstream of Grantham School Rd	Wayne County
Thunder Swamp	At the confluence with Thoroughfare Swamp	At the downstream side of Old Smith Chapel Rd	Town Of Mount Olive Wayne County
Thunder Swamp Tributary	At the confluence with Thoroughfare Swamp	Approximately 200 feet upstream of High Way 55	Town Of Mount Olive

Table 8 - Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communties
	From	To	
Walnut Creek	At the confluence with Neuse River	Approximately 640 feet U/S of East US 70 Highway	Village Of Walnut Creek Wayne County
Walnut Creek Tributary A	At the confluence with Walnut Creek	At U/S South Beston Road	Village Of Walnut Creek Wayne County
Walnut Creek Tributary B	At the confluence with Walnut Creek	At U/S East US 70 Highway	Village Of Walnut Creek Wayne County
Walnut Creek Tributary C	At the confluence with Walnut Creek	At U/S of Lake Wackena Road	Village Of Walnut Creek Wayne County
West Bear Creek	At the confluence with Bear Creek	Approximately 240' U/S of North US 13 Highway	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Yellow Marsh Branch	At confluence with Thoroughfare Swamp	Approximately 200 ft upstream of Old Mount Olive Highway	Wayne County

Table 9, “Flooding Sources Studied by Detailed Methods: Redelineated” is not applicable in Wayne County.

Table 10, “Flooding Sources Studied by Detailed Methods: Limited Detailed”, lists all flooding sources within the county that were studied by limited detailed methods for either this FIS or previous FISs.

Table 10 - Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communties
	From	To	
Appletree Swamp	Approximately 560 feet upstream of Apple Tree Road (SR 1215)	Approximately 600 feet downstream of the confluence of Appletree Swamp Tributary	Wayne County
Aycock Swamp	Confluence with Black Creek	Approximately 1.5 miles upstream of Black Creek Road	Town Of Fremont Wayne County
Beaverdam Creek	Approximately 390 feet upstream of Rosewood Road	Approximately 0.19 mil upstream of Oakland Church Rd	Wayne County
Beaverdam Creek	At Rosewood Road	Approximately 575 feet downstream of Pierce Street	Wayne County
Beaverdam Creek 1	At confluence with Falling Creek	Approximately 1.2 miles upstream of U.S. Highway 13	Wayne County
Big Ditch	Approximately 150 feet upstream of Royal Ave	Approximately 460 feet upstream of Frank St	City Of Goldsboro Seymour Johnson Air Force Base
Billy Bud Creek	Approximately 0.4 mile upstream of South Harding Drive	Approximately 0.7 mile upstream of North Berkeley Blvd	City Of Goldsboro Seymour Johnson Air Force Base
Buck Swamp	At downstream side of Nor-Am Road	Approximately 300 feet upstream of Pikeville Princeton Road	Wayne County
Button Branch	Approximately 200 feet downstream of Fort Run Road (SR 1201)	Approximately 1.3 miles upstream of Fort Run Road (SR 1201)	Wayne County
Cabin Branch	The confluence with Buck Marsh Branch	Approximately 3.16 miles upstream of the confluence with Buck Marsh Branch	Wayne County
Charles Branch	Approximately 3,500’ d/s of Rosewood Rd.	Approximately 550 feet upstream of Community Dr.	Wayne County
Charles Branch	At confluence with Beaverdam Creek	Approximately 1.7 miles upstream of confluence with Beaverdam Creek	Wayne County
Eastern Tributary to Charles Branch	At confluence with Charles Branch	Approximately 200 feet upstream of Braswell Road	Wayne County
Falling Creek	Just upstream of Dobberville Rd	Approximately 1000 feet upstream of S Jordans Chapel Rd	Wayne County
Great Swamp	Confluence with Black Creek	Approximately 300 feet upstream of Johnston/Wayne County boundary	Wayne County
Great Swamp Tributary 1	Confluence with Great Swamp	Approximately 1.6 miles upstream of Wayne/Wilson County boundary	Town Of Fremont Wayne County
Great Swamp Tributary 2	Approximately 0.3 miles downstream of Edmundson Springs Rd.	Approximately 0.2 miles upstream of Edmundson Springs Rd.	Town Of Fremont
Great Swamp Tributary 2	At confluence with Great Swamp	Approximately 1.4 miles upstream of confluence with Great Swamp	Town Of Fremont Wayne County
Great Swamp Tributary 3	At confluence with Great Swamp	Approximately 0.5 mile upstream of Atlantic Road	Wayne County
Great Swamp Tributary 4	At confluence with Great Swamp	Approximately 0.6 mile upstream of Joe Morris Road	Wayne County
Horsepen Branch	Confluence with Lewis Branch	Approximately 2.25 miles upstream of the confluence with Lewis Branch	Wayne County
Howell's Branch	Approximately 0.15 mile upstream of Patetown Road	Approximately 130 feet upstream of Tommys Road	City Of Goldsboro Seymour Johnson Air Force Base
Howell's Branch	Approximately 940 feet upstream of Patetown Road	Approximately 1700 feet upstream of Patetown Road	City Of Goldsboro Seymour Johnson Air Force Base

Table 10 - Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communties
	From	To	
Ivy Branch	Approximately 0.6 mile upstream of the confluence with Contentnea Creek	The Wilson/Wayne County boundary	Wayne County
Jones Branch	The confluence with Buck Marsh Branch	Approximately 1.3 miles upstream of the confluence with Buck Marsh Branch	Wayne County
Jumping Run Branch	Confluence with Northeast Cape Fear River	Approximately 1.7 miles upstream of the confluence with Northeast Cape Fear River	Wayne County
Juniper Swamp	At confluence with Great Swamp	Approximately 0.2 mile upstream of confluence of White Oak Swamp	Wayne County
Lee Branch	Approximately 200 feet upstream of Baker Chapel Church Road	Approximately 0.33 miles upstream of Hatchs Hill Ln	Town Of Mount Olive
Mills Creek	Approximately 0.2 mile upstream of US Highway 13	Approximately 1.5 miles upstream of U.S. Highway 13	City Of Goldsboro Seymour Johnson Air Force Base
Nahunta Swamp	Approximately 0.14 miles upstream of NC Highway 581	Approximately 0.9 miles upstream of NC Highway 581	Wayne County
Nahunta Swamp	At State Highway 581	Approximately 0.7 mile upstream of Old Kenly Road	Wayne County
Northeast Cape Fear River Tributary	Confluence with Northeast Cape Fear River	Approximately 1.6 miles upstream of the confluence with Northeast Cape Fear River	Wayne County
Richland Creek	Approximately 650 feet upstream of US HWY-70	Just downstream of Gateway Dr.	City Of Goldsboro Seymour Johnson Air Force Base
Stoney Creek	Just downstream of Stoney Creek Church Rd	Approximately 0.6 miles upstream of Stoney Creek Church Rd	Wayne County
Stoney Creek Tributary	At upstream of Stoney Creek Church Road	Approximately 0.5 miles upstream of Stoney Creek Church Road	Wayne County
Thoroughfare Swamp	Approximately 500 ft upstream of Grantham School Rd	Approximately 1.73 miles upstream of Odom Mill Rd	Wayne County
Thunder Swamp	At the downstream side of Old Smith Chapel Road	At the upstream side of Daughtery Field Road	Town Of Mount Olive
Thunder Swamp Tributary	Approximately 200 feet upstream of High Way 55	Approximately 0.77 miles upstream of High Way 55	Town Of Mount Olive
Turner Swamp	Confluence with Contentnea Creek	Approximately 0.4 mile downstream of N. Church Street	Town Of Eureka Wayne County
Unnamed Tributary to Little River	At confluence with Little River	Approximately 1.5 miles upstream of Claridge Nursery Road	Wayne County
Walnut Creek	Approximately 50 feet downstream of U.S. Highway 70	Approximately 0.7 mile upstream of Millers Chapel Road	City Of Goldsboro Seymour Johnson Air Force Base Wayne County
Walnut Creek Tributary D	At confluence with Walnut Creek	Approximately 0.7 mile upstream of Powell Road	Wayne County
Watery Branch	At the confluence with Contentnea Creek	Approximately 0.4 miles downstream of the Greene/ Wayne boundary	Wayne County
Watery Branch	At the confluence with Contentnea Creek	Approximately 2.5 miles upstream of Old Mill Road	Town Of Eureka Wayne County
White Oak Swamp	At confluence with Juniper Swamp	Approximately 0.5 mile upstream of confluence with Juniper Swamp	Wayne County
Yellow Marsh Branch	Approximately 200 ft upstream of Old Mount Olive Highway	Approximately 0.35 miles upstream of Old Mount Olive Highway	Wayne County

Table 11, “Stream Name Changes” is not applicable in Wayne County.

Table 12, “Letters of Map Revision” is not applicable in Wayne County.

5.0 Engineering Methods

For the flooding sources in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded at least once on the average during any 10-, 25-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2% annual chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedance) during the term of a 30-year mortgage is approximately 26 percent (about 3 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood

elevations will be amended periodically to reflect future changes.

5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak elevation-frequency relationships for floods of the selected recurrence intervals for each flooding source studied. Hydrologic analyses are typically performed at the watershed level. Depending on factors such as watershed size and shape, land use and urbanization, and natural or man-made storage, various models or methodologies may be applied. For details on the county's hydrologic analyses, the hydrologic report is available by request.

A summary of the drainage area-peak discharge relationships for the flooding sources studied by detailed methods is shown in Table 13, "Summary of Discharges".

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Appletree Swamp					
At Wayne/Greene County boundary	3.00	*	*	878	*
Approximately 0.26 mile upstream of Wayne/Greene County boundary	2.74	*	*	827	*
Approximately 0.94 mile upstream of Wayne/Greene County boundary	1.17	*	*	510	*
Aycock Swamp					
Approximately 0.28 mile downstream of Wayne/Wilson County boundary	10.40	*	*	3,210	*
Approximately 0.27 mile downstream of Wayne/Wilson County boundary	9.77	*	*	3,100	*
Approximately 0.8 mile downstream of Davis Mill Road	8.95	*	*	2,930	*
Approximately 0.24 mile downstream of Davis Mill Road	7.74	*	*	2,680	*
Approximately 0.41 mile upstream of Davis Mill Road	6.76	*	*	2,460	*
Approximately 0.20 mile downstream of Napoleon Road	4.56	*	*	1,920	*
Approximately 0.34 mile downstream of Black Creek Road	3.56	*	*	1,650	*
Approximately 260 feet upstream of Black Creek Road	2.53	*	*	1,330	*
Approximately 0.48 mile upstream of Black Creek Road	1.96	*	*	1,130	*
Bear Creek					
Approximately 1,320 feet downstream of Parkstown Road	13.30	920	1,640	2,020	3,120
Approximately 0.7 mile upstream of Parkstown Road	11.08	830	1,480	1,830	2,830
Approximately 0.8 mile downstream of Watershed Road	6.86	610	1,120	1,390	2,180
Approximately 0.6 mile downstream of Watershed Road	5.06	510	940	1,170	1,850
Approximately 0.5 mile downstream of Watershed Road	4.70	490	900	1,120	1,780
Approximately 1,570 feet downstream of Oakdale Road (SR 1140)	2.45	330	620	780	1,250
Approximately 250 feet upstream of Oakdale Road (SR 1140)	2.01	290	550	690	1,130
Approximately 0.14 mile upstream of Wayne/Greene County boundary	1.40	*	*	566	*
At Wayne/Greene County boundary	1.30	*	*	680	*
At Rodell Barrow Road	0.52	*	*	322	*
Beaverdam Creek					
At confluence with Neuse River	16.40	978	1,660	2,000	2,810
At confluence with Charles Branch	8.69	661	1,130	1,370	1,940
Approximately 0.46 mile upstream of Oakland Church Road	6.75	*	*	2,460	*
Approximately 0.70 mile upstream of Oakland Church Road	6.01	*	*	2,280	*
Approximately 0.44 mile downstream of East Evans Road	4.22	*	*	1,830	*
Approximately 0.20 mile upstream of East Evans Road	3.73	*	*	1,690	*
Approximately 0.61 mile downstream of Luby Smith Road	3.08	*	*	1,500	*
Beaverdam Creek 1					
At confluence with Falling Creek	5.30	*	*	2,110	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 370 feet upstream of U.S. Highway 13	5.14	*	*	2,070	*
Approximately 0.70 mile upstream U.S. Highway 13	2.88	*	*	1,440	*
Big Ditch					
At the confluence with Neuse River	3.20	1,360	2,130	2,390	3,110
Approximately 550 feet upstream of Retha Street	2.58	1,190	1,900	2,130	2,790
Approximately 250 feet downstream of East Elm Street	2.18	1,070	1,730	1,940	2,560
Just upstream of an Unnamed Tributary approximately 550 feet downstream of Park Avenue	1.54	864	1,420	1,610	2,130
Approximately 200 feet downstream of Royall Avenue	1.23	751	1,260	1,420	1,900
Billy Bud Creek					
At confluence with Stoney Creek	1.70	*	*	1,670	*
Approximately 0.32 mile upstream of Cuyler Best Road	1.02	*	*	1,210	*
Approximately 0.4 mile upstream of South Harding Drive	0.90	*	*	1,200	*
Approximately 0.3 mile downstream of North Berkeley Blvd	0.79	*	*	1,110	*
Approximately 0.2 mile downstream of North Berkeley Blvd	0.57	*	*	930	*
Approximately 400 feet upstream of North Berkeley Blvd	0.41	*	*	777	*
Approximately 0.2 mile upstream of North Berkeley Blvd	0.31	*	*	667	*
Approximately 0.47 mile upstream of North Berkeley Blvd	0.26	*	*	605	*
Approximately 0.5 mile upstream of North Berkeley Blvd	0.23	*	*	531	*
Approximately 0.6 mile upstream of North Berkeley Blvd	0.06	*	*	255	*
Brooks Swamp					
At confluence with Thoroughfare Swamp	15.80	953	1,620	1,950	2,740
At confluence of Brooks Swamp Tributary	12.70	836	1,420	1,720	2,420
At confluence of Lee Branch	7.90	624	1,070	1,300	1,840
Approximately 0.25 mile upstream of Club Knolls Road	6.70	562	967	1,180	1,670
Approximately 0.19 mile upstream of US-117 ALT	4.90	467	807	983	1,400
Approximately 0.29 mile downstream of Old Mt Olive HWY	1.30	201	355	436	629
Brooks Swamp Tributary					
At confluence with Brooks Swamp	1.70	240	422	517	744
Approximately 0.9 mile upstream of confluence with Brooks Swamp	1.42	216	381	468	675
Buck Marsh Branch					
Approximately 0.8 mile upstream of Donald K Outlaw Road	14.40	*	*	2,120	*
Approximately 0.19 mile upstream of Zion Church Road	6.20	*	*	1,310	*
Approximately 0.80 mile upstream of Zion Church Road	4.00	*	*	1,020	*
Approximately 0.04 mile upstream of Carmack Road	2.60	*	*	809	*
Buck Swamp					
At confluence of Mill Creek North	8.74	663	1,130	1,380	1,950
At confluence of Peacock Branch	3.89	402	698	852	1,210
Approximately 0.42 mile upstream of Nor-Am Road	2.78	*	*	836	*
Approximately 0.44 mile downstream of Pikeville Princeton Road	1.84	*	*	662	*
Burden Creek					
At confluence with Moccasin Creek	2.30	289	507	620	889
Burnt Mill Branch					
At the confluence with Sleepy Creek	4.50	438	758	924	1,310

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 0.34 mile upstream of the confluence with Sleepy Creek	3.15	353	615	751	1,070
At the confluence with Tommy Reed Creek	2.13	277	486	595	855
Approximately 0.15 mile downstream of Eagle Nest Rd	1.43	217	383	470	678
Approximately 0.37 mile upstream of Eagle Nest Rd	0.93	166	296	364	527
Button Branch					
At confluence with Nahunta Swamp	5.41	*	*	1,220	*
Cabin Branch					
Approximately 0.19 mile upstream of Zion Church Road	6.80	*	*	1,390	*
Approximately 300 feet upstream of NC Highway 111	6.00	*	*	1,290	*
Approximately 0.93 mile upstream of NC Highway 111	4.00	*	*	1,030	*
Approximately 0.59 mile upstream of NC Highway 55	2.80	*	*	846	*
Charles Branch					
Tie in location	2.55	*	*	1,982	*
Approximately 3,500’ downstream of Rosewood Rd	2.53	*	*	660	*
Approximately 700 ft upstream of Rosewood Rd	1.89	*	*	555	*
Approximately 720 ft downstream of Community Dr.	1.08	*	*	398	*
Contentnea Creek					
At the confluence of Ivy Branch	379.70	17,030	26,150	30,500	45,100
Eastern Tributary to Charles Branch					
At confluence with Charles Branch	2.80	*	*	698	*
Approximately 2,400 ft d/s of Neal Dr.	2.18	*	*	604	*
Approximately 1,100 ft d/s of Braswell Rd.	1.62	*	*	506	*
Falling Creek					
At confluence with Neuse River	116.80	3,280	5,370	6,420	8,820
At confluence with Thoroughfare Swamp	41.93	1,740	2,910	3,500	4,860
Approximately 0.6 miles downstream of US-13	36.28	1,600	2,670	3,210	4,460
At confluence with Kelly Creek	29.48	1,400	2,350	2,840	3,950
Approximately 0.3 miles upstream of Grantham School Road	26.08	1,300	2,190	2,640	3,680
At confluence with Kelley Creek	20.80	1,130	1,910	2,310	3,230
At confluence with Johnson Branch	17.91	1,030	1,750	2,110	2,960
Approximately 0.39 mile upstream of Dobbersville Road	16.19	*	*	4,250	*
Approximately 0.87 mile upstream of Dobbersville Road	15.44	*	*	4,120	*
Approximately 1.4 miles upstream of Dobbersville Road	11.16	*	*	3,360	*
At confluence of Beaverdam Creek 1	5.30	*	*	2,110	*
At South Jordans Chapel Road	5.06	*	*	2,050	*
Great Swamp					
Approximately 0.18 mile downstream of Wayne/Wilson County boundary	29.10	*	*	6,120	*
Approximately 0.15 mile upstream of Wayne/Wilson County boundary	28.39	*	*	6,030	*
Approximately 0.7 mile upstream of Wayne/Wilson County boundary	24.58	*	*	5,510	*
At confluence of Great Swamp Tributary 2	21.57	*	*	5,080	*
At confluence of Juniper Swamp	12.83	*	*	3,670	*
Approximately 0.64 mile downstream of State Highway 222	11.96	*	*	3,510	*
Approximately 0.1 mile upstream of State Highway 222	9.64	*	*	3,070	*
At Aycock Dairy Road	9.05	*	*	2,950	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 0.66 mile upstream of Aycock Dairy Road	8.48	*	*	2,830	*
Approximately 0.18 mile downstream of N.C. 581 North	7.42	*	*	2,610	*
At confluence of Great Swamp Tributary 3	5.14	*	*	2,070	*
At confluence of Great Swamp Tributary 4	2.25	*	*	1,240	*
Approximately 0.3 mile upstream of confluence of Great Swamp Tributary 4	1.74	*	*	1,050	*
Approximately 0.5 mile upstream of confluence of Great Swamp Tributary 4	1.00	*	*	745	*
Great Swamp Tributary 1					
Approximately 0.27 mile downstream of Wayne/Wilson County boundary	3.25	*	*	1,560	*
Approximately 0.4 mile upstream of Aycock Acres Road	2.71	*	*	1,390	*
Approximately 1.14 miles upstream of Aycock Acres Road	0.48	*	*	469	*
Great Swamp Tributary 2					
At confluence with Great Swamp	2.70	*	*	1,380	*
Approximately 0.14 mile upstream of Stuckey Road	1.93	*	*	1,120	*
Tie-in with effective study	1.90	377	676	823	1,295
Approximately 0.5 mile upstream of Stuckey Road	1.17	*	*	823	*
Approximately 0.25 miles downstream of Edmundson Springs Rd	1.17	192	340	417	603
Great Swamp Tributary 3					
At confluence with Great Swamp	1.96	*	*	1,130	*
Approximately 0.14 mile downstream of Atlantic Road	1.44	*	*	937	*
Great Swamp Tributary 4					
At confluence with Great Swamp	2.76	*	*	1,400	*
Approximately 0.45 mile upstream of Joe Morris Road	1.78	*	*	1,070	*
Horsepen Branch					
At confluence of Lewis Branch	4.00	*	*	1,030	*
Approximately 1.0 mile upstream of the confluence with Lewis Branch	3.70	*	*	980	*
Approximately 0.47 mile upstream of the confluence with Lewis Branch	2.90	*	*	858	*
Howell's Branch					
At the confluence with Stoney Creek	4.40	431	747	910	1,300
Just upstream of an unnamed Tributary approximately 0.8 mile upstream of Wayne Memorial Dr.	3.44	373	648	792	1,130
Just upstream of an unnamed tributary approximately 620 feet downstream of Patetown Rd	2.98	341	595	727	1,040
Just upstream of an unnamed tributary approximately 570 feet upstream of Patetown Road	2.24	286	501	614	880
Approximately 0.31 mile downstream of Tommys Road	1.91	*	*	674	*
Ivy Branch					
Approximately 0.78 mile downstream of Wayne/Wilson County boundary	4.33	*	*	1,860	*
Approximately 0.27 mile upstream of Red Hill Road	2.35	*	*	1,270	*
Approximately 0.84 mile upstream of Red Hill Road	1.55	*	*	978	*
Jones Branch					
At confluence with Buck Marsh Branch	1.60	*	*	600	*
Approximately 0.19 mile upstream of Mark Herring Road	0.90	*	*	438	*
Jumping Run Branch					
Approximately 0.19 mile upstream of Zion Church Road	2.70	*	*	822	*
At confluence with Northeast Cape Fear River	1.10	*	*	489	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Juniper Swamp					
At confluence with Juniper Swamp	8.17	*	*	2,770	*
Approximately 0.54 mile downstream of confluence of White Oak Swamp	5.82	*	*	2,240	*
At confluence of White Oak Swamp	3.74	*	*	1,700	*
Lee Branch					
At confluence with Brooks Swamp	2.50	305	533	652	934
Approximately 0.2 miles downstream of Country Club Road	2.07	273	478	585	841
Approximately 400' upstream of Ramblewood Drive	1.57	230	405	497	715
Approximately 0.3 miles downstream of Baker Chapel Church Road	1.33	207	367	450	649
Approximately 0.11 mile upstream of Hatch's Hill Lane	0.81	*	*	651	*
Lewis Branch					
At confluence with Northeast Cape Fear River	9.50	*	*	1,670	*
Approximately 0.27 mile upstream of NC Highway 55	7.70	*	*	1,480	*
Approximately 0.93 mile upstream of NC Highway 55	3.10	*	*	883	*
Approximately 1.78 miles upstream of NC Highway 55	1.60	*	*	619	*
Little River					
At confluence with Neuse River	315.60	6,060	9,760	11,600	15,800
Upstream of Mill Creek North	283.67	5,670	9,150	10,900	14,800
Approximately 2.1 mile upstream of Capps Bridge Road	269.19	5,490	8,870	10,500	14,400
Upstream of Spring Branch	249.00	*	*	14,100	*
Mill Branch					
At confluence with Mill Creek (South)	4.24	424	735	897	1,276
Approximately 0.6 mile upstream of confluence with Mill Creek (South)	3.30	363	633	773	1,102
Approximately 1.1 miles upstream of confluence with Mill Creek (South)	3.09	348	608	743	1,060
Approximately 1.5 miles upstream of confluence with Mill Creek (South)	2.42	300	525	643	920
Approximately 1.85 miles upstream of confluence with Mill Creek (South)	2.15	279	489	599	858
Approximately 2.1 miles upstream of confluence with Mill Creek (South)	1.57	230	405	497	715
Upper study limit	1.36	210	371	456	657
Mill Creek (South)					
At mouth	188.70	6,496	10,230	11,937	15,940
Above Mill Branch	178.72	6,419	10,101	11,775	15,715
Mill Creek North					
Upstream of Buck Swamp	6.70	*	*	1,670	*
At confluence of Buck Swamp	6.38	*	*	1,340	*
Approximately 0.28 mile upstream of Buck Swamp Road	5.91	*	*	1,280	*
At County Route 1319	4.60	*	*	1,360	*
Approximately 0.44 mile downstream of Perkins Road	4.39	*	*	1,080	*
Approximately 0.27 mile upstream of Perkins Road	4.01	*	*	1,030	*
Approximately 0.18 mile upstream of Hinnant Road	3.80	*	*	833	*
At confluence of Mill Creek North Tributary 1	3.10	*	*	886	*
At confluence of Mill Creek North Tributary 2	2.95	*	*	863	*
At confluence of Mill Creek North Tributary 3	2.03	*	*	699	*
At confluence of Mill Creek North Tributary 4	1.80	*	*	652	*
At confluence of Mill Creek North Tributary 5	1.19	*	*	517	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 0.34 mile upstream of confluence of Mill Creek North Tributary 5	0.48	*	*	311	*
Approximately 325 feet downstream of Pikeville Princeton Road	0.20	*	*	186	*
Mill Creek North Tributary 1					
At confluence with Mill Creek North	0.71	*	*	385	*
Approximately 0.25 mile upstream of confluence with Mill Creek North	0.50	*	*	317	*
Approximately 0.45 mile upstream of confluence with Mill Creek North	0.27	*	*	223	*
Mill Creek North Tributary 2					
At confluence with Mill Creek North	0.13	*	*	147	*
Mill Creek North Tributary 3					
At confluence with Mill Creek North	0.53	*	*	325	*
Approximately 0.20 mile downstream of Nahunta Road	0.41	*	*	281	*
Approximately 0.33 mile upstream of Nahunta Road	0.21	*	*	195	*
Mill Creek North Tributary 4					
At confluence with Mill Creek North	0.19	*	*	185	*
Mill Creek North Tributary 5					
At confluence with Mill Creek North	0.50	*	*	317	*
At Nahunta Road	0.26	*	*	217	*
Mills Creek					
At the confluence with West Bear Creek	3.30	1,010	1,700	1,950	2,670
Just upstream of an unnamed tributary approximately 1350 feet downstream of Central Heights Road	2.73	905	1,540	1,770	2,440
Just upstream of an unnamed tributary approximately 1440 feet upstream of Central Heights Road	2.08	695	1,230	1,430	2,020
Moccasin Creek					
At confluence with Neuse River	32.80	1,500	2,510	3,020	4,210
Nahunta Swamp					
Tie-in with effective study	75.80	1,860	3,190	3,880	5,820
Approximately 1.5 mile upstream of Bullhead Road	73.76	2,740	4,940	6,140	9,670
Approximately 560 ft. downstream of Big Daddy's Road	40.63	1,710	2,850	3,430	4,770
Approximately 1.3 miles downstream of NC Highway 111	34.37	1,540	2,580	3,110	4,320
At confluence of Nahunta Swamp Tributary	29.93	1,420	2,370	2,860	3,990
Approximately 0.6 miles downstream of Airport Road	25.74	1,260	2,140	2,590	3,660
Approximately 0.5 miles upstream of Airport Road	22.77	1,140	1,960	2,370	3,420
Approximately 0.2 miles downstream of US-117	19.64	1,000	1,750	2,140	3,150
Approximately 0.37 miles downstream of Hooks Road	14.23	857	1,480	1,800	2,600
Approximately 0.6 miles upstream of Hooks Road	11.00	754	1,290	1,570	2,230
Approximately 0.32 miles downstream of Morris Road	9.28	688	1,180	1,430	2,020
Approximately 0.14 miles downstream of NC Highway 581	6.78	567	974	1,180	1,680
Approximately 0.43 mile upstream of State Highway 581	5.96	*	*	1,290	*
Approximately 0.53 mile upstream of State Highway 581	5.81	*	*	1,270	*
Approximately 0.57 mile downstream of Old Kenly Road	5.42	*	*	1,220	*
Approximately 0.3 mile downstream of Old Kenly Road	3.83	*	*	1,000	*
Approximately 140 feet downstream of Old Kenly Road	3.69	*	*	980	*
Approximately 0.3 mile upstream of Old Kenly Road	2.65	*	*	812	*
Approximately 0.62 mile upstream of Old Kenly Road	2.30	*	*	751	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Nahunta Swamp Tributary					
At confluence with Nahunta Swamp	1.94	*	*	682	*
Approximately 0.21 miles upstream of confluence with Nahunta Swamp	1.75	*	*	643	*
Approximately 0.5 miles downstream of State Highway 222	1.38	*	*	561	*
Approximately 0.1 mile downstream of State Highway 222	0.96	*	*	457	*
Approximately 0.34 mile upstream of State Highway 222	0.49	*	*	313	*
Neuse River					
USGS Gage at Goldsboro, N.C.	2399.00	*	*	39,093	*
Approximately downstream of Big Ditch	2235.00	*	*	37,500	*
Upstream of Little River	2049.00	*	*	35,547	*
Approximately 1.5 miles downstream of confluence of Moccasin Creek	1905.48	19,520	29,035	33,964	45,217
Below Mill Creek (South)	1869.46	17,966	26,449	32,153	52,458
Above Mill Creek (South)	1679.82	16,900	24,886	30,688	51,138
Northeast Cape Fear River					
Approximately 0.4 mile downstream of Bennets Bridge Road	55.70	2,190	3,540	4,210	5,850
At Wayne-Duplin County boundary	54.10	2,210	4,080	5,150	8,400
At USGS gage at Bennetts Bridge Road	47.10	2,050	3,800	4,800	4,860
Approximately 350 feet upstream of the confluence of Jumping Branch	44.47	1,930	3,120	3,700	5,160
At confluence of Polly Run Creek	31.65	1,510	2,490	2,980	4,160
At confluence of Rattlesnake Branch	24.47	1,250	2,110	2,540	3,550
At confluence of Lewis Branch	14.36	901	1,530	1,850	2,600
Approximately 0.8 mile downstream of Kelly Spring Road	10.94	761	1,300	1,570	2,220
Approximately 0.7 mile upstream of Kelly Spring Road	6.44	549	945	1,150	1,630
At confluence of Pasture Branch River	3.86	400	695	848	1,210
Northeast Cape Fear River Tributary					
At the confluence with Northeast Cape Fear River	1.30	*	*	543	*
Approximately 1.14 miles upstream of the confluence with Northeast Cape Fear River	1.00	*	*	461	*
Pasture Branch River					
At confluence with Northeast Cape Fear River	1.58	654	1,150	1,330	1,850
Approximately 0.47 mile downstream of Bell Avenue	1.32	584	1,040	1,200	1,690
Approximately 0.3 mile downstream of Bell Avenue	1.04	503	911	1,060	1,490
Peacock Branch					
At confluence with Buck Swamp	4.30	428	741	904	1,290
Approximately 0.5 miles downstream of Nor-Am Road	3.58	382	664	811	1,160
Approximately 0.2 miles downstream of Nor-Am Road	2.22	285	499	610	876
Reedy Branch					
At the confluence with Stoney Creek	4.10	416	722	880	1,250
Approximately 240 feet downstream of West New Hope Road	3.60	384	666	813	1,160
Just upstream of an unnamed tributary approximately780 feet downstream of Tommy's Road	2.99	342	596	728	1,040
Just upstream of an unnamed tributary approximately 1050 feet upstream of Tommy's Road	2.65	317	555	678	971
Just upstream of an unnamed tributary approximately 1600 feet downstream of Wayne Memorial Drive	2.25	287	503	615	882
Richland Creek					

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
At confluence with Stoney Creek	31.40	*	*	6,150	*
Approximately 0.33 mile upstream of Spence Avenue	2.58	*	*	1,570	*
Approximately 0.11 mile upstream of North Berkeley Boulevard	1.76	*	*	990	*
Approximately 0.23 mile downstream of U.S. Highway 70	1.39	*	*	563	*
At U.S. Highway 70	1.23	*	*	526	*
Tie-in location U/S of HWY-70	1.20	*	*	526	*
Approximately 1,000 ft. upstream of HWY-70	0.68	*	*	436	*
Approximately 2,900 ft. upstream of HWY-70	0.57	*	*	396	*
Sleepy Creek					
At the confluence with Neuse River	11.90	802	1,370	1,650	2,330
Approximately 0.71 mile downstream of Arrington Bridge Rd	10.11	725	1,240	1,500	2,120
At the confluence of Burnt Mill Branch	5.01	470	813	990	1,410
Approximately 0.32 mile upstream of Sleepy Creek Dr.	4.24	424	735	896	1,280
Approximately 1.0 mile downstream of Eagle Nest Rd	3.38	369	642	783	1,120
Approximately 0.76 mile downstream of Eagle Nest Rd	2.82	330	576	703	1,010
Approximately 0.13 mile downstream of Eagle Nest Rd	2.34	294	515	630	903
Slough Tributary					
At confluence with The Slough	1.90	257	451	553	795
Stoney Creek					
Approximately 0.97 mile upstream of confluence with Neuse River	29.36	*	*	5,930	*
Just downstream of Slocumb Street	27.00	3,270	4,940	5,590	7,470
Just upstream of an unnamed tributary approximately 2200 feet downstream of East Elm Street	24.12	3,040	4,640	5,260	7,040
Just upstream of the confluence of Richland Creek	18.95	2,350	3,720	4,270	5,860
Just upstream of the confluence of Billy Branch	16.83	2,180	3,480	4,000	5,510
Just upstream of the confluence of Reedy Branch	12.32	1,790	2,930	3,370	4,680
Just upstream of the confluence of Howells Branch	7.74	1,340	2,260	2,610	3,670
Just upstream of an unnamed tributary approximately 710 feet downstream of Tommy's Road	6.01	1,140	1,960	2,280	3,220
Just upstream of the confluence of Stoney Creek Tributary	3.92	876	1,550	1,800	2,580
Just upstream of an unnamed tributary approximately 2400 feet downstream of NC 111	3.30	787	1,400	1,640	2,350
Tie-in location Just upstream of NC 111	2.20	*	*	1,300	*
Just upstream of NC 111	2.16	604	1,110	1,300	1,890
Approximately 0.25 miles downstream of Combs Rd	1.92	*	*	1,220	*
Approximately 770 feet downstream of Combs Rd	1.68	*	*	1,130	*
Stoney Creek Tributary					
At the confluence with Stoney Creek	1.30	200	353	434	626
Just upstream of an unnamed tributary approximately 850 feet downstream of Stoney Creek Church Road	1.05	179	318	391	566
The Slough					
At confluence with Nahunta Swamp	22.70	1,190	2,010	2,430	3,400
At confluence with Exum Mill Branch	16.86	994	1,680	2,030	2,860
At confluence with Moccasin Run	10.59	746	1,270	1,540	2,180
Approximately 0.3 miles downstream of NC Highway 111	9.30	689	1,180	1,430	2,020
Approximately 0.4 miles upstream of NC Highway 111	6.16	534	920	1,120	1,590

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 0.5 miles downstream of Slough Tributary	5.17	479	828	1,010	1,430
At confluence with Slough Tributary	2.72	323	563	689	986
Approximately 0.2 miles upstream of Airport Rd	2.49	305	533	652	934
Approximately 0.4 miles upstream of Airport Rd	2.11	276	484	592	850
Approximately 0.5 miles downstream of NC Highway 117	1.55	228	402	493	710
Approximately 0.3 miles downstream of NC Highway 117	0.84	156	278	343	497
Approximately 100 feet downstream of State HWY- 117	0.73	143	256	315	458
Thoroughfare Swamp					
At confluence with Falling Creek	64.00	2,270	3,750	4,500	6,220
Just upstream of confluence with Edwards Branch	57.11	2,110	3,500	4,200	5,810
Just upstream of confluence with Yellow Marsh Branch	49.38	1,930	3,210	3,850	5,340
Just upstream of confluence with Brooks Swamp	32.64	1,490	2,500	3,010	4,200
Approximately 0.9 miles upstream of Oberry Rd	28.58	1,380	2,310	2,780	3,880
Just upstream of confluence with Thunder Swamp	16.11	967	1,640	1,980	2,780
Approximately 0.2 miles upstream of Old Harvey Sutton Road	13.18	854	1,450	1,760	2,470
Approximately 0.8 miles downstream of Grantham School Road	11.93	803	1,370	1,660	2,330
Approximately 0.47 mile upstream of Grantham School Road	9.65	*	*	3,070	*
Approximately 0.92 mile upstream of Grantham School Road	9.14	*	*	2,970	*
Approximately 0.56 mile downstream of Odom Mill Road	8.44	*	*	2,820	*
Approximately 0.15 mile downstream of Odom Mill Road	5.28	*	*	2,110	*
Approximately 0.16 mile upstream of Odom Mill Road	4.18	*	*	1,820	*
Approximately 0.7 mile upstream of Odom Mill Road	3.92	*	*	1,750	*
Approximately 1.2 miles upstream of Odom Mill Road	3.10	*	*	1,510	*
Approximately 20 feet upstream of Old Smith Chapel Road	2.50	*	*	1,320	*
Thunder Swamp					
At confluence with Thoroughfare Swamp	12.40	823	1,400	1,700	2,390
Approximately 3,600 feet downstream of Shady Grove Rd	8.85	668	1,140	1,390	1,960
Approximately 1,350 feet upstream of Shady Grove Rd	7.59	608	1,040	1,270	1,790
Approximately 1,950 feet downstream of Thunder Swamp Rd	6.46	550	946	1,150	1,630
At confluence with Thunder Swamp Tributary	3.70	390	677	827	1,180
Approximately 1,400 feet downstream of Old Smith Chapel Rd	1.81	251	441	541	777
Thunder Swamp Tributary					
Approximately 0.92 mile downstream of Wayne/Wilson County boundary	3.70	*	*	1,690	*
At the confluence with Thunder Swamp	1.50	227	400	491	707
Approx 160 ft downstream from NC Highway 55	0.98	172	305	375	544
Tributary to Neuse River					
At confluence with Neuse River	1.60	*	*	499	*
Approximately 1,500 feet upstream of Bryan Road	1.28	*	*	440	*
Turner Swamp					
Approximately 460 feet upstream of Wayne/Wilson County boundary	2.99	*	*	1,480	*
Approximately 175 feet downstream of Davis Mill Road	2.07	*	*	1,170	*
Approximately 0.8 mile upstream of Davis Mill Road	0.86	*	*	678	*
Unnamed Tributary to Little River					
At confluence with Neuse River	2.10	*	*	592	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 0.33 mile upstream of Claridge Nursery Rd	1.55	*	*	493	*
Approximately 0.7 mile upstream of Claridge Nursery Rd	1.23	*	*	430	*
Walnut Creek					
At the confluence with Neuse River	21.60	1,160	1,950	2,360	3,300
Approximately .9 miles upstream of St. John Church Rd	18.59	1,060	1,780	2,160	3,020
Just upstream of the confluence of Walnut Creek Tributary A	15.25	935	1,580	1,920	2,690
Just upstream of the confluence of Walnut Creek Tributary B	12.29	818	1,390	1,690	2,370
Just upstream of the confluence of Walnut Creek Tributary C	10.71	752	1,280	1,550	2,190
Approximately 1.5 miles downstream of US 70	8.82	667	1,140	1,380	1,960
Just upstream of the confluence of an unnamed tributary approximately 2,700 feet downstream of US 70	5.86	518	893	1,090	1,540
At confluence of Walnut Creek Tributary	2.38	*	*	1,185	*
Approximately 445 feet downstream of Powell Road	2.08	*	*	708	*
At Millers Chapel Road	1.13	*	*	502	*
Walnut Creek Tributary A					
At the confluence with Walnut Creek	2.20	289	507	620	889
Walnut Creek Tributary B					
At the confluence with Walnut Creek	2.50	302	529	647	927
Just upstream of Walnut Creek Drive	2.18	281	493	604	866
Approximately 1738 feet upstream of Breeze wood Drive	1.79	249	438	537	772
Walnut Creek Tributary C					
At the confluence with Walnut Creek	1.10	1,500	2,510	3,020	4,210
At upper study limit	0.70	*	*	500	*
Watery Branch					
Approximately 1.1 miles upstream of State Highway 58	4.47	*	*	1,900	*
Approximately 0.24 mile upstream of Old Mill Road	3.64	*	*	1,670	*
Approximately 0.48 mile upstream of Old Mill Road	2.99	*	*	1,480	*
Approximately 1.0 mile upstream of Old Mill Road	2.17	*	*	1,210	*
Approximately 1.56 miles upstream of Old Mill Road	1.93	*	*	1,120	*
At confluence with Juniper Swamp	1.70	*	*	1,050	*
Approximately 2.23 miles upstream of Old Mill Road	1.15	*	*	812	*
West Bear Creek					
At the confluence with Bear Creek	23.40	1,220	2,050	2,470	3,450
At confluence with Bear Creek	22.60	*	*	3,220	*
Just upstream of an unnamed tributary approximately 3320 feet upstream of North Beston Road	19.66	1,090	1,850	2,230	3,120
Just upstream of an unnamed tributary approximately 1770 feet downstream of Parkston Road	13.67	874	1,480	1,800	2,530
Just upstream of an unnamed tributary approximately 3260 feet upstream of Mark Edwards Road	11.85	800	1,360	1,650	2,320
Just upstream of the confluence of Mills Creek	7.97	626	1,070	1,300	1,840
Just upstream of an unnamed tributary approximately 3630 feet downstream of Hood Swamp Road	5.64	506	872	1,060	1,510
Approximately 300 feet upstream of Hood Swamp Road	4.77	456	789	961	1,370
Just upstream of the confluence of Bear Creek	2.06	272	477	584	838

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Just upstream of an unnamed tributary approximately 3600 feet downstream of US 13	1.52	225	397	487	702
Just upstream of an unnamed tributary approximately 360 feet downstream of US 13	0.88	161	286	352	511
White Oak Swamp					
Approximately 130 feet upstream of Old Mount Olive Highway	1.74	*	*	978	*
Yellow Marsh Branch					
At confluence with Thoroughfare Swamp	6.20	535	921	1,120	1,590
Approximately 0.5 miles upstream of Herring Road	5.15	478	826	1,010	1,430
Approximately 0.70 miles downstream of Durham Lake Road	4.75	455	787	959	1,360
Approximately 0.40 miles downstream of Durham Lake Road	4.19	421	730	890	1,270
Approximately 0.20 miles upstream of Durham Lake Road	2.58	312	546	667	1,130
Approximately 1,000 ft upstream of South US 117 Highway	1.79	249	438	537	772

Table 14, “Summary of Stillwater Elevations” is not applicable in Wayne County.

Table 15, “Gage Information”, lists the stream gages located in Wayne 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 15 - Gage Information

Gage Number	Flooding Source	Site Name	Drainage Area (square miles)	Period of Record	
				From	To
02090960	Nahunta Swamp	NAHUNTA SWAMP NEAR PIKEVILLE, NC	19.00	1953	2003
02108000	Northeast Cape Fear River	NORTHEAST CAPE FEAR RIVER NEAR SEVEN SPRINGS, NC	47.50	1940	2013

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 and/or Water-surface elevation rasters. For stream segments for which BFEs were computed, selected cross-section locations are also shown on the FIRM. Flood Profiles and/or Water-surface elevation rasters 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 and/or Water-surface elevation rasters 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.

For details on the county’s hydraulic analyses, the hydraulic report is available by request.

For the streams studied by detailed methods, water surface elevations of floods of the selected recurrence intervals were computed through use of the Army Corps of Engineers' HEC RAS step backwater computer program . The hydraulic analyses were based on unobstructed flow. The flood elevations shown on the Profiles and/or Water-surface elevation rasters 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.

The cross section geometries were obtained from a combination of digital elevation data obtained by Light 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 4000 feet 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.

Channel roughness factors (Manning’s “n”) used in the hydraulic computations 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 channel and overbank “n” values for all of the streams studied by detailed methods are shown in Table 16, “Roughness Coefficients”.

Table 16 - Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Appletree Swamp	0.032 to 0.065	0.032 to 0.150
Aycock Swamp	0.047 to 0.048	0.130 to 0.140
Bear Creek	0.032 to 0.060	0.032 to 0.150
Beaverdam Creek	0.040 to 0.068	0.080 to 0.160
Beaverdam Creek 1	0.050	0.150
Big Ditch	0.013 to 0.080	0.060 to 0.150
Billy Bud Creek	0.035 to 0.060	0.060 to 0.150
Brooks Swamp	0.045 to 0.048	0.070 to 0.130
Brooks Swamp Tributary	0.050	0.130
Buck Swamp	0.045 to 0.050	0.048 to 0.130
Burden Creek	0.048	0.062 to 0.130
Burnt Mill Branch	0.043 to 0.045	0.070 to 0.130
Button Branch	0.048	0.140
Charles Branch	0.050 to 0.052	0.110 to 0.150
Contentnea Creek	0.030 to 0.080	0.032 to 0.200
Eastern Tributary to Charles Branch	0.045 to 0.048	0.060 to 0.110
Falling Creek	0.040 to 0.065	0.090 to 0.160
Great Swamp	0.047 to 0.050	0.140 to 0.150
Great Swamp Tributary 1	0.047 to 0.050	0.130 to 0.150
Great Swamp Tributary 2	0.047 to 0.050	0.100 to 0.150
Great Swamp Tributary 3	0.046	0.130
Great Swamp Tributary 4	0.047	0.130
Horsepen Branch	0.045	0.010 to 0.014
Howell's Branch	0.045 to 0.070	0.060 to 0.130
Ivy Branch	0.046 to 0.047	0.130 to 0.140
Jones Branch	0.045	0.140
Jumping Run Branch	0.045	0.160
Juniper Swamp	0.048	0.140
Lee Branch	0.045 to 0.060	0.046 to 0.150
Lewis Branch	0.045	0.140
Little River	0.040 to 0.066	0.070 to 0.240
Mill Branch	0.050	0.030 to 0.150
Mill Creek (South)	0.035 to 0.060	0.040 to 0.160
Mill Creek North	0.050 to 0.065	0.100 to 0.150
Mill Creek North Tributary 1	0.050	0.100 to 0.150
Mill Creek North Tributary 2	0.060	0.100 to 0.200
Mill Creek North Tributary 3	0.050	0.100 to 0.150
Mill Creek North Tributary 4	0.050	0.100 to 0.200
Mill Creek North Tributary 5	0.060	0.100 to 0.150
Mills Creek	0.035 to 0.050	0.060 to 0.150
Moccasin Creek	0.035 to 0.065	0.030 to 0.150
Nahunta Swamp	0.030 to 0.055	0.032 to 0.150
Nahunta Swamp Tributary	0.046	0.130
Neuse River	0.035 to 0.060	0.055 to 0.250
Northeast Cape Fear River	0.035 to 0.090	0.035 to 0.240
Northeast Cape Fear River Tributary	0.045	0.160
Pasture Branch River	0.044 to 0.060	0.070 to 0.130
Peacock Branch	0.044 to 0.045	0.070 to 0.130
Reedy Branch	0.040 to 0.055	0.035 to 0.130
Richland Creek	0.035 to 0.060	0.050 to 0.110
Sleepy Creek	0.040 to 0.045	0.070 to 0.130
Slough Tributary	0.048 to 0.050	0.108 to 0.130
Stoney Creek	0.030 to 0.057	0.040 to 0.200
Stoney Creek Tributary	0.040 to 0.060	0.050 to 0.120
The Slough	0.044 to 0.048	0.070 to 0.170
Thoroughfare Swamp	0.045 to 0.060	0.106 to 0.180
Thunder Swamp	0.045 to 0.070	0.070 to 0.140
Thunder Swamp Tributary	0.041 to 0.070	0.050 to 0.150

Table 16 - Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Turner Swamp	0.048 to 0.050	0.150
Walnut Creek	0.035 to 0.060	0.060 to 0.150
Walnut Creek Tributary A	0.045 to 0.050	0.060 to 0.120
Walnut Creek Tributary B	0.035 to 0.045	0.060 to 0.120
Walnut Creek Tributary C	0.040 to 0.055	0.060 to 0.120
Walnut Creek Tributary D	0.040	0.110
Watery Branch	0.048 to 0.050	0.150
West Bear Creek	0.035 to 0.055	0.060 to 0.140
White Oak Swamp	0.047	0.130
Yellow Marsh Branch	0.030 to 0.060	0.100 to 0.150

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 17, “Limited Detailed Flood Hazard Data”). Flood Profiles have not been developed for streams studied by limited detailed methods. Water-surface elevation rasters were developed for steams 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 17. 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 can 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 17.

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
Appletree Swamp				
239	23,867	878	87.2	105 / 123
248	24,765	827	88.7	32 / 89
255	25,497	827	90.0	193 / 18
264	26,398	827	91.4	32 / 114
273	27,299	827	93.5	121 / 40
282	28,181	510	94.2	200 / 35
290	28,997	510	95.4	20 / 100
297	29,746	510	99.1	90 / 25
Appletree Swamp Tributary				
026	2,584	587	88.1	70 / 41
Aycock Swamp				
064	6,400	3,213	75.6	20 / 255

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
071	7,089	3,213	76.4	20 / 224
076	7,648	3,213	77.1	56 / 153
082	8,179	3,213	77.9	125 / 150
087	8,742	3,096	78.5	100 / 125
093	9,250	3,096	79.4	147 / 132
098	9,822	3,096	80.1	154 / 82
104	10,379	3,096	80.9	37 / 178
109	10,936	2,932	81.8	305 / 51
114	11,442	2,932	82.3	129 / 122
120	12,017	2,932	82.9	100 / 103
125	12,540	2,932	83.6	193 / 36
129	12,926	2,932	84.0	198 / 26
135	13,539	2,932	84.6	261 / 19
141	14,108	2,676	85.2	209 / 36
146	14,614	2,676	85.9	162 / 46
150	14,955	2,676	86.4	45 / 45
151	15,113	2,676	86.6	45 / 45
156	15,634	2,676	87.6	199 / 38
161	16,133	2,676	88.1	143 / 72
167	16,658	2,676	88.7	158 / 92
172	17,176	2,459	89.2	111 / 136
177	17,705	2,459	89.6	167 / 75
183	18,251	2,459	90.0	206 / 118
187	18,733	2,459	90.3	147 / 147
192	19,201	2,459	90.6	141 / 188
197	19,684	2,459	90.9	155 / 119
202	20,186	2,459	91.3	150 / 125
207	20,665	2,459	91.7	49 / 185
212	21,234	1,924	92.2	200 / 125
217	21,682	1,924	92.5	146 / 106
219	21,943	1,924	92.6	96 / 63
221	22,089	1,924	93.3	96 / 63
226	22,565	1,924	93.6	106 / 157
232	23,191	1,924	93.9	148 / 96
238	23,754	1,924	94.2	90 / 166
243	24,335	1,924	94.4	105 / 210
249	24,853	1,924	94.7	133 / 104
254	25,373	1,924	95.0	140 / 99
260	25,950	1,924	95.3	174 / 92
266	26,603	1,924	95.8	125 / 97
272	27,161	1,924	96.3	103 / 72
278	27,803	1,647	97.0	165 / 70
283	28,307	1,647	97.3	62 / 213
289	28,901	1,647	97.7	237 / 19
294	29,366	1,647	98.0	20 / 20

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
295	29,515	1,647	104.7	20 / 20
300	29,968	1,330	105.1	112 / 131
305	30,474	1,330	105.2	56 / 191
309	30,928	1,330	105.2	117 / 183
315	31,470	1,330	105.2	182 / 105
320	31,999	1,133	105.3	150 / 100
326	32,570	1,133	105.3	172 / 75
331	33,119	1,133	105.5	150 / 100
337	33,730	1,133	105.7	100 / 125
343	34,281	1,133	106.2	100 / 100
348	34,834	1,133	107.2	50 / 110
354	35,396	1,133	108.7	77 / 32
360	36,017	1,133	109.6	125 / 50
365	36,495	1,133	110.0	170 / 60
370	37,048	1,133	110.7	30 / 50
376	37,571	1,133	112.8	25 / 25
Beaverdam Creek				
070	7,013	1,370	78.4	40 / 40
073	7,321	1,370	78.8	234 / 121
081	8,119	1,370	80.1	99 / 152
093	9,251	1,370	81.2	173 / 138
097	9,702	1,370	81.7	231 / 53
103	10,251	1,370	82.2	144 / 201
113	11,251	1,370	83.4	111 / 259
118	11,828	1,370	84.3	43 / 244
122	12,245	1,370	85.0	202 / 156
127	12,704	1,370	85.6	237 / 93
130	13,029	1,370	85.9	89 / 278
136	13,579	1,370	86.4	199 / 227
143	14,311	1,370	87.4	227 / 108
154	15,380	1,370	88.6	199 / 135
159	15,872	1,370	89.3	129 / 124
160	16,037	1,370	90.4	110 / 41
161	16,110	1,370	90.9	110 / 41
168	16,751	1,370	91.5	307 / 68
171	17,058	1,370	91.6	249 / 127
172	17,185	2,590	92.7	121 / 172
177	17,721	2,590	93.4	121 / 221
183	18,329	2,590	94.3	125 / 166
188	18,820	2,460	95.1	233 / 111
193	19,266	2,460	95.7	225 / 60
197	19,696	2,460	96.4	239 / 80
202	20,239	2,280	97.4	165 / 50
207	20,711	2,280	98.2	196 / 58
212	21,203	2,280	98.7	332 / 21

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
218	21,757	2,280	99.1	215 / 165
223	22,267	2,280	99.7	122 / 146
228	22,839	2,280	101.0	152 / 78
234	23,398	2,280	102.1	158 / 46
240	24,011	2,280	103.2	27 / 170
246	24,616	1,830	104.2	41 / 165
252	25,199	1,830	105.1	75 / 129
256	25,640	1,830	106.1	14 / 120
262	26,197	1,830	107.6	92 / 98
266	26,581	1,830	108.8	75 / 62
272	27,200	1,830	115.3	75 / 75
277	27,653	1,830	115.4	97 / 100
283	28,261	1,690	115.5	151 / 113
288	28,761	1,690	115.6	178 / 45
293	29,312	1,690	115.8	112 / 93
298	29,816	1,690	116.0	100 / 95
302	30,237	1,690	116.2	137 / 66
307	30,719	1,500	116.5	112 / 131
312	31,208	1,500	116.9	117 / 95
317	31,658	1,500	117.4	58 / 124
322	32,189	1,500	118.0	118 / 49
327	32,660	1,500	118.9	80 / 52
332	33,162	1,500	120.0	62 / 85
337	33,701	1,500	121.0	150 / 93
342	34,239	1,500	124.3	70 / 135
347	34,672	1,500	124.6	81 / 85
Beaverdam Creek 1				
006	648	2,113	133.8[1]	443 / 69
011	1,075	2,113	133.8[1]	279 / 170
016	1,617	2,113	133.9	160 / 147
021	2,098	2,113	134.8	200 / 143
025	2,507	2,072	135.5	99 / 171
032	3,205	2,072	140.1	166 / 160
037	3,749	2,072	140.3	249 / 227
042	4,218	2,072	140.6	65 / 312
046	4,648	2,072	140.9	47 / 259
051	5,112	2,072	141.2	177 / 186
056	5,600	2,072	141.6	226 / 117
061	6,054	2,072	142.0	141 / 345
065	6,484	2,072	142.3	252 / 225
069	6,852	1,444	142.8	312 / 65
074	7,352	1,444	143.7	222 / 247
079	7,903	1,444	144.8	211 / 123
084	8,385	1,444	145.9	142 / 138
088	8,772	1,444	147.4	350 / 14
Big Ditch				

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
163	16,298	1,000	110.8	50 / 76
167	16,743	1,000	110.8	328 / 88
172	17,232	1,000	110.8	126 / 99
176	17,596	1,000	110.8	105 / 196
178	17,755	1,000	110.8	119 / 208
178	17,835	1,000	110.8	10 / 213
183	18,341	1,000	110.8	55 / 225
188	18,775	1,000	110.9	83 / 67
194	19,394	1,000	110.9	23 / 194
199	19,877	1,000	110.7	24 / 18
202	20,182	1,000	111.8	60 / 7
205	20,471	1,000	114.3	10 / 113
208	20,821	1,000	114.8	37 / 70
210	20,976	1,000	115.0	29 / 38
212	21,236	1,000	115.8	36 / 25
213	21,299	1,000	117.9	91 / 25
217	21,747	1,000	118.2	28 / 179
Billy Bud Creek				
061	6,091	1,210	107.8	45 / 35
064	6,417	1,200	108.4	100 / 120
066	6,628	1,200	108.4	45 / 18
071	7,069	1,200	110.4	22 / 40
073	7,328	1,200	110.7	60 / 30
076	7,614	1,110	112.7	400 / 50
079	7,913	930	112.9	9 / 40
082	8,210	930	113.0	47 / 50
084	8,434	930	113.3	613 / 50
086	8,639	930	113.5	402 / 115
087	8,707	930	113.8	353 / 195
088	8,801	930	114.5	96 / 59
088	8,835	930	114.6	173 / 153
089	8,872	930	114.6	82 / 100
089	8,892	930	114.7	83 / 100
090	8,958	930	114.7	183 / 210
091	9,135	930	114.8	485 / 35
094	9,411	777	114.8	530 / 21
095	9,516	777	114.8	565 / 19
098	9,783	777	114.8	538 / 100
100	10,007	777	114.9	541 / 100
102	10,160	777	114.9	704 / 27
104	10,388	667	114.9	230 / 276
106	10,595	667	114.9	400 / 30
107	10,659	667	114.9	133 / 20
107	10,697	667	115.0	460 / 170
107	10,749	667	115.0	412 / 340

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
108	10,785	667	115.0	482 / 43
108	10,835	667	116.3	123 / 127
109	10,916	667	116.3	236 / 470
110	11,009	667	116.4	379 / 440
111	11,067	667	116.4	374 / 445
112	11,214	667	116.4	588 / 279
115	11,522	605	116.5	416 / 27
118	11,810	531	116.6	396 / 19
121	12,102	255	116.6	253 / 23
124	12,376	255	116.6	133 / 22
126	12,570	255	116.7	156 / 106
Buck Marsh Branch				
135	13,458	2,117	94.7	98 / 197
138	13,812	2,117	95.0	49 / 48
139	13,855	2,117	96.2	49 / 48
141	14,092	2,117	96.4	241 / 567
145	14,516	2,117	96.5	248 / 535
152	15,248	1,312	96.8	168 / 752
155	15,532	1,312	97.0	176 / 663
159	15,918	1,312	97.2	135 / 569
165	16,486	1,312	97.6	231 / 322
170	17,011	1,312	98.3	36 / 240
176	17,566	1,312	99.4	74 / 163
178	17,822	1,312	100.0	94 / 153
186	18,553	1,020	101.2	194 / 76
191	19,057	1,020	102.0	118 / 128
195	19,471	1,020	102.7	74 / 139
198	19,838	1,020	103.5	42 / 42
199	19,883	1,020	105.4	42 / 42
200	19,994	1,020	105.7	182 / 80
206	20,553	1,020	106.0	153 / 79
210	20,996	1,020	106.3	138 / 66
214	21,427	1,020	106.9	98 / 16
219	21,909	1,020	108.1	57 / 83
222	22,199	1,020	109.1	29 / 29
223	22,277	809	113.9	29 / 29
225	22,545	809	114.0	99 / 140
229	22,894	809	114.1	132 / 79
236	23,565	809	115.4	79 / 32
240	24,018	809	119.2	134 / 72
Buck Swamp				
115	11,454	988	108.1	32 / 237
121	12,062	988	110.0	121 / 175
125	12,524	988	110.2	195 / 76
130	13,039	988	110.6	138 / 115
135	13,474	988	111.3	175 / 15

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
140	13,990	988	112.6	208 / 15
146	14,557	835	113.8	167 / 14
151	15,108	835	114.8	209 / 14
157	15,681	835	115.9	14 / 147
167	16,715	835	121.0	148 / 121
172	17,176	835	121.1	184 / 50
181	18,088	835	121.4	103 / 175
186	18,567	835	121.9	74 / 122
191	19,117	835	123.1	159 / 53
197	19,686	835	124.4	163 / 14
203	20,325	835	125.9	86 / 118
208	20,823	661	127.0	54 / 91
214	21,394	661	129.0	107 / 13
220	21,968	661	131.0	44 / 66
225	22,482	661	132.9	13 / 78
232	23,244	661	134.9	180 / 21
Button Branch				
004	365	1,217	66.9[1]	453 / 47
009	934	1,217	66.9[1]	262 / 33
014	1,387	1,217	66.9[1]	123 / 97
017	1,706	1,217	67.1	48 / 112
021	2,056	1,217	68.0	33 / 37
024	2,427	1,217	68.9	25 / 25
026	2,628	1,217	71.1	35 / 35
030	3,040	1,217	71.5	92 / 73
036	3,613	1,110	71.7	42 / 128
043	4,330	1,110	72.5	131 / 34
Cabin Branch				
009	948	1,388	96.8	378 / 187
016	1,582	1,388	97.1	71 / 188
021	2,077	1,388	97.8	114 / 38
026	2,598	1,388	98.9	76 / 88
031	3,126	1,388	100.2	115 / 91
035	3,516	1,388	101.1	58 / 118
041	4,096	1,388	102.2	119 / 59
047	4,711	1,388	103.4	30 / 30
048	4,766	1,388	104.6	30 / 30
051	5,095	1,286	105.2	144 / 136
055	5,532	1,286	105.5	59 / 222
063	6,266	1,286	106.5	23 / 152
066	6,594	1,286	107.2	158 / 79
070	6,965	1,286	108.0	131 / 148
075	7,502	1,286	108.8	167 / 94
082	8,158	1,286	109.8	68 / 23
086	8,616	1,286	111.1	215 / 66
090	9,048	1,286	111.7	85 / 139

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
096	9,623	1,286	113.4	23 / 111
101	10,117	1,030	115.0	21 / 84
106	10,555	1,030	116.0	64 / 78
110	11,044	1,030	117.3	63 / 69
115	11,530	1,030	119.0	100 / 74
121	12,070	1,030	121.2	25 / 25
121	12,130	1,030	125.3	25 / 25
122	12,231	1,030	125.4	170 / 150
126	12,567	1,030	125.4	184 / 183
131	13,107	1,030	125.6	141 / 185
136	13,611	1,030	125.9	153 / 115
142	14,191	1,030	126.9	126 / 65
147	14,661	1,030	128.5	125 / 61
152	15,216	1,030	130.0	38 / 149
156	15,650	846	131.3	27 / 23
162	16,211	846	133.9	100 / 100
167	16,677	846	134.8	100 / 100
Charles Branch				
017	1,679	1,982	82.4[1]	78 / 140
023	2,315	1,982	82.4[1]	180 / 40
026	2,638	1,982	82.4[1]	115 / 116
032	3,189	1,982	82.6	68 / 118
037	3,706	1,982	83.1	107 / 208
042	4,182	1,982	83.6	68 / 114
047	4,732	1,982	84.4	25 / 200
052	5,161	1,982	85.0	147 / 69
058	5,781	1,982	86.1	34 / 141
062	6,219	1,982	87.0	14 / 149
066	6,649	1,982	88.0	17 / 160
071	7,133	1,982	88.8	131 / 75
076	7,609	1,982	89.6	57 / 132
082	8,152	1,982	90.6	20 / 165
085	8,527	1,982	91.4	128 / 104
089	8,927	1,982	92.0	66 / 418
092	9,233	660	92.2	174 / 27
094	9,385	660	92.2	51 / 21
096	9,629	660	92.5	26 / 98
101	10,137	660	93.1	44 / 20
108	10,775	660	94.6	18 / 58
113	11,267	660	96.0	18 / 45
117	11,670	660	96.8	18 / 104
121	12,092	660	97.9	18 / 25
124	12,364	660	98.9	31 / 36
124	12,433	660	100.6	31 / 37
126	12,609	660	100.8	75 / 18

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
128	12,778	660	101.0	74 / 67
133	13,298	555	101.3	23 / 59
137	13,653	555	102.4	18 / 27
140	13,983	555	103.8	18 / 31
144	14,394	555	105.0	18 / 44
150	14,960	555	106.8	18 / 27
152	15,189	555	107.5	23 / 74
156	15,579	398	108.3	49 / 31
158	15,790	398	108.9	30 / 80
161	16,101	398	111.2	22 / 8
163	16,266	398	125.6	20 / 17
165	16,498	398	125.6	129 / 116
168	16,766	398	125.6	125 / 161
Eastern Tributary to Charles Branch				
004	402	698	82.4[1]	25 / 58
007	671	698	82.4[1]	19 / 38
009	889	698	82.4[1]	19 / 39
013	1,341	698	82.4[1]	20 / 29
017	1,706	698	82.9	40 / 32
023	2,270	698	84.6	19 / 53
027	2,716	698	85.2	24 / 14
028	2,781	698	86.9	26 / 23
030	3,005	698	87.0	100 / 46
034	3,411	698	87.5	19 / 117
038	3,842	698	88.5	19 / 85
044	4,374	698	90.0	60 / 25
047	4,675	698	91.2	81 / 34
051	5,078	698	92.1	108 / 29
054	5,378	698	92.8	71 / 42
057	5,683	698	93.6	111 / 58
062	6,156	604	94.1	42 / 72
069	6,893	604	95.3	19 / 62
075	7,474	604	96.4	19 / 87
081	8,082	604	97.4	19 / 34
084	8,408	604	98.3	56 / 71
085	8,466	604	98.8	63 / 64
086	8,562	604	98.9	25 / 28
090	8,956	604	99.5	66 / 23
093	9,299	506	100.3	76 / 17
096	9,591	506	100.5	57 / 34
099	9,868	506	100.7	77 / 34
101	10,147	506	101.0	18 / 33
104	10,354	506	101.7	18 / 27
104	10,416	506	103.4	30 / 30
106	10,569	506	103.5	30 / 80
Falling Creek				

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
855	85,488	2,110	124.0	100 / 100
861	86,119	2,110	124.1	503 / 275
867	86,745	2,110	124.2	222 / 263
878	87,774	2,110	124.6	90 / 491
884	88,428	2,110	124.8	123 / 433
890	89,019	2,110	125.0	182 / 356
898	89,798	2,110	125.3	15 / 566
906	90,607	2,110	125.5	395 / 191
912	91,174	2,110	125.8	328 / 164
917	91,674	2,110	126.2	332 / 121
920	92,048	2,110	126.6	254 / 186
930	93,002	2,110	127.8	47 / 256
939	93,872	2,110	128.5	507 / 30
946	94,618	2,110	129.3	70 / 322
964	95,744	2,110	131.3	95 / 130
957	96,434	2,110	132.4	185 / 130
968	96,803	2,110	132.7	99 / 252
980	97,718	2,110	133.7	153 / 103
984	98,036	2,110	134.2	144 / 147
977	98,398	2,110	134.7	118 / 191
986	98,560	2,110	135.4	163 / 24
986	98,620	2,110	138.3	140 / 28
988	98,794	2,110	138.6	345 / 53
991	99,118	2,110	138.7	474 / 75
996	99,595	2,110	138.8	324 / 162
Great Swamp				
181	18,113	6,234	92.3	62 / 62
184	18,357	6,234	95.7	62 / 62
188	18,828	6,119	96.9	300 / 300
193	19,301	6,119	96.9	600 / 50
195	19,470	6,119	97.0	600 / 50
200	20,024	6,119	97.2	700 / 200
207	20,704	6,031	97.2	500 / 400
217	21,662	6,031	97.3	484 / 371
226	22,579	6,031	97.6	777 / 243
234	23,386	5,511	97.7	905 / 29
246	24,579	5,511	98.0	546 / 274
254	25,412	5,511	98.3	76 / 578
266	26,565	5,511	98.8	200 / 450
282	28,249	5,079	99.6	259 / 350
289	28,937	5,079	100.0	500 / 200
291	29,099	5,079	100.3	500 / 200
295	29,500	5,079	100.6	263 / 344
302	30,228	5,079	101.2	650 / 150
311	31,091	5,079	101.7	624 / 31

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
328	32,826	3,671	103.4	350 / 80
335	33,500	3,671	104.0	309 / 219
342	34,213	3,671	104.4	337 / 22
349	34,921	3,671	105.1	287 / 176
357	35,658	3,514	105.6	600 / 100
363	36,323	3,514	106.0	710 / 73
371	37,102	3,514	106.5	500 / 150
377	37,730	3,514	107.2	300 / 150
383	38,318	3,514	108.4	190 / 117
389	38,852	3,514	109.3	261 / 128
393	39,318	3,514	109.8	200 / 200
395	39,502	3,514	111.1	200 / 200
399	39,885	3,071	111.3	239 / 188
406	40,592	3,071	111.6	250 / 250
414	41,364	3,071	111.8	350 / 100
415	41,539	3,071	112.4	350 / 100
418	41,774	2,952	112.5	500 / 50
424	42,429	2,952	112.7	350 / 200
430	43,000	2,952	112.9	424 / 156
438	43,794	2,952	113.3	400 / 300
442	44,169	2,952	113.5	167 / 468
449	44,860	2,952	114.0	400 / 150
454	45,372	2,952	114.2	472 / 214
460	46,006	2,834	114.6	232 / 317
466	46,648	2,834	115.0	321 / 367
477	47,666	2,834	115.6	55 / 581
483	48,303	2,834	116.2	19 / 444
491	49,102	2,834	117.8	80 / 250
497	49,653	2,834	119.4	65 / 75
500	49,973	2,834	120.7	250 / 150
503	50,288	2,834	120.9	300 / 400
508	50,834	2,608	121.0	500 / 400
514	51,375	2,608	121.0	25 / 25
515	51,497	2,608	122.7	25 / 25
518	51,819	2,608	123.9	19 / 239
524	52,394	2,608	124.2	273 / 154
531	53,060	2,608	124.4	200 / 257
542	54,184	2,072	125.2	243 / 70
546	54,594	2,072	125.6	99 / 172
549	54,867	2,072	126.0	36 / 36
550	54,976	2,072	126.3	36 / 36
553	55,277	2,072	127.2	24 / 134
555	55,509	2,072	127.6	40 / 200
558	55,814	2,072	128.0	47 / 91
565	56,538	1,237	130.4	125 / 13

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
572	57,195	1,237	131.6	172 / 13
577	57,728	1,053	132.7	41 / 102
583	58,337	1,053	134.4	13 / 103
594	59,403	1,053	138.3	67 / 61
600	59,981	745	140.8	14 / 94
606	60,619	745	142.9	78 / 143
614	61,361	745	144.7	14 / 164
620	62,005	745	147.0	14 / 168
627	62,716	745	151.7	14 / 101
634	63,407	745	155.2	14 / 85
639	63,861	745	157.9	14 / 44
Great Swamp Tributary 1				
026	2,613	1,556	92.6	244 / 16
031	3,134	1,556	93.4	231 / 15
038	3,753	1,556	94.1	97 / 152
039	3,896	1,556	96.2	97 / 152
044	4,371	1,556	96.5	60 / 165
050	4,956	1,556	97.1	102 / 132
055	5,491	1,556	97.9	94 / 161
060	5,992	1,389	98.6	176 / 61
066	6,571	1,389	99.2	148 / 88
072	7,154	1,389	100.0	160 / 51
078	7,822	1,389	101.6	73 / 99
086	8,583	1,389	103.2	160 / 25
090	8,963	1,389	104.3	80 / 40
091	9,140	1,389	106.1	35 / 50
095	9,480	1,389	108.7	40 / 60
097	9,688	1,389	109.1	40 / 100
101	10,061	469	109.8	21 / 83
104	10,426	469	110.9	13 / 28
109	10,925	469	114.8	36 / 34
Great Swamp Tributary 2				
012	1,211	1,385	99.1[1]	102 / 237
018	1,757	1,385	99.1[1]	203 / 17
022	2,174	1,385	99.5	144 / 65
027	2,653	1,385	100.3	150 / 8
032	3,193	1,385	101.4	205 / 23
038	3,750	1,385	102.2	147 / 47
043	4,304	1,385	103.3	200 / 25
045	4,534	1,385	103.8	75 / 50
047	4,714	1,385	107.1	75 / 50
050	5,018	1,385	107.3	200 / 25
055	5,495	1,123	107.7	190 / 13
059	5,905	1,123	108.1	214 / 13
064	6,356	1,123	108.5	159 / 74
070	7,022	1,123	109.3	200 / 50

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
076	7,558	823	110.4	167 / 12
076	7,558	823	110.4	167 / 12
080	8,041	417	110.9	102 / 19
085	8,543	417	111.2	-4 / 64
089	8,915	417	112.2	65 / 15
090	9,028	417	112.6	24 / 16
091	9,089	417	114.8	15 / 22
093	9,305	417	114.9	41 / 62
097	9,727	417	115.1	25 / 35
101	10,082	417	115.3	2 / 61
Great Swamp Tributary 3				
009	921	1,134	124.6[1]	48 / 16
015	1,468	1,134	126.6	16 / 81
019	1,914	1,134	127.6	102 / 41
025	2,456	1,134	128.7	16 / 151
030	3,013	1,134	130.0	16 / 204
036	3,604	1,134	132.0	60 / 100
041	4,130	1,134	134.2	49 / 27
047	4,662	1,134	135.9	22 / 77
052	5,230	1,134	137.7	16 / 54
055	5,475	1,134	138.4	40 / 50
056	5,596	1,134	141.9	40 / 50
062	6,221	1,134	142.3	85 / 35
069	6,861	937	143.4	138 / 12
075	7,516	937	145.1	100 / 25
077	7,679	937	150.4	100 / 25
080	8,022	937	150.4	100 / 100
086	8,600	937	150.5	25 / 125
091	9,139	937	150.6	45 / 48
096	9,648	937	152.9	15 / 39
101	10,093	937	156.1	57 / 16
Great Swamp Tributary 4				
003	295	1,404	128.8[1]	14 / 148
008	815	1,404	129.1	75 / 59
014	1,362	1,404	130.0	147 / 41
020	2,039	1,404	130.9	14 / 206
026	2,575	1,404	131.7	40 / 275
031	3,090	1,404	132.1	200 / 175
034	3,434	1,404	132.5	178 / 128
036	3,571	1,404	135.6	178 / 128
040	3,996	1,404	135.6	100 / 250
043	4,331	1,404	135.7	200 / 150
049	4,852	1,404	135.9	239 / 54
054	5,449	1,404	136.1	175 / 125
061	6,115	1,067	136.4	200 / 20
069	6,863	1,067	137.8	200 / 15

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
Horsepen Branch				
005	528	1,030	120.4[1]	253 / 110
010	986	1,030	121.0	21 / 368
014	1,429	1,030	121.6	29 / 159
020	2,000	1,030	123.3	126 / 36
025	2,501	1,030	124.2	41 / 103
030	2,972	1,030	125.1	27 / 81
035	3,496	1,030	127.0	21 / 78
040	3,974	1,030	128.7	64 / 41
045	4,529	1,030	129.8	45 / 56
050	4,950	1,030	130.4	98 / 64
055	5,542	980	131.0	140 / 62
060	5,990	980	132.1	78 / 71
066	6,575	980	133.7	61 / 93
070	7,014	980	134.5	180 / 20
074	7,444	980	135.4	31 / 124
079	7,913	858	137.1	20 / 57
084	8,386	858	139.3	44 / 52
093	9,299	858	143.5	49 / 54
098	9,807	858	146.5	19 / 84
104	10,356	858	149.5	19 / 57
108	10,755	858	151.1	123 / 24
110	10,972	858	151.7	87 / 24
111	11,052	858	154.8	87 / 24
113	11,342	858	154.9	385 / 175
119	11,914	858	155.2	160 / 170
Howell's Branch				
095	9,537	614	105.4	45 / 52
099	9,924	614	105.5	1 / 119
103	10,312	855	106.2	85 / 175
110	11,018	855	106.4	147 / 115
113	11,348	855	106.5	141 / 14
118	11,784	674	107.0	51 / 99
124	12,396	674	107.7	13 / 202
128	12,832	674	108.2	13 / 116
133	13,303	674	112.5	80 / 106
Ivy Branch				
039	3,949	1,863	65.5	115 / 275
043	4,267	1,863	66.1	50 / 220
045	4,500	1,863	67.4	57 / 165
050	4,963	1,863	68.2	181 / 19
061	6,149	1,863	72.4	157 / 33
068	6,843	1,863	74.0	41 / 151
075	7,453	1,269	75.8	72 / 60
082	8,210	1,269	77.6	66 / 90
088	8,766	1,269	78.5	71 / 94

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
094	9,419	1,269	79.7	61 / 111
100	10,001	978	80.6	110 / 47
105	10,478	978	81.5	60 / 62
110	10,969	978	82.7	12 / 112
116	11,585	978	84.5	54 / 78
122	12,166	978	86.0	64 / 95
125	12,542	978	87.1	93 / 20
Jones Branch				
004	387	600	101.0[1]	22 / 105
007	675	600	101.5	12 / 131
011	1,074	600	103.6	84 / 46
015	1,484	600	106.2	81 / 21
016	1,587	600	106.5	19 / 19
017	1,653	600	109.1	19 / 19
020	2,001	600	109.7	55 / 71
025	2,466	600	111.0	63 / 62
030	2,995	438	113.0	38 / 33
035	3,510	438	115.7	56 / 32
040	4,040	438	118.6	13 / 68
045	4,527	438	121.7	14 / 70
051	5,071	438	124.4	22 / 79
055	5,453	438	126.0	12 / 72
061	6,084	438	128.8	48 / 22
065	6,477	438	131.1	37 / 61
068	6,753	438	133.4	13 / 18
Jumping Run Branch				
019	1,912	1,051	101.7	111 / 209
026	2,573	1,051	102.8	233 / 110
030	3,004	1,051	104.0	170 / 16
032	3,158	1,051	104.5	29 / 29
032	3,238	1,051	110.3	29 / 29
035	3,478	1,051	110.3	76 / 174
039	3,941	1,051	110.4	48 / 164
044	4,434	822	110.6	55 / 165
047	4,713	822	110.6	18 / 18
048	4,772	822	112.0	18 / 18
051	5,107	822	112.6	26 / 130
055	5,514	822	112.8	14 / 109
060	5,964	822	113.4	32 / 34
065	6,491	822	115.1	17 / 75
070	6,958	822	117.2	14 / 75
075	7,460	822	119.1	70 / 14
080	8,017	822	120.8	75 / 30
085	8,503	822	122.6	36 / 23
091	9,140	489	126.8	25 / 53
Juniper Swamp				

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
004	414	2,768	103.1[1]	229 / 78
011	1,094	2,768	103.1[1]	138 / 125
016	1,640	2,768	103.2	185 / 334
024	2,357	2,768	103.7	222 / 176
030	2,966	2,768	104.3	216 / 240
037	3,669	2,768	105.0	164 / 367
044	4,361	2,768	106.1	239 / 34
050	5,000	2,768	107.3	396 / 19
057	5,694	2,239	108.2	464 / 18
064	6,393	2,239	108.8	330 / 217
070	7,000	2,239	109.4	102 / 240
077	7,726	2,239	110.9	16 / 429
085	8,500	2,239	112.8	57 / 257
092	9,191	1,700	115.6	45 / 82
097	9,726	1,700	116.6	104 / 199
Lee Branch				
110	10,962	450	139.0	65 / 30
112	11,175	450	139.5	20 / 50
114	11,418	450	139.9	30 / 13
116	11,624	450	140.2	22 / 19
118	11,758	450	140.4	22 / 15
119	11,871	450	140.6	20 / 10
119	11,933	450	141.0	14 / 16
120	11,964	450	143.1	40 / 60
120	12,000	450	143.2	25 / 59
122	12,216	450	143.3	19 / 31
124	12,446	450	143.4	18 / 53
127	12,681	450	143.5	24 / 17
129	12,884	450	143.8	29 / 14
131	13,136	450	144.3	20 / 20
134	13,425	450	145.8	10 / 100
137	13,707	450	149.8	30 / 40
Lewis Branch				
006	550	1,673	110.1	130 / 402
009	933	1,673	110.6	131 / 20
011	1,110	1,673	111.6	38 / 38
012	1,214	1,673	112.6	38 / 38
012	1,215	1,673	112.6	37 / 37
013	1,264	1,673	114.1	37 / 37
015	1,516	1,673	115.8	326 / 159
020	1,965	1,673	117.5	429 / 122
025	2,463	1,673	118.0	339 / 139
030	2,958	1,481	118.4	264 / 156
035	3,545	1,481	118.6	446 / 109
040	3,991	1,481	118.9	350 / 170
045	4,480	1,481	119.3	197 / 177

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
050	5,011	1,481	119.8	327 / 137
054	5,378	1,481	120.1	293 / 182
058	5,757	1,481	120.4	214 / 184
064	6,443	883	121.2	123 / 102
071	7,056	883	121.9	122 / 70
076	7,614	883	122.5	50 / 113
080	8,044	883	123.0	100 / 130
084	8,425	883	123.4	39 / 150
090	8,980	883	124.4	134 / 27
096	9,554	883	125.9	159 / 89
100	9,985	883	126.5	209 / 32
106	10,562	883	127.6	17 / 77
111	11,076	619	129.8	12 / 99
116	11,620	619	130.9	84 / 34
120	12,024	619	132.2	12 / 72
127	12,714	619	135.9	99 / 12
131	13,148	619	138.0	34 / 43
Mills Creek				
106	10,603	728	115.4	78 / 202
113	11,298	728	115.6	88 / 101
121	12,110	728	116.2	31 / 164
128	12,807	518	117.7	55 / 37
132	13,196	518	118.8	70 / 40
145	14,455	518	120.8	120 / 200
155	15,471	518	122.3	12 / 613
163	16,284	518	122.8	12 / 843
169	16,882	518	123.5	226 / 70
174	17,382	518	124.4	12 / 516
Nahunta Swamp				
1203	120,329	1,180	121.2	92 / 23
1208	120,783	1,180	121.6	190 / 90
1212	121,177	1,180	122.0	70 / 100
1216	121,635	1,180	122.6	80 / 120
1225	122,463	1,180	123.2	115 / 117
1233	123,305	1,180	123.6	20 / 243
1238	123,841	1,180	124.2	25 / 93
1246	124,571	1,180	125.6	17 / 119
1255	125,531	1,267	126.7	55 / 225
1259	125,935	1,267	127.0	255 / 310
1268	126,788	1,218	127.6	175 / 185
1278	127,781	1,218	128.4	145 / 35
1284	128,444	1,001	129.7	158 / 15
1293	129,293	1,001	130.7	28 / 184
1299	129,901	980	133.4	70 / 30
1303	130,345	980	133.6	70 / 130
1309	130,854	980	133.8	15 / 143

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
1318	131,786	812	134.5	65 / 285
1324	132,372	812	134.7	354 / 115
1329	132,906	812	135.0	35 / 165
1337	133,710	751	136.4	95 / 109
Nahunta Swamp Tributary				
009	915	682	85.4[1]	21 / 104
017	1,654	643	87.3	85 / 13
023	2,317	643	89.5	45 / 38
028	2,845	643	90.5	51 / 41
034	3,446	643	91.4	143 / 13
041	4,067	643	92.3	44 / 77
046	4,600	643	93.4	26 / 94
052	5,249	561	95.0	54 / 48
058	5,804	561	96.7	60 / 65
066	6,623	561	99.0	100 / 50
073	7,265	457	101.0	100 / 40
079	7,921	457	107.9	15 / 50
085	8,500	457	108.0	119 / 26
090	9,000	457	108.0	14 / 121
096	9,552	457	108.3	26 / 60
Northeast Cape Fear River Tributary				
014	1,393	543	102.8	48 / 137
021	2,116	543	105.2	51 / 125
028	2,804	543	108.0	82 / 41
033	3,298	543	110.7	116 / 12
038	3,754	543	112.4	131 / 17
043	4,255	543	114.7	31 / 15
048	4,756	543	118.8	115 / 58
052	5,218	543	121.2	61 / 89
057	5,699	543	123.7	173 / 12
060	5,950	543	125.2	29 / 29
060	6,030	461	130.4	29 / 29
063	6,264	461	130.4	314 / 330
067	6,722	461	130.4	145 / 142
072	7,199	461	130.6	75 / 108
076	7,569	461	131.6	18 / 18
076	7,629	461	136.6	18 / 18
077	7,742	461	136.7	186 / 207
081	8,145	461	136.7	99 / 154
084	8,393	461	136.9	79 / 55
Richland Creek				
114	11,384	526	106.5	19 / 16
115	11,546	436	106.6	23 / 17
117	11,704	436	106.7	23 / 18
121	12,060	436	106.7	10 / 40
122	12,181	436	106.9	7 / 11

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
123	12,324	436	107.6	11 / 10
125	12,500	436	108.6	25 / 10
128	12,763	436	110.4	174 / 91
131	13,051	436	111.1	90 / 138
134	13,361	436	111.5	200 / 78
136	13,650	436	111.6	118 / 50
138	13,849	396	111.7	83 / 50
139	13,923	396	111.8	83 / 50
141	14,092	396	111.8	8 / 20
143	14,291	396	111.9	47 / 17
145	14,478	396	112.0	17 / 58
146	14,575	396	112.1	18 / 57
150	14,972	396	112.3	16 / 52
Stoney Creek				
538	53,843	1,300	115.7	144 / 16
542	54,247	1,300	115.9	147 / 32
543	54,329	1,300	116.1	146 / 33
545	54,477	1,300	116.3	135 / 95
548	54,828	1,220	116.8	69 / 98
555	55,485	1,220	117.9	25 / 32
559	55,935	1,220	118.7	70 / 150
564	56,393	1,220	119.6	40 / 40
568	56,822	1,220	120.3	100 / 100
575	57,504	1,130	121.7	20 / 17
Stoney Creek Tributary				
022	2,174	391	108.5	24 / 24
022	2,220	391	108.6	40 / 30
023	2,309	391	108.6	70 / 40
024	2,410	391	108.6	70 / 40
025	2,453	391	108.6	70 / 40
026	2,590	391	108.6	80 / 30
027	2,660	391	108.6	90 / 30
028	2,812	391	108.6	80 / 30
029	2,861	391	108.6	70 / 27
031	3,061	391	108.6	20 / 70
032	3,166	391	108.7	20 / 60
035	3,470	391	109.0	20 / 30
037	3,743	391	109.6	40 / 50
040	4,015	391	110.1	50 / 20
043	4,305	391	110.8	40 / 20
045	4,507	391	111.1	35 / 30
046	4,644	391	111.2	29 / 32
048	4,773	391	111.3	30 / 43
Thoroughfare Swamp				
508	50,830	1,660	123.6	128 / 127
511	51,078	1,660	123.8	324 / 97

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
515	51,519	1,660	124.2	257 / 184
524	52,357	1,660	124.9	456 / 60
530	52,988	1,660	125.6	544 / 45
536	53,588	1,660	126.8	135 / 223
541	54,142	1,660	128.4	63 / 176
546	54,584	1,660	129.2	122 / 201
552	55,237	1,660	130.0	17 / 442
558	55,807	1,660	130.6	135 / 258
564	56,427	1,660	131.7	61 / 324
569	56,943	1,660	132.6	124 / 298
574	57,403	1,660	133.2	26 / 253
578	57,791	1,660	133.9	47 / 225
583	58,315	1,660	134.7	182 / 63
588	58,833	1,660	135.3	136 / 213
591	59,061	1,660	135.6	101 / 177
592	59,175	1,660	135.8	83 / 31
592	59,235	1,660	138.8	84 / 150
594	59,355	1,660	138.9	168 / 171
594	59,433	1,660	138.9	250 / 190
596	59,621	1,660	138.9	217 / 150
599	59,887	1,660	139.0	230 / 88
605	60,547	1,660	139.1	131 / 174
610	61,038	1,660	139.4	160 / 134
615	61,530	1,660	140.0	17 / 254
618	61,840	1,660	140.4	93 / 195
623	62,283	1,660	141.0	33 / 215
627	62,676	1,660	141.4	132 / 132
630	63,026	1,660	141.6	30 / 208
634	63,353	1,660	142.0	37 / 164
638	63,833	1,660	142.6	64 / 163
642	64,236	1,660	143.2	117 / 91
646	64,619	1,660	143.9	84 / 134
651	65,103	1,660	145.1	86 / 105
655	65,458	1,660	146.0	65 / 108
660	65,974	1,660	147.2	137 / 55
664	66,411	1,660	148.0	258 / 62
669	66,852	1,660	148.9	89 / 96
672	67,181	1,660	149.8	123 / 135
676	67,594	1,660	150.5	206 / 149
679	67,906	1,660	150.9	162 / 129
683	68,333	1,660	151.6	114 / 123
Thunder Swamp				
254	25,379	610	140.8	22 / 25
256	25,585	610	140.8	50 / 100
259	25,949	610	141.1	12 / 12

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
263	26,277	610	143.2	12 / 12
269	26,857	610	147.2	12 / 12
273	27,336	610	150.5	26 / 22
278	27,821	610	152.5	98 / 15
282	28,232	610	153.7	26 / 15
287	28,734	610	155.7	11 / 15
291	29,094	610	157.6	15 / 15
294	29,370	610	159.9	25 / 24
Thunder Swamp Tributary				
058	5,756	375	147.1	57 / 75
060	5,988	375	147.1	24 / 61
061	6,148	375	147.2	26 / 27
064	6,408	375	147.3	47 / 25
069	6,886	375	147.6	131 / 16
073	7,280	375	148.2	16 / 16
075	7,463	375	149.4	42 / 55
078	7,758	375	150.3	15 / 21
078	7,845	375	151.0	15 / 15
080	7,986	375	152.0	40 / 19
081	8,128	375	152.2	16 / 16
083	8,289	375	152.6	16 / 22
084	8,432	375	152.8	14 / 16
086	8,567	375	153.3	19 / 10
087	8,707	375	153.9	14 / 20
089	8,881	375	154.7	17 / 20
091	9,142	375	155.1	89 / 18
094	9,425	375	155.5	16 / 16
095	9,546	375	156.3	16 / 16
Tributary to Neuse River				
004	391	499	72.9[1]	17 / 11
006	610	499	72.9[1]	7 / 7
009	885	499	72.9[1]	10 / 25
012	1,180	499	72.9[1]	15 / 16
017	1,654	499	72.9[1]	16 / 8
017	1,727	499	72.9[1]	8 / 16
020	1,991	499	72.9[1]	15 / 15
022	2,155	499	72.9[1]	17 / 17
023	2,320	499	72.9[1]	17 / 17
024	2,358	499	72.9[1]	485 / 55
024	2,384	499	72.9[1]	503 / 16
024	2,429	499	72.9[1]	527 / 16
030	3,024	499	72.9[1]	391 / 32
036	3,568	499	72.9[1]	308 / 233
041	4,141	440	72.9[1]	479 / 32
045	4,481	440	72.9[1]	203 / 18
048	4,792	440	72.9[1]	61 / 18

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
Turner Swamp				
095	9,453	1,476	77.2	105 / 110
101	10,087	1,476	77.9	80 / 105
108	10,794	1,476	79.0	37 / 156
114	11,443	1,476	80.1	27 / 137
120	12,040	1,476	81.3	36 / 129
127	12,698	1,476	82.6	53 / 113
132	13,208	1,476	83.5	58 / 131
136	13,620	1,476	84.0	65 / 140
141	14,141	1,476	84.6	97 / 71
147	14,703	1,476	85.5	25 / 164
152	15,233	1,476	86.2	27 / 27
154	15,357	1,172	86.6	27 / 27
158	15,810	1,172	87.3	102 / 45
164	16,442	1,172	89.0	119 / 44
170	16,986	1,172	90.1	84 / 138
175	17,543	1,172	91.5	140 / 13
181	18,135	1,172	93.1	81 / 68
186	18,650	1,172	94.7	20 / 138
192	19,172	1,172	96.0	118 / 71
199	19,916	678	97.4	26 / 75
206	20,566	678	98.5	50 / 74
212	21,231	678	100.2	29 / 29
217	21,742	678	102.5	64 / 14
223	22,344	678	104.3	106 / 14
Unnamed Tributary to Little River				
001	105	592	84.9[1]	16 / 25
003	299	592	84.9[1]	16 / 20
005	521	592	84.9[1]	20 / 40
006	650	592	84.9[1]	100 / 50
007	672	592	84.9[1]	130 / 50
009	859	592	84.9[1]	55 / 30
010	1,047	592	84.9[1]	188 / 25
015	1,505	592	84.9[1]	11 / 14
016	1,602	592	84.9[1]	16 / 21
017	1,738	592	84.9[1]	167 / 23
023	2,262	592	84.9[1]	257 / 17
023	2,320	592	84.9[1]	257 / 9
030	2,978	592	84.9[1]	620 / 22
033	3,260	592	84.9[1]	750 / 25
040	4,022	493	84.9[1]	748 / 31
047	4,662	493	84.9[1]	429 / 28
050	5,035	493	84.9[1]	129 / 18
054	5,435	430	84.9[1]	101 / 25
059	5,899	430	85.0	16 / 360
063	6,305	430	89.6	70 / 70

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
068	6,803	430	92.3	16 / 28
072	7,190	430	93.4	16 / 22
075	7,540	430	95.2	16 / 22
079	7,897	430	97.0	16 / 44
082	8,179	430	97.8	16 / 23
085	8,480	430	98.9	16 / 20
087	8,686	430	100.0	13 / 20
088	8,751	430	111.4	60 / 70
088	8,804	430	111.4	16 / 45
089	8,925	430	111.3	25 / 80
091	9,111	430	112.5	20 / 60
Walnut Creek				
446	44,568	1,185	95.4	152 / 104
452	45,191	1,185	96.1	164 / 31
457	45,735	1,185	96.7	68 / 130
463	46,269	1,185	97.3	19 / 201
465	46,545	1,185	97.6	17 / 157
471	47,119	764	98.7	89 / 13
476	47,633	764	99.6	84 / 79
483	48,258	764	100.9	13 / 105
489	48,918	764	102.8	65 / 89
495	49,450	764	104.1	42 / 75
505	50,478	708	108.1	152 / 45
514	51,357	708	108.6	40 / 110
520	52,030	708	109.7	180 / 225
528	52,835	708	111.2	820 / 225
538	53,806	502	112.2	379 / 12
545	54,526	502	112.8	559 / 12
552	55,190	502	113.4	421 / 12
559	55,878	502	114.0	571 / 12
565	56,547	502	114.7	403 / 12
573	57,262	502	115.6	527 / 12
Walnut Creek Tributary D				
002	232	766	97.6	35 / 109
008	846	766	98.4	32 / 23
014	1,384	766	102.4	26 / 154
022	2,187	766	102.6	100 / 98
030	2,955	766	102.8	80 / 66
035	3,501	766	103.3	109 / 15
042	4,179	766	104.4	108 / 13
048	4,770	766	105.3	69 / 19
Watery Branch				
108	10,809	1,900	74.9	61 / 41
112	11,245	1,900	76.1	79 / 17
118	11,781	1,900	77.5	121 / 16
122	12,230	1,900	78.2	16 / 111

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
128	12,768	1,900	78.8	54 / 132
131	13,147	1,900	79.2	16 / 102
137	13,694	1,900	80.1	114 / 109
141	14,133	1,900	80.5	53 / 102
143	14,300	1,900	83.1	53 / 102
147	14,724	1,900	83.3	102 / 173
153	15,328	1,900	83.7	86 / 144
161	16,055	1,671	84.4	93 / 260
167	16,659	1,671	84.8	257 / 190
173	17,258	1,479	85.4	69 / 196
178	17,766	1,479	86.1	94 / 129
183	18,323	1,479	86.9	48 / 163
191	19,087	1,479	88.0	115 / 103
195	19,525	1,479	88.6	83 / 105
201	20,145	1,209	89.2	232 / 13
207	20,711	1,209	89.8	88 / 109
214	21,356	1,209	90.9	87 / 98
218	21,845	1,209	92.0	22 / 162
224	22,370	1,209	93.0	30 / 134
230	23,003	1,125	94.1	76 / 109
235	23,529	1,125	95.0	113 / 82
240	24,001	1,125	96.1	20 / 109
246	24,574	1,125	97.4	68 / 106
251	25,117	1,125	98.4	99 / 47
256	25,604	1,125	99.5	165 / 22
260	26,032	1,125	100.3	146 / 56
265	26,461	812	101.4	109 / 12
269	26,950	812	103.5	54 / 23
274	27,408	812	106.0	62 / 16
279	27,863	812	107.5	53 / 62
White Oak Swamp				
002	233	1,054	112.9	91 / 58
009	855	1,054	114.5	122 / 17
012	1,227	1,054	115.8	95 / 16
018	1,804	1,054	117.9	130 / 15
021	2,106	1,054	118.6	147 / 22
022	2,226	1,054	121.6	147 / 22
028	2,807	1,054	121.9	202 / 13
Yellow Marsh Branch				
242	24,248	537	154.6	20 / 25
247	24,683	537	154.6	60 / 77
250	24,996	537	154.6	62 / 90
254	25,366	537	154.8	77 / 74
257	25,652	537	155.1	35 / 40
258	25,774	537	155.2	18 / 20
259	25,851	537	156.6	30 / 10

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
259	25,932	537	157.0	37 / 11

[1]Elevation includes backwater effects

5.3 Coastal Analyses

This section is not applicable to this FIS project. Table 18 “Summary of Coastal Stillwater Elevations” and Table 19 “Summary of Coastal Analyses” do not apply to Wayne County.

6.0 Mapping Methods

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 Wayne 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 in neighboring states 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 Wayne County is # feet. 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 20, “Datum Conversion Locations and Values,” is shown below.

Table 20, “Datum Conversion Locations and Values.”

Table 20 - Datum Conversion Locations and Values

Latitude	Longitude	Conversion from NGVD29 to NAVD88 (feet)
35.37	-78.12	-0.99
35.37	-78.12	-0.99
35.25	-78.25	-0.97
35.25	-78.25	-0.97
35.25	-77.87	-1.06
35.25	-77.87	-1.06
35.50	-78.00	-1.06
35.50	-78.00	-1.06
35.50	-77.88	-1.03
35.50	-77.88	-1.03
35.38	-78.00	-1.03
35.38	-78.00	-1.03
35.38	-77.87	-1.07
35.38	-77.87	-1.07
35.25	-78.13	-0.98
35.25	-78.13	-0.98
35.25	-78.00	-0.98
35.25	-78.00	-0.98
Average conversion in Wayne County from NGVD 29 to NAVD 88 = -1.02 feet		

The vertical datum conversion factor for all flooding sources which run along a county boundary are in accordance with the conversion factor used in those contiguous counties.

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/or Water-surface elevation rasters 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 Wayne 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)

Monuments with a Stability D classification may be used as Elevation Reference Marks (ERMs) when a Stability C or better monument is not an option. These ERMs must be approved by NCGS and can be set and used as elevation bench marks to establish vertical control and produce NC DFIRMs. Including such ERMs will greatly augment North Carolina's useable vertical control network.

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 new 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

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 (NAD83), GRS80 ellipsoid.

6.2 Base Map

The FIRMs and FIS Report for this project have been produced in a digital format. The flood hazard information was converted to a Geographic Information System (GIS) format that meets FEMA's FIRM database specifications and geographic information standards. This information is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community. The FIRM Database includes most of the tabular information contained in the FIS Report in such a way that the data can be associated with pertinent spatial features.

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.

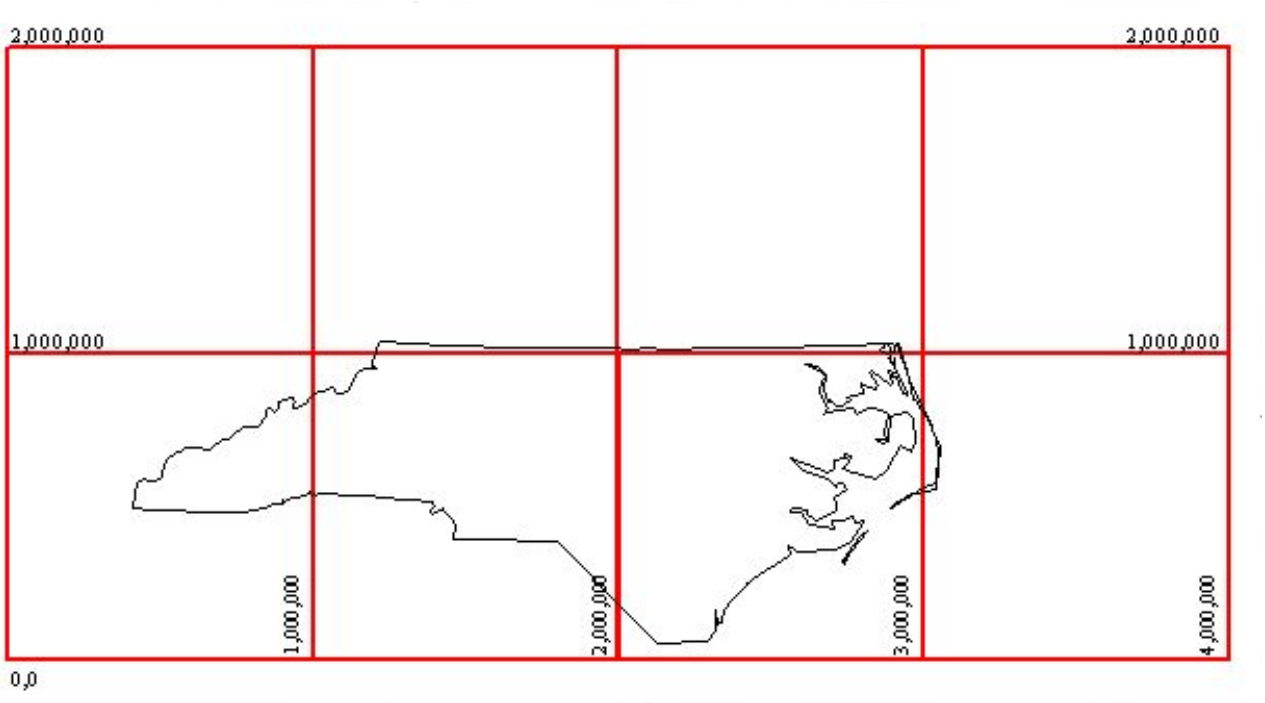

Figure 3 - North Carolina's State Plane Coordinate System

6.3 Floodplain and Floodway Delineation

Floodplain Delineation

For streams restudied by detailed and limited detailed 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 (insert date from basin plan and update for map maintenance, if necessary) flying season.

The topographic data satisfies a vertical root-mean-square error (RMSE) accuracy standard of 20 cm (1.3 feet accuracy at the 95% confidence limit) for the Outer Banks and 25 cm (1.6 feet accuracy at the 95% confidence limit) for those portions of the basin lying west of the Outer Banks. 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 20 ft x 20 ft 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 21, "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.

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
Bear Creek								

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
559	55,935	1,400	7,028	0.4	75.8	75.8	76.3	0.5
566	56,645	1,800	6,883	0.4	75.9	75.9	76.4	0.5
573	57,266	750	2,907	0.9	76.1	76.1	76.5	0.4
586	58,618	590	1,984	1.3	76.6	76.6	77.3	0.7
594	59,398	700	2,098	1.2	77.3	77.3	78.0	0.8
631	63,087	450	2,408	0.9	81.4	81.4	82.0	0.6
638	63,765	450	2,338	1.0	82.0	82.0	82.4	0.5
642	64,187	300	1,605	1.4	82.3	82.3	82.8	0.5
646	64,617	500	2,740	0.8	82.6	82.6	83.3	0.8
646	64,617	500	2,740	0.7	82.6	82.6	83.3	0.8
660	66,049	310	1,735	1.2	83.0	83.0	83.8	0.8
672	67,246	350	1,627	1.2	83.1	83.1	84.0	0.9
690	68,953	355	1,342	1.5	83.6	83.6	84.5	0.9
707	70,720	360	1,080	1.8	84.2	84.2	85.2	1.0
726	72,565	260	788	2.3	86.2	86.2	86.9	0.7
745	74,527	244	885	1.6	87.4	87.4	88.2	0.8
755	75,475	140	714	1.6	88.2	88.2	89.1	0.9
766	76,647	83	315	3.6	89.2	89.2	90.1	0.9
778	77,763	110	760	1.5	94.7	94.7	95.1	0.4
782	78,194	995	9,920	0.1	105.0	105.0	105.0	0.0
793	79,258	494	5,693	0.2	105.0	105.0	105.0	0.0
808	80,798	518	5,442	0.2	105.0	105.0	105.0	0.0
820	82,034	220	2,192	0.5	105.0	105.0	105.0	0.0
827	82,734	200	1,881	0.4	105.0	105.0	105.0	0.0
835	83,464	250	1,788	0.4	105.0	105.0	105.0	0.0
843	84,347	145	1,250	0.6	105.0	105.0	105.0	0.0
855	85,534	115	728	0.9	105.0	105.0	105.0	0.0
870	86,966	135	435	1.6	105.0	105.0	105.2	0.2
877	87,718	160	384	1.8	105.4	105.4	106.2	0.8
884	88,361	100	324	2.1	106.8	106.8	107.6	0.8
888	88,788	120	429	1.6	107.2	107.2	108.1	0.9
892	89,230	34	100	5.3	108.3	108.3	108.6	0.3
893	89,260	50	255	2.7	105.9	105.9	106.6	0.7
895	89,481	34	101	5.2	110.1	110.1	110.2	0.1
897	89,703	33	136	3.9	111.2	111.2	111.3	0.1
901	90,095	33	121	4.4	112.1	112.1	112.5	0.4
905	90,469	35	132	4.0	113.1	113.1	113.7	0.6
Beaverdam Creek								
008	818	43	392	5.1	82.4[1]	68.8	68.9	0.2
013	1,302	54	354	5.6	82.4[1]	70.4	70.6	0.2
025	2,549	151	782	2.6	82.4[1]	72.5	73.4	1.0
035	3,469	87	540	3.7	82.4[1]	73.9	74.7	0.9
041	4,108	105	695	2.9	82.4[1]	74.8	75.6	0.8
058	5,822	173	816	1.7	82.4[1]	76.4	77.4	0.9
066	6,649	71	494	2.8	82.4[1]	77.9	78.6	0.7

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
070	7,013	80	386	3.6	82.4[1]	78.4	78.9	0.5
Big Ditch								
029	2,886	170	1,105	2.2	75.5	75.5	76.1	0.6
044	4,415	557	1,869	1.3	75.6	75.6	76.5	0.9
061	6,070	144	785	2.7	77.7	77.7	78.2	0.5
072	7,153	101	544	3.9	79.0	79.0	80.0	1.0
084	8,432	101	540	4.0	81.8	81.8	82.4	0.6
096	9,603	57	337	5.8	82.9	82.9	83.6	0.8
101	10,103	95	604	3.2	86.7	86.7	87.3	0.6
110	10,979	85	504	3.8	89.1	89.1	89.3	0.2
115	11,541	100	516	3.8	90.8	90.8	91.1	0.3
123	12,283	130	842	2.3	92.3	92.3	92.6	0.4
131	13,103	77	451	4.3	92.5	92.5	93.5	1.0
138	13,768	150	875	1.8	94.0	94.0	95.0	0.9
145	14,471	80	492	3.3	96.6	96.6	97.6	0.9
151	15,053	106	616	2.6	97.9	97.9	98.9	1.0
159	15,861	57	377	4.3	98.5	98.5	99.4	0.9
163	16,298	126	1,903	0.8	110.8	110.8	111.8	1.0
Billy Bud Creek								
003	277	119	343	4.9	90.4[1]	83.6	84.6	1.0
009	930	275	1,144	1.5	92.7	92.7	93.2	0.5
017	1,726	186	1,458	1.2	93.5	93.5	94.1	0.6
027	2,726	140	1,777	0.9	102.6	102.6	103.3	0.8
036	3,565	206	1,978	0.7	102.6	102.6	103.4	0.8
044	4,423	124	1,087	1.3	104.4	104.4	105.3	0.9
051	5,075	88	542	2.6	104.8	104.8	105.7	0.9
055	5,524	89	480	2.9	105.9	105.9	106.8	0.9
Brooks Swamp								
036	3,615	137	780	2.5	102.0	102.0	102.8	0.7
054	5,373	260	1,115	1.8	103.2	103.2	104.2	0.9
061	6,082	114	706	2.8	104.5	104.5	105.2	0.8
076	7,595	310	1,209	1.6	105.4	105.4	106.3	0.9
103	10,321	310	1,269	1.4	108.0	108.0	108.6	0.7
129	12,894	549	2,176	0.8	109.3	109.3	110.3	1.0
150	14,953	208	1,337	1.0	114.3	114.3	115.2	0.9
159	15,922	239	1,563	0.8	114.4	114.4	115.4	0.9
170	16,982	367	2,077	0.6	114.6	114.6	115.5	1.0
180	17,981	323	1,673	0.7	114.7	114.7	115.6	1.0
188	18,787	236	855	1.4	115.0	115.0	115.9	1.0
195	19,488	163	745	1.6	116.9	116.9	117.5	0.6
201	20,090	94	564	2.1	117.5	117.5	117.9	0.4
211	21,133	254	1,034	1.0	118.1	118.1	119.1	1.0
225	22,481	167	624	1.6	120.0	120.0	120.9	0.9
237	23,669	86	160	2.7	122.2	122.2	122.7	0.5
243	24,295	62	147	3.0	123.5	123.5	124.2	0.7

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
246	24,570	16	62	7.1	125.0	125.0	126.0	1.0
250	24,981	34	153	2.8	129.7	129.7	129.7	0.0
Brooks Swamp Tributary								
020	1,962	122	366	1.4	107.6	107.6	108.6	1.0
028	2,761	94	254	2.0	110.9	110.9	111.4	0.5
037	3,658	76	266	1.9	114.5	114.5	115.3	0.8
048	4,777	59	189	2.7	119.8	119.8	120.6	0.9
056	5,615	35	100	4.7	124.3	124.3	125.0	0.7
Buck Swamp								
047	4,715	191	700	2.0	88.4	88.4	89.3	1.0
061	6,093	99	574	2.4	92.0	92.0	92.6	0.5
079	7,869	108	294	2.9	94.8	94.8	95.8	1.0
091	9,059	136	504	1.7	99.9	99.9	100.9	1.0
096	9,638	117	553	1.5	101.7	101.7	102.1	0.4
108	10,817	119	448	1.9	103.6	103.6	104.4	0.8
116	11,579	151	494	1.7	105.0	105.0	105.8	0.8
124	12,383	124	254	3.4	107.2	107.2	108.2	1.0
Burden Creek								
015	1,488	87	353	1.8	83.8[1]	83.2	84.1	0.8
023	2,278	115	415	1.5	84.8	84.8	85.5	0.7
028	2,767	251	685	0.9	86.8	86.8	87.3	0.5
042	4,211	74	409	1.5	89.3	89.3	90.2	1.0
Burnt Mill Branch								
009	935	60	216	4.3	75.0	75.0	75.9	1.0
023	2,310	72	284	2.6	78.5	78.5	79.4	0.8
033	3,260	49	244	3.1	83.0	83.0	83.5	0.5
041	4,107	50	209	3.6	86.8	86.8	87.6	0.7
049	4,870	64	264	2.8	89.6	89.6	90.1	0.4
055	5,539	47	231	3.2	92.9	92.9	93.4	0.4
064	6,384	48	257	2.9	95.2	95.2	95.6	0.5
074	7,356	51	217	2.7	97.0	97.0	97.9	0.8
081	8,115	53	235	2.5	100.7	100.7	101.1	0.4
089	8,866	30	97	4.8	103.1	103.1	103.4	0.3
094	9,354	50	182	2.6	105.8	105.8	106.7	1.0
098	9,825	75	679	0.7	117.4	117.4	117.4	0.0
103	10,284	288	808	0.6	117.6	117.6	117.6	0.0
111	11,135	126	321	1.5	117.8	117.8	117.9	0.0
119	11,888	24	95	3.8	120.0	120.0	120.5	0.4
124	12,388	16	73	5.0	122.7	122.7	123.5	0.8
Falling Creek								
059	5,933	111	1,181	5.4	83.7[1]	76.6	77.2	0.6
077	7,747	116	1,258	5.1	83.7[1]	78.8	79.3	0.4
088	8,807	116	1,399	4.6	83.7[1]	79.9	80.4	0.4
103	10,331	122	1,312	4.9	83.7[1]	81.1	81.5	0.4
110	10,994	223	2,212	2.9	90.3	90.3	90.4	0.1

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
118	11,826	188	1,978	3.2	90.7	90.7	90.8	0.1
132	13,235	142	1,774	3.6	91.6	91.6	91.8	0.2
157	15,685	154	1,927	3.3	92.4	92.4	92.8	0.4
182	18,193	169	2,076	3.1	93.3	93.3	93.9	0.6
194	19,432	172	2,240	2.9	93.7	93.7	94.4	0.7
215	21,520	188	2,280	2.8	94.6	94.6	95.4	0.9
236	23,613	308	3,350	1.9	95.3	95.3	96.3	1.0
264	26,408	175	2,297	2.8	96.2	96.2	97.2	1.0
277	27,719	146	2,121	3.0	97.1	97.1	98.0	0.9
297	29,702	1,864	24,964	0.3	97.4	97.4	98.3	1.0
334	33,351	2,301	28,202	0.2	97.4	97.4	98.4	1.0
357	35,750	2,172	22,069	0.2	97.4	97.4	98.4	1.0
403	40,327	1,339	10,560	0.3	97.5	97.5	98.5	1.0
450	44,968	1,399	9,037	0.4	98.9	98.9	99.5	0.6
467	46,748	1,584	8,405	0.4	99.0	99.0	99.7	0.7
486	48,591	1,118	3,946	0.8	99.3	99.3	100.0	0.7
517	51,706	953	4,032	0.8	101.0	101.0	101.7	0.7
536	53,597	703	2,896	1.1	102.2	102.2	103.0	0.8
555	55,496	852	3,274	1.0	103.6	103.6	104.5	0.9
587	58,703	875	3,158	1.0	105.6	105.6	106.3	0.7
614	61,416	745	3,329	0.8	106.8	106.8	107.8	1.0
646	64,589	737	3,089	0.9	108.7	108.7	109.7	1.0
676	67,588	381	2,047	1.4	113.2	113.2	113.2	0.0
692	69,168	1,010	5,570	0.5	113.4	113.4	113.8	0.4
721	72,088	732	3,643	0.7	114.3	114.3	114.9	0.6
745	74,453	628	2,537	1.0	115.3	115.3	116.0	0.7
762	76,178	564	2,824	0.9	116.4	116.4	117.3	0.9
787	78,721	815	3,353	0.7	118.1	118.1	119.1	0.9
806	80,637	402	2,055	1.0	119.0	119.0	119.9	0.9
822	82,170	447	2,315	0.9	120.1	120.1	121.0	0.9
839	83,875	615	1,976	1.1	120.8	120.8	121.8	1.0
855	85,488	200	1,329	1.6	124.0	124.0	124.5	0.5
Howell's Branch								
001	127	87	265	3.4	91.1[2]	85.9	86.0	0.0
011	1,064	137	466	2.0	93.9[1]	90.1	90.1	0.0
023	2,256	169	752	1.2	93.9[1]	91.8	92.2	0.4
039	3,938	169	541	1.7	94.1	94.1	94.7	0.6
054	5,383	155	598	1.3	96.3	96.3	97.0	0.7
070	6,993	143	554	1.4	98.2	98.2	99.2	1.0
085	8,545	86	607	1.2	105.4	105.4	105.6	0.2
091	9,083	71	516	1.4	105.4	105.4	105.7	0.3
095	9,537	98	692	0.9	105.4	105.4	105.9	0.5
Lee Branch								
012	1,205	58	252	2.6	110.3[1]	110.0	110.6	0.7
029	2,890	53	313	1.9	117.0	117.0	117.6	0.5

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
040	4,008	158	696	0.8	117.3	117.3	118.3	1.0
047	4,750	158	644	0.9	117.8	117.8	118.8	1.0
050	4,992	297	1,260	0.5	119.7	119.7	120.4	0.6
057	5,715	174	467	1.1	119.8	119.8	120.5	0.6
067	6,685	80	239	2.1	121.8	121.8	122.7	0.9
076	7,647	85	239	2.1	126.5	126.5	127.1	0.6
086	8,646	64	206	2.4	129.2	129.2	130.0	0.9
095	9,455	56	161	2.8	132.3	132.3	133.1	0.8
101	10,140	40	151	3.0	133.8	133.8	134.6	0.8
110	10,962	95	247	1.8	139.0	139.0	139.0	0.0
Little River								
122	12,237	234	2,833	4.1	74.7[1]	70.1	70.8	0.7
142	14,247	1,306	11,333	1.0	74.7[1]	71.0	72.0	1.0
203	20,301	236	2,709	4.3	74.7[1]	73.7	74.4	0.7
282	28,233	1,926	13,543	0.9	76.6	76.6	77.1	0.4
405	40,473	1,658	9,849	1.2	79.6	79.6	80.4	0.8
481	48,106	1,327	11,975	1.0	83.0	83.0	83.5	0.5
541	54,055	1,180	9,342	1.2	84.6	84.6	85.2	0.7
633	63,329	226	2,317	4.7	88.5	88.5	89.4	0.8
652	65,156	238	2,806	3.9	90.5	90.5	91.2	0.7
704	70,379	1,352	10,906	1.0	92.2	92.2	92.9	0.7
775	77,465	2,640	13,901	0.8	93.0	93.0	93.9	0.9
871	87,109	2,517	15,588	0.7	93.9	93.9	94.8	0.9
926	92,637	3,560	10,969	1.0	94.9	94.9	95.7	0.8
991	99,076	3,028	9,854	1.1	96.2	96.2	97.1	0.9
1080	107,966	2,403	8,500	1.3	99.8	99.8	100.6	0.8
1196	119,570	2,202	9,512	1.1	103.3	103.3	103.8	0.5
Mill Branch								
006	608	117	243	3.7	88.0[1]	77.4	77.4	0.0
010	1,000	42	174	5.2	88.0[1]	79.3	79.3	0.0
015	1,491	91	189	4.8	88.0[1]	81.8	81.8	0.0
021	2,091	139	309	2.9	88.0[1]	84.4	84.9	0.5
026	2,646	85	229	3.9	88.0[1]	86.3	87.1	0.8
032	3,163	204	1,057	0.8	91.4	91.4	91.5	0.1
035	3,523	166	639	1.2	91.4	91.4	91.7	0.2
040	4,021	132	575	1.3	91.7	91.7	92.2	0.4
046	4,555	139	403	1.9	92.5	92.5	93.0	0.5
049	4,877	100	375	2.1	93.8	93.8	93.9	0.0
052	5,200	117	241	3.2	94.8	94.8	94.8	0.0
056	5,603	81	250	3.1	96.3	96.3	96.5	0.2
060	6,000	85	346	2.2	97.2	97.2	97.5	0.4
065	6,526	98	329	2.3	98.3	98.3	98.5	0.2
071	7,050	112	357	2.1	99.7	99.7	99.9	0.2
076	7,575	151	331	2.2	101.6	101.6	101.6	0.1
078	7,818	164	452	1.6	102.6	102.6	102.7	0.1

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
081	8,137	153	384	1.9	103.7	103.7	103.8	0.2
085	8,490	112	356	2.1	105.2	105.2	105.5	0.3
089	8,863	121	379	1.7	106.6	106.6	106.8	0.2
095	9,500	175	498	1.3	108.2	108.2	108.4	0.2
101	10,051	122	338	1.9	109.5	109.5	109.8	0.4
105	10,507	125	367	1.6	111.3	111.3	111.5	0.2
110	11,000	113	380	1.6	112.9	112.9	113.1	0.2
114	11,426	137	398	1.5	114.1	114.1	114.5	0.4
121	12,133	82	267	1.9	116.0	116.0	116.7	0.7
127	12,670	89	221	2.2	117.7	117.7	118.4	0.7
132	13,152	101	219	2.3	120.4	120.4	120.5	0.0
137	13,714	100	294	1.6	122.1	122.1	122.3	0.3
143	14,295	84	114	4.0	124.7	124.7	125.1	0.4
148	14,810	104	229	2.0	129.2	129.2	129.8	0.6
151	15,125	93	222	2.0	130.5	130.5	131.0	0.4
156	15,602	82	291	1.6	131.8	131.8	132.2	0.4
Mill Creek North								
022	2,222	160	745	1.8	86.0[1]	84.5	85.5	1.0
031	3,083	118	635	2.1	86.3	86.3	86.8	0.5
037	3,704	76	501	2.7	86.8	86.8	87.4	0.6
045	4,543	61	442	2.9	87.6	87.6	88.3	0.6
050	4,996	65	426	3.0	88.1	88.1	88.8	0.7
060	5,997	60	327	3.3	89.7	89.7	90.4	0.7
065	6,503	63	332	3.2	90.7	90.7	91.5	0.8
074	7,359	62	295	3.7	92.8	92.8	93.6	0.8
085	8,497	166	1,025	1.0	97.2	97.2	97.6	0.4
093	9,284	242	1,304	0.8	97.4	97.4	98.0	0.5
100	10,042	135	641	1.6	97.8	97.8	98.3	0.6
108	10,818	128	653	1.6	98.4	98.4	99.1	0.7
117	11,697	116	524	2.0	99.2	99.2	100.1	0.8
126	12,603	156	657	1.6	100.5	100.5	101.5	1.0
133	13,289	134	587	1.5	101.5	101.5	102.5	1.0
142	14,241	118	503	1.7	102.8	102.8	103.7	0.9
152	15,189	159	951	0.9	106.8	106.8	107.6	0.8
159	15,920	140	680	1.2	107.1	107.1	108.0	0.9
167	16,658	129	610	1.4	108.0	108.0	108.9	0.9
176	17,579	189	879	0.9	109.1	109.1	110.1	1.0
181	18,134	132	569	1.5	109.8	109.8	110.8	1.0
188	18,842	97	432	1.6	111.4	111.4	112.3	1.0
194	19,361	150	574	1.2	112.4	112.4	113.3	0.9
200	20,018	129	538	1.2	113.4	113.4	114.3	0.9
206	20,568	119	516	1.3	114.3	114.3	115.2	1.0
215	21,490	190	834	0.6	115.3	115.3	116.2	0.8
222	22,196	136	351	1.5	116.3	116.3	116.9	0.6
231	23,067	45	119	2.6	121.0	121.0	122.0	1.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
243	24,257	42	135	2.3	130.4	130.4	130.5	0.1
251	25,136	56	244	0.8	133.9	133.9	134.5	0.6
258	25,837	98	423	0.4	134.0	134.0	134.7	0.7
266	26,601	55	153	1.2	134.2	134.2	134.9	0.7
274	27,367	26	67	2.8	136.3	136.3	137.1	0.8
Mill Creek North Tributary 1								
007	662	74	196	2.0	102.6	102.6	103.6	1.0
012	1,218	112	289	1.3	105.3	105.3	106.3	0.9
020	2,004	70	176	1.8	108.6	108.6	109.6	1.0
028	2,815	34	46	4.8	117.1	117.1	117.1	0.0
035	3,459	40	52	4.3	124.8	124.8	125.3	0.5
041	4,109	22	59	3.8	129.5	129.5	130.0	0.5
046	4,612	40	59	3.8	132.1	132.1	132.5	0.4
053	5,323	38	95	2.4	134.6	134.6	135.5	0.9
059	5,931	74	177	1.3	135.9	135.9	136.9	1.0
Mill Creek North Tributary 2								
003	304	18	35	4.2	102.1[1]	98.3	98.6	0.2
007	717	18	30	4.9	102.4	102.4	102.6	0.2
013	1,296	16	25	5.9	111.4	111.4	111.5	0.1
018	1,805	16	115	1.3	122.5	122.5	123.2	0.7
021	2,130	18	61	2.4	122.5	122.5	123.4	0.9
028	2,760	18	26	5.7	129.1	129.1	129.2	0.1
033	3,330	21	73	2.0	132.2	132.2	133.2	1.0
041	4,110	53	133	1.1	133.5	133.5	134.4	1.0
Mill Creek North Tributary 3								
004	361	46	127	2.6	110.7[1]	109.7	110.7	1.0
010	975	66	180	1.8	112.5	112.5	113.4	0.9
016	1,584	40	60	5.4	115.6	115.6	116.2	0.6
024	2,444	50	135	2.1	122.6	122.6	123.3	0.7
033	3,257	100	474	0.6	128.5	128.5	129.2	0.7
039	3,896	60	145	1.9	128.5	128.5	129.4	0.9
046	4,594	57	88	3.2	132.7	132.7	132.8	0.1
052	5,221	35	80	2.4	135.7	135.7	136.6	1.0
Mill Creek North Tributary 4								
002	200	25	83	2.2	112.6[1]	112.6	113.6	1.0
006	640	46	88	2.1	114.8	114.8	115.0	0.2
012	1,205	217	1,106	0.2	126.6	126.6	126.7	0.0
018	1,823	60	196	0.9	126.7	126.7	126.6	0.0
025	2,546	19	27	6.7	128.7	128.7	128.7	0.0
034	3,356	132	347	0.5	137.4	137.4	137.6	0.3
037	3,744	233	611	0.3	137.4	137.4	137.7	0.3
Mill Creek North Tributary 5								
003	333	25	116	2.7	115.2	115.2	116.2	1.0
008	829	31	131	2.4	117.1	117.1	118.1	1.0
016	1,621	31	112	2.8	122.4	122.4	122.7	0.2

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
022	2,183	52	160	2.0	126.4	126.4	127.3	0.9
032	3,159	95	518	0.4	133.2	133.2	133.7	0.5
038	3,781	34	132	1.6	133.3	133.3	133.9	0.6
046	4,563	150	462	0.5	133.8	133.8	134.7	1.0
Mills Creek								
011	1,145	186	1,131	1.7	97.0	97.0	97.9	0.9
024	2,353	74	466	4.2	98.1	98.1	99.0	0.9
034	3,414	524	10,036	0.2	113.9	113.9	114.0	0.2
048	4,794	424	6,443	0.3	113.9	113.9	114.0	0.2
061	6,108	247	1,974	0.9	114.2	114.2	115.1	0.9
072	7,222	237	2,497	0.7	114.2	114.2	115.2	1.0
088	8,790	203	1,794	0.8	114.3	114.3	115.3	1.0
097	9,692	199	1,239	1.2	115.3	115.3	115.8	0.5
107	10,675	118	811	1.8	115.5	115.5	116.3	0.8
Moccasin Creek								
074	7,442	388	1,909	1.6	83.8[1]	79.0	79.8	0.9
094	9,449	984	4,851	0.6	83.8[1]	79.8	80.7	0.9
113	11,253	869	4,339	0.7	83.8[1]	80.1	81.0	0.9
138	13,829	1,231	7,734	0.4	83.8[1]	80.5	81.4	0.9
165	16,507	1,460	7,855	0.4	83.8[1]	80.7	81.6	1.0
221	22,123	935	3,972	0.8	83.8[1]	81.6	82.5	0.9
229	22,880	788	3,522	0.9	83.9[3]	82.0[3]	82.9[3]	0.9
Nahunta Swamp								
353	35,307	834	4,004	1.4	66.9	66.9	67.8	0.9
354	35,445	836	6,079	1.0	69.5	69.5	69.9	0.4
365	36,491	1,252	8,213	0.7	69.7	69.7	70.1	0.4
375	37,515	1,190	7,176	0.8	69.8	69.8	70.3	0.5
386	38,604	1,253	6,448	0.9	70.0	70.0	70.6	0.6
406	40,605	980	4,927	1.1	70.5	70.5	71.1	0.6
419	41,893	956	4,260	1.3	70.9	70.9	71.6	0.7
429	42,845	1,236	5,768	0.7	71.2	71.2	71.9	0.7
440	43,732	900	3,522	1.1	71.4	71.4	72.2	0.8
449	44,904	860	3,581	1.1	72.0	72.0	72.7	0.7
463	46,252	855	3,280	1.2	73.1	73.1	73.8	0.7
479	47,896	650	3,001	1.3	74.7	74.7	75.4	0.7
485	48,497	430	2,549	1.4	75.8	75.8	76.1	0.4
494	49,429	478	2,313	1.5	76.0	76.0	76.5	0.5
514	51,449	540	2,341	1.5	76.8	76.8	77.8	1.0
530	52,972	561	2,928	1.2	77.7	77.7	78.6	0.9
550	54,985	581	3,039	1.1	78.8	78.8	79.6	0.8
566	56,603	497	2,817	1.2	79.9	79.9	80.9	1.0
585	58,530	541	3,051	1.1	80.9	80.9	81.9	1.0
604	60,389	550	3,061	1.0	81.8	81.8	82.8	0.9
623	62,262	568	2,990	1.0	82.8	82.8	83.7	0.9
639	63,921	615	3,290	1.0	83.2	83.2	84.2	1.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
650	65,014	501	2,819	1.1	83.7	83.7	84.6	0.9
660	66,036	111	844	3.7	85.0	85.0	85.8	0.8
691	69,088	552	2,868	1.0	86.2	86.2	87.2	1.0
718	71,784	663	3,681	0.8	87.0	87.0	88.0	1.0
730	72,997	512	2,575	1.1	87.4	87.4	88.3	0.9
746	74,562	482	2,415	1.2	88.4	88.4	89.2	0.8
764	76,359	493	2,114	1.4	88.9	88.9	89.8	0.9
795	79,494	355	1,652	1.6	91.1	91.1	92.0	1.0
810	80,974	116	720	3.6	93.1	93.1	93.7	0.6
825	82,518	377	2,330	1.1	94.1	94.1	95.0	1.0
843	84,344	364	1,804	1.3	94.9	94.9	95.8	0.9
854	85,370	432	2,483	1.0	95.4	95.4	96.4	1.0
873	87,328	361	1,968	1.2	96.3	96.3	97.2	0.9
892	89,208	304	1,499	1.6	97.5	97.5	98.3	0.8
914	91,445	81	528	4.0	99.9	99.9	100.5	0.6
921	92,084	132	946	2.3	101.0	101.0	101.6	0.6
932	93,198	279	1,638	1.3	101.2	101.2	102.0	0.8
954	95,388	521	2,203	1.0	102.3	102.3	102.8	0.4
964	96,401	329	1,562	1.4	102.8	102.8	103.3	0.5
989	98,868	291	1,347	1.3	104.2	104.2	105.0	0.8
1009	100,882	54	415	4.3	106.5	106.5	107.0	0.5
1019	101,886	244	1,441	1.2	107.2	107.2	107.9	0.7
1032	103,165	287	1,494	1.2	107.6	107.6	108.4	0.8
1055	105,517	207	1,146	1.4	108.8	108.8	109.8	1.0
1069	106,949	196	919	1.7	110.1	110.1	111.0	0.9
1085	108,473	235	1,271	1.2	111.3	111.3	112.3	1.0
1091	109,136	120	819	1.9	113.5	113.5	114.2	0.6
1108	110,755	237	1,483	1.1	114.3	114.3	115.1	0.8
1125	112,484	273	1,392	1.1	115.4	115.4	116.4	0.9
1142	114,181	176	552	2.6	116.9	116.9	117.7	0.8
1151	115,069	215	1,128	1.3	117.8	117.8	118.8	1.0
1165	116,548	156	869	1.6	118.9	118.9	119.8	0.9
1178	117,787	190	1,041	1.4	119.7	119.7	120.7	1.0
1194	119,441	158	913	1.3	120.4	120.4	121.3	1.0
1203	120,329	115	585	2.0	121.2	121.2	122.2	1.0
Neuse River								
3891	389,065[4]	2,982	41,467	1.0	54.7	54.7	55.7	1.0
5870	587,000	2,775	42,719	0.9	55.3	55.3	56.3	1.0
5938	593,750	2,000	27,539	1.5	56.6	56.6	57.6	1.0
5990	599,000	1,200	16,395	2.5	57.4	57.4	58.2	0.8
6050	605,000	1,700	21,516	1.9	58.9	58.9	59.8	0.9
6192	619,150	7,300	70,238	0.6	60.7	60.7	61.6	0.9
6366	636,585	3,000	30,678	1.3	62.7	62.7	63.5	0.8
6424	642,350	1,000	13,673	2.9	63.9	63.9	64.7	0.8
6517	651,700	4,000	42,603	0.9	65.7	65.7	66.5	0.8

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
6578	657,800	6,000	58,689	0.7	66.1	66.1	66.9	0.8
6660	666,000	2,150	15,991	2.5	66.7	66.7	67.7	1.0
6735	673,500	3,600	29,486	1.3	68.4	68.4	69.1	0.7
6863	686,300	3,200	36,221	1.1	70.0	70.0	70.9	0.9
6887	688,670	3,350	32,734	1.2	70.3	70.3	71.1	0.8
6910	691,000	3,720	12,389	3.2	70.6	70.6	71.3	0.7
6939	693,895	4,040	20,034	2.0	71.9	71.9	72.6	0.7
6953	695,300	4,310	40,284	1.0	72.2	72.2	73.0	0.8
7003	700,250	3,300	52,322	0.7	72.5	72.5	73.4	0.9
7025	702,450	1,900	26,710	1.5	72.6	72.6	73.5	0.9
7027	702,730	1,090	18,376	2.2	72.8	72.8	73.7	0.9
7044	704,390	415	8,620	4.5	73.1	73.1	74.0	0.9
7048	704,765	510	10,931	3.6	73.8	73.8	74.3	0.5
7049	704,930	490	10,725	3.6	73.8	73.8	74.3	0.5
7051	705,070	1,760	29,142	1.3	73.9	73.9	74.7	0.8
7080	708,000	3,969	64,499	0.6	74.1	74.1	75.0	0.9
7133	713,300	6,670	108,227	0.4	74.2	74.2	75.1	0.9
7204	720,350	10,830	95,551	0.4	74.3	74.3	75.3	1.0
7455	745,450	13,800	129,657	0.3	74.7	74.7	75.7	1.0
7485	748,500	15,700	63,821	0.6	74.9	74.9	75.9	1.0
7516	751,550	16,300	53,618	0.7	75.2	75.2	76.1	0.9
7598	759,800	16,900	42,516	0.8	75.8	75.8	76.6	0.8
7779	777,850	6,265	47,542	0.7	79.7	79.7	80.7	1.0
7800	780,000	3,415	30,179	1.2	80.2	80.2	81.2	1.0
7869	786,850	1,500	19,189	1.9	81.3	81.3	82.1	0.8
7899	789,850	1,750	20,745	1.7	82.4	82.4	83.3	0.9
7991	799,100	4,800	42,237	0.8	83.3	83.3	84.1	0.8
8006	800,600	4,400	42,873	0.8	83.4	83.4	84.2	0.8
8043	804,300	4,400	47,301	0.7	83.5	83.5	84.4	0.9
8059	805,900	5,000	44,952	0.8	83.6	83.6	84.5	0.9
8088	808,765	6,750	54,270	0.6	83.7	83.7	84.6	0.9
8145	814,500	8,500	93,263	0.4	83.8	83.8	84.8	1.0
8211	821,075	8,400	81,886	0.4	83.9	83.9	84.8	1.0
8226	822,628	9,580	77,080	0.4	83.9	83.9	84.9	1.0
8253	825,301	11,300	91,752	0.4	84.0	84.0	85.0	1.0
8275	827,468	11,300	75,993	0.4	84.0	84.0	85.0	1.0
8304	830,408	11,500	79,982	0.4	84.1	84.1	85.1	1.0
8341	834,148	9,675	54,542	0.6	84.2	84.2	85.2	0.9
8356	835,617	10,140	64,868	0.5	84.4	84.4	85.3	0.9
8372	837,207	10,300	61,229	0.5	84.5	84.5	85.4	0.9
8407	840,664	10,300	60,413	0.5	84.6	84.6	85.5	0.9
8435	843,494	8,250	41,440	0.7	84.8	84.8	85.6	0.9
8504	850,407	8,750	45,846	0.7	86.6	86.6	87.5	0.9
8543	854,271	10,150	55,369	0.6	86.8	86.8	87.7	0.9

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
8562	856,193	9,900	46,365	0.7	87.0	87.0	87.9	0.8
8571	857,137	10,300	51,239	0.6	87.2	87.2	88.0	0.8
8596	859,622	11,250	51,886	0.6	87.7	87.7	88.4	0.7
Northeast Cape Fear River								
6574	657,427	720	2,717	1.7	87.4	87.4	87.9	0.5
6600	659,980	446	2,606	1.6	89.9	89.9	90.7	0.8
6641	664,099	834	3,626	1.2	91.3	91.3	92.3	1.0
6678	667,803	942	4,450	1.0	93.2	93.2	93.9	0.8
6731	673,088	770	4,341	1.0	95.8	95.8	96.2	0.4
6771	677,146	667	2,867	1.5	97.0	97.0	97.7	0.7
6805	680,488	113	1,030	4.1	99.2	99.2	100.0	0.9
6836	683,563	894	4,717	0.8	100.2	100.2	101.2	1.0
6875	687,523	684	3,404	1.1	101.5	101.5	102.5	1.0
6912	691,202	881	3,428	0.9	103.0	103.0	103.7	0.8
6951	695,126	846	2,601	1.2	104.0	104.0	104.9	0.8
6997	699,729	583	1,819	1.4	106.3	106.3	106.9	0.6
7011	701,117	106	702	3.6	107.3	107.3	107.8	0.5
7030	703,036	372	1,433	1.8	109.6	109.6	110.0	0.4
7061	706,095	374	1,521	1.2	111.8	111.8	112.4	0.6
7085	708,544	355	1,378	1.3	113.1	113.1	113.7	0.6
7106	710,553	349	1,288	1.4	114.0	114.0	114.6	0.6
7121	712,147	344	1,262	1.2	115.0	115.0	115.6	0.6
7133	713,272	290	740	2.1	116.0	116.0	116.6	0.6
7151	715,117	276	878	1.8	117.7	117.7	118.2	0.6
7163	716,334	233	1,100	1.4	120.0	120.0	120.5	0.6
7182	718,225	293	1,012	1.6	121.0	121.0	121.6	0.6
7209	720,897	195	856	1.3	124.1	124.1	124.7	0.6
7228	722,774	229	905	1.3	126.0	126.0	126.6	0.7
7245	724,483	170	630	1.8	127.4	127.4	128.3	0.9
7260	726,025	250	782	1.1	128.8	128.8	129.7	0.8
7269	726,940	186	581	1.5	131.0	131.0	131.4	0.4
Pasture Branch River								
008	828	151	726	1.8	131.1	131.1	132.0	0.9
024	2,409	124	457	2.9	135.0	135.0	135.9	0.8
037	3,686	134	503	2.4	138.7	138.7	139.6	0.9
047	4,708	106	414	2.6	140.5	140.5	141.4	0.9
054	5,359	73	376	2.8	142.8	142.8	143.7	0.8
Peacock Branch								
013	1,295	94	368	2.4	94.5	94.5	95.0	0.5
021	2,106	112	403	2.2	96.8	96.8	97.4	0.6
028	2,840	103	449	2.0	97.7	97.7	98.3	0.6
037	3,690	131	477	1.9	98.8	98.8	99.6	0.9
048	4,777	126	487	1.8	99.8	99.8	100.8	1.0
057	5,744	124	399	2.0	100.9	100.9	101.8	0.8
066	6,575	109	334	2.4	102.3	102.3	103.0	0.7

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
074	7,384	101	265	2.3	104.2	104.2	104.8	0.7
079	7,945	95	741	0.8	109.5	109.5	110.3	0.9
081	8,108	348	1,514	0.4	114.7	114.7	114.9	0.2
Reedy Branch								
015	1,482	125	562	1.6	90.5[1]	86.8	87.6	0.7
030	3,044	141	523	1.7	90.5[1]	89.8	90.3	0.4
045	4,542	106	458	1.9	92.2	92.2	93.0	0.8
059	5,902	118	418	2.1	94.3	94.3	95.0	0.7
070	7,018	82	348	2.5	96.1	96.1	96.8	0.8
078	7,807	75	423	1.9	101.0	101.0	101.0	0.0
088	8,794	115	621	1.3	101.2	101.2	101.3	0.0
102	10,241	128	604	1.2	101.6	101.6	102.0	0.4
110	11,017	54	252	2.9	102.3	102.3	102.5	0.2
122	12,170	84	352	1.9	103.6	103.6	104.0	0.5
135	13,474	133	392	1.7	104.7	104.7	105.7	1.0
150	14,975	128	322	2.1	108.0	108.0	108.9	0.9
164	16,407	67	235	2.6	110.8	110.8	111.3	0.5
170	16,960	56	358	1.7	115.5	115.5	116.4	0.9
Richland Creek								
005	516	178	881	2.2	85.3	85.3	86.2	0.9
017	1,742	256	1,645	1.2	88.0	88.0	88.8	0.8
031	3,065	243	2,306	0.8	94.4	94.4	94.9	0.5
054	5,426	85	629	2.5	96.3	96.3	97.1	0.8
068	6,798	242	1,108	1.3	101.4	101.4	102.3	0.9
073	7,285	124	1,083	0.9	102.3	102.3	103.1	0.8
088	8,781	127	880	1.1	102.5	102.5	103.3	0.8
100	9,977	199	1,118	0.5	102.8	102.8	103.7	0.9
114	11,384	35	240	2.2	106.5	106.5	107.4	0.9
Sleepy Creek								
018	1,775	105	547	3.0	64.6[1]	51.5	52.3	0.8
035	3,489	50	328	5.0	64.6[1]	53.8	54.6	0.8
052	5,248	62	424	3.9	64.6[1]	61.8	62.6	0.7
069	6,932	154	735	2.0	66.6	66.6	67.3	0.8
083	8,340	152	934	1.6	69.8	69.8	70.8	1.0
097	9,669	104	668	2.2	74.4	74.4	74.4	0.0
107	10,738	79	263	3.8	76.0	76.0	76.6	0.7
117	11,665	303	3,135	0.3	97.5	97.5	97.9	0.4
129	12,931	321	2,629	0.4	97.5	97.5	97.9	0.4
142	14,177	559	12,195	0.1	109.6	109.6	109.8	0.2
155	15,509	706	10,000	0.1	109.6	109.6	109.8	0.2
165	16,455	389	4,666	0.2	109.6	109.6	109.8	0.2
178	17,789	198	1,811	0.5	109.6	109.6	109.8	0.2
192	19,179	55	419	2.1	109.6	109.6	109.9	0.2
207	20,677	37	176	4.4	110.2	110.2	110.7	0.5
221	22,081	28	124	5.7	114.6	114.6	115.0	0.4

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
236	23,558	44	208	3.4	122.2	122.2	122.8	0.6
246	24,631	29	124	5.1	126.4	126.4	126.8	0.4
252	25,175	40	567	1.1	140.2	140.2	141.0	0.8
Slough Tributary								
008	802	38	284	1.9	103.1	103.1	103.3	0.2
017	1,684	73	261	2.1	105.4	105.4	105.9	0.5
026	2,627	126	439	1.3	107.8	107.8	108.5	0.8
036	3,639	145	477	1.2	110.6	110.6	111.6	1.0
Stoney Creek								
099	9,865	478	3,687	1.5	73.4	73.4	74.2	0.8
111	11,099	619	5,258	1.1	73.9	73.9	74.7	0.9
129	12,882	634	4,245	1.3	74.7	74.7	75.6	0.9
150	15,014	600	4,296	1.3	76.0	76.0	76.8	0.8
175	17,542	389	2,857	1.8	78.5	78.5	79.4	0.9
190	19,017	374	3,005	1.8	80.0	80.0	80.9	0.9
212	21,236	735	5,130	1.0	81.1	81.1	82.0	0.9
226	22,599	251	1,108	4.8	84.0	84.0	84.2	0.2
245	24,458	725	4,864	1.1	84.7	84.7	85.5	0.8
266	26,579	191	1,714	2.5	88.1	88.1	88.1	0.0
283	28,274	334	2,744	1.5	88.5	88.5	88.9	0.4
288	28,841	112	1,383	2.9	90.4	90.4	90.8	0.5
311	31,135	423	3,626	0.9	90.6	90.6	91.6	1.0
337	33,652	289	2,704	1.0	94.4	94.4	95.3	0.8
349	34,900	313	2,513	1.0	94.7	94.7	95.6	0.9
373	37,323	239	1,666	1.6	95.7	95.7	96.5	0.9
382	38,210	77	877	3.0	98.1	98.1	99.0	0.9
393	39,279	306	2,592	1.0	98.6	98.6	99.6	1.0
411	41,087	117	868	2.6	99.9	99.9	100.8	0.9
421	42,069	303	2,140	1.1	100.7	100.7	101.6	0.9
437	43,660	282	1,815	1.3	101.5	101.5	102.5	1.0
458	45,769	256	1,488	1.2	103.4	103.4	104.4	1.0
474	47,381	227	1,185	1.5	105.1	105.1	106.0	0.9
492	49,200	189	977	1.7	107.3	107.3	108.3	0.9
505	50,522	244	1,155	1.4	108.4	108.4	109.3	0.9
515	51,480	152	1,394	1.2	115.1	115.1	116.0	1.0
529	52,932	298	1,848	0.7	115.2	115.2	116.2	1.0
Stoney Creek Tributary								
003	346	46	150	2.9	102.9[1]	99.3	99.8	0.5
016	1,600	46	160	2.7	102.9[1]	102.4	102.8	0.4
022	2,174	48	318	1.2	108.5	108.5	109.1	0.6
The Slough								
020	2,006	140	834	2.9	73.2	73.2	73.4	0.2
035	3,463	428	1,743	1.4	73.8	73.8	74.2	0.4
047	4,711	507	1,854	1.3	74.3	74.3	75.1	0.8
064	6,419	373	1,689	1.2	76.3	76.3	77.1	0.8

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
079	7,906	300	1,261	1.6	77.5	77.5	78.4	0.9
089	8,932	385	1,724	1.2	78.4	78.4	79.4	0.9
101	10,068	271	1,444	1.4	80.2	80.2	80.9	0.7
112	11,173	319	1,901	1.1	80.8	80.8	81.6	0.9
129	12,870	329	1,773	1.1	81.6	81.6	82.6	1.0
141	14,145	328	1,851	1.1	82.5	82.5	83.4	0.9
161	16,079	241	1,153	1.3	83.9	83.9	84.8	0.9
175	17,533	194	916	1.7	85.1	85.1	86.0	0.9
185	18,510	208	951	1.6	86.1	86.1	86.9	0.8
205	20,504	180	919	1.7	88.3	88.3	89.0	0.7
228	22,827	231	1,143	1.2	90.2	90.2	91.0	0.8
237	23,693	122	860	1.7	93.6	93.6	94.1	0.6
246	24,595	234	1,639	0.9	93.7	93.7	94.4	0.7
265	26,509	192	1,250	0.9	94.1	94.1	94.8	0.8
280	27,972	181	741	1.5	94.5	94.5	95.3	0.8
293	29,300	188	917	1.2	95.7	95.7	96.5	0.8
311	31,093	190	824	1.4	98.4	98.4	99.4	0.9
325	32,533	201	869	1.2	99.9	99.9	100.8	0.9
343	34,300	204	769	1.3	102.2	102.2	102.9	0.7
359	35,925	89	356	1.9	103.3	103.3	104.0	0.7
370	36,992	124	438	1.6	104.8	104.8	105.7	0.8
380	37,970	89	397	1.7	109.2	109.2	109.2	0.0
389	38,896	56	240	2.9	109.6	109.6	110.2	0.5
400	40,043	71	351	1.9	111.2	111.2	112.0	0.8
415	41,492	94	373	1.6	112.2	112.2	113.2	1.0
429	42,930	60	253	2.3	114.6	114.6	115.1	0.5
441	44,138	48	158	3.1	116.3	116.3	116.9	0.6
450	45,026	42	144	2.4	118.5	118.5	118.8	0.3
459	45,865	49	154	2.2	119.6	119.6	119.8	0.2
466	46,579	69	304	1.0	126.6	126.6	126.6	0.0
473	47,349	84	365	0.9	130.1	130.1	130.2	0.1
481	48,065	51	249	1.3	131.7	131.7	132.0	0.3
489	48,926	21	62	5.1	134.0	134.0	134.1	0.1
Thoroughfare Swamp								
041	4,132	629	3,079	1.5	97.4[1]	91.0	91.9	0.9
064	6,428	640	2,830	1.6	97.4[1]	92.2	93.1	1.0
079	7,856	143	1,007	4.5	97.4[1]	94.2	94.4	0.3
103	10,267	1,056	5,030	0.8	97.4[1]	95.5	96.5	1.0
127	12,656	1,065	4,781	0.9	97.4[1]	96.4	97.4	0.9
141	14,119	1,033	4,496	0.9	97.4[1]	97.1	98.1	1.0
164	16,414	1,317	5,212	0.7	98.2	98.2	99.0	0.9
188	18,840	778	3,380	0.9	98.9	98.9	99.8	0.9
215	21,538	681	3,287	0.9	100.3	100.3	101.2	0.9
237	23,707	547	2,594	1.2	101.6	101.6	102.5	1.0
247	24,725	539	2,204	1.4	102.4	102.4	103.4	1.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
261	26,063	850	3,931	0.8	104.1	104.1	105.0	0.9
283	28,318	794	4,506	0.7	104.8	104.8	105.8	1.0
305	30,480	760	3,746	0.7	105.5	105.5	106.5	1.0
343	34,275	507	2,251	0.9	107.3	107.3	108.1	0.8
359	35,882	504	2,158	0.9	108.2	108.2	109.1	0.9
373	37,286	516	1,916	1.0	109.3	109.3	110.2	0.9
386	38,553	508	1,946	1.0	110.2	110.2	111.2	1.0
398	39,827	391	1,647	1.2	111.4	111.4	112.2	0.8
412	41,182	445	2,266	0.9	114.0	114.0	114.8	0.8
424	42,410	459	2,133	0.8	114.6	114.6	115.5	0.8
438	43,758	387	1,726	1.0	115.4	115.4	116.3	0.9
452	45,162	327	1,224	1.4	116.7	116.7	117.5	0.8
463	46,259	303	1,285	1.3	119.0	119.0	119.7	0.7
480	48,009	486	1,891	0.9	119.9	119.9	120.8	0.8
490	49,002	282	1,113	1.5	120.5	120.5	121.3	0.8
502	50,219	69	378	4.4	121.9	121.9	122.8	0.9
508	50,830	256	1,301	1.3	123.6	123.6	124.5	0.9
Thunder Swamp								
016	1,611	187	735	2.3	106.5[1]	105.8	106.7	1.0
054	5,441	327	1,281	1.3	111.5	111.5	112.4	0.9
082	8,183	204	867	1.6	115.1	115.1	116.0	0.9
095	9,510	139	596	2.3	117.6	117.6	117.6	0.0
109	10,866	367	1,714	0.7	118.4	118.4	118.8	0.4
130	12,962	293	1,143	1.1	119.1	119.1	119.8	0.7
147	14,673	190	714	1.6	120.4	120.4	121.2	0.8
158	15,797	70	340	3.4	122.3	122.3	122.9	0.6
172	17,175	166	626	1.8	123.6	123.6	124.6	1.0
178	17,795	74	370	3.1	124.0	124.0	125.0	1.0
191	19,098	107	524	2.2	126.2	126.2	127.0	0.8
210	21,002	245	1,016	0.8	128.0	128.0	128.9	0.9
228	22,804	247	827	1.0	129.9	129.9	130.5	0.6
240	24,022	213	681	1.2	130.8	130.8	131.8	1.0
251	25,071	133	366	1.5	132.9	132.9	133.3	0.4
262	26,183	50	189	2.9	137.3	137.3	137.9	0.6
Thunder Swamp Tributary								
010	1,006	150	361	1.4	129.7	129.7	130.7	0.9
017	1,684	80	175	2.8	132.3	132.3	133.1	0.8
023	2,284	49	143	3.4	136.1	136.1	136.8	0.7
029	2,898	156	495	1.0	138.6	138.6	139.6	0.9
037	3,676	45	160	3.1	139.8	139.8	140.8	1.0
044	4,447	49	280	1.8	142.2	142.2	143.1	0.9
052	5,216	23	120	3.1	142.8	142.8	143.7	0.8
055	5,490	40	282	1.3	147.1	147.1	147.9	0.8
Walnut Creek								
098	9,804	1,069	2,427	1.0	60.9[1]	52.1	52.3	0.2

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
113	11,348	158	842	2.8	60.9[1]	55.8	56.2	0.4
123	12,311	180	788	3.0	60.9[1]	57.1	58.0	0.8
131	13,074	225	1,260	1.9	60.9[1]	58.6	59.3	0.7
140	14,003	173	1,106	2.1	60.9[1]	59.6	60.2	0.7
152	15,203	173	931	2.5	61.0	61.0	61.8	0.8
166	16,604	220	1,198	1.8	62.4	62.4	63.4	1.0
179	17,908	170	1,046	2.1	64.4	64.4	65.1	0.6
192	19,201	147	766	2.8	66.0	66.0	66.7	0.8
202	20,201	253	1,772	1.2	66.9	66.9	67.8	1.0
217	21,737	301	1,505	1.4	67.9	67.9	68.8	0.9
228	22,798	1,752	34,414	0.1	84.0	84.0	84.0	0.0
250	25,000	696	11,020	0.2	84.0	84.0	84.0	0.0
263	26,318	1,214	15,388	0.1	84.0	84.0	84.0	0.0
277	27,688	890	9,478	0.2	84.0	84.0	84.0	0.0
288	28,801	786	6,978	0.2	84.0	84.0	84.0	0.0
300	30,015	167	1,679	0.9	84.0	84.0	84.0	0.0
315	31,505	276	1,447	1.1	84.1	84.1	84.1	0.0
332	33,203	283	1,150	1.4	84.6	84.6	84.8	0.2
356	35,603	334	1,004	1.5	86.5	86.5	87.2	0.7
372	37,203	271	1,110	1.2	88.0	88.0	89.0	1.0
384	38,404	268	1,041	1.3	89.0	89.0	89.8	0.8
390	39,036	308	1,127	1.2	89.4	89.4	90.2	0.8
404	40,405	311	1,226	1.1	90.4	90.4	91.0	0.7
420	41,975	285	849	1.3	91.3	91.3	91.8	0.5
436	43,629	208	567	1.9	92.2	92.2	92.7	0.4
442	44,190	89	554	2.0	94.7	94.7	94.8	0.1
448	44,804	72	368	3.0	95.2	95.2	95.7	0.6
Walnut Creek Tributary A								
015	1,509	49	200	3.0	72.4	72.4	73.4	1.0
025	2,502	60	275	2.2	76.0	76.0	76.8	0.8
035	3,496	77	251	2.4	83.3	83.3	83.9	0.6
044	4,360	135	394	1.5	86.1	86.1	86.6	0.5
052	5,197	123	489	1.2	91.9	91.9	92.3	0.4
Walnut Creek Tributary B								
023	2,336	161	540	1.2	84.0[1]	82.5	82.5	0.0
031	3,058	1,119	11,099	0.0	97.6	97.6	97.6	0.0
048	4,843	378	3,156	0.2	97.6	97.6	97.6	0.0
060	6,049	153	852	0.6	97.6	97.6	97.7	0.0
069	6,923	105	634	0.8	100.8	100.8	101.0	0.2
Walnut Creek Tributary C								
016	1,560	58	171	2.3	89.2	89.2	89.9	0.7
024	2,392	56	143	2.8	94.4	94.4	94.7	0.3
027	2,747	59	154	2.6	97.7	97.7	97.7	0.0
West Bear Creek								
021	2,053	631	1,582	1.6	75.9[1]	75.0	75.2	0.1

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
036	3,573	462	1,547	1.6	76.6	76.6	77.1	0.4
052	5,216	376	939	2.6	78.1	78.1	78.8	0.6
064	6,401	388	1,509	1.6	79.6	79.6	80.6	0.9
081	8,070	472	1,767	1.4	81.4	81.4	82.3	0.8
092	9,185	132	769	3.2	83.4	83.4	83.7	0.3
102	10,209	478	2,521	1.0	84.0	84.0	84.5	0.5
118	11,776	547	2,408	1.0	84.2	84.2	84.9	0.7
134	13,449	569	2,461	0.9	84.6	84.6	85.5	0.9
151	15,070	583	2,418	0.9	84.9	84.9	85.8	0.9
166	16,572	539	1,791	1.2	85.9	85.9	86.5	0.6
175	17,540	468	1,604	1.4	86.7	86.7	87.2	0.5
189	18,920	385	1,090	1.6	87.4	87.4	88.3	0.9
201	20,062	130	536	3.4	89.5	89.5	89.9	0.4
218	21,765	398	1,320	1.4	90.5	90.5	91.2	0.7
231	23,143	432	1,640	1.1	91.1	91.1	92.0	1.0
249	24,894	380	1,009	1.6	92.3	92.3	92.9	0.5
273	27,266	344	937	1.4	94.5	94.5	95.3	0.9
287	28,696	310	902	1.4	95.6	95.6	96.4	0.8
303	30,349	267	813	1.6	96.9	96.9	97.6	0.7
320	31,983	265	885	1.2	98.2	98.2	99.2	1.0
334	33,398	247	728	1.5	99.3	99.3	100.0	0.7
342	34,242	117	440	2.4	100.4	100.4	101.0	0.7
350	34,974	1,000	10,081	0.1	114.1	114.1	114.1	0.0
377	37,678	201	1,779	0.3	114.1	114.1	114.1	0.0
393	39,262	147	1,000	0.5	114.1	114.1	114.2	0.1
399	39,931	139	711	0.7	114.2	114.2	114.3	0.1
405	40,539	92	554	0.9	114.2	114.2	115.1	0.9
415	41,498	76	286	1.2	115.6	115.6	116.6	0.9
Yellow Marsh Branch								
030	3,019	185	664	1.7	101.2	101.2	102.1	0.9
044	4,439	178	774	1.4	103.1	103.1	104.0	0.8
059	5,876	133	410	2.7	106.7	106.7	107.1	0.4
064	6,428	49	274	4.1	108.7	108.7	109.7	1.0
078	7,825	181	912	1.2	111.0	111.0	111.9	1.0
099	9,857	122	587	1.7	112.8	112.8	113.7	0.9
115	11,498	158	680	1.5	114.9	114.9	115.9	0.9
132	13,193	63	303	3.2	117.0	117.0	117.8	0.8
145	14,524	118	467	1.9	119.0	119.0	119.9	0.9
161	16,089	40	193	4.6	123.1	123.1	123.7	0.6
166	16,590	95	245	3.6	126.5	126.5	126.6	0.0
186	18,626	650	2,884	0.2	131.2	131.2	131.2	0.0
200	19,992	78	332	2.0	135.0	135.0	135.0	0.0
215	21,548	129	438	1.2	136.0	136.0	137.0	0.9
228	22,847	70	221	2.4	141.8	141.8	142.6	0.8
234	23,402	43	271	2.0	148.2	148.2	148.2	0.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
242	24,208	46	435	1.2	154.6	154.6	155.4	0.8

***1*Elevation includes backwater effects**

***2*Flooding Controlled by Stoney Creek**

***3*Neuse River**

***4*Feet above US Highway 17**

7.0 Revising the FIS

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 Information eXchange (FMIX) 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 Information eXchange (FMIX) toll-free information line at 1-877-FEMA MAP (1-877-336-2627), 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 Information eXchange (FMIX) 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 flood hazard information for the entire geographic area of Wayne 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 and including the 12/2/2005 North Carolina Statewide FIRM, which includes Wayne County, are presented in Table 22, "Community Map History."

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Wayne County has been compiled into this FIS. Therefore, this FIS supersedes all previously printed FIS Reports, FHBMs, FIRMs, and/or FBFMs for all of the incorporated and unincorporated jurisdictions within Wayne County.

Table 22 - Map Revision History

Community	Initial Identification Date	Initial FIRM Effective Date	FIS Revision Date
CITY OF GOLDSBORO	6/7/1974	6/1/1982	04/16/2013
SEYMOUR JOHNSON AIR FORCE BASE	6/7/1974	6/1/1982	04/16/2013
TOWN OF EUREKA	12/2/2005	12/2/2005	04/16/2013

Table 22 - Map Revision History

Community	Initial Identification Date	Initial FIRM Effective Date	FIS Revision Date
TOWN OF FREMONT	12/2/2005	12/2/2005	04/16/2013
TOWN OF MOUNT OLIVE	6/17/1977	2/17/1982	04/16/2013
TOWN OF PIKEVILLE	3/13/1981	4/1/1982	04/16/2013
TOWN OF SEVEN SPRINGS	7/15/1977	2/17/1982	04/16/2013
VILLAGE OF WALNUT CREEK	1/21/1983	9/30/1983	04/16/2013
WAYNE COUNTY	12/27/1974	9/30/1983	04/16/2013

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 Wayne County and Incorporated Areas. Table 23, "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 23 — Authority and Acknowledgments

Community	FIS Dated	Study Contracted By	Data Source	Contract or IAA Number	Work Completed In
CITY OF GOLDSBORO	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
CITY OF GOLDSBORO	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
SEYMOUR JOHNSON AIR FORCE BASE	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
SEYMOUR JOHNSON AIR FORCE BASE	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
TOWN OF EUREKA	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
TOWN OF EUREKA	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
TOWN OF FREMONT	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
TOWN OF FREMONT	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
TOWN OF MOUNT OLIVE	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
TOWN OF MOUNT OLIVE	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
TOWN OF PIKEVILLE	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
TOWN OF PIKEVILLE	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
TOWN OF SEVEN SPRINGS	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
TOWN OF SEVEN SPRINGS	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
VILLAGE OF WALNUT CREEK	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
VILLAGE OF WALNUT CREEK	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013
WAYNE COUNTY	12/2/2005	NCFMP	NCFMP	286-000023	5/13/2013
WAYNE COUNTY	12/2/2005	NCFMP	NCFMP	286-000022	3/5/2013

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 Partner (CTP) Initiative, has become the first Cooperating Technical State (CTS) and 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 Wayne County were produced by NCFMP under contract with the State of North Carolina and issued on effective 4/30/2014. For this revision, the hydrologic and hydraulic analyses and the FIRM panels were produced by NCFMP, under contract with the State of North Carolina.

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 Wayne County and Incorporated Areas were compiled from the previous countywide FIS Report and are shown in Table 24, “Consultation Coordination Officer’s Meetings

Table 24 — Consultation Coordination Officer’s Meetings

Community	For FIS Dated	Initial CCO Date	Attended By	Final CCO Date	Attended By
CITY OF GOLDSBORO	3/16/1998	8/8/1994	Notified by letter	8/8/8888	NP
CITY OF GOLDSBORO ETJ	3/16/1998	8/8/1994	Notified by letter	8/8/8888	NP
SEYMOUR JOHNSON AIR FORCE BASE	3/16/1998	8/8/1994	Notified by letter	8/8/8888	NP
TOWN OF MOUNT OLIVE	8/17/1981	12/6/1978	USACE, FEMA, town officials, and local residents	3/5/1981	USACE, FEMA, and local officials
TOWN OF MOUNT OLIVE	8/17/1981	12/6/1978	USACE, FEMA, town officials, and local residents	4/13/1981	Representatives of the U.S. Army Corps of Engineers, FEMA, County officials, and local residents
TOWN OF MOUNT OLIVE ETJ	8/17/1981	12/6/1978	USACE, FEMA, town officials, and local residents	3/5/1981	USACE, FEMA, and local officials
TOWN OF MOUNT OLIVE ETJ	8/17/1981	12/6/1978	USACE, FEMA, town officials, and local residents	4/13/1981	Representatives of the U.S. Army Corps of Engineers, FEMA, County officials, and local residents
TOWN OF PIKEVILLE	10/1/1981	12/6/1978	USACE, FEMA, town officials, and local residents	2/25/1981	USACE, FEMA, and local officials
TOWN OF PIKEVILLE	10/1/1981	12/6/1978	USACE, FEMA, town officials, and local residents	5/22/1981	Representatives of FEMA and the community
TOWN OF PIKEVILLE	10/1/1981	12/6/1978	USACE, FEMA, town officials, and local residents	5/22/1981	Representatives of USACE, FEMA, and the community
TOWN OF PIKEVILLE ETJ	10/1/1981	12/6/1978	USACE, FEMA, town officials, and local residents	2/25/1981	USACE, FEMA, and local officials
TOWN OF PIKEVILLE ETJ	10/1/1981	12/6/1978	USACE, FEMA, town officials, and local residents	5/22/1981	Representatives of FEMA and the community
TOWN OF PIKEVILLE ETJ	10/1/1981	12/6/1978	USACE, FEMA, town officials, and local residents	5/22/1981	Representatives of USACE, FEMA, and the community
TOWN OF SEVEN SPRINGS	8/17/1981	12/6/1978	USACE, FEMA, town officials, and local residents	3/5/1981	USACE, FEMA, and local officials
TOWN OF SEVEN SPRINGS	8/17/1981	12/6/1978	USACE, FEMA, town officials, and local residents	4/13/1981	Representatives of the U.S. Army Corps of Engineers, FEMA, County officials, and local residents
VILLAGE OF WALNUT CREEK	3/30/1983	12/6/1978	USACE, FEMA, town officials, and local residents	12/1/1982	Representatives of USACE, FEMA, the county, and local residents
VILLAGE OF WALNUT CREEK	3/30/1983	12/6/1978	USACE, FEMA, town officials, and local residents	12/2/1983	USACE, FEMA, and local officials
WAYNE COUNTY	3/16/1998	4/21/1995	Notified by letter	8/8/8888	NP

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 Wayne County are shown in Table 25, “Scoping Meetings.” Meetings held for the map maintenance revision are also included below for Wayne County.

Table 25 — Scoping Meetings

Community	Riverbasin	Initial Scoping Date	Attended By	Final Scoping Date	Attended By
CITY OF GOLDSBORO	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
CITY OF GOLDSBORO ETJ	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry

Table 25 — Scoping Meetings

Community	Riverbasin	Initial Scoping Date	Attended By	Final Scoping Date	Attended By
SEYMOUR JOHNSON AIR FORCE BASE	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF EUREKA	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF EUREKA ETJ	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF FREMONT	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF FREMONT ETJ	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF MOUNT OLIVE	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF MOUNT OLIVE ETJ	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF PIKEVILLE	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF PIKEVILLE ETJ	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
TOWN OF SEVEN SPRINGS	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
VILLAGE OF WALNUT CREEK	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry
WAYNE COUNTY	NEUSE	12/14/2000	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry	4/23/2001	Representatives of Wayne County and Incorporated Communities, FEMA, NCDEM, NCCGIA, and Dewberry

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 26, “Preliminary and Public Participation Meetings.”

Table 26 — Preliminary and Public Participation Meetings

Community	For FIS Dated	Meeting Location	Preliminary Meeting Date	Attended By	Public Meeting Date	Attended By
CITY OF GOLDSBORO	12/2/2005	Goldsboro	9/2/2003	Wayne County and Incorporated Communities officials, the State, Dewberry, and Watershed Concepts	10/15/2003	NP
CITY OF GOLDSBORO	12/2/2005	Goldsboro	9/2/2003	Wayne County and Incorporated Communities officials, the State, Dewberry, and Watershed Concepts	10/29/2003	NP

Table 26 — Preliminary and Public Participation Meetings

Community	For FIS Dated	Meeting Location	Preliminary Meeting Date	Attended By	Public Meeting Date	Attended By
CITY OF GOLDSBORO ETJ	12/2/2005	Goldsboro	9/2/2003	Wayne County and Incorporated Communities officials, the State, Dewberry, and Watershed Concepts	10/15/2003	NP
CITY OF GOLDSBORO ETJ	12/2/2005	Goldsboro	9/2/2003	Wayne County and Incorporated Communities officials, the State, Dewberry, and Watershed Concepts	10/29/2003	NP
SEYMOUR JOHNSON AIR FORCE BASE	12/2/2005	Goldsboro	9/2/2003	Wayne County and Incorporated Communities officials, the State, Dewberry, and Watershed Concepts	10/15/2003	NP
SEYMOUR JOHNSON AIR FORCE BASE	12/2/2005	Goldsboro	9/2/2003	Wayne County and Incorporated Communities officials, the State, Dewberry, and Watershed Concepts	10/29/2003	NP

9.0 Guide to Additional Information

9.1 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 27, “Additional Information” is not applicable in Wayne County.

10.0 Appendix

10.1 Bibliography

All bibliography and reference information associated within this Flood Insurance Study are maintained and accessible within the geodatabase structure and associated metadata. Users requiring more specific information should contact the North Carolina Floodplain Mapping Program (NCFMP) at www.ncfloodmaps.com under the Contacts menu