

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

A Report of Flood Hazards in JOHNSTON COUNTY, NORTH CAROLINA AND INCORPORATED AREAS



Community Name	Community Number
JOHNSTON COUNTY	370138
TOWN OF ARCHER LODGE	370462
TOWN OF BENSON	370504
TOWN OF CLAYTON	370139
TOWN OF FOUR OAKS	370502
TOWN OF KENLY	370501
TOWN OF MICRO	370500
TOWN OF PINE LEVEL	370505
TOWN OF PRINCETON	370485
TOWN OF SELMA	370499
TOWN OF SMITHFIELD	370140
TOWN OF WILSON'S MILLS	370262
TOWN OF ZEBULON*	370246

*Area Not Included



PRELIMINARY: 3/28/2024

REVISED:

**Federal Emergency Management Agency
State of North Carolina
Flood Insurance Study Number
37101CV000D**

www.fema.gov and www.ncfloodmaps.com



FOREWORD

This countywide Flood Insurance Study (FIS) 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.

Flood Insurance Study (FIS) means an examination, evaluation, and determination of flood hazards, corresponding water surface elevations, flood hazard risk zones, and other flood data in a community issued by the North Carolina Floodplain Mapping Program (NCFMP). The Flood Insurance Study (FIS) is comprised of the following products used together: the Digital Flood Hazard Database, the Water Surface Elevation Rasters, the digitally derived, autogenerated Flood Insurance Rate Map and the Flood Insurance Survey Report. A Flood Insurance Survey is a compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community. This report contains detailed flood elevation data, data tables and FIRM indices. When a flood study is complete for the National Flood Insurance Program (NFIP), the digital information, reports and maps are assembled into a FIS. Information shown on in the FIS is provided in digital format by the NCFMP.

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 North Carolina Floodplain Mapping Program. It is advisable to use www.fris.nc.gov/fris or 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 Statewide FIS Report Effective Date
6/20/2018	Countywide FIS Revision
7/19/2022	FIRM Update as Border with Wake County

This FIS has been produced as part of the North Carolina Floodplain Mapping Program. Johnston 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

3005 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 Johnston County and the jurisdictions therein (hereinafter referred to collectively as Johnston 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 Johnston County, North Carolina, including the jurisdictions listed in Table 1.

Table 1 – Jurisdictions in Johnston County

Community	Included in this FIS	If Not Included, Location of Flood Hazard/Flood Insurance Rate Data
JOHNSTON COUNTY	Yes	
TOWN OF ARCHER LODGE	Yes	
TOWN OF BENSON	Yes	
TOWN OF CLAYTON	Yes	
TOWN OF FOUR OAKS	Yes	
TOWN OF KENLY	Yes	
TOWN OF MICRO	Yes	
TOWN OF PINE LEVEL	Yes	
TOWN OF PRINCETON	Yes	
TOWN OF SELMA	Yes	
TOWN OF SMITHFIELD	Yes	
TOWN OF WILSON'S MILLS	Yes	
TOWN OF ZEBULON	No	Wake County FIS 7/19/2022

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.

1.4 Considerations for Using this Flood Insurance Study Report

The NFIP encourages State and local governments to implement sound floodplain management programs. To assist in this endeavor, each FIS Report provides floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood elevations (the 1% annual chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1% annual chance and 0.2% annual chance floodplains; and 1% annual chance floodway. This information is presented on the FIRM and/or in many components of the FIS Report, including Flood Profiles, Floodway Data tables, Summary of Non-Coastal Stillwater Elevations tables, and Coastal Transect Parameters tables (not all components may be provided for a specific FIS).

It is, therefore, the responsibility of the user to consult with community officials by contacting the community repository to obtain the most current FIS Report components. Communities participating in the NFIP have established repositories of flood hazard data for floodplain management and flood insurance purposes. Community map repository addresses are provided in Table 28, "Map Repositories," within this FIS Report.

New FIS Reports are frequently developed for multiple communities, such as entire counties. A countywide FIS Report incorporates previous FIS Reports for individual communities and the unincorporated area of the county (if not jurisdictional) into a single document and supersedes those documents for the purposes of the NFIP.

The Initial Countywide FIS Report for Johnston became Effective on 12/2/2005. Refer to Table 24 for information about subsequent revisions to FIRMs.

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

Old Zone	New Zone
A1 through A30	AE
V1 through V30	VE
B	X (shaded)
C	X (unshaded)

FEMA does not impose floodplain management requirements or special insurance ratings based on Limit of Moderate Wave Action (LiMWA) delineations at this time. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. If the LiMWA is shown on the FIRM, it is being provided by FEMA as information only. For communities that do adopt Zone VE building standards in the area defined by the LiMWA, additional Community Rating System (CRS) credits are available. Refer to Section 2.5.4 for additional information about the LiMWA.

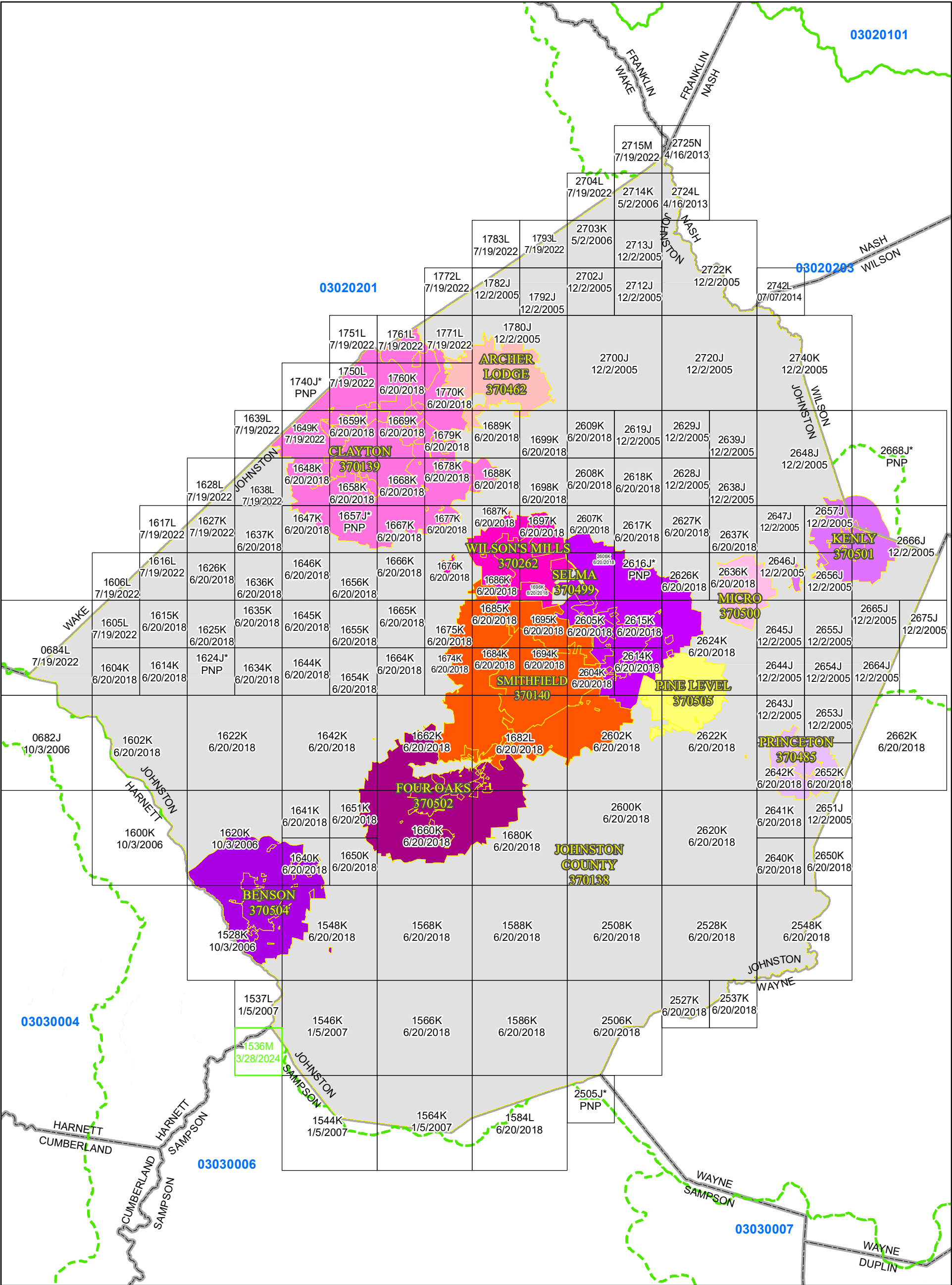
The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Visit the FEMA Web site at <http://www.fema.gov> or contact your appropriate FEMA Regional Office for more information about this program.

Previous FIS Reports and FIRMs may have included levees that were accredited as reducing the risk associated with the 1% annual chance flood based on the information available and the mapping standards of the NFIP at that time. For FEMA to continue to accredit the identified levees, the levees must meet the criteria of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), titled "Mapping of Areas Protected by Levee Systems. Since the status of levees is subject to change at any time, the user should contact the appropriate agency for the latest information regarding levees presented in Table 7 of this FIS Report. For levees owned or operated by

the U.S. Army Corps of Engineers

(USACE), information may be obtained from the USACE national levee database. For all other levees, the user is encouraged to contact the appropriate local community.

FEMA has developed a Guide to Flood Maps (FEMA 258) and online tutorials to assist users in accessing the information contained on the FIRM. These include how to read panels and step-by-step instructions to obtain specific information. To obtain this guide and other assistance in using the FIRM, visit the FEMA Web site at <http://www.fema.gov>.



1 in = 3.8 miles

Miles

0 0.5 1 2 3

Map Projection:
North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAVD 1988 (Vertical)

The corporate limits shown on this FIRM Index are based on the best information available at the time of publication. As such, they may be more current than those shown on FIRM panels previously issued under the North Carolina Seamless paneling scheme

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

[HTTPS://FRIS.NC.GOV/FRIS](https://FRIS.NC.GOV/FRIS)
[HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION
*PANEL NOT PRINTED

COUNTY LOCATOR

PRELIMINARY

3/28/2024

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP INDEX

JOHNSTON COUNTY, NORTH CAROLINA

And Incorporated Areas

PANELS PRINTED:

0682, 0684, 1528, 1536, 1537, 1544, 1546, 1548, 1564, 1566, 1568, 1584, 1586, 1588, 1600, 1602, 1604, 1605, 1606, 1614, 1615, 1616, 1617, 1620, 1622, 1625, 1626, 1627, 1628, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1654, 1655, 1656, 1658, 1659, 1660, 1662, 1664, 1665, 1666, 1667, 1668, 1669, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1682, 1684, 1685, 1686, 1687, 1688, 1689, 1694, 1695, 1696, 1697, 1698, 1699, 1750, 1751, 1760, 1761, 1770, 1771, 1772, 1780, 1782, 1783, 1792, 1793, 2506, 2508, 2527, 2528, 2537, 2548, 2600, 2602, 2604, 2605, 2606, 2607, 2608, 2609, 2614, 2615, 2617, 2618, 2619, 2620, 2622, 2624, 2626, 2627, 2628, 2629, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2662, 2664, 2665, 2666, 2675, 2700, 2702, 2703, 2704, 2712, 2713, 2714, 2715, 2720, 2722, 2724, 2725, 2740, 2742

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEMA
MAP NUMBER
37101CINDOI

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 2, "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.

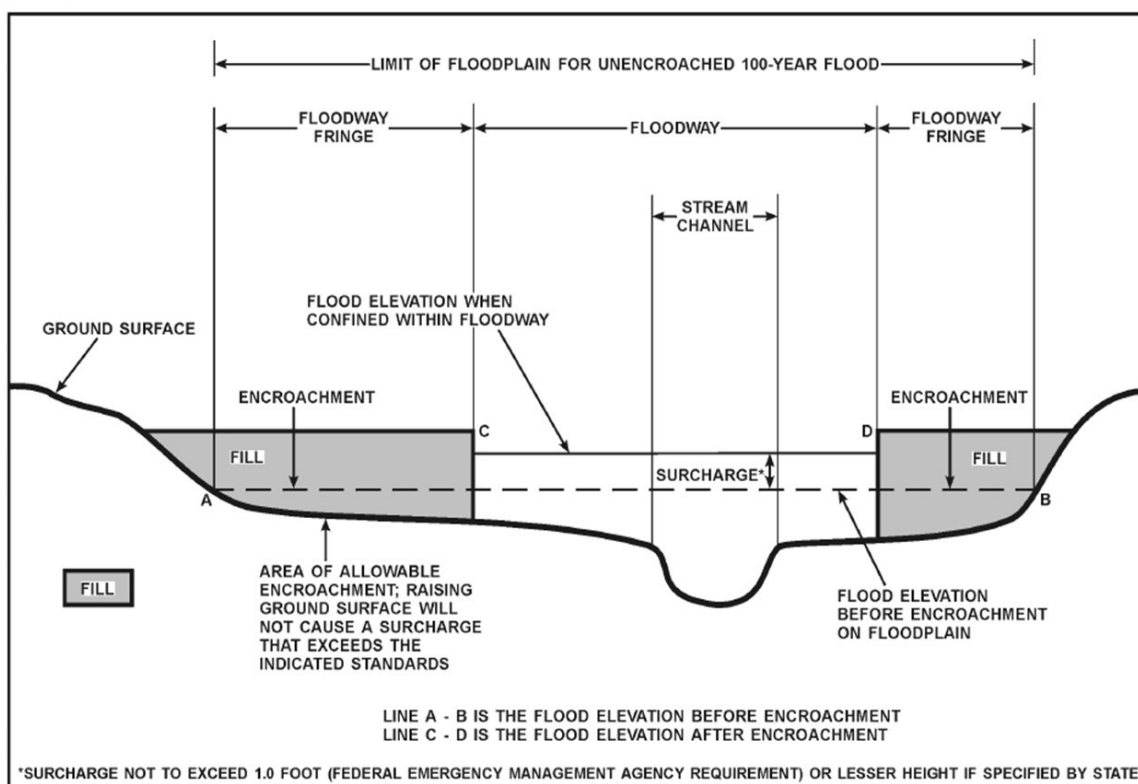


Figure 2- Floodway Schematic

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 North Carolina Emergency Management, National Oceanic and Atmospheric Administration (NOAA), U.S. Geological Survey (USGS) or other agencies do not maintain gages on the flooding sources of interest, partnerships may be pursued with federal, state and local agencies to encourage these agencies to install gauges. 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 exceedance) 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.

2.5 Coastal Flood Hazard Areas

This section is not applicable to this FIS project.

Figure 3, "Wave Runup Transect Schematic" is not applicable to Johnson County Mapping Methods.

Figure 4, "Coastal Transect Schematic" is not applicable to Johnson County Mapping Methods.

3.0 Insurance Applications

3.1 National Flood Insurance Program Insurance Zones

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.

4.0 Area Studied

Johnston County is found in the Coastal Plain region of North Carolina. It is surrounded by Wake, Franklin, and Nash Counties to the north, Wilson and Wayne Counties to the east, Sampson County to the south, and Harnett 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)
Black	03030006	Black River	The Black River Basin begins in the northeastern region of Harnett County, North Carolina. The basin then drains southeast through significant portions of Bladen, Cumberland, and Sampson Counties, ending at the Cape Fear River in Pender County. Portions of Johnston County fall within this HUC-8 Sub-Basin.	1,574
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. Portions of Johnston County fall within this HUC-8 Sub-Basin.	1,008
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 Johnston County.

Table 4 – Principal Flood Problems

Flooding Source	Problem
All Sources	Low-lying areas of Johnston County are subject to periodic flooding from the Neuse River, Little River, Mill Creek, Swift Creek, Black Creek, Middle Creek, and other streams included in this FIS. The most severe flooding on rivers and large creeks results from heavy thunderstorms. The United States Geological Survey (USGS) has operated nine stream gages in the vicinity of Johnston County. Gages on the Neuse River were established at Smithfield in 1911, and on North Carolina Highway 42 near Clayton in 1927. Discharges exceeding 20,000 cubic feet per second (cfs) were experienced at the Clayton gage in 1919, 1929, and 1945. Severe flooding occurred in September of 1996 and had a discharge of 19,500 cfs. The gage on Little River is located on County Road 1210 near Princeton. The maximum known flood had occurred in September 1924 and approximated the 50-year event. Recent severe flooding occurred in October 1964 and approximated the 20-year event. The gage on Middle Creek is on North Carolina Highway 50 near Clayton. A maximum discharge of 13,000 cfs occurred in September of 1996, during Hurricane Fran. Hurricane Fran hit Johnston County in September of 1996, causing a 100-year event of greater on the larger streams and rivers in the county. The previous maximum peak discharge was 8,510 cfs, occurring in February of 1973. Other large storms occurred in 1957, 1959, 1962, 1964, and 1965.

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 Johnston 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)
Bawdy Swamp / Hurricane Floyd	3913 Stevens Chapel Road, Smithville	4847	113.8	9/1/1999	100
Bull Branch / Unknown Storm	Flower Road	5878	169.6	1/1/1994	100
Little River / Hurricane Floyd	Just upstream of Zebulon Road	416200	307.0	9/1/1996	100
Little River / Hurricane Floyd	4811 NC 231, Zebulon	334089	202.8	9/1/1999	100
Little River / Hurricane Floyd	Approximately 0.3 mile downstream of Wheeler Creek	366000	229.5	9/1/1999	100
Little River / Hurricane Floyd	Upstream of Highway 98	457531	342.4	9/1/1999	100
Little River / Hurricane Fran	Just upstream of State Highway 97	372000	236.1	9/1/1996	100
Marks Creek / Unknown Storm	500 Windless Trail, Clayton	11685	167.6	9/1/1996	100
Mill Creek (South) / Hurricane Floyd	1534 Olivens Grove Road, Four Oak	12558	151.5	9/1/1999	100
Moccasin Creek / Hurricane Floyd	Downstream of Peaces Road	111461	262.2	9/1/1999	100
Neuse River / Hurricane Floyd	Upstream face of Weyerhaeuser Road	57075	10.6	9/1/1999	100
Neuse River / Hurricane Floyd	Downstream face of West Craven Middle School Road	65300	11.7	9/1/1999	100
Neuse River / Hurricane Floyd	400 feet southwest of intersection of River Road and Cowpens Landing Road	76975	14.6	9/1/1999	100
Neuse River / Hurricane Floyd	Approximately 1.0 mile upstream of intersection of River Road and State Camp Road	94750	17.7	9/1/1999	100
Neuse River / Hurricane Floyd	Backwater up Core Creek (approximately 2.9 miles downstream of NC 55)	127000	18.7	9/1/1999	100
Neuse River / Hurricane Floyd	Backwater up Village Creek (downstream face of Biddle Road)	135000	22.2	9/1/1999	100

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)
Neuse River / Hurricane Floyd	Upstream face of U.S. Highway 70/Queen St.	258355	37.6	9/1/1999	100
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
Swift Creek / Hurricane Fran	Golf Course Green approximately 700 feet upstream of confluence from Lens Branch (Basin 20, Stream 22)	241000	309.8	9/1/1996	100
Swift Creek / Hurricane Fran	Golf course maintenance shed	238300	311.2	9/1/1996	100

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” is not applicable in Johnston County.

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

4.5 Scope of Study

For this map maintenance revision, a scoping meeting was held in Johnston 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 Johnston 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 Johnston 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 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

Source	Riverine Sources		Affected Communities
	From	To	
Black Creek	The confluence with Neuse River	Approximately 230 feet upstream of NC Highway 210	Johnston County Town Of Four Oaks Town Of Smithfield
Buffalo Creek	The confluence with Neuse River	Approximately 300 feet upstream of U.S. Highway 301	Town Of Smithfield
Buffalo Creek (Basin 9, Stream 1)	The confluence with Little River	Approximately 720 feet upstream of NC Highway 42	Johnston County
Buffalo Creek West	The confluence with Middle Creek	The Johnston/Wake County boundary	Johnston County
Hannah Creek	The confluence with Mill Creek (South)	Approximately 1,800 feet upstream of Interstate 95	Johnston County
Little Creek	The confluence with Swift Creek	The confluence with Swift Creek	Johnston County Town Of Clayton
Little Creek Tributary	The confluence with Little Creek	Approximately 770 feet upstream of U.S. Highway 70	Town Of Clayton

Table 8 – Flooding Sources Studied by Detailed Methods

Source	Riverine Sources		Affected Communities
	From	To	
Little Poplar Creek	The confluence with Poplar Creek	Approximately 260 feet upstream of U.S. Highway 70	Johnston County Town Of Smithfield Town Of Wilson's Mills
Little River	At confluence with Neuse River	Approximately 1.0 mile upstream of the Wayne/Johnston County Boundary	Johnston County
Little River	The Johnston/Wayne County boundary	Approximately 1,600 feet upstream of State Highway 42	Johnston County Town Of Kenly Town Of Micro Town Of Princeton
Little River	The Wake/Johnston County Boundary	Approximately 300 feet upstream of confluence of Perry Creek (Basin 10, Stream 19)	Johnston County
Middle Creek	The confluence with Swift Creek	The Johnston/Wake County boundary	Johnston County Town Of Smithfield
Mill Branch	The confluence with Mill Creek (South)	Approximate 2.4 miles upstream of Harper House Road	Johnston County
Mill Creek (South)	The confluence with Neuse River	Approximate 0.8 mile upstream of confluence of Stone Creek	Johnston County
Moccasin Creek	Approximately 3,425 feet downstream of Buckleberry Road	Approximately 0.4 mile upstream of U.S. Highway 70	Johnston County Town Of Princeton
Moccasin Creek	Approximately 400 feet downstream of U.S. Highway 264A	Approximately 0.7 mile upstream of Henry Baker Road	Johnston County
Moccasin Creek	At confluence with Neuse River	Approximately 3,425 feet downstream of Buckleberry Road	Johnston County
Neuse River	The Johnston/Wayne County boundary	Just downstream of Mial Plantation Road	Johnston County Town Of Clayton Town Of Four Oaks Town Of Selma Town Of Smithfield Town Of Wilson's Mills
Neuse River	Wayne/Lenoir County boundary	Wayne/Johnston County boundary	Johnston County Town Of Clayton Town Of Four Oaks Town Of Selma Town Of Smithfield Town Of Wilson's Mills
Sams Creek	Approximately 0.7 mile upstream of Oneil Street	Approximately 270 feet upstream of City Road	Town Of Clayton
Stone Creek	The confluence with Mill Creek (South)	Approximately 1,640 feet upstream of U.S. Highway 701	Johnston County
Stony Fork	The confluence with Hannah Creek	Approximately 1,550 feet upstream of U.S. Highway 301	Johnston County
Swift Creek	The confluence with Neuse River	The Johnston/Wake County boundary	Johnston County Town Of Smithfield
Unnamed Tributary (#1) to Swift Creek	The confluence with Swift Creek	The Johnston/Wake County boundary	Johnston County
Unnamed Tributary (#2) to Swift Creek	The confluence with Swift Creek	Approximately 190 feet upstream of Cornwallis Road	Johnston County
White Oak Creek	The confluence with Swift Creek	The Johnston/Wake County boundary	Johnston County Town Of Clayton

Table 9, "Flooding Sources Studied by Detailed Methods: Redelineated", lists all flooding sources that were studied by detailed methods for the pre- statewide FIS and redelineated for previous FISs. These flooding sources were not part of this revision and their effective analyses remain valid.

Table 9 – Flooding Sources Studied by Detailed Methods: Redelineated

Source	Riverine Sources		Affected Communities
	From	To	
Neuse River	Wayne/Lenoir County boundary	Falls of the Neuse Road	Johnston County Town Of Clayton Town Of Four Oaks Town Of Selma Town Of Smithfield Town Of Wilson's Mills
Poplar Creek	The confluence with the Neuse River	Approximately 1.4 miles upstream of the confluence with Little Poplar Creek	Town Of Smithfield Town Of Wilson's Mills
Swift Creek	The confluence with the Neuse River	The confluence of Yates Branch (Basin 20, Stream 13)	Johnston County Town Of Smithfield

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 Limited Detailed Methods

Source	Riverine Sources		Affected Communities
	From	To	
Arters Branch	The confluence with the Neuse River	Approximately 300 feet upstream of North Johnson Road	Town Of Smithfield
Basin 11, Stream 7	The Wake/Johnston County boundary	Approximately 0.4 mile upstream of Wake/Johnston County boundary	Johnston County
Bawdy Creek	The confluence with the Neuse River	The confluence with Bawdy Swamp and Quincosin Swamp	Johnston County
Bawdy Swamp	The confluence with Bawdy Creek	Approximately 0.8 mile upstream of HWY 70	Johnston County Town Of Pine Level
Beaverdam Branch	The confluence with Middle Creek	Approximately 100 feet downstream of Raleigh Road	Johnston County
Beaverdam Creek	At Rosewood Road	Approximately 575 feet downstream of Pierce Street	Johnston County Town Of Princeton
Beaverdam Swamp	The confluence with Hannah Creek	Approximately 1,300 feet upstream of Tetersville Road	Johnston County Town Of Four Oaks
Beddingfield Creek	Approximately 0.4 mile upstream of the confluence with the Neuse River	Approximately 0.2 mile upstream of Shotwell Road	Town Of Clayton
Bernal Branch	The confluence with Hannah Creek	Approximately 1.3 miles upstream of Olivers Grove Road	Johnston County
Big Arm Creek	The confluence with Marks Creek	Approximately 0.6 mile upstream of Medlin Road	Johnston County Town Of Clayton
Big Branch	The confluence with the Little River	Approximately 1,300 feet upstream of Micro Road West	Johnston County Town Of Micro
Black Creek	Approximately 260 feet upstream of State HWY 210	Approximately 1.0 mile upstream of dam along Black Creek (Basin 23, Stream 1)	Johnston County
Black Creek	At the Wake/Johnston County boundary	Approximately 1.0 mile upstream of dam along Black Creek (Basin 23, Stream 1)	Johnston County
Black Creek Tributary	The confluence with Black Creek	Approximately 0.3 mile upstream of Plainview Church Road	Johnston County
Buffalo Creek (Basin 9, Stream 1)	State Highway 42	The Johnston/Wake County boundary	Johnston County
Bull Branch	The confluence with Moccasin Creek	Approximately 0.2 mile upstream of Woodard's Dairy Road	Johnston County
Burnt Stocking Branch	The confluence with Little Creek	Approximately 0.5 mile upstream of Pine Level Micro Road	Johnston County
Camp Branch	The confluence with Black Creek	Approximately 0.3 mile upstream of Stephenson Road crossing	Johnston County
Cattail Creek	The confluence with the Little River	Approximately 0.2 mile upstream of Harris Wilson Road	Johnston County
Cooper Branch	The confluence with Swift Creek	Approximately 0.3 mile upstream of Little Creek Church Road	Johnston County
Cow Branch	The confluence with Middle Creek	Approximately 0.9 mile upstream of Somerset Drive	Johnston County
Dicks Branch	The confluence with Black Creek	Approximately 0.4 mile upstream of Zacks Mill Road	Johnston County
Dismal Branch	The confluence with Johnson Swamp	Approximately 0.4 mile upstream of Meadowbrook Road	Johnston County
East Mingo Creek	The confluence with Mingo Swamp	Approximately 0.8 miles upstream of Banner Elk Road	Town Of Benson
Hannah Creek	Approximately 250 feet upstream of the confluence with Stony Fork	Approximately 1,500 feet upstream of Morgan Road	Johnston County Town Of Benson
Hannah Creek Tributary 2	The confluence with Hannah Creek	Approximately 500 feet upstream of Tarheel Road	Johnston County Town Of Benson
Hardee Mill Branch	The confluence with Black Creek	Approximately 1.2 miles upstream of the confluence with Black Creek	Johnston County
Hogpen Branch	The confluence with Bernal Branch	Approximately 0.5 mile upstream of Hummingbird Road	Johnston County
Johnson Swamp	The confluence with Stone Creek	Approximately 0.2 mile upstream of State Highway 96	Johnston County
Johnson Swamp Tributary	The confluence with Johnson Swamp	Approximately 0.2 mile upstream of State HWY 96	Johnston County
Jumping Run	The confluence with Mill Creek (South)	Approximately 1.1 miles upstream of Jumping Road	Johnston County
Juniper Swamp	The confluence with Hannah Creek	Approximately 0.3 mile upstream of Interstate 95	Johnston County Town Of Four Oaks
Juniper Swamp Tributary 1	The confluence with Juniper Swamp	Approximately 0.8 mile upstream of State HWY 96	Town Of Four Oaks
Juniper Swamp Tributary 2	The confluence with Juniper Swamp Tributary 1	Approximately 400 feet downstream of Keen Road	Town Of Four Oaks
Little Bernal Branch	The confluence with Bernal Branch	Approximately 0.4 mile upstream of the confluence with Bernal Branch	Johnston County
Little Black Creek	The confluence with Black Creek	Approximately 0.6 mile upstream of Walter Myatt Road	Johnston County
Little Buffalo Creek	The confluence with the Little River	Approximately 1.3 miles upstream of Meadow Road	Johnston County

Table 10 – Flooding Sources Studied by Limited Detailed Methods

Source	Riverine Sources		Affected Communities
	From	To	
Little Buffalo Creek Tributary	The confluence with Little Buffalo Creek	Approximately 0.6 mile upstream of HWY 222	Johnston County Town Of Kenly
Little Creek	Approximately 0.6 mile upstream of Shotwell Road	Approximately 0.6 mile downstream of the Johnston/Wake County boundary	Town Of Clayton
Little Creek (Basin 11, Stream 2)	The confluence with Moccasin Creek	Approximately 0.3 mile downstream of Highway 39	Johnston County
Little Creek (Into Middle Creek)	The confluence with Middle Creek	Approximately 2.3 miles upstream of the confluence of Juniper Branch	Johnston County
Little Creek (Near Micro)	The confluence with the Little River	Approximately 0.5 mile upstream of Hawkins Road	Johnston County Town Of Micro Town Of Selma
Little River	Approximately 1,600 feet upstream of State Highway 42	The Johnston/Wake County boundary	Johnston County
Little River Tributary 1	The confluence with the Little River	Approximately 0.4 mile upstream of Hwy 42	Johnston County
Little Swamp Branch	The confluence with Mill Creek (South)	Approximately 3,758 feet upstream of Holly Grove Road	Johnston County
Little Swamp Branch Tributary 1	The confluence with Little Swamp Branch	Approximately 0.5 mile upstream of T-Bar Road	Johnston County
Little Swamp Branch Tributary 2	The confluence with Little Swamp Branch	Approximately 720 feet upstream of the confluence with Little Swamp Branch	Johnston County
Long Branch	The confluence with the Little River	Approximately 0.7 mile upstream of NC 96	Johnston County
Marks Creek	The confluence with the Neuse River	Approximately 0.8 mile downstream of Knightdale Eagle Rock Road	Johnston County Town Of Clayton
McCullens Branch	The confluence with Black Creek	Approximately 0.5 mile upstream of Ridge Road	Johnston County
Marks Creek Tributary	The confluence with Marks Creek	Approximately 0.9 mile upstream of the confluence with Marks Creek	Town Of Clayton
Mill Creek (Near Clayton)	The confluence with the Neuse River	Approximately 1.0 mile upstream of Motorcycle Road	Johnston County
Mill Creek (Near Selma)	The confluence with the Neuse River	Approximately 1.4 miles upstream of River Road	Town Of Selma Town Of Smithfield
Mill Creek (South)	Approximately 0.7 mile upstream of the confluence with Stone Creek	Approximately 0.5 mile upstream of NC 96	Johnston County
Mill Creek Tributary 2	The confluence with Mill Creek (South)	Approximately 225 feet upstream of Bentonville Road	Johnston County
Mill Creek Tributary 3	The confluence with Mill Creek (South)	Approximately 0.4 mile upstream of Shaws Pond Road	Johnston County
Mill Creek Tributary 4	The confluence with Mill Creek (South)	Approximately 0.4 mile upstream of Harper House Road	Johnston County
Mill Creek Tributary 5	The confluence with Mill Creek (South)	Approximately 0.5 mile upstream of Harper House Road	Johnston County
Mill Creek Tributary 6	The confluence with Mill Creek (South)	Approximately 0.1 mile upstream of Bentonville Road	Johnston County
Mill Swamp Branch	The confluence with Little Swamp Branch	Approximately 0.1 mile upstream of Holly Grove Road	Johnston County
Mingo Swamp Tributary 2	The Johnston/Harnett County boundary	Approximately 425 feet upstream of NC Highway 27	Town Of Benson
Moccasin Creek	60 feet downstream of Buckhorn Reservoir Dam	Approximately 400 feet upstream of the confluence with Little Creek (Basin 11, Stream 2), Downstream Reach	Johnston County
Moccasin Creek	Approximately 1,900 feet upstream of US Highway 70	US Highway 70 Alternate	Johnston County Town Of Pine Level
Moccasin Creek Tributary 1	The confluence with Moccasin Creek	Approximately 0.6 mile upstream of Highway 222	Johnston County
Moccasin Creek Tributary 2	The confluence with Moccasin Creek	Approximately 0.3 mile upstream of Buck Road	Johnston County
Moccasin Swamp	U.S. Highway 70	Approximately 0.6 mile upstream of Lizzie Mill Road	Town Of Pine Level Town Of Selma
Neuse River Tributary 1	The confluence with Neuse River	Approximately 0.5 mile upstream of Country Valley Place	Town Of Wilson's Mills
Neuse River Tributary 2	The confluence with Neuse River	Approximately 1,780 feet upstream of Vinson Road	Johnston County
Oak Creek	The confluence with Stone Creek	Approximately 1.1 miles upstream of White Oak Road	Johnston County
Oak Creek Tributary	The confluence with Oak Creek	Approximately 1.2 miles upstream of the confluence with Oak Creek	Johnston County
Pole Branch	The confluence with Black Creek	Approximately 0.4 mile upstream of I-40	Johnston County
Polecat Branch	Approximately 0.8 mile downstream of Brogden Road	Approximately 2.2 miles upstream of Brogden Road	Johnston County Town Of Smithfield
Poplar Creek	Approximately 300 feet downstream of U.S. Highway 70	Approximately 0.7 mile upstream of Wilsons Mills Road	Town Of Wilson's Mills

Table 10 – Flooding Sources Studied by Limited Detailed Methods

Source	Riverine Sources		Affected Communities
	From	To	
Quincosin Swamp	The confluence with Bawdy Swamp	Approximately 2.3 miles upstream of Red House Road	Johnston County
Reedy Creek	The confluence with Black Creek	Approximately 1.4 miles upstream of King Mill Road	Johnston County
Reedy Prong	The confluence with Mill Creek (South)	Approximately 0.2 mile upstream of the confluence with Reedy Prong Tributary	Johnston County
Reedy Prong Tributary	The confluence with Reedy Prong	Approximately 200 feet upstream of Thornton Road	Johnston County
Sams Creek	Approximately 0.4 mile downstream of the confluence with Neuse River	Approximately 350 feet upstream of City Road	Town Of Clayton
Snipes Creek	The confluence with the Little River	Approximately 0.6 mile upstream of State Highway 96	Johnston County
Spring Branch	The confluence with the Little River	Approximately 200 feet downstream of Cuddington Road	Johnston County
Spring Branch Tributary 1	The confluence with Spring Branch	Approximately 1,900 feet upstream of Rhodes Road	Johnston County
Stone Creek	Approximately 1,640 feet upstream of U.S. Highway 701	Approximately 0.4 mile upstream of Interstate 40	Johnston County
Stone Creek Tributary	The confluence with Stone Creek	Approximately 0.5 mile upstream of Adams Road	Johnston County
Stony Fork	Approximately 1,550 feet upstream of US HWY 301	Approximately 0.6 mile upstream of Shade Tree Road	Johnston County
Stony Fork Tributary	The confluence with Stony Fork	Approximately 300 feet upstream of Interstate 40	Johnston County
Swift Creek Tributary 3	The confluence with Swift Creek	Approximately 1,750 feet upstream of U.S. Highway 70	Town Of Smithfield

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

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

Please note that Table 12, Letters of Map Revision, only includes LOMCs that have been issued on the FIRM Panels updated in any given revision. Table 12 is not applicable to this FIS Report as there were no LOMCs issued on the FIRM Panels updated in this report. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

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 and limited 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
Arters Branch					
Approximately 0.1 mile upstream of Galilee Road	3.23	*	*	908	*
Approximately 0.5 mile upstream of Galilee Road	3.03	*	*	877	*
Approximately 0.4 mile downstream of Johnson Road	2.48	*	*	782	*
Approximately 0.1 mile upstream of Johnson Road	2.06	*	*	704	*
Basin 11, Stream 7					
Approximately 80 feet downstream of Wake/Johnston County Boundary	0.38	*	*	406	*
Basin 20, Stream 5					
At the confluence with Swift Creek	1.05	410	680	800	1100
Approximately 600 feet downstream of Wake/Johnston County boundary	0.87	*	*	433	*
Bawdy Creek					
Approximately 0.6 mile downstream of Brogden Road	24.42	*	*	5490	*
Approximately 40 feet upstream of Brogden Road	22.38	*	*	5200	*
Approximately 0.3 mile upstream of Brogden Road	21.65	*	*	5090	*
Approximately 0.5 mile upstream of Brogden Road	21.05	*	*	5000	*
Approximately 1.8 miles downstream of Bakers Chapel Road	20.43	*	*	4910	*
Approximately 1.5 miles downstream of Bakers Chapel Road	19.88	*	*	4830	*
Approximately 0.9 mile downstream of Bakers Chapel Road	19.22	*	*	4730	*
Approximately 0.5 mile downstream of Bakers Chapel Road	18.71	*	*	4650	*
Approximately 0.3 mile upstream of Bakers Chapel Road	18.16	*	*	4560	*

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
Bawdy Swamp					
Approximately 0.2 mile upstream of the confluence with Bawdy Creek	11.50	*	*	3430	*
Approximately 0.4 mile downstream of Stevens Chapel Road	11.31	*	*	3390	*
Approximately 0.3 mile upstream of Stevens Chapel Road	10.61	*	*	3260	*
Approximately 0.7 mile upstream of Stevens Chapel Road	9.91	*	*	3120	*
Approximately 1.1 miles upstream of Stevens Chapel Road	9.17	*	*	2980	*
Approximately 1.6 miles downstream of Creechs Mill Road	7.93	*	*	2720	*
Bawdy Swamp					
Approximately 0.4 mile downstream of Creechs Mill Road	7.64	*	*	2660	*
Approximately 0.3 mile upstream of Creechs Mill Road	6.31	*	*	2360	*
Approximately 0.6 mile downstream of Highway 70 BUS	4.33	*	*	1860	*
Approximately 0.1 mile downstream of Highway 70 BUS	3.74	*	*	1700	*
Approximately 0.6 mile upstream of Highway 70	3.06	*	*	1500	*
Approximately 0.8 mile upstream of Highway 70	2.49	*	*	1320	*
Beaverdam Branch					
Approximately 0.7 mile upstream of the confluence with Middle Creek	4.11	*	*	1040	*
Approximately 0.9 mile upstream of the confluence with Middle Creek	3.23	*	*	909	*
Approximately 1.1 miles upstream of the confluence with Middle Creek	3.16	*	*	898	*
Approximately 1.2 miles upstream of the confluence with Middle Creek	2.74	*	*	829	*
Beaverdam Creek					
Approximately 0.6 mile downstream of Luby Smith Road	3.10	*	*	1500	*
Approximately 0.33mile upstream of Luby Smith Road	2.45	*	*	1300	*
Approximately 0.4 mile downstream of Pineview Street	0.94	*	*	716	*
Approximately 0.3 mile downstream of Pierce Street	0.76	*	*	626	*
Beaverdam Swamp					
Approximately 0.6 mile upstream of the confluence with Hannah Creek	1.39	*	*	915	*
Approximately 0.2 mile upstream of Tetterville Road	1.02	*	*	756	*
Beddingfield Creek					
Approximately 0.4 mile downstream of Shotwell Road	5.43	*	*	2150	*
Approximately 0.1 mile downstream of Shotwell Road	4.48	*	*	1900	*
Bernal Branch					
Approximately 0.1 mile upstream Interstate 95	4.68	*	*	1950	*
Approximately 0.3 mile downstream of Highway 301	3.56	*	*	1650	*
Approximately 0.3 mile upstream of Highway 301	3.27	*	*	1560	*
Approximately 0.1 mile downstream of Olivers Grove Road	1.99	*	*	1140	*
Approximately 0.3 mile upstream of Olivers Grove Road	1.74	*	*	1050	*
Approximately 1.2 miles upstream of Olivers Grove Road	1.03	*	*	757	*
Approximately 1.3 miles upstream of Olivers Grove Road	0.76	*	*	628	*
Big Arm Creek					
At the confluence with Marks Creek	4.14	*	*	1810	*
Approximately 0.5 mile upstream of Medlin Rd	1.58	*	*	990	*
Big Branch					
Just downstream of Lowell Mill Road	3.87	*	*	1730	*
Approximately 0.1 mile upstream of Peele Farm Road	3.44	*	*	1610	*

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
Big Branch					
Approximately 0.3 mile upstream of Interstate 95	2.44	*	*	1300	*
Approximately 0.3 mile upstream of Oak Grove Inn Road	1.99	*	*	1150	*
Approximately 0.2 mile upstream of Micro Road West	1.01	*	*	747	*
Black Creek					
At mouth	101.28	3002	4935	5906	8114
At Elevation Road	81.85	2632	4343	5204	7166
Black Creek					
Below Pole Branch	73.07	2454	4057	4865	6708
At NC 50	65.18	1200	1974	4546	6275
Below Camp Branch	54.27	1189	1963	4077	5640
Above Camp Branch	46.24	1181	1955	3707	5137
Approximately 1 mile upstream of Old Fairground Road	37.05	1172	1946	3296	4575
At NC 210	31.03	1166	1940	3279	4530
Approximately 0.6 mile downstream of Jackson King Road	18.70	1153	1927	2462	3417
Approximately 0.2 mile upstream of Jackson King Road	16.39	*	*	2280	*
Approximately 0.2 mile upstream of Jackson King Road	16.37	1151	1925	2308	3205
Approximately 0.9 mile upstream of Jackson King Road	16.05	*	*	2250	*
Approximately 0.6 mile downstream of Wake/Johnston County boundary	14.50	*	*	2250	*
At the Johnston/Wake County boundary	14.50	*	*	2126	*
Approximately 6500 feet upstream of Mt Pleasant Church Road	14.27	1620	2730	3190	4550
Black Creek Tributary					
Approximately 0.3 mile upstream of the confluence with Black Creek	3.20	*	*	908	*
Approximately 0.6 mile upstream of the confluence with Black Creek	2.62	*	*	806	*
Approximately 0.1 mile downstream of Plainview Church Road	2.41	*	*	770	*
Approximately 0.1 mile upstream of Plainview Church Road	2.18	*	*	728	*
Approximately 0.3 mile upstream of Plainview Church Road	1.30	*	*	542	*
Buffalo Creek					
At mouth	5.08	1174	1974	2274	3147
Approximately 0.25 mile upstream of Buffalo Road	4.57	1119	1888	2174	3008
Above Buffalo Road	4.13	1057	1792	2066	2862
Approximately 0.8 mile downstream of Brightleaf Boulevard	3.56	1003	1703	1960	2707
Approximately 0.5 mile downstream of Brightleaf Boulevard	3.28	970	1649	1897	2617
Approximately 0.8 mile above Buffalo Road	3.08	947	1610	1851	2552
Approximately 900 feet downstream of confluence of Buffalo Creek Overflow	2.82	947	1610	1851	2552
At Railroad	1.69	558	1024	1198	1722
Just upstream of Brightleaf Boulevard	1.63	527	976	1146	1658
Just upstream of Ava Gardner Avenue	1.23	439	831	980	1429
Just downstream of U.S. 70 Bypass	1.18	432	818	963	1403
Buffalo Creek (Basin 9, Stream 1)					
At mouth	57.98	3772	5969	6942	9296
At NC 39	50.39	3803	5985	6930	9245
At NC 96	45.14	3829	5999	6922	9207
At NC 42	41.60	3845	6006	6913	9175

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
Buffalo Creek (Basin 9, Stream 1)					
Approximately 1,040 feet downstream of Jordan-Narron Road	38.06	3704	5785	6656	8834
Approximately 350 feet downstream of Jordan Narron Road	38.00	*	*	7240	*
Approximately 0.4 mile upstream of Jordan Narron Road	37.02	*	*	7120	*
Approximately 0.5 mile upstream of Jordan Narron Road	36.54	*	*	7060	*
Approximately 1.0 mile upstream of Jordan Narron Road	34.04	*	*	6760	*
Approximately 2.0 mile upstream of Jordan Narron Road	33.07	*	*	6630	*
Approximately 390 feet downstream of Covered Bridge Road	32.10	*	*	6510	*
Approximately 0.7 mile upstream of Covered Bridge Road	31.11	*	*	6390	*
Approximately 1.0 mile downstream of Wendell Road	28.82	*	*	6090	*
Buffalo Creek (Basin 9, Stream 1)					
Approximately 0.9 mile downstream of Wendell Road	26.14	*	*	5730	*
Approximately 0.2 mile upstream of Wendell Road	23.30	*	*	5330	*
Approximately 0.4 mile upstream of Lake Wendell Road	23.11	*	*	5300	*
Approximately 1.1 mile upstream of Lake Wendell Road	22.12	*	*	5160	*
Approximately 1.2 mile upstream of Lake Wendell Road	21.21	*	*	5030	*
Approximately 0.3 mile upstream of Stotts Mill Road	20.22	*	*	4880	*
Buffalo Creek Overflow					
Just above confluence with Buffalo Creek	1.69	332	440	468	570
Buffalo Creek West					
At mouth	5.72	510	880	1072	1520
Approximately 3,700 feet upstream of Old Drug Store Road	5.12	476	823	1003	1424
Below unnamed tributary at RS 9200	4.17	420	728	888	1264
Above unnamed Tributary at RS 9200	2.95	336	591	723	1033
Approximately 2,000 feet downstream of Johnston/Wake County Boundary	2.15	278	489	598	858
At Johnston-Wake County boundary	1.81	251	442	542	778
Bull Branch					
Just upstream of the confluence with Moccasin Creek 1	3.07	*	*	1500	*
Approximately 0.6 mile upstream of the confluence with Moccasin Creek 1	2.57	*	*	1340	*
Approximately 0.5 mile downstream of Flower Hill Road	2.28	*	*	1250	*
Approximately 0.5 mile upstream of Flower Hill Road	2.00	*	*	1150	*
Approximately 1.0 mile upstream of Flower Hill Road	1.58	*	*	990	*
Approximately 0.1 mile upstream of Woodard's Dairy Road	1.30	*	*	878	*
Burnt Stocking Branch					
At confluence with Little Creek (near Micro)	3.63	784	1365	1668	2531
Approximately 3,700 feet upstream of Fulghum Little Creek Road	2.86	670	1174	1437	2191
Approximately 350 feet upstream of Pine Level-Micro Road	1.90	511	906	1114	1712
Camp Branch					
Approximately 0.5 mile upstream of Stephenson Road	4.20	*	*	1057	*
Approximately 0.2 mile upstream of Stephenson Road	4.03	*	*	1030	*
Approximately 0.4 mile upstream of the confluence with Black Creek	3.54	*	*	957	*
Cattail Creek					
At the confluence with the Little River	9.79	*	*	3101	*
Approximately 0.8 mile upstream of North Carolina Highway 96	8.95	*	*	2930	*

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
Cattail Creek					
Approximately 0.5 mile upstream of Antioch Church Road	8.39	*	*	2820	*
Approximately 0.4 mile downstream of Eatmon Road	7.44	*	*	2610	*
Approximately 0.7 mile downstream of Covered Bridge Road	5.27	*	*	2110	*
Approximately 0.1 mile upstream of Covered Bridge Road	4.73	*	*	1970	*
Approximately 0.2 mile upstream of Covered Bridge Road	3.68	*	*	1680	*
Approximately 0.3 mile upstream of Covered Bridge Road	3.51	*	*	1630	*
Approximately 0.6 mile upstream of Covered Bridge Road	2.55	*	*	1340	*
Approximately 0.1 mile downstream of Lake Wendell Road	1.86	*	*	1100	*
Approximately 0.3 mile downstream of Harris Wilson Road	1.00	*	*	746	*
Cooper Branch					
At the confluence with Swift Creek	3.95	*	*	1020	*
Approximately 300 feet downstream of Little Church Creek Road	3.82	*	*	1220	*
Cow Branch					
Just upstream of confluence with Middle Creek	1.82	252	443	543	780
Cow Branch					
Approximately 1,930 feet downstream of Sommerset Drive	1.51	225	396	487	700
Approximately 215 feet upstream of Sommerset Drive	1.23	197	349	429	619
Approximately 0.6 mile upstream of Sommerset Drive	1.03	177	315	388	560
Dicks Branch					
Approximately 0.4 mile upstream of Zacks Mill Road	1.60	*	*	616	*
Approximately 35 feet upstream of Zacks Mill Road	1.28	*	*	538	*
Dismal Branch					
Approximately 0.5 mile upstream of Meadowbrook Road	1.64	*	*	1010	*
Approximately 0.1 mile upstream of Meadowbrook Road	1.47	*	*	949	*
East Mingo Creek					
Approximately at the confluence with Mingo Swamp	3.50	*	*	954	*
Approximately 425 feet upstream of Banner Elk Road	2.60	*	*	795	*
Approximately 0.7 mile upstream of Banner Elk Road	1.50	*	*	592	*
Hannah Creek					
At mouth	64.56	5209	8054	9229	12168
At US 701	61.28	5044	7805	8947	11804
Approximately 2,500 feet downstream of U.S. 701	53.55	4641	7199	8258	10911
Above Juniper Swamp	43.87	4104	6387	7336	9714
Above Lee Branch	38.23	3770	5881	6760	8965
Approximately 450 feet upstream of Hockaday Road	34.21	3520	5502	6328	8403
At Juniper Church Road	29.29	3199	5013	5771	7676
Below Stony Fork	24.44	2861	4497	5183	6907
Approximately 0.2mile downstream of Ivey Road	13.61	1993	3165	3660	4910
Approximately 0.3 mile upstream of Eastridge Road	13.19	*	*	3740	*
Approximately 0.1 mile downstream of Hannah Creek Road	12.94	*	*	3690	*
Approximately 0.3 mile downstream of Allens Crossroads Road	11.71	*	*	3470	*
Approximately 0.1 mile downstream of Allens Crossroads Road	5.74	*	*	2220	*

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
Hannah Creek					
Approximately 0.1 mile upstream of I-40	3.80	*	*	1720	*
Approximately 0.3 mile upstream of Morgan Road	2.85	*	*	1430	*
Hannah Creek Tributary 2					
Approximately 0.1 mile upstream of I-95	5.55	*	*	2180	*
Approximately 35 feet upstream of Ivey Road	5.30	*	*	2110	*
Approximately 0.2 mile upstream of HighwayY 301	2.67	*	*	1320	*
Approximately 0.3 mile downstream of Tarheel Road	2.45	*	*	1260	*
Approximately 0.1 mile upstream of Tarheel Road	1.54	*	*	963	*
Hardee Mill Branch					
Approximately 0.1 mile upstream of Benson Hardee Road	2.20	*	*	735	*
Approximately 0.5 mile upstream of Benson Hardee Road	0.99	*	*	464	*
Approximately 0.8 mile upstream of Benson Hardee Road	0.81	*	*	416	*
Hogpen Branch					
Approximately 0.6 mile upstream of the confluence with Bernal Branch	0.75	*	*	624	*
Johnson Swamp					
Approximately 0.3 mile downstream of West Johnson Road	7.43	*	*	2610	*
Johnson Swamp					
Approximately 40 feet upstream of West Johnson Road	5.19	*	*	2090	*
Approximately 0.5 mile upstream of West Johnson Road	4.13	*	*	1810	*
Approximately 0.7 mile downstream of State Highway 96	3.73	*	*	1700	*
Approximately 0.4 mile downstream of State Highway 96	1.58	*	*	992	*
Approximately 0.1 mile downstream of State Highway 96	1.29	*	*	872	*
Approximately 0.2 mile upstream of State Highway 96	1.19	*	*	832	*
Johnson Swamp Tributary					
Approximately 0.2 mile upstream of Interstate 40	1.64	*	*	1020	*
Approximately 0.1 mile upstream of State Highway 96 5S	1.47	*	*	947	*
Approximately 0.4 mile upstream of State Highway 96 5S	1.17	*	*	824	*
Jumping Run					
Approximately 0.4 mile downstream of Holly Grove Road	2.49	*	*	1320	*
Approximately 0.2 mile upstream of Holly Grove Road	2.04	*	*	1160	*
Approximately 0.7 mile upstream of Holly Grove Road	1.68	*	*	1030	*
Approximately 1.1 miles upstream of Holly Grove Road	1.00	*	*	744	*
Juniper Swamp					
Approximately 0.7 mile upstream of the confluence with Hannah Creek	9.44	*	*	3030	*
Approximately 0.9 mile upstream of the confluence with Hannah Creek	8.27	*	*	2790	*
Approximately 1.4 miles upstream of the confluence with Hannah Creek	8.15	*	*	2770	*
Approximately 0.9 mile downstream of State Highway 96	7.71	*	*	2670	*
Approximately 0.4 mile downstream of State Highway 96	4.37	*	*	1870	*
Approximately 0.1 mile upstream of State Highway 96	4.18	*	*	1820	*
Approximately 0.2 mile downstream of Hockaday Road	3.43	*	*	1610	*
Approximately 0.2 mile upstream of Hockaday Road	2.91	*	*	1450	*
Approximately 0.1 mile upstream of Parker Road	2.22	*	*	1220	*

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 Tributary 1					
Approximately 0.6 mile upstream of the confluence with Juniper Swamp	2.54	*	*	1340	*
Approximately 0.5 mile upstream of State Highway 96	1.32	*	*	886	*
Approximately 0.8 mile upstream of State Highway 96	1.10	*	*	792	*
Juniper Swamp Tributary 2					
Approximately 0.7 mile upstream of the confluence with Juniper Swamp Tributary 1	0.88	*	*	687	*
Approximately 0.4 mile upstream of the confluence with Juniper Swamp Tributary 1	0.75	*	*	623	*
Little Bernal Branch					
Approximately 0.4 mile upstream of the confluence with Bernal Branch	1.05	*	*	770	*
Approximately 0.2 mile upstream of the confluence with Bernal Branch	0.96	*	*	724	*
Little Black Creek					
Approximately 0.4 mile downstream of Jackson King Road	11.83	*	*	1890	*
Approximately 0.8 mile upstream of Jackson King Road	11.06	*	*	1820	*
Little Black Creek					
Approximately 1.0 mile downstream of Old Stage Road	9.23	*	*	1650	*
Approximately 0.7 mile downstream of Old Stage Road	7.42	*	*	1460	*
Approximately 0.3 mile downstream of Old Stage Road	7.10	*	*	1420	*
At the Johnston/Wake County boundary	6.36	*	*	1330	*
Little Buffalo Creek					
Approximately 0.4 mile downstream of Old Route 22	24.33	*	*	5480	*
Just upstream of Old Route 22	23.41	*	*	5350	*
Just downstream of Glendale Road	22.43	*	*	5200	*
Just upstream of Glendale Road	21.46	*	*	5060	*
Approximately 0.1 mi upstream of Glendale Road	10.28	*	*	3200	*
Just upstream of the confluence with Little Buffalo Creek Tributary	9.97	*	*	3140	*
Approximately 0.8 mile upstream of Beulah town Road	8.50	*	*	2840	*
Approximately 0.7 mile upstream of Beulah town Road	8.12	*	*	2760	*
Approximately 1.1 mile Little Buffalo Creek downstream of Bay Valley Road	7.22	*	*	2560	*
Approximately 0.2 mile downstream of Bay Valley Road	6.63	*	*	2430	*
Approximately 0.2 mile downstream of Bay Valley Road	4.49	*	*	1900	*
Approximately 0.5 mile downstream of Glendale Road	3.81	*	*	1719	*
Little Buffalo Creek Tributary					
Just upstream of the confluence with Little Buffalo Creek	10.91	*	*	3320	*
Approximately 0.1 mile upstream of Bay Valley Road	10.51	*	*	3240	*
Approximately 0.4 mile upstream of North Carolina Highway 222	7.93	*	*	2720	*
Little Creek					
Approximately 0.6 mile upstream of Steel Bridge Road	15.93	1965	3140	3651	4920
Approximately 1.8 miles downstream of Ranch Road	13.05	1707	2887	3325	4599
Approximately 0.7 mile downstream of Ranch Road	9.92	1615	2702	3089	4201
Approximately 0.5 mile upstream of Ranch Road	7.12	1396	2338	2667	3609
Approximately 0.85 mile downstream of Amelia Church Road	6.37	1361	2269	2582	3472
Approximately 140 feet downstream of NC 42	5.50	1222	2059	2347	3171
Approximately 250 feet downstream of Amelia Church Road	4.82	1069	1833	2100	2868

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
Little Creek					
Just upstream of confluence with Little Creek Tributary	2.67	729	1191	1391	1899
Approximately 0.6 miles upstream of confluence with Little Creek Tributary	2.24	655	1072	1254	1716
Approximately 0.8 mile upstream of the confluence of Little Creek Tributary	1.76	564	926	1085	1522
Approximately 1.2 miles upstream of the confluence of Little Creek Tributary	1.64	*	*	619	*
Approximately 1.2 miles upstream of the confluence of Little Creek Tributary	1.54	520	889	1032	1456
Approximately 1.5 miles upstream of the confluence of Little Creek Tributary	1.13	*	*	502	*
Approximately 1.7 miles upstream of the confluence of Little Creek Tributary	0.97	391	650	461	*
Approximately 1.7 miles upstream of confluence with Little Creek Tributary	0.97	*	*	461	
Approximately 1.9 miles upstream of the confluence of Little Creek Tributary	0.85	*	*	427	*
Approximately 1.9 miles upstream of confluence with Little Creek Tributary	0.82	353	595	696	1000
Little Creek (Basin 11, Stream 2)					
Approximately 0.6 mile upstream of the confluence with Moccasin Creek	6.38	*	*	2370	*
Approximately 0.3 mile upstream of the confluence with Moccasin Creek	5.86	*	*	2250	*
Approximately 0.1 mile upstream of the confluence with Moccasin Creek	5.39	*	*	2140	*
Little Creek (Into Middle Creek)					
Approximately 1.1 miles upstream of the confluence with Middle Creek	12.28	*	*	1940	*
Approximately 0.1 mile downstream of the Johnston/Wake County boundary	11.52	*	*	1870	*
At the Johnston/Wake County boundary	9.88	*	*	1711	*
Little Creek (Near Micro)					
Approximately 0.5 mile downstream of Bizzell Grove Church Road	16.53	*	*	4301	*
Little Creek (Near Micro)					
Approximately 0.1 mile upstream of Bizzell Grove Church Road	15.53	*	*	4140	*
Approximately 0.5 mile downstream of Rains Crossroads Road	14.82	*	*	4020	*
Just below Rains Crossroads Road	13.83	*	*	3850	*
At the confluence with Burnt Stocking Branch	9.68	*	*	3080	*
Approximately 0.1 mile upstream of the confluence with Burnt Stocking Branch	8.79	*	*	2900	*
Approximately 0.6 mile downstream of Lizzie Mill Rd	8.32	*	*	2800	*
Approximately 0.2 mile upstream of Lizzie Mill Road	7.37	*	*	2600	*
Just downstream of Pittman Road	6.43	*	*	2380	*
Approximately 0.6 mile downstream of Browns Dairy Road	5.73	*	*	2219	*
Approximately 0.2 mile downstream of Hawkins Road	4.81	*	*	1990	*
Approximately 0.2 mile upstream of Hawkins Road	3.92	*	*	1750	*
Approximately 0.3 mile upstream of Hawkins Road	3.26	*	*	1559	*
Little Creek Tributary					
At mouth	1.18	459	833	960	1333
Little Poplar Creek					
At the confluence with Poplar Creek	3.89	403	700	854	1216
Approximately 0.8 mile upstream of Swift Creek Rd	3.55	381	664	810	1154
Approximately 0.5 mile upstream of Swift Creek Road	3.25	361	629	769	1097
Approximately 0.85 mile upstream of Swift Creek Road	2.99	343	599	732	1045
Approximately 1.1 miles upstream of Swift Creek Road	2.75	326	570	697	996
Approximately 1.7 miles upstream of Swift Creek Rd	2.10	277	485	594	852
Approximately 0.25 mile downstream of U.S. Highway 70	1.78	250	441	540	775

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
Little River					
Approximately 1.8 miles downstream of Rains Mill Road	265.44	*	*	14600	*
Approximately 1.7 miles upstream of Rains Mill Road	251.08	*	*	14100	*
Approximately 0.6 mile downstream of Rains Crossroads Road	229.72	*	*	13800	*
Approximately 0.3 mile downstream of Bagley Road	220.23	*	*	12900	*
Approximately 0.3 mile downstream of Woodruff Road	190.67	*	*	12900	*
Approximately 0.3 mile downstream of Shoeheel Road	130.30	*	*	11000	*
Approximately 0.2 mile downstream of NC Highway 39	104.15	*	*	10500	*
Just upstream of the confluence of Cattail Creek	92.82	*	*	6080	*
Approximately 0.8 mile upstream of the confluence of Cattail Creek	92.43	*	*	6070	*
Approximately 0.3 mile upstream of Antioch Church Road	91.56	*	*	6030	*
Approximately 1.6 miles upstream of Antioch Church Road	90.81	*	*	6010	*
Approximately 2.5 miles upstream of Antioch Church Road	89.94	*	*	5970	*
Approximately 2.9 miles upstream of Antioch Church Road	88.98	*	*	5940	*
Approximately 2.3 miles downstream of State Highway 231	86.82	*	*	5850	*
Little River					
Approximately 1.6 miles downstream of State Highway 231	86.31	*	*	5840	*
Approximately 1.4 miles downstream of State Highway 231	85.64	*	*	5810	*
Approximately 0.4 miles downstream of State Highway 231	83.03	*	*	5710	*
Approximately 0.2 mile downstream of State Highway 231	82.64	*	*	5690	*
Just upstream of the confluence of Snipes Creek	75.73	*	*	5420	*
Approximately 265 feet upstream of NC Highway 96 S	74.90	*	*	5390	*
Approximately 0.9 mile upstream of NC Highway 96 S	73.91	*	*	5340	*
Approximately 0.6 mile downstream of Mudham Road	72.93	*	*	5300	*
Approximately 0.3 mile downstream of Mudham Road	71.95	*	*	5260	*
Approximately 0.3 mile upstream of Mudham Road	70.95	*	*	5220	*
Approximately 0.7 mile upstream of Mudham Road	69.97	*	*	5180	*
At Wake/Johnston County boundary	69.24			11700	*
Little River Tributary 1					
Just upstream of the confluence with Little River	3.32	*	*	1580	*
Just upstream of Feed Mill	2.79	*	*	1410	*
Approximately 0.1 mile upstream of NC Highway 42	2.03	*	*	1160	*
Little Swamp Branch					
Approximately 0.1 mile upstream of Godwin Lake Road	7.33	*	*	2590	*
Approximately 0.2 mile downstream of State Highway 96	6.74	*	*	2460	*
Approximately 0.5 mile upstream of State Highway 96	6.33	*	*	2360	*
Approximately 0.2 mile downstream of Tbar Road	4.07	*	*	1790	*
Approximately 0.1 mile downstream of Holly Grove Road	2.16	*	*	1210	*
Approximately 0.5 mile upstream of Holly Grove Road	1.92	*	*	1120	*
Approximately 0.7 mile upstream of Holly Grove Road	0.89	*	*	690	*
Little Swamp Branch Tributary 1					
Approximately 0.3 mile upstream of the confluence with Little Swamp Branch	1.66	*	*	1020	*
Approximately 0.6 mile upstream of the confluence with Little Swamp Branch	1.40	*	*	919	*
Little Swamp Branch Tributary 2					
Approximately 0.1 mile upstream of the confluence with Little Swamp Branch	0.76	*	*	626	*

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
Long Branch					
At the confluence with the Little River	10.76	*	*	3910	*
Approximately 0.1 mile upstream of the confluence with the Little River	9.76	*	*	3880	*
Approximately 1.0 mile upstream of Shoeheel Road	8.82	*	*	3820	*
Approximately 1.4 miles upstream of Shoeheel Road	7.84	*	*	3710	*
Just below NC Highway 39	7.06	*	*	3290	*
Approximately 0.8 mile upstream of NC Highway 39	6.09	*	*	2790	*
Approximately 1.6 miles upstream of NC Highway 39	5.18	*	*	2330	*
Approximately 2.4 miles upstream of NC Highway 39	4.25	*	*	1900	*
Just below NC Highway 96 N	2.53	*	*	1330	*
Approximately 0.4 mile upstream of NC Highway 96 N	2.37	*	*	1280	*
Approximately 0.6 mile upstream of NC Highway 96 N	1.37	*	*	907	*
Marks Creek					
Just upstream of confluence with Neuse River	28.64	3154	4945	5694	7575
McCullens Branch					
Approximately 20 feet downstream of Old Fairground Road	4.00	*	*	1022	*
Approximately 0.4 mile upstream of Old Fairground Road	3.84	*	*	1000	*
Approximately 0.3 mile downstream of Ridge Road	1.88	*	*	669	*
Approximately 0.1 mile upstream of Ridge Road	1.75	*	*	642	*
Approximately 0.3 mile upstream of Ridge Road	1.60	*	*	612	*
Approximately 0.5 mile upstream of Ridge Road	1.39	*	*	565	*
Middle Creek					
At mouth at Swift Creek	131.12	4701	7691	9418	13704
At Crantock Road	119.30	4547	7609	9321	13645
Below Beaverdam Creek	109.55	4405	7539	9236	13582
Below Mill Branch	102.13	4301	7486	9170	13528
Below Buffalo Creek (West)	92.77	4178	7424	9088	13457
Approximately 2,800 feet downstream of N.C. 50	82.86	4060	7369	9012	13388
At USGS gage at NC 50	82.78	4059	7369	9012	13388
Above Little Creek	68062	4017	7020	8538	12557
Mill Branch					
At confluence with Mill Creek (South)	4.24	424	735	897	1276
Approximately 0.6 mile upstream of confluence with Mill Creek (South)	3.30	363	633	773	1102
Approximately 1.1 miles upstream of confluence with Mill Creek (South)	3.09	348	608	743	1060
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 (Near Clayton)					
Approximately 1.2 miles downstream of NC Highway 42	4.18	*	*	1820	*
Just upstream of NC Highway 42	3.53	*	*	1640	*
Approximately 0.4 mile upstream of Motorcycle Rd	2.56	*	*	1340	*

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
Mill Creek (Near Selma)					
Approximately 0.8 mile downstream of Buffalo Road	5.70	*	*	2210	*
Approximately 0.7 mile downstream of Buffalo Road	5.66	*	*	2200	*
Approximately 0.6 mile upstream of Railroad	4.66	*	*	1950	*
Just upstream of River Road	3.72	*	*	1690	*
Approximately 0.5 mile upstream of River Road	2.72	*	*	1390	*
Mill Creek (South)					
At mouth	188.70	6496	10230	11937	15940
Above Mill Branch	178.72	6419	10101	11775	15715
Above overflow into Neuse River (RS 27,000)	172.27	6372	10020	11674	15573
At RS 35,000	169.04	6349	9981	11624	15503
Above Hannah Creek	88.31	6319	9718	11115	14605
Approximately 1.0 mile upstream of confluence with Stone Creek	49.42	4417	6860	8430	10412
Approximately 0.3 mile downstream of Shaws Pond Road	47.13	*	*	8280	*
Approximately 0.2 mile downstream of the confluence with Mill Creek Tributary 4	46.11	*	*	8170	*
Mill Creek (South)					
Approximately 0.1 mile upstream of the confluence with Mill Creek Tributary 4	40.43	*	*	7520	*
Approximately 0.3 mile downstream of US Highway 701	39.89	*	*	7460	*
Approximately 0.4 mile upstream of US Highway 701	38.74	*	*	7320	*
Approximately 0.5 mile upstream of US Highway 701	36.54	*	*	7060	*
Approximately 0.1 mile downstream of the confluence with Mill Creek Tributary 5	35.87	*	*	6980	*
Approximately 0.4 mile upstream of the confluence with Mill Creek Tributary 5	32.24	*	*	6530	*
Approximately 0.8 mile downstream of Eldridge Road	31.95	*	*	6490	*
Approximately 0.4 mile downstream of Eldridge Road	31.21	*	*	6400	*
Approximately 0.1 mile upstream of Eldridge Road	30.73	*	*	6340	*
Approximately 0.2 mile downstream of Interstate 40	29.39	*	*	6160	*
Approximately 0.4 mile upstream of Highway 50	28.51	*	*	6050	*
Approximately 0.2 mile downstream of Reedy Prong Church Road	27.21	*	*	5870	*
Approximately 0.2 mile upstream of Reedy Prong Church Road	20.31	*	*	4890	*
Approximately 0.3 mile upstream of Reedy Prong Church Road	20.08	*	*	4860	*
Approximately 0.4 mile upstream of Reedy Prong Church Road	19.35	*	*	4750	*
Approximately 0.9 mile upstream of Reedy Prong Church Road	18.43	*	*	4600	*
Approximately 0.1 mile downstream of the confluence with John K. Swamp	17.96	*	*	4530	*
Approximately 0.2 mile upstream of the confluence with John K. Swamp	9.97	*	*	3140	*
Approximately 0.5 mile upstream of Highway 96 2S road crossing	9.82	*	*	3110	*
Approximately 0.2 mile downstream of Holly Grove Road	5.55	*	*	2170	*
Approximately 0.4 mile upstream of Holly Grove Road	4.84	*	*	2000	*
Approximately 0.2 mile upstream of State Highway 242	4.47	*	*	1900	*
Approximately 0.1 mile downstream of Godwin Lake Road	2.60	*	*	1350	*
Approximately 0.6 mile upstream of Godwin Lake Road	2.20	*	*	1220	*
Mill Creek Tributary					
Approximately 0.4 mile upstream of the confluence with Middle Creek	1.02	*	*	756	*
Approximately 0.2 mile upstream of Westbrook Lowgrounds Road	0.92	*	*	709	*
Approximately 0.4 mile downstream of Bentonville Road	0.83	*	*	663	*
Approximately 0.1 mile upstream of Bentonville Road	0.41	*	*	427	*

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
Mill Creek Tributary 2					
Approximately 0.6 mile upstream of the confluence with Mill Creek (South)	3.10	*	*	1510	*
Approximately 0.3 mile upstream of Shaws Pond Road	2.03	*	*	1160	*
Approximately 0.4 mile upstream of Shaws Pond Road	1.26	*	*	862	*
Mill Creek Tributary 3					
Approximately 0.1 mile upstream Almon Road Crossing	4.97	*	*	2030	*
Approximately 0.2 mile downstream of Harper House Road	3.33	*	*	1580	*
Approximately 0.1 mile upstream of Harper House Road	2.68	*	*	1380	*
Approximately 0.4 mile upstream of Harper House Road crossing	2.12	*	*	1190	*
Mill Creek Tributary 4					
Approximately 0.4 mile downstream of Harper House Road	3.14	*	*	1520	*
Approximately 0.3 mile upstream of Harper House Road	2.52	*	*	1330	*
Approximately 0.5 mile upstream of Harper House Road	1.84	*	*	1090	*
Mill Creek Tributary 5					
Approximately 0.6 mile upstream of the confluence with Mill Creek (South)	1.76	*	*	1060	*
Approximately 0.4 mile downstream of Scout Road	1.53	*	*	973	*
Approximately 0.2 mile upstream of Scout Road	1.36	*	*	903	*
Approximately 0.4 mile upstream of Scout Road	1.03	*	*	758	*
Mill Swamp Branch					
Approximately 0.2 mile downstream of Tbar Road	1.59	*	*	994	*
Approximately 0.1 mile downstream of Holly Grove Road	1.21	*	*	840	*
Mill Swamp Branch					
Approximately 0.1 mile upstream of Holly Grove Road	0.76	*	*	627	*
Mingo Swamp					
Approximately 2.6 miles upstream of State Route 55	25.70	*	*	2940	*
Approximately 3.0 miles upstream of State Route 55	24.90	*	*	2890	*
Approximately 3.6 miles upstream of State Route 55	24.00	*	*	2830	*
Approximately 360 feet downstream of the confluence of Mingo Swamp Tributary 1	23.20	*	*	2770	*
Approximately 400 feet upstream of the confluence of Mingo Swamp Tributary 1	19.30	*	*	2500	*
Approximately 750 feet downstream of Hayner Lake Dam	18.90	*	*	2470	*
Approximately 720 feet upstream of Hayner Lake Dam	15.20	*	*	2180	*
Approximately 1,386 feet downstream of Massengill Farm Road	14.30	*	*	2110	*
Approximately 240 feet upstream of Interstate 95	13.50	*	*	2040	*
Approximately 1,400 feet downstream of confluence of Mingo Swamp Tributary 2	12.80	*	*	1980	*
Approximately 320 feet upstream of confluence of Mingo Swamp Tributary 2	8.30	*	*	1560	*
Approximately 550 feet upstream of State Route 27	3.40	*	*	928	*
Approximately 1,300 feet downstream of Denning Road	2.20	*	*	738	*
Approximately 0.4 mile upstream of Denning Road	1.80	*	*	655	*
Mingo Swamp Tributary 2					
At confluence with Mingo Swamp	1.60	*	*	733	*
Approximately 0.6 mile upstream of McLamb Tart Road	0.90	*	*	541	*
Moccasin Creek					
Just downstream of the confluence of Bull Branch	63.04	*	*	9930	*
Just upstream of the confluence of Bull Branch	59.91	*	*	9620	*

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
Moccasin Creek					
Approximately 0.4 mile downstream of New Sandy Hill Church Road	58.78	*	*	9500	*
Approximately 370 feet upstream of New Sandy Hill Church Road	57.95	*	*	9420	*
Approximately 0.3 mile upstream of New Sandy Hill Church Road	56.97	*	*	9321	*
Just upstream of the confluence of UNT 1 to Moccasin Creek	50.50	*	*	8650	*
Just upstream of the confluence of UNT 2 to Moccasin Creek	48.11	*	*	8390	*
Approximately 0.4 mile upstream of the confluence of UNT 2 to Moccasin Creek	47.58	*	*	8330	*
Just downstream of Selma/Buck Road/Highway 22	46.59	*	*	8320	*
Approximately 0.7 mile upstream of Selma/Buck Road/Highway 22	45.83	*	*	8310	*
Approximately 0.8 mile downstream of Friendship Church Road	44.84	*	*	8300	*
Approximately 0.2 mile downstream of Friendship Church Road	44.13	*	*	8291	*
Approximately 0.6 mile upstream of Friendship Church Road	41.97	*	*	8250	*
Approximately 200 feet upstream of Taylors Mill Road	40.66	*	*	8210	*
Approximately 1.0 mile upstream of Taylors Mill Road	39.76	*	*	8180	*
Approximately 1.2 miles downstream of Railroad	35.25	*	*	7990	*
Just downstream of Railroad	34.49	*	*	7950	*
At confluence with Neuse River	32.80	1500	2510	3020	4210
Just downstream of State Road 2404	27.96	*	*	7470	*
Approximately 5,600 feet upstream of Brogden Road	25.16	1348	2265	2732	3807
At Secondary Road 1007	22.42	1271	2140	2582	3603
Below Tributary at Station 47,500	18.80	1184	1997	2411	3368
Above Tributary at Station 47,500	16.46	1062	1797	2172	3039
Above dam at Holts Pond	13.38	978	1659	2007	2813
Upper Study Limit	13.09	861	1465	1774	2493
Approximately 775 feet upstream of Bizzell Grove Church Road	9.00	1547	2473	2868	3864
Approximately 4,550 feet upstream of Bizzell Grove Church Road	8.10	1447	2317	2688	3627
Just downstream of U.S. 70 A	7.09	1333	2140	2485	3358
Approximately 1,500 feet downstream of Pine Level-Micro Road	4.46	1001	1620	1887	2562
Approximately 1,800 feet upstream of Pine Level-Micro Road	2.96	777	1266	1478	2016
Approximately 800 feet downstream of Campground Road	2.41	686	1121	1310	1791
Approximately 500 feet upstream of Interstate 95	1.24	455	752	882	1215
Approximately 245 feet upstream of Railroad	0.82	353	587	691	955
Approximately 2,075 feet upstream of Railroad	0.70	321	535	630	873
Moccasin Creek Tributary 1					
Just upstream of the confluence with Moccasin Creek 1	5.69	*	*	2210	*
Approximately 0.3 mile upstream of State Highway 231	4.26	*	*	1840	*
Approximately 0.5 mile upstream of State Highway 231	4.08	*	*	1790	*
Approximately 0.1 mile downstream of Highway 222	3.63	*	*	1670	*
Approximately 0.3 mile upstream of Highway 222	2.69	*	*	1380	*
Approximately 0.4 mile upstream of Highway 222	2.15	*	*	1200	*
Moccasin Creek Tributary 2					
Just upstream of the confluence with Moccasin Creek 1	1.83	*	*	1090	*
Approximately 0.3 mile upstream of the confluence with Moccasin Creek	1.69	*	*	1030	*
Approximately 0.2 mile downstream of Buck Road	1.46	*	*	944	*
Approximately .11 mi downstream of Buck Road	1.32	*	*	887	*

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
Neuse River					
Below Mill Creek (South)	1869.46	17966	26449	32153	52458
Above Mill Creek (South)	1679.82	16900	24886	30688	51138
Above Black Creek	1508.31	15732	23344	29210	49792
At confluence with Swift Creek	1212.43	13784	20620	25272	44246
At Smithfield gage	1209.66	13766	20594	25234	44191
At Market Street	1209.56	13765	20593	25232	44189
Approximately 1,075 feet upstream of confluence with Buffalo Creek	1204.19	13729	20541	25158	44083
At confluence with Poplar Creek	1191.71	13631	20432	24963	43452
At confluence with Neuse River Tributary 1	1173.81	13483	20283	24665	42278
At confluence with Neuse River Tributary 2	1164.36	13404	20205	24507	41664
At Clayton gage	1153.03	13309	20110	24318	40933
Neuse River					
At confluence with Sam's Creek	1143.23	13227	20027	24154	40306
At confluence with Marks Creek	1109.66	10520	16181	19677	34591
Neuse River Tributary 1					
Approximately 60 feet upstream of confluence with Neuse River	1.89	423	714	852	1189
Approximately 3,150 feet upstream of confluence with Neuse River	1.44	369	625	745	1041
Approximately 3,500 feet downstream of Fire Department Road	1.19	316	537	643	902
Approximately 1,450 feet downstream of Fire Department Road	1.01	301	511	610	856
Approximately 220 feet upstream of Fire Department Road	0.82	299	505	599	836
Approximately 1,500 feet upstream of Fire Department Road	0.67	286	481	569	793
Approximately 0.7 mile upstream of Fire Department Road	0.53	248	419	496	693
Neuse River Tributary 2					
Just upstream of confluence with Neuse River	2.46	677	1108	1297	1775
Approximately 1,400 feet downstream of Vinson Road	1.17	417	694	816	1128
Approximately 1,100 feet upstream of Vinson Road	1.05	388	646	761	1053
Approximately 1,650 feet upstream of Vinson Road	0.99	373	623	734	1017
Approximately 0.55 miles upstream of Vinson Road	0.78	317	531	628	872
Approximately 0.76 miles upstream of Vinson Road	0.73	302	508	601	836
Approximately 0.95 miles upstream of Vinson Road	0.64	276	464	550	766
Approximately 1.05 miles upstream of Vinson Road	0.57	254	430	509	711
Oak Creek					
Approximately 0.3 mile upstream of Oak Forest Road crossing	5.57	*	*	2180	*
Approximately 0.1 mile downstream of New Hope Road	3.41	*	*	1600	*
Approximately 0.1 mile downstream of White Oak Road	2.76	*	*	1410	*
Approximately 0.2 mile upstream of White Oak Road	2.02	*	*	1160	*
Approximately 0.3 mile downstream of Hayes Road	1.35	*	*	900	*
Approximately 0.1 mile upstream of Hayes Road crossing	0.75	*	*	625	*
Oak Creek Tributary					
Approximately 0.4 mile upstream of the confluence with Oak Creek	1.66	*	*	1020	*
Approximately 0.8 mile upstream of the confluence with Oak Creek	1.51	*	*	964	*
Approximately 1.2 miles upstream of the confluence with Oak Creek	0.98	*	*	735	*

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
Pole Branch					
Approximately 0.6 mile upstream of the confluence with Black Creek	5.40	*	*	1220	*
Approximately 0.9 mile upstream of Zacks Mill Road	5.15	*	*	1180	*
Approximately 0.5 mile downstream of Interstate 40	4.65	*	*	1120	*
Approximately 0.2 mile downstream of Interstate 40	3.48	*	*	949	*
Approximately 0.1 mile upstream of Interstate 40	3.14	*	*	895	*
Approximately 0.2 mile upstream of Interstate 40	2.86	*	*	848	*
Approximately 0.4 mile upstream of Interstate 40	2.13	*	*	718	*
Polecat Branch					
Approximately 0.5 mile downstream of Brogden Road	7.68	*	*	1480	*
Approximately 1.0 mile upstream of Brogden Road	5.67	*	*	1250	*
Approximately 1.6 miles upstream of Brogden Road	3.47	*	*	947	*
Approximately 2.1 miles upstream of Brogden Road	3.07	*	*	883	*
Polecat Branch					
Approximately 2.2 miles upstream of Brogden Road	2.07	*	*	706	*
Poplar Creek					
At the confluence with Neuse River	12.11	822	1400	1695	2382
Approximately 1.6 miles upstream of Wilsons Mills Road	5.35	506	871	1059	1501
Approximately 0.8 mile downstream of Swift Creek Road	2.94	359	623	759	1081
Approximately 240 feet downstream of U.S. 70	2.49	327	570	694	990
Approximately 785 feet upstream of Wilsons Mills Road	2.28	312	543	662	945
Approximately 575 feet downstream of Wilsons Mills Road	1.52	252	442	538	770
Approximately 800 feet downstream of Railroad	1.25	229	401	489	700
Quincosin Swamp					
Approximately 0.3 mile upstream of the confluence with Bawdy Creek	6.00	*	*	2280	*
Approximately 0.1 mile downstream of Red House Road	5.90	*	*	2260	*
Approximately 0.5 mile upstream of Red House Road	5.15	*	*	2080	*
Approximately 0.4 mile downstream of WC. Braswell Road	4.41	*	*	1880	*
Approximately 0.4 mile upstream of WC. Braswell Road	3.67	*	*	1680	*
Approximately 0.9 mile upstream of WC. Braswell Road	2.96	*	*	1470	*
Reedy Creek					
Approximately 0.2 mile upstream of King Mill Road	3.40	*	*	928	*
Approximately 0.7 mile upstream of King Mill Road	3.01	*	*	873	*
Approximately 1.0 miles upstream of King Mill Road	2.65	*	*	812	*
Approximately 1.2 miles upstream of King ill Road	2.25	*	*	740	*
Approximately 1.4 miles upstream of King Mill Road	1.88	*	*	669	*
Reedy Prong					
Approximately 20 feet upstream of Eldridge Road	6.21	*	*	2330	*
Approximately 0.3 mile upstream of Eldridge Road	5.67	*	*	2200	*
Approximately 0.1 mile downstream of the confluence of Mill Creek (South) Tributary 1A	5.58	*	*	2180	*
Approximately 0.2 mile upstream of confluence of Mill Creek (South) Tributary 1A	2.36	*	*	1270	*

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
Reedy Prong Tributary					
Approximately 0.1 mile upstream of the confluence with Mill Creek (South) Tributary 1	2.93	*	*	1460	*
Approximately 0.3 mile upstream of the confluence with Mill Creek (South) Tributary 1	2.84	*	*	1430	*
Just upstream of Thornton Road	2.14	*	*	1200	*
Sams Creek					
Approximately 0.2 miles upstream of O'Neil St	1.59	530	872	995	1404
At the mouth	1.36	482	795	932	1283
At City Road	1.11	425	704	827	1140
Snipes Creek					
At confluence with Little River	6.08	*	*	2300	*
Approximately 1.6 miles upstream of confluence with Little River	5.21	*	*	2090	*
Just upstream of Earpsboro Road	3.06	*	*	1499	*
Approximately 1.1 mile upstream of Earpsboro Road	2.28	*	*	1250	*
Approximately 0.6 mile downstream of NC Highway 96	1.33	*	*	892	*
Approximately 1,060 feet downstream of Wake/Johnston County boundary	1.00	*	*	723	*
Spring Branch					
Approximately 0.4 mile downstream of Princeton-Kenly Road	11.23	*	*	3380	*
Approximately 0.4 mile upstream of Rains Crossroads Road	7.79	*	*	2690	*
Just upstream of the confluence of Spring Branch Tributary	7.07	*	*	2530	*
Approximately 0.5 mile upstream of Hinnant-Edgerton Road	4.94	*	*	2020	*
Approximately 1.1 miles upstream of Hinnant-Edgerton Road	2.15	*	*	1200	*
At mouth	1.31	628	1099	1264	1743
Just upstream of confluence with Neuse River	1.31	357	475	524	628
Approximately 0.9 mile upstream of Hickory X-Roads Road	1.29	*	*	873	*
Approximately 70 feet upstream of South 3 rd Street	1.17	331	442	487	585
Just upstream of South 5 th Street	1.14	324	433	478	573
At Railroad structure	0.84	22	25	26	27
At South Brightleaf Boulevard	0.84	242	338	378	469
Approximately 130 feet upstream of Railroad	0.67	212	295	330	407
Spring Branch Tributary 1					
At the confluence with Spring Branch	2.41	*	*	1290	*
Approximately 0.3 mile downstream of Sunshine Road	1.88	*	*	1100	*
Just downstream of Rhodes Road	1.07	*	*	778	*
Stone Creek					
At Confluence with Oak Creek	29.09	1511	2519	3023	4192
At US 701	28.03	1476	2464	2957	4102
Approximately 2,600 feet upstream of U.S. 701	21.07	1238	2076	2496	3473
Approximately 5,550 feet upstream of U.S. 701	20.61	1221	2049	2464	3429
Approximately 8,365 feet upstream of U.S. 701	19.24	1171	1966	2365	3294
Approximately 5,950 feet downstream of Stone Creek Road	11.12	835	1415	1708	2393
Approximately 1,685 feet downstream of Stone Creek Road	10.24	793	1346	1626	2280
Approximately 3,300 feet upstream of Stone Creek Road	8.58	711	1211	1463	2056
At N.C. 96	7.40	649	1108	1340	1886
Approximately 3,145 feet upstream of N.C. 96	6.13	578	990	1199	1692

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
Stone Creek					
Approximately 4,650 feet downstream of Adams Road	5.03	511	879	1066	1506
Approximately 2,350 feet downstream of Adams Road	1.79	271	473	578	826
Approximately 800 feet downstream of Adams Road	1.24	216	380	464	667
Approximately 1,750 feet downstream of Interstate 40	1.09	198	351	430	618
At Interstate 40	0.62	140	250	308	445
Stone Creek Tributary					
Approximately 0.2 mile upstream of the confluence with Stone Creek	2.59	*	*	1350	*
Approximately 0.1 mile downstream of Adams Road	1.43	*	*	933	*
Approximately 0.2 mile upstream of Adams Road	1.33	*	*	889	*
Approximately 0.5 mile upstream of Adams Road	1.06	*	*	773	*
Stony Fork					
At the mouth at Hannah Creek	9.43	1589	2539	2943	3963
At the mouth at Hannah Creek	8.70	*	*	1920	*
At Railroad	7.95	1431	2293	2664	3589
Approximately 0.5 mile downstream of Raleigh Road	7.68	*	*	2660	*
Stony Fork					
Approximately 0.1 mile upstream of Shade Tree Road	2.78	*	*	1410	*
Approximately 0.6 mile upstream of Shade Tree Road	1.87	*	*	1100	*
Stony Fork Tributary					
Approximately 0.4 mile upstream of the confluence with Stony Fork	3.78	*	*	1710	*
Approximately 0.6 mile downstream of Federal Road	3.39	*	*	1600	*
Approximately 0.2 mile downstream of Federal Road	3.12	*	*	1520	*
Approximately 0.1 mile upstream of Interstate 40	2.64	*	*	1370	*
Swift Creek					
At the mouth	286.80	9523	14739	17036	22489
Above Middle Creek (at NC 210)	155.22	7904	12164	13961	18358
Just upstream of confluence with Swift Creek Tributary 3	153.01	7894	12145	13934	18318
Approximately 2.0 miles downstream of Lee Road	120.85	7424	11387	13022	17083
Approximately 0.9 mile upstream of Barver Mill Road	109.88	7070	10853	12412	16290
Approximately 0.9 mile downstream of Cornwallis Road	89.45	6195	9547	10936	14389
Approximately 0.3 mile upstream of NC 42	81.22	6002	9243	10577	13911
Swift Creek Tributary 3					
Just upstream of confluence with Swift Creek	1.62	477	904	1069	1572
Approximately 3,225 feet upstream of confluence with Swift Creek	0.57	122	220	271	395
Approximately 1,150 feet downstream of Market Street	0.40	99	178	220	322
Approximately 1,265 feet upstream of Market Street	0.21	65	119	148	218
Unnamed Tributary (#1) to Swift Creek					
Approximately 100 feet downstream of New Bethel Church Road	3.98	934	1513	1763	2397
Approximately 3,050 upstream of New Bethel Road	3.12	804	1309	1527	2082
Unnamed Tributary (#2) to Swift Creek					
At the confluence with Swift Creek	2.27	499	836	993	1380
Just upstream of Josephine Road	1.88	444	746	887	1235
Approximately 1.1 mile downstream of Cornwallis Road	1.67	400	676	806	1125

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
Unnamed Tributary (#2) to Swift Creek					
Approximately 4,325 feet upstream of Josephine Road	1.14	311	530	633	889
Approximately 4,175 feet downstream of Cornwallis Road	0.82	244	418	502	709
Approximately 1,300 feet downstream of Cornwallis Road	0.54	156	275	334	479
White Oak Creek					
At the confluence with Swift Creek	14.46	2069	3282	3794	5086
Approximately 480 feet upstream of NC 42	13.52	1985	3152	3646	4891
Approximately 0.8 mile upstream of Winston Road	12.00	*	*	5510	*
Approximately 120 feet downstream of Winston Road	10.48	1696	2705	3133	4215
Approximately 1.6 miles upstream of Winston Road	8.00	*	*	5330	*

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

Table 15, “Gage Information”, lists the stream gages located in Johnston 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
02088210	Hannah Creek Tributary 2	HANNAH CREEK NEAR BENSON, N.C.	2.59	1953	1971
02088000	Middle Creek	MIDDLE CREEK NEAR CLAYTON, NC	83.50	1939	2013
02087500	Neuse River	NEUSE RIVER NEAR CLAYTON, NC	1150.00	1919	2013
02088140	Stone Creek	STONE CREEK NEAR NEWTON GROVE, N.C.	27.90	1953	1971

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"
Arters Branch	0.045	0.110 to 0.130
Basin 10, Stream 2	0.050	0.032 to 0.090
Basin 11, Stream 7	0.042	0.130
Bawdy Creek	0.050	0.150
Bawdy Swamp	0.050	0.150
Beaverdam Branch	0.045	0.130
Beaverdam Creek	0.040 to 0.068	0.080 to 0.160
Beaverdam Swamp	0.050	0.150
Beddingfield Creek	0.050	0.130
Bernal Branch	0.050	0.150
Big Arm Creek	0.055	0.150
Big Branch	0.042	0.130
Black Creek	0.025 to 0.060	0.030 to 0.150
Black Creek Tributary	0.045	0.130
Buffalo Creek	0.040 to 0.055	0.030 to 0.150
Buffalo Creek (Basin 9, Stream 1)	0.030 to 0.070	0.032 to 0.140
Buffalo Creek West	0.045 to 0.052	0.030 to 0.140
Bull Branch	0.045 to 0.050	0.120 to 0.130
Burnt Stocking Branch	0.050	0.150
Camp Branch	0.045	0.130
Cattail Creek	0.042	0.130
Cooper Branch	0.045	0.130
Cow Branch	0.035 to 0.053	0.050 to 0.140
Dicks Branch	0.045	0.130
Dismal Branch	0.050	0.150
Great Swamp Tributary 3	0.046	0.130
Hannah Creek	0.040 to 0.060	0.030 to 0.150
Hannah Creek Tributary 2	0.050	0.150
Hardee Mill Branch	0.045	0.130
Hogpen Branch	0.050	0.150
Johnson Swamp	0.045	0.130
Johnson Swamp Tributary	0.050	0.150
Jumping Run	0.050	0.150
Juniper Swamp	0.050	0.150
Juniper Swamp Tributary 1	0.050	0.150
Juniper Swamp Tributary 2	0.050	0.150
Little Bernal Branch	0.050	0.150
Little Black Creek	0.030 to 0.070	0.070 to 0.130
Little Buffalo Creek	0.042	0.130
Little Buffalo Creek Tributary	0.042	0.130
Little Creek	0.033 to 0.050	0.030 to 0.150
Little Creek (Basin 11, Stream 2)	0.030 to 0.080	0.055 to 0.150
Little Creek (Into Middle Creek)	0.033 to 0.047	0.095 to 0.140
Little Creek (Near Micro)	0.045	0.130
Little Creek Tributary	0.048	0.030 to 0.140
Little Poplar Creek	0.050	0.070 to 0.150
Little River	0.040 to 0.066	0.070 to 0.240
Little River Tributary 1	0.042	0.130
Little Swamp Branch	0.050	0.150
Little Swamp Branch Tributary 2	0.050	0.150
Long Branch	0.041	0.130
Marks Creek	0.025 to 0.070	0.032 to 0.130
McCullens Branch	0.045	0.130
Middle Creek	0.040 to 0.050	0.030 to 0.140

Table 16 – Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Mill Branch	0.050	0.030 to 0.150
Mill Creek (Near Clayton)	0.045	0.100
Mill Creek (Near Selma)	0.055	0.150
Mill Creek (South)	0.035 to 0.060	0.040 to 0.160
Mill Creek Tributary 2	0.050	0.150
Mill Creek Tributary 3	0.050	0.150
Mill Creek Tributary 4	0.050	0.150
Mill Creek Tributary 6	0.050	0.150
Mill Swamp Branch	0.050	0.150
Moccasin Creek	0.030 to 0.070	0.030 to 0.220
Moccasin Creek Tributary 1	0.045 to 0.050	0.120 to 0.140
Moccasin Creek Tributary 2	0.046	0.130
Moccasin Swamp	0.048	0.035 to 0.150
Neuse River	0.035 to 0.060	0.055 to 0.250
Neuse River Tributary 1	0.051 to 0.052	0.050 to 0.150
Neuse River Tributary 2	0.048 to 0.052	0.065 to 0.150
Oak Creek	0.050	0.150
Pole Branch	0.045	0.130
Polecat Branch	0.045	0.130
Poplar Creek	0.051	0.055 to 0.150
Quincosin Swamp	0.050	0.150
Reedy Creek	0.045	0.130
Reedy Prong	0.050	0.150
Reedy Prong Tributary	0.050	0.150
Sams Creek	0.035 to 0.055	0.070 to 0.150
Snipes Creek	0.042 to 0.045	0.120 to 0.130
Spring Branch	0.020 to 0.060	0.030 to 0.140
Spring Branch Tributary 1	0.042	0.130
Stone Creek	0.040 to 0.060	0.030 to 0.150
Stone Creek Tributary	0.050	0.150
Stony Fork	0.045 to 0.060	0.030 to 0.150
Stony Fork Tributary	0.050	0.150
Swift Creek	0.032 to 0.072	0.035 to 0.240
Swift Creek Tributary 3	0.055	0.060 to 0.150
Unnamed Tributary (#1) to Swift Creek	0.045 to 0.060	0.050 to 0.150
Unnamed Tributary (#2) to Swift Creek	0.043	0.050 to 0.150
White Oak Creek	0.035 to 0.050	0.035 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"). FloodProfiles have not been developed for streams studied by limited detailed methods. Water-surface elevation rasters were developed for streams studied by limited detailed methods. In addition, floodways for streams studied by limited detailed methods are not delineated on the FIRM. However, the 1% annual chance water-surface elevations, flood discharges, and non-encroachment widths from the limited detailed studies for every modeled cross section are given in Table 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©(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
Arters Branch				
010	987.5	908.0	123.3 ¹	49.0 / 16.0
013	1345.4	908.0	123.3 ¹	15.0 / 25.0
018	1800.0	908.0	123.3 ¹	44.0 / 17.0
025	2453.0	908.0	123.3 ¹	15.0 / 15.0
032	3170.4	908.0	123.8	21.0 / 16.0
042	4241.8	908.0	129.6	60.0 / 137.0
047	4693.6	877.0	129.6	209.0 / 251.0
054	5434.1	877.0	131.4	14.0 / 60.0
061	6126.0	877.0	134.2	75.0 / 135.0
069	6860.9	782.0	135.6	41.0 / 74.0
080	8029.8	782.0	145.6	136.0 / 203.0
086	8551.6	782.0	145.6	192.0 / 134.0
093	9316.5	782.0	145.6	217.0 / 14.0
099	9916.0	782.0	146.5	14.0 / 257.0
105	10480.8	704.0	147.5	13.0 / 178.0
111	11120.0	704.0	149.0	13.0 / 308.0
116	11586.5	704.0	150.7	13.0 / 133.0
124	12381.3	704.0	155.0	13.0 / 307.0
Basin 11, Stream 7				
001	123.4	406.0	278.1	14.0 / 61.0
Bawdy Creek				
018	1777.4	5489.0	86.2 ¹	841.0 / 317.0
028	2752.6	5489.0	86.2 ¹	870.0 / 293.0
034	3400.1	5489.0	86.2 ¹	884.0 / 312.0
047	4695.4	5489.0	86.6	904.0 / 339.0
058	5843.7	5489.0	87.0	916.0 / 372.0
073	7327.6	5489.0	87.3	929.0 / 374.0
079	7919.2	5489.0	87.4	955.0 / 368.0
084	8435.7	5489.0	87.6	1113.0 / 164.0
093	9265.7	5489.0	87.9	318.0 / 343.0
097	9720.2	5489.0	88.2	279.0 / 352.0
103	10282.5	5489.0	88.5	867.0 / 95.0
108	10757.2	5489.0	88.7	350.0 / 530.0
113	11310.6	5489.0	89.1	352.0 / 172.0
122	12159.6	5489.0	90.4	263.0 / 98.0
127	12696.8	5489.0	91.2	141.0 / 358.0
132	13151.3	5489.0	91.5	366.0 / 341.0
138	13843.1	5489.0	91.9	110.0 / 122.0
144	14413.3	5197.0	92.9	189.0 / 558.0
150	14950.9	5197.0	93.4	327.0 / 150.0
159	15889.4	5197.0	94.5	732.0 / 28.0
164	16416.5	5197.0	95.2	334.0 / 99.0
169	16890.3	5197.0	96.1	440.0 / 153.0
174	17433.9	5091.0	97.5	235.0 / 81.0
179	17891.9	5091.0	98.0	166.0 / 183.0

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
Bawdy Creek				
184	18447.0	5091.0	98.3	859.0 / 192.0
190	18969.9	5003.0	98.6	480.0 / 430.0
195	19520.6	5003.0	98.8	634.0 / 27.0
200	19973.4	4910.0	99.0	693.0 / 27.0
203	20326.5	4910.0	99.1	981.0 / 27.0
207	20697.9	4910.0	99.2	1068.0 / 27.0
212	21184.2	4910.0	99.3	1316.0 / 27.0
215	21521.8	4910.0	99.4	1573.0 / 27.0
221	22102.7	4910.0	99.6	1621.0 / 27.0
225	22539.7	4827.0	99.6	1063.0 / 27.0
230	23046.2	4827.0	99.7	1455.0 / 27.0
236	23583.1	4827.0	99.9	1425.0 / 27.0
240	24048.8	4726.0	100.0	1005.0 / 26.0
246	24569.0	4726.0	100.4	948.0 / 26.0
251	25111.4	4726.0	100.6	1000.0 / 26.0
257	25653.3	4726.0	100.9	675.0 / 26.0
262	26174.2	4726.0	101.3	773.0 / 58.0
268	26786.0	4726.0	101.9	110.0 / 275.0
273	27293.4	4647.0	102.5	740.0 / 274.0
278	27816.4	4647.0	102.8	800.0 / 26.0
283	28304.7	4647.0	103.1	788.0 / 416.0
288	28833.8	4647.0	103.5	767.0 / 111.0
293	29337.6	4561.0	104.1	617.0 / 234.0
299	29856.3	4561.0	104.5	53.0 / 151.0
304	30369.2	4561.0	106.0	49.0 / 300.0
309	30885.1	4561.0	106.9	68.0 / 234.0
314	31384.6	4561.0	107.9	82.0 / 221.0
323	32276.4	4561.0	110.0	173.0 / 282.0
328	32814.9	4561.0	110.2	404.0 / 136.0
333	33318.8	4561.0	110.4	418.0 / 150.0
Bawdy Swamp				
007	684.6	3428.0	110.4 ¹	725.0 / 50.0
012	1224.7	3428.0	110.4 ¹	100.0 / 410.0
018	1751.4	3392.0	110.4 ¹	489.0 / 332.0
024	2383.9	3392.0	110.4 ¹	450.0 / 275.0
030	2956.4	3392.0	110.8	310.0 / 300.0
036	3569.4	3261.0	112.0	25.0 / 600.0
043	4260.4	3261.0	112.5	90.0 / 590.0
047	4711.8	3261.0	112.9	21.0 / 492.0
056	5611.4	3261.0	115.4	280.0 / 382.0
063	6252.2	3261.0	115.8	375.0 / 37.0
070	7012.3	3123.0	116.3	158.0 / 402.0
076	7620.7	3123.0	116.9	375.0 / 75.0
081	8093.9	3123.0	117.5	348.0 / 91.0
087	8744.0	3123.0	118.1	321.0 / 197.0

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
Bawdy Swamp				
096	9583.3	2976.0	118.9	218.0 / 249.0
102	10239.3	2976.0	119.8	178.0 / 104.0
108	10780.3	2976.0	120.8	390.0 / 91.0
113	11284.7	2717.0	121.2	425.0 / 19.0
119	11857.3	2717.0	121.6	342.0 / 277.0
124	12448.4	2717.0	122.1	141.0 / 145.0
130	12979.4	2655.0	122.6	177.0 / 312.0
136	13630.9	2655.0	123.2	199.0 / 331.0
142	14213.5	2655.0	123.8	19.0 / 325.0
149	14930.8	2655.0	124.8	272.0 / 107.0
155	15450.3	2655.0	125.7	119.0 / 136.0
160	16026.2	2655.0	126.7	119.0 / 334.0
166	16564.3	2655.0	127.4	33.0 / 184.0
171	17120.1	2655.0	128.4	185.0 / 150.0
177	17711.0	2655.0	129.1	94.0 / 145.0
183	18274.9	2655.0	130.0	264.0 / 116.0
189	18858.3	2655.0	130.6	463.0 / 14.0
199	19882.1	2356.0	131.6	16.0 / 80.0
204	20389.3	2356.0	135.4	53.0 / 50.0
214	21365.2	2356.0	145.4	282.0 / 198.0
221	22092.3	2356.0	145.4	223.0 / 143.0
227	22730.2	1863.0	145.5	275.0 / 575.0
233	23295.9	1863.0	145.5	275.0 / 275.0
239	23857.0	1863.0	145.5	231.0 / 118.0
245	24483.8	1863.0	145.6	117.0 / 226.0
250	25034.3	1863.0	145.7	118.0 / 271.0
256	25587.8	1863.0	145.8	44.0 / 601.0
265	26488.6	1863.0	145.9	310.0 / 254.0
271	27059.5	1863.0	146.0	223.0 / 156.0
276	27601.7	1863.0	146.5	178.0 / 99.0
281	28113.2	1863.0	147.4	250.0 / 20.0
288	28760.9	1698.0	148.4	260.0 / 16.0
293	29301.2	1698.0	149.4	169.0 / 26.0
299	29884.7	1698.0	150.7	245.0 / 114.0
305	30454.2	1698.0	152.0	270.0 / 250.0
310	30985.7	1498.0	152.9	107.0 / 175.0
313	31285.7	1498.0	156.2	75.0 / 75.0
319	31893.5	1498.0	158.4	150.0 / 185.0
326	32637.7	1498.0	158.5	150.0 / 200.0
332	33215.8	1498.0	158.5	164.0 / 200.0
337	33668.5	1498.0	158.5	72.0 / 200.0
342	34222.2	1498.0	158.7	126.0 / 149.0
347	34700.5	1498.0	159.0	159.0 / 100.0
353	35340.3	1319.0	159.6	120.0 / 162.0
359	35892.0	1319.0	160.1	20.0 / 190.0

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
Beaverdam Branch				
017	1703.1	1042.0	171.3 ¹	225.0 / 320.0
023	2264.2	1042.0	171.3 ¹	223.0 / 82.0
029	2892.0	1042.0	173.2	83.0 / 108.0
033	3319.5	1042.0	174.2	24.0 / 95.0
039	3892.1	1042.0	176.1	78.0 / 156.0
044	4402.3	909.0	177.6	15.0 / 81.0
049	4943.1	909.0	179.5	45.0 / 92.0
054	5377.2	898.0	180.5	67.0 / 28.0
059	5883.9	898.0	182.0	21.0 / 30.0
064	6401.4	829.0	183.1	14.0 / 14.0
Beaverdam Creek				
347	34672.4	1500.0	124.6	81.0 / 85.0
352	35157.2	1500.0	125.0	157.0 / 73.0
356	35568.1	1500.0	125.3	116.0 / 56.0
360	35991.4	1300.0	126.0	85.0 / 12.0
365	36548.6	1300.0	126.7	146.0 / 99.0
371	37066.1	1300.0	127.2	119.0 / 85.0
376	37567.9	1300.0	128.2	17.0 / 93.0
380	38047.0	1300.0	129.6	125.0 / 12.0
385	38514.3	1300.0	130.9	106.0 / 45.0
390	38994.8	1300.0	132.1	157.0 / 34.0
395	39501.2	1300.0	133.2	15.0 / 190.0
401	40070.5	716.0	133.9	35.0 / 210.0
403	40258.2	716.0	134.0	50.0 / 210.0
405	40488.7	716.0	134.6	14.0 / 75.0
409	40900.2	716.0	136.8	14.0 / 50.0
414	41426.5	716.0	137.8	14.0 / 51.0
420	41988.1	716.0	138.7	14.0 / 40.0
424	42418.2	626.0	139.2	25.0 / 25.0
428	42828.0	626.0	139.7	25.0 / 25.0
433	43273.9	626.0	140.6	18.0 / 22.0
Beaverdam Swamp				
004	406.4	915.0	128.5 ¹	14.0 / 111.0
017	1732.8	915.0	128.7	70.0 / 156.0
027	2650.0	915.0	131.7	138.0 / 73.0
033	3333.9	915.0	134.4	62.0 / 102.0
037	3719.5	756.0	136.1	64.0 / 14.0
043	4317.0	756.0	138.8	250.0 / 40.0
049	4928.6	756.0	140.5	112.0 / 14.0
053	5332.1	756.0	142.4	79.0 / 14.0
060	6030.6	756.0	146.7	80.0 / 20.0
067	6680.2	756.0	151.4	60.0 / 14.0
Beddingfield Creek				
025	2492.0	2146.0	162.31	17.3 / 202.4
029	2902.5	2146.0	162.31	53.4 / 135.8

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
Beddingfield Creek				
035	3525.5	2146.0	162.31	149.4 / 50.2
041	4069.1	1902.0	162.31	20.1 / 87.7
045	4482.9	1902.0	162.7	33.7 / 129.4
046	4642.4	1902.0	163.4	24.7 / 21.0
055	5477.3	1902.0	165.9	16.3 / 16.5
Bernal Branch				
002	159.2	1953.0	129.5 ¹	75.0 / 375.0
012	1240.8	1953.0	129.5 ¹	25.0 / 265.0
021	2135.2	1953.0	129.5 ¹	72.0 / 180.0
031	3064.4	1953.0	129.5	25.0 / 100.0
037	3741.6	1953.0	131.0	60.0 / 199.0
044	4388.6	1953.0	135.7	433.0 / 200.0
046	4629.9	1647.0	135.7	189.0 / 228.0
047	4725.1	1647.0	135.8	160.0 / 327.0
052	5234.0	1647.0	135.9	90.0 / 188.0
055	5536.2	1647.0	136.0	48.0 / 270.0
061	6066.7	1647.0	136.2	100.0 / 160.0
066	6558.1	1647.0	136.5	100.0 / 196.0
070	6993.0	1647.0	136.8	150.0 / 40.0
075	7511.8	1647.0	137.9	150.0 / 15.0
081	8083.2	1647.0	139.9	156.0 / 14.0
087	8684.3	1562.0	141.2	174.0 / 116.0
092	9158.3	1562.0	142.1	170.0 / 11.0
104	10381.7	1562.0	147.7	35.0 / 108.0
107	10682.2	1562.0	148.4	40.0 / 15.0
112	11162.5	1144.0	155.0	113.0 / 100.0
115	11544.5	1144.0	155.1	116.0 / 131.0
123	12281.6	1052.0	155.2	39.0 / 200.0
131	13140.1	1052.0	157.6	169.0 / 77.0
136	13611.5	1052.0	157.8	54.0 / 168.0
141	14095.4	1052.0	158.6	160.0 / 38.0
145	14505.3	757.0	160.4	40.0 / 21.0
150	15013.4	757.0	162.3	11.0 / 69.0
155	15505.3	757.0	164.2	14.0 / 72.0
161	16082.3	757.0	167.2	14.0 / 60.0
166	16600.5	757.0	170.3	50.0 / 50.0
171	17093.8	757.0	173.9	50.0 / 14.0
175	17535.0	757.0	176.8	47.0 / 18.0
180	18047.4	757.0	179.3	14.0 / 33.0
186	18604.3	757.0	182.3	37.0 / 38.0
193	19325.6	628.0	185.1	14.0 / 50.0
Big Arm Creek				
007	657.1	1810.0	162.9 ¹	15.8 / 198.5
015	1485.7	1810.0	164.8	45.9 / 70.1
021	2092.1	1810.0	167.6	111.3 / 22.6

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
Big Arm Creek				
029	2859.8	1810.0	169.7	48.9 / 251.2
033	3335.8	1810.0	173.1	56.0 / 55.0
040	4023.6	1810.0	174.8	77.0 / 175.0
046	4649.8	1810.0	175.5	130.2 / 126.1
052	5186.0	1810.0	177.3	15.8 / 226.4
058	5759.7	1810.0	180.8	75.4 / 87.1
064	6374.1	990.0	184.2	56.4 / 71.9
Big Branch				
033	3323.7	1740.0	140.7	74.0 / 82.0
036	3620.3	1740.0	144.8	150.0 / 70.0
041	4093.0	1740.0	144.9	288.0 / 62.0
048	4838.0	1740.0	145.5	31.0 / 245.0
062	6169.3	1610.0	152.7	218.0 / 175.0
071	7143.2	1610.0	154.7	122.0 / 50.0
082	8208.1	1300.0	157.6	120.0 / 147.0
089	8868.2	1300.0	160.0	172.0 / 7.0
093	9344.1	1300.0	162.6	183.0 / 3.0
102	10211.3	1300.0	166.9	57.0 / 196.0
109	10922.3	1300.0	167.5	3.0 / 157.0
122	12163.6	1300.0	171.6	140.0 / 107.0
128	12824.8	1300.0	171.9	61.0 / 263.0
134	13386.7	1150.0	172.3	3.0 / 179.0
140	14046.4	1150.0	173.2	87.0 / 137.0
146	14588.0	1150.0	174.0	52.0 / 155.0
151	15064.0	1150.0	174.9	185.0 / 11.0
155	15528.8	1150.0	175.7	239.0 / 37.0
162	16221.7	1150.0	177.0	277.0 / 3.0
168	16804.9	1150.0	178.4	158.0 / 7.0
174	17375.2	1150.0	179.3	128.0 / 121.0
179	17902.1	1150.0	179.9	132.0 / 129.0
189	18884.1	1150.0	181.6	118.0 / 107.0
196	19571.1	750.0	182.5	85.0 / 208.0
Black Creek				
1360	136034.7	2457.0	193.1	325.0 / 25.0
1365	136500.0	2279.0	194.0	375.0 / 24.0
1370	137000.0	2279.0	195.0	465.0 / 24.0
1374	137428.8	2279.0	195.7	427.0 / 24.0
1380	138000.0	2279.0	196.5	299.0 / 152.0
1385	138500.0	2279.0	197.4	237.0 / 284.0
1398	139790.5	2279.0	199.3	151.0 / 37.0
1403	140324.0	2279.0	200.3	36.0 / 179.0
1410	140967.9	2252.0	201.1	201.0 / 180.0
1415	141542.1	2252.0	201.7	442.0 / 24.0
1420	142000.0	2252.0	202.4	305.0 / 24.0
1425	142500.0	2252.0	203.3	283.0 / 24.0

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
Black Creek				
1430	143000.0	2252.0	204.6	224.0 / 31.0
1435	143526.6	2252.0	205.7	115.0 / 45.0
1439	143920.1	2252.0	207.2	176.0 / 28.0
1445	144536.5	2126.0	208.1	278.0 / 23.0
1450	144962.8	2126.0	208.7	213.0 / 23.0
1455	145490.5	2126.0	209.9	196.0 / 23.0
1459	145896.9	2126.0	210.6	349.0 / 60.0
1464	146426.0	2126.0	211.2	380.0 / 23.0
1469	146924.1	2126.0	212.1	384.0 / 23.0
1474	147375.0	3190.0	213.1	289.8 / 190.1
Black Creek Tributary				
005	500.0	908.0	184.2 ¹	446.0 / 15.0
010	1000.0	908.0	185.1	333.0 / 15.0
014	1359.5	908.0	187.3	15.0 / 143.0
018	1782.7	806.0	190.2	31.0 / 179.0
024	2439.7	806.0	191.8	14.0 / 178.0
029	2943.0	806.0	193.1	22.0 / 103.0
035	3507.6	770.0	195.1	75.0 / 100.0
039	3943.0	770.0	196.2	141.0 / 65.0
044	4401.3	770.0	197.6	63.0 / 20.0
048	4824.8	770.0	199.8	13.0 / 87.0
053	5266.8	770.0	201.5	13.0 / 98.0
057	5737.3	728.0	202.6	13.0 / 150.0
061	6128.4	728.0	207.3	37.0 / 218.0
070	7039.8	542.0	207.4	187.0 / 165.0
076	7596.6	542.0	211.8	12.0 / 12.0
Buffalo Creek				
148	14814.0	1851.0	136.9	120.0 / 90.0
151	15087.9	1851.0	137.1	198.4 / 118.5
155	15500.1	1851.0	137.6	24.4 / 83.4
172	17219.7	1209.9	137.4	13.1 / 27.4
175	17520.6	1209.9	138.8	19.1 / 8.4
178	17829.4	1209.9	140.2	19.1 / 8.4
185	18453.3	1198.0	142.3	9.8 / 95.4
186	18588.1	1198.0	142.6	237.0 / 50.0
189	18886.6	1198.0	143.3	292.3 / 21.8
193	19269.7	1198.0	143.9	150.0 / 60.0
194	19423.1	1198.0	144.0	133.8 / 80.0
195	19547.4	1198.0	145.3	133.8 / 80.0
200	20002.6	1146.0	145.5	90.0 / 180.0
203	20266.2	1146.0	145.9	80.0 / 140.6
205	20476.5	1146.0	147.0	111.8 / 12.4
206	20573.2	1146.0	147.1	111.8 / 17.9
208	20755.5	1146.0	147.2	35.9 / 12.2
209	20923.1	1146.0	147.6	118.9 / 212.1

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
Buffalo Creek				
210	21007.1	1146.0	147.6	118.9 / 212.1
213	21289.7	980.0	147.8	251.2 / 27.8
216	21577.5	980.0	147.9	107.5 / 37.5
216	21628.6	980.0	147.9	107.6 / 37.4
219	21901.1	980.0	148.1	56.8 / 14.3
223	22270.6	980.0	148.3	24.6 / 29.5
225	22512.7	963.0	148.5	30.0 / 15.0
227	22731.8	963.0	151.7	55.0 / 45.0
229	22877.9	963.0	151.8	24.7 / 46.4
235	23500.7	963.0	154.2	20.0 / 169.4
Buffalo Creek (Basin 9, Stream 1)				
652	65151.3	7355.0	205.7	42.0 / 462.0
657	65691.0	7355.0	205.9	92.0 / 307.0
662	66192.2	7355.0	206.3	35.0 / 411.0
669	66854.8	7355.0	206.7	133.0 / 333.0
676	67629.6	7355.0	207.2	317.0 / 285.0
680	67999.9	7237.0	207.4	469.0 / 112.0
690	68996.1	7237.0	209.4	190.0 / 347.0
695	69538.0	7237.0	209.6	376.0 / 315.0
700	70047.4	7237.0	209.8	308.0 / 500.0
706	70550.2	7119.0	210.0	189.0 / 427.0
710	71017.2	7062.0	210.2	467.0 / 361.0
716	71569.1	7062.0	210.4	213.0 / 445.0
722	72206.5	7062.0	210.7	217.0 / 352.0
727	72670.8	7062.0	211.1	320.0 / 415.0
732	73180.3	7062.0	211.3	403.0 / 580.0
736	73649.3	6755.0	211.6	343.0 / 398.0
742	74180.4	6755.0	212.0	258.0 / 300.0
750	74956.3	6755.0	212.7	388.0 / 471.0
756	75575.8	6755.0	213.2	325.0 / 315.0
762	76159.1	6755.0	213.7	355.0 / 659.0
767	76682.3	6755.0	213.9	293.0 / 328.0
775	77482.2	6755.0	214.7	207.0 / 33.0
777	77749.3	6755.0	215.4	151.0 / 234.0
782	78200.5	6755.0	215.9	276.0 / 305.0
788	78752.0	6634.0	216.4	328.0 / 331.0
792	79193.0	6634.0	216.7	363.0 / 366.0
797	79700.2	6634.0	217.0	330.0 / 274.0
802	80243.1	6634.0	217.5	342.0 / 278.0
809	80935.8	6634.0	217.9	439.0 / 454.0
814	81372.1	6634.0	218.1	343.0 / 323.0
818	81835.3	6634.0	218.4	446.0 / 250.0
823	82307.9	6512.0	218.7	260.0 / 327.0
833	83305.3	6512.0	222.3	458.0 / 251.0
837	83697.4	6512.0	222.4	333.0 / 489.0

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
Buffalo Creek (Basin 9, Stream 1)				
845	84549.0	6512.0	222.6	390.0 / 353.0
849	84942.6	6512.0	222.7	551.0 / 116.0
854	85394.9	6512.0	222.8	359.0 / 231.0
860	85962.8	6512.0	223.1	292.0 / 328.0
866	86636.8	6386.0	223.4	339.0 / 32.0
871	87054.0	6386.0	223.9	365.0 / 346.0
875	87510.0	6386.0	224.2	376.0 / 343.0
880	88045.2	6386.0	224.6	484.0 / 175.0
885	88533.9	6290.0	224.9	235.0 / 389.0
888	88802.6	6087.0	225.1	219.0 / 301.0
901	90109.5	6087.0	226.2	360.0 / 283.0
910	91015.7	6087.0	226.7	369.0 / 312.0
915	91494.7	6087.0	227.1	526.0 / 97.0
923	92281.6	6087.0	227.7	714.0 / 31.0
929	92865.5	6087.0	227.9	328.0 / 444.0
933	93338.7	6087.0	228.1	31.0 / 276.0
950	94981.7	5728.0	232.4	408.0 / 455.0
956	95647.2	5728.0	232.5	469.0 / 358.0
963	96288.2	5728.0	232.6	117.0 / 337.0
970	97033.0	5728.0	233.0	305.0 / 30.0
976	97558.0	5728.0	233.3	486.0 / 195.0
979	97906.2	5728.0	233.3	30.0 / 150.0
988	98764.7	5728.0	234.4	318.0 / 46.0
998	99756.7	5728.0	238.6	30.0 / 530.0
1009	100864.7	5330.0	238.6	728.0 / 428.0
1021	102092.8	5330.0	238.6	328.0 / 428.0
1037	103666.0	5303.0	238.7	485.0 / 476.0
1042	104168.0	5303.0	238.8	438.0 / 289.0
1047	104709.8	5160.0	238.9	97.0 / 662.0
1053	105294.6	5026.0	239.1	319.0 / 452.0
1061	106052.6	5026.0	239.3	27.0 / 399.0
1065	106501.0	5026.0	239.6	191.0 / 400.0
1071	107120.0	5026.0	240.0	27.0 / 355.0
1075	107504.7	5026.0	240.4	27.0 / 308.0
1083	108295.9	5026.0	241.4	49.0 / 204.0
1091	109092.2	5026.0	242.4	27.0 / 145.0
1096	109562.3	5026.0	243.0	35.0 / 67.0
1104	110364.4	5026.0	244.8	194.0 / 153.0
1111	111055.5	4878.0	245.0	75.0 / 113.0
1115	111519.8	4878.0	245.2	47.0 / 77.0
1120	112002.5	4878.0	245.8	242.0 / 26.0
1123	112282.9	4878.0	245.8	149.0 / 33.0
1129	112936.6	4878.0	246.3	185.0 / 416.0
Buffalo Creek Overflow				
157	15730.6	468.2	138.4	11.5 / 183.1
158	15836.0	468.2	141.2	11.5 / 24.9

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
Buffalo Creek Overflow				
162	16188.7	468.2	141.3	346.2 / 110.9
165	16502.3	468.2	141.3	171.3 / 288.7
170	17007.7	468.2	141.3	195.5 / 167.6
173	17344.3	468.2	141.3	182.1 / 180.4
178	17785.9	468.2	141.3	188.2 / 145.5
181	18095.7	480.0	141.3	41.4 / 41.4
Bull Branch				
011	1126.4	1500.0	152.2 ¹	485.0 / 33.0
019	1868.5	1500.0	152.2 ¹	196.0 / 116.0
024	2435.0	1500.0	152.2 ¹	191.0 / 14.0
028	2800.4	1500.0	152.2 ¹	183.0 / 14.0
035	3467.7	1340.0	155.2	21.0 / 108.0
040	3963.4	1340.0	156.9	21.0 / 104.0
043	4334.5	1340.0	158.3	69.0 / 14.0
047	4734.9	1340.0	161.7	81.0 / 14.0
052	5223.6	1340.0	163.8	148.0 / 14.0
057	5747.8	1340.0	166.4	73.0 / 45.0
066	6590.3	1250.0	173.8	175.0 / 28.0
068	6763.7	1250.0	174.0	146.0 / 84.0
074	7373.1	1250.0	175.0	150.0 / 29.0
082	8200.1	1250.0	179.7	5.0 / 190.0
085	8512.6	1250.0	180.7	13.0 / 146.0
088	8842.8	1150.0	182.1	39.0 / 55.0
094	9402.6	1150.0	185.8	13.0 / 80.0
099	9912.6	1150.0	188.9	39.0 / 42.0
103	10312.7	1150.0	190.6	152.0 / 13.0
107	10694.8	1150.0	192.3	82.0 / 13.0
110	11023.0	1150.0	194.3	30.0 / 52.0
114	11440.3	990.0	197.4	28.0 / 27.0
118	11795.0	990.0	200.2	89.0 / 12.0
125	12464.7	990.0	203.4	39.0 / 79.0
128	12819.3	990.0	204.6	85.0 / 6.0
133	13280.4	990.0	206.3	12.0 / 124.0
136	13625.2	990.0	208.0	71.0 / 47.0
139	13941.2	990.0	209.6	112.0 / 12.0
149	14946.7	878.0	214.3	78.0 / 19.0
155	15521.3	878.0	217.5	12.0 / 67.0
Burnt Stocking Branch				
007	671.9	1668.0	138.5 ¹	125.6 / 25.4
009	871.6	1668.0	139.2	28.5 / 125.0
010	993.0	1668.0	141.5	28.5 / 125.0
011	1142.1	1668.0	141.9	102.0 / 117.8
013	1297.7	1668.0	142.1	167.1 / 64.6
020	1979.5	1668.0	143.0	10.1 / 255.1
026	2645.5	1668.0	144.6	155.3 / 10.1

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
Burnt Stocking Branch				
034	3372.8	1668.0	147.3	75.2 / 78.3
040	3993.7	1668.0	149.1	133.0 / 84.9
048	4790.8	1668.0	150.5	98.2 / 116.1
058	5758.7	1437.0	152.1	204.6 / 20.3
063	6254.0	1437.0	152.8	115.5 / 113.5
072	7217.0	1437.0	154.1	202.4 / 43.2
079	7938.5	1437.0	156.0	153.9 / 109.0
085	8476.1	1437.0	157.2	9.0 / 237.2
091	9142.7	1437.0	157.9	212.1 / 44.7
094	9449.8	1437.0	158.3	171.3 / 107.4
098	9791.1	1437.0	159.0	117.9 / 18.9
099	9939.5	1437.0	162.1	117.9 / 18.9
104	10430.7	1114.0	162.2	74.9 / 248.8
108	10768.5	1114.0	162.4	63.7 / 58.4
114	11356.6	1114.0	163.6	56.4 / 138.2
119	11858.0	1114.0	164.6	71.0 / 25.9
123	12270.9	1114.0	165.7	16.4 / 99.2
128	12788.3	1114.0	167.1	63.6 / 48.3
Camp Branch				
007	672.5	1057.0	160.3 ¹	282.0 / 182.0
011	1121.7	1057.0	161.2	170.0 / 152.0
015	1549.2	1057.0	162.5	83.0 / 113.0
020	2000.0	1057.0	164.6	59.0 / 95.0
025	2541.8	1030.0	166.6	90.0 / 92.0
030	2983.8	1030.0	168.0	124.0 / 16.0
039	3875.7	1030.0	177.2	203.0 / 88.0
044	4432.8	1030.0	177.2	199.0 / 112.0
049	4896.3	957.0	177.2	266.0 / 77.0
055	5469.8	957.0	177.2	78.0 / 121.0
059	5913.5	957.0	177.3	131.0 / 75.0
Cattail Creek				
005	492.3	3100.0	182.0 ¹	696.0 / 86.0
011	1063.8	3100.0	182.0 ¹	254.0 / 152.0
016	1594.4	3100.0	182.0 ¹	110.0 / 221.0
020	2000.0	3100.0	182.0 ¹	257.0 / 20.0
025	2500.0	3100.0	182.0 ¹	232.0 / 90.0
030	3000.0	3100.0	182.0 ¹	107.0 / 115.0
035	3500.0	3100.0	182.0 ¹	50.0 / 67.0
043	4346.2	3100.0	185.5	225.0 / 242.0
054	5385.4	3100.0	185.5	259.0 / 252.0
065	6500.0	3100.0	185.6	310.0 / 300.0
077	7741.9	2930.0	185.7	318.0 / 315.0
085	8548.3	2930.0	185.9	163.0 / 147.0
089	8940.4	2930.0	188.8	146.0 / 19.0
096	9638.1	2930.0	191.5	220.0 / 270.0

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
Cattail Creek				
108	10778.0	2930.0	194.0	72.0 / 55.0
112	11184.0	2930.0	194.9	142.0 / 205.0
116	11563.3	2930.0	195.3	333.0 / 19.0
121	12101.9	2930.0	196.0	286.0 / 57.0
126	12587.0	2820.0	197.2	96.0 / 50.0
129	12946.1	2820.0	198.1	103.0 / 111.0
135	13476.8	2820.0	198.7	275.0 / 105.0
142	14229.6	2820.0	199.6	138.0 / 184.0
149	14913.0	2820.0	200.8	19.0 / 145.0
158	15843.2	2820.0	202.1	341.0 / 118.0
165	16500.0	2820.0	202.6	114.0 / 56.0
170	17036.9	2610.0	203.6	136.0 / 213.0
176	17612.3	2610.0	204.2	116.0 / 214.0
180	18000.0	2610.0	204.6	168.0 / 65.0
186	18608.2	2610.0	205.8	147.0 / 63.0
196	19603.0	2610.0	208.1	213.0 / 134.0
201	20079.7	2610.0	209.0	217.0 / 94.0
205	20500.0	2610.0	209.6	238.0 / 208.0
211	21069.8	2610.0	210.3	193.0 / 150.0
215	21500.0	2610.0	210.9	244.0 / 173.0
219	21911.4	2410.0	211.4	283.0 / 176.0
225	22527.1	2110.0	212.2	261.0 / 17.0
231	23149.0	2110.0	213.0	276.0 / 40.0
239	23937.8	2110.0	214.3	323.0 / 17.0
246	24642.2	2110.0	215.8	236.0 / 66.0
253	25305.7	2110.0	216.8	231.0 / 107.0
260	25966.5	2110.0	218.2	217.0 / 17.0
266	26618.7	2110.0	220.5	277.0 / 17.0
270	27000.0	1970.0	220.9	137.0 / 257.0
274	27449.9	1680.0	221.3	47.0 / 209.0
280	27990.6	1630.0	221.9	188.0 / 59.0
285	28543.1	1630.0	222.7	36.0 / 203.0
290	29000.0	1630.0	223.5	25.0 / 218.0
295	29500.0	1340.0	224.4	211.0 / 30.0
300	30000.0	1340.0	225.3	166.0 / 18.0
305	30544.7	1340.0	227.1	69.0 / 50.0
310	31000.0	1340.0	228.4	78.0 / 83.0
315	31500.0	1340.0	229.3	225.0 / 14.0
320	32000.0	1340.0	230.5	240.0 / 14.0
325	32500.0	1340.0	232.3	14.0 / 120.0
330	33035.2	1340.0	234.9	146.0 / 52.0
337	33710.9	1100.0	236.7	51.0 / 91.0
345	34534.1	1100.0	243.0	59.0 / 203.0
350	35000.0	1100.0	243.1	90.0 / 148.0
355	35520.4	1100.0	243.4	71.0 / 132.0

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
Cattail Creek				
360	36043.9	1100.0	244.9	117.0 / 45.0
365	36500.0	1100.0	246.3	98.0 / 96.0
370	37000.0	1100.0	247.4	45.0 / 20.0
375	37522.1	1100.0	249.6	80.0 / 240.0
380	38000.0	1100.0	250.6	50.0 / 88.0
385	38541.1	1100.0	252.5	139.0 / 38.0
390	39000.0	1100.0	254.3	77.0 / 30.0
396	39560.4	1100.0	257.5	13.0 / 193.0
400	40000.0	745.0	259.1	129.0 / 34.0
404	40433.7	745.0	260.8	14.0 / 67.0
410	40957.0	745.0	264.2	20.0 / 64.0
420	42012.3	745.0	272.2	55.0 / 59.0
425	42500.0	745.0	273.6	45.0 / 14.0
Cooper Branch				
004	410.4	1019.0	139.3 ¹	133.0 / 16.0
009	884.4	1019.0	139.3 ¹	16.0 / 165.0
013	1272.8	1019.0	139.3 ¹	16.0 / 87.0
015	1478.2	1019.0	139.3 ¹	16.0 / 16.0
017	1668.4	1019.0	139.3 ¹	16.0 / 16.0
020	1976.3	1019.0	139.3 ¹	93.0 / 63.0
024	2367.6	1000.0	139.3 ¹	25.0 / 84.0
031	3067.4	1000.0	139.3 ¹	48.0 / 64.0
035	3451.3	1000.0	139.7	18.0 / 34.0
039	3890.8	1000.0	141.2	67.0 / 15.0
043	4251.1	1000.0	142.6	77.0 / 24.0
046	4583.5	1000.0	143.8	139.0 / 15.0
Cow Branch				
010	1038.2	543.0	159.8 ¹	375.2 / 8.5
015	1504.4	543.0	160.2	215.6 / 8.5
021	2083.0	543.0	163.9	37.2 / 76.2
025	2520.0	543.0	167.5	7.2 / 68.5
030	3000.0	543.0	170.0	7.8 / 75.5
035	3500.0	543.0	172.2	29.8 / 48.3
041	4069.4	543.0	173.9	5.9 / 77.6
045	4500.0	543.0	175.1	20.3 / 60.4
050	5000.0	543.0	178.3	11.3 / 46.1
054	5358.4	543.0	180.2	5.4 / 50.3
056	5602.6	543.0	181.1	24.8 / 30.0
057	5663.8	543.0	182.7	24.8 / 25.0
060	6000.0	487.0	184.1	8.0 / 21.1
065	6500.0	487.0	188.3	17.0 / 27.8
069	6940.4	487.0	190.8	63.7 / 5.2
073	7300.5	487.0	192.7	11.4 / 25.5
076	7632.1	487.0	194.2	13.8 / 13.1
077	7745.4	487.0	196.5	14.5 / 14.5

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
Cow Branch				
081	8083.6	429.0	197.1	18.2 / 16.9
085	8500.0	429.0	199.6	58.0 / 4.8
090	9000.0	429.0	202.1	91.1 / 4.8
093	9283.6	429.0	203.4	37.2 / 17.4
095	9497.8	429.0	204.1	22.9 / 9.4
096	9639.0	429.0	214.5	480.0 / 60.0
100	10041.2	429.0	214.5	248.9 / 177.1
104	10446.9	429.0	214.5	116.4 / 206.7
109	10892.0	388.0	214.5	80.0 / 80.0
114	11374.5	388.0	214.5	40.0 / 70.0
119	11885.0	388.0	216.4	7.0 / 50.1
Dicks Branch				
013	1316.5	616.0	156.8 ¹	48.0 / 136.0
020	2000.0	616.0	159.1	12.0 / 12.0
025	2493.4	616.0	163.4	16.0 / 14.0
036	3592.6	538.0	168.6	25.0 / 71.0
040	3992.3	538.0	169.0	30.0 / 56.0
045	4482.6	538.0	169.5	195.0 / 41.0
050	5003.5	538.0	171.6	58.0 / 12.0
Dismal Branch				
008	807.0	1015.0	128.6 ¹	63.0 / 25.0
013	1271.4	1015.0	133.4	13.0 / 80.0
016	1613.5	1015.0	136.9	32.0 / 37.0
022	2232.2	1015.0	140.6	13.0 / 175.0
026	2615.0	949.0	140.8	60.0 / 28.0
030	2959.1	949.0	141.8	43.0 / 47.0
034	3393.8	949.0	144.0	13.0 / 65.0
038	3767.7	949.0	145.8	15.0 / 145.0
043	4264.0	949.0	148.9	13.0 / 78.0
East Mingo Creek				
005	508.4	954.0	219.6 ¹	155.0 / 17.0
010	1000.1	954.0	220.0	67.0 / 110.0
017	1708.1	954.0	221.7	17.0 / 145.0
023	2282.0	954.0	223.6	29.0 / 30.0
023	2327.5	954.0	224.4	29.0 / 30.0
029	2875.6	954.0	225.5	175.0 / 37.0
038	3787.2	954.0	225.9	95.0 / 39.0
046	4579.0	954.0	226.8	93.0 / 34.0
052	5238.6	954.0	227.6	130.0 / 24.0
060	5981.1	954.0	230.0	104.0 / 18.0
066	6567.7	954.0	233.2	120.0 / 27.0
069	6874.6	954.0	234.1	90.0 / 17.0
070	7045.5	954.0	234.7	62.0 / 47.0
071	7107.0	954.0	239.5	62.0 / 47.0
076	7636.6	795.0	239.5	126.0 / 82.0

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
East Mingo Creek				
083	8290.4	795.0	239.6	85.0 / 113.0
090	9020.9	795.0	239.7	130.0 / 55.0
097	9659.3	795.0	240.0	106.0 / 15.0
102	10226.8	795.0	241.3	71.0 / 15.0
109	10903.5	592.0	244.2	79.0 / 14.0
Great Swamp				
643	64326.4	745.0	161.1	14.0 / 109.9
Great Swamp Tributary 3				
101	10092.7	937.0	156.1	57.3 / 15.7
Hannah Creek				
886	88646.6	3735.0	135.9	62.0 / 184.0
896	89606.1	3735.0	139.7	117.0 / 337.0
903	90280.3	3735.0	139.9	354.0 / 142.0
907	90695.2	3691.0	140.0	366.0 / 158.0
911	91110.7	3691.0	140.2	277.0 / 209.0
916	91642.3	3691.0	140.6	166.0 / 357.0
920	91992.5	3691.0	140.8	275.0 / 400.0
926	92570.3	3691.0	141.1	435.0 / 275.0
938	93768.6	3467.0	146.1	338.0 / 107.0
943	94301.8	3467.0	146.1	146.0 / 203.0
948	94812.1	3467.0	146.2	612.0 / 128.0
953	95312.5	3467.0	146.3	622.0 / 73.0
958	95763.0	3467.0	146.3	347.0 / 583.0
964	96414.3	3467.0	146.4	434.0 / 75.0
970	97013.2	3467.0	146.7	93.0 / 112.0
977	97724.4	2222.0	147.8	372.0 / 29.0
983	98263.0	2222.0	148.6	187.0 / 149.0
993	99329.5	1716.0	153.2	16.0 / 175.0
999	99885.5	1716.0	153.8	85.0 / 15.0
1012	101176.2	1434.0	166.0	153.0 / 200.0
1022	102199.5	1434.0	167.8	40.0 / 200.0
1028	102824.3	1434.0	168.0	75.0 / 150.0
1032	103226.2	1434.0	168.0	75.0 / 150.0
Hannah Creek Tributary 2				
005	537.7	2176.0	146.8 ¹	227.0 / 42.0
010	1027.1	2176.0	146.8 ¹	225.0 / 17.0
016	1557.0	2176.0	148.8	195.0 / 65.0
026	2576.5	2176.0	153.2	205.0 / 156.0
031	3068.2	2113.0	153.5	204.0 / 175.0
036	3629.7	2113.0	153.9	135.0 / 275.0
049	4897.3	1383.0	158.2	190.0 / 175.0
054	5420.2	1383.0	158.3	200.0 / 175.0
059	5915.2	1383.0	158.7	148.0 / 42.0
063	6263.7	1383.0	159.5	68.0 / 135.0
073	7273.0	1315.0	162.7	153.0 / 100.0

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
Hannah Creek Tributary 2				
077	7737.2	1315.0	163.3	137.0 / 36.0
083	8319.7	1256.0	165.1	200.0 / 13.0
093	9262.9	1256.0	173.7	236.0 / 68.0
097	9674.1	1256.0	173.7	214.0 / 125.0
101	10090.0	1256.0	173.7	220.0 / 17.0
105	10510.2	963.0	173.9	90.0 / 12.0
112	11239.5	963.0	180.3	35.0 / 150.0
120	11984.6	963.0	183.5	92.0 / 75.0
Hardee Mill Branch				
005	500.0	735.0	155.7 ¹	132.0 / 440.0
010	1000.0	735.0	155.7 ¹	13.0 / 563.0
015	1485.6	735.0	156.0	39.0 / 13.0
020	2000.0	735.0	159.3	41.0 / 71.0
030	3032.9	735.0	166.8	316.0 / 33.0
035	3516.9	464.0	166.8	57.0 / 37.0
040	4016.9	464.0	166.9	14.0 / 84.0
045	4516.9	464.0	167.2	34.0 / 82.0
050	5016.9	464.0	169.0	40.0 / 7.0
055	5452.0	416.0	171.7	14.0 / 72.0
060	6004.5	416.0	173.8	22.0 / 29.0
065	6504.5	416.0	176.9	9.0 / 52.0
Johnson Swamp				
009	851.6	2609.0	118.0	85.0 / 225.0
014	1402.5	2609.0	120.2	85.0 / 213.0
022	2203.1	2609.0	122.2	186.0 / 276.0
027	2745.9	2609.0	123.6	251.0 / 76.0
033	3320.3	2609.0	125.3	275.0 / 163.0
038	3786.4	2609.0	126.1	350.0 / 200.0
045	4546.8	2609.0	126.9	275.0 / 300.0
052	5158.9	2609.0	127.6	352.0 / 113.0
057	5721.7	2609.0	128.2	332.0 / 102.0
064	6439.1	2086.0	128.8	349.0 / 245.0
069	6917.8	2086.0	129.1	128.0 / 422.0
078	7782.8	1806.0	130.7	124.0 / 247.0
083	8270.4	1806.0	131.3	150.0 / 135.0
087	8734.0	1806.0	132.0	300.0 / 60.0
092	9195.9	1806.0	132.7	250.0 / 15.0
097	9675.8	1806.0	134.0	240.0 / 15.0
102	10178.0	1695.0	135.3	222.0 / 15.0
107	10666.8	1695.0	136.6	183.0 / 53.0
113	11345.3	1695.0	139.2	195.0 / 114.0
120	11970.0	1695.0	140.6	382.0 / 108.0
126	12630.0	1695.0	142.8	25.0 / 143.0
149	14933.6	992.0	150.4	375.0 / 75.0
151	15144.4	992.0	152.4	75.0 / 68.0

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
Johnson Swamp				
155	15460.2	872.0	161.5	30.0 / 131.0
158	15835.1	872.0	163.0	93.0 / 170.0
163	16332.2	872.0	164.3	84.0 / 30.0
169	16864.8	832.0	166.1	68.0 / 54.0
176	17621.7	832.0	168.2	13.0 / 129.0
182	18175.5	832.0	171.8	12.0 / 107.0
Johnson Swamp Tributary				
008	778.9	1016.0	145.7 ¹	70.0 / 355.0
014	1449.5	1016.0	153.1	300.0 / 34.0
020	1959.2	1016.0	153.2	275.0 / 12.0
026	2563.2	947.0	153.5	152.0 / 12.0
031	3071.4	947.0	154.8	85.0 / 25.0
037	3726.2	947.0	157.3	92.0 / 2.0
042	4214.1	947.0	159.3	40.0 / 30.0
046	4602.5	824.0	162.8	140.0 / 24.0
051	5140.9	824.0	168.1	150.0 / 29.0
055	5461.8	824.0	168.2	145.0 / 10.0
057	5696.8	824.0	168.7	125.0 / 10.0
Jumping Run				
011	1084.9	1319.0	158.5 ¹	125.0 / 50.0
022	2164.4	1319.0	161.7	24.0 / 170.0
026	2613.6	1319.0	164.1	25.0 / 125.0
032	3164.1	1165.0	167.8	55.0 / 25.0
038	3848.4	1165.0	170.8	85.0 / 145.0
052	5197.5	1165.0	175.7	46.0 / 190.0
056	5598.4	1165.0	176.5	75.0 / 185.0
061	6100.4	1031.0	177.9	13.0 / 196.0
067	6680.8	1031.0	180.4	13.0 / 175.0
073	7320.9	1031.0	182.6	35.0 / 175.0
079	7915.2	1031.0	184.4	45.0 / 305.0
085	8474.3	1031.0	185.9	35.0 / 275.0
090	8981.4	744.0	187.0	158.0 / 11.0
095	9541.3	744.0	188.2	176.0 / 25.0
105	10468.7	744.0	191.3	100.0 / 150.0
Juniper Swamp				
005	519.6	3031.0	113.1 ¹	310.0 / 445.0
021	2130.2	3031.0	113.1 ¹	362.0 / 300.0
028	2797.5	3031.0	113.1 ¹	198.0 / 326.0
043	4306.9	2790.0	113.1 ¹	203.0 / 340.0
048	4810.4	2790.0	113.1 ¹	74.0 / 612.0
053	5275.6	2765.0	113.1 ¹	280.0 / 219.0
058	5776.7	2765.0	113.6	164.0 / 114.0
064	6360.8	2765.0	114.8	129.0 / 313.0
069	6852.8	2765.0	115.4	286.0 / 313.0
074	7372.6	2765.0	115.7	261.0 / 339.0

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
Juniper Swamp				
079	7947.9	2670.0	116.1	214.0 / 188.0
085	8515.7	2670.0	116.8	260.0 / 81.0
090	8996.4	2670.0	117.3	329.0 / 23.0
095	9487.4	2670.0	117.7	105.0 / 245.0
099	9903.2	2670.0	118.2	36.0 / 412.0
106	10587.2	1872.0	118.8	24.0 / 337.0
111	11127.0	1872.0	119.4	214.0 / 22.0
115	11481.4	1872.0	120.2	62.0 / 143.0
120	11963.0	1872.0	121.5	100.0 / 101.0
124	12357.8	1872.0	122.5	96.0 / 122.0
129	12853.7	1821.0	123.8	54.0 / 148.0
134	13425.7	1821.0	125.0	146.0 / 109.0
140	13979.0	1821.0	125.9	25.0 / 222.0
144	14429.8	1821.0	127.1	125.0 / 160.0
153	15260.4	1821.0	130.7	140.0 / 250.0
158	15786.8	1609.0	131.3	168.0 / 108.0
162	16248.0	1609.0	132.3	111.0 / 41.0
169	16857.0	1609.0	134.8	106.0 / 38.0
174	17374.9	1609.0	136.1	102.0 / 158.0
177	17699.7	1609.0	136.8	38.0 / 133.0
182	18154.2	1609.0	138.2	93.0 / 126.0
187	18697.9	1609.0	139.5	250.0 / 14.0
192	19165.2	1609.0	140.6	175.0 / 34.0
197	19660.9	1452.0	142.5	219.0 / 14.0
202	20211.9	1452.0	144.1	150.0 / 93.0
210	20994.7	1452.0	146.5	96.0 / 145.0
214	21426.0	1452.0	147.0	90.0 / 139.0
219	21936.0	1225.0	148.1	62.0 / 9.0
230	22960.7	1225.0	158.2	235.0 / 132.0
233	23251.6	1225.0	158.2	140.0 / 233.0
239	23943.0	1225.0	158.3	325.0 / 25.0
Juniper Swamp Tributary 1				
004	412.5	1336.0	118.6 ¹	88.0 / 34.0
010	1000.9	1336.0	121.3	125.0 / 13.0
013	1302.5	1336.0	122.5	135.0 / 13.0
018	1800.5	1336.0	124.7	21.0 / 82.0
024	2352.9	1336.0	126.5	72.0 / 63.0
028	2803.4	1336.0	128.1	133.0 / 82.0
032	3243.5	1336.0	130.9	124.0 / 75.0
038	3819.8	886.0	133.0	161.0 / 77.0
043	4299.9	886.0	134.3	39.0 / 10.0
050	4992.6	886.0	137.0	12.0 / 85.0
055	5502.0	886.0	138.9	16.0 / 81.0
059	5908.1	886.0	141.0	95.0 / 42.0
063	6324.1	886.0	143.1	31.0 / 65.0

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
Juniper Swamp Tributary 1				
069	6859.1	886.0	147.1	20.0 / 61.0
074	7361.6	792.0	149.7	45.0 / 56.0
079	7882.6	792.0	151.6	33.0 / 76.0
084	8386.8	792.0	154.1	9.0 / 79.0
088	8770.9	792.0	156.7	27.0 / 40.0
Juniper Swamp Tributary 2				
006	606.5	687.0	133.0 ¹	55.0 / 75.0
010	997.1	687.0	135.3	60.0 / 14.0
014	1425.7	687.0	138.2	75.0 / 75.0
019	1892.9	687.0	141.1	75.0 / 14.0
024	2423.6	623.0	145.0	57.0 / 14.0
029	2904.0	623.0	147.0	14.0 / 23.0
034	3391.4	623.0	149.6	25.0 / 14.0
038	3842.6	623.0	155.1	20.0 / 14.0
Little Black Creek				
014	1371.5	1895.0	189.6	264.0 / 231.0
018	1840.0	1895.0	190.9	28.0 / 381.0
023	2292.9	1895.0	191.9	21.0 / 444.0
027	2689.4	1895.0	192.7	21.0 / 341.0
031	3104.8	1895.0	193.7	158.0 / 141.0
038	3770.8	1895.0	195.4	294.0 / 68.0
044	4375.6	1895.0	196.8	100.0 / 163.0
049	4949.9	1824.0	197.6	71.0 / 301.0
053	5319.8	1824.0	198.2	133.0 / 201.0
059	5850.9	1824.0	199.0	122.0 / 422.0
063	6288.4	1824.0	199.7	265.0 / 53.0
074	7395.7	1824.0	202.8	149.0 / 138.0
081	8105.7	1824.0	203.7	87.0 / 238.0
085	8542.2	1824.0	204.4	83.0 / 146.0
090	9042.2	1824.0	205.4	21.0 / 244.0
095	9542.2	1824.0	206.0	212.0 / 46.0
102	10168.6	1824.0	206.8	21.0 / 434.0
105	10542.2	1824.0	207.3	94.0 / 270.0
110	11042.2	1824.0	208.3	282.0 / 62.0
115	11542.2	1647.0	209.2	166.0 / 93.0
120	12003.3	1647.0	210.1	145.0 / 23.0
125	12516.3	1647.0	211.0	215.0 / 111.0
131	13118.8	1647.0	211.6	142.0 / 214.0
135	13516.3	1647.0	212.2	257.0 / 20.0
140	14016.3	1647.0	213.3	182.0 / 64.0
145	14516.3	1455.0	214.2	88.0 / 104.0
150	15043.5	1455.0	215.1	73.0 / 172.0
155	15516.3	1455.0	215.7	19.0 / 301.0
160	16016.3	1455.0	216.9	155.0 / 59.0
165	16516.3	1420.0	218.0	140.0 / 158.0

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
Little Black Creek				
170	17016.3	1420.0	219.2	81.0 / 147.0
176	17579.7	1420.0	221.2	18.0 / 166.0
180	18016.3	1420.0	222.3	94.0 / 243.0
186	18596.5	1334.0	223.1	18.0 / 95.0
191	19094.7	1334.0	224.0	73.0 / 113.0
200	20016.3	1334.0	226.7	124.0 / 111.0
205	20516.3	1334.0	227.0	269.0 / 18.0
210	20952.0	1334.0	227.4	144.0 / 42.0
214	21366.7	1334.0	228.1	159.0 / 8.0
217	21726.4	1334.0	228.7	195.0 / 8.0
Little Buffalo Creek				
054	5434.7	5475.0	146.9 ¹	29.0 / 646.0
063	6255.9	5346.0	146.9 ¹	241.0 / 725.0
069	6879.6	5346.0	146.9 ¹	403.0 / 665.0
074	7421.3	5346.0	146.9 ¹	351.0 / 438.0
081	8139.3	5346.0	146.9 ¹	156.0 / 542.0
087	8735.4	5346.0	146.9 ¹	28.0 / 595.0
095	9459.8	5346.0	146.9 ¹	139.0 / 655.0
100	9958.4	5346.0	146.9 ¹	420.0 / 534.0
109	10858.8	5205.0	149.7	499.0 / 431.0
113	11342.6	5063.0	149.9	610.0 / 32.0
121	12137.0	5063.0	150.2	646.0 / 176.0
127	12681.1	5063.0	150.5	505.0 / 229.0
131	13133.7	5063.0	150.8	495.0 / 123.0
141	14093.4	3196.0	151.6	180.0 / 347.0
145	14462.8	3196.0	151.9	207.0 / 106.0
152	15222.6	3196.0	153.2	339.0 / 143.0
157	15703.2	3196.0	153.6	351.0 / 20.0
161	16099.1	3196.0	154.1	475.0 / 25.0
172	17158.2	3135.0	157.1	346.0 / 126.0
178	17780.6	2837.0	157.7	357.0 / 19.0
184	18418.5	2837.0	158.8	218.0 / 19.0
189	18919.9	2837.0	159.8	168.0 / 193.0
194	19419.2	2837.0	160.6	142.0 / 136.0
201	20051.3	2837.0	161.9	255.0 / 19.0
208	20801.2	2759.0	163.2	378.0 / 19.0
215	21468.4	2563.0	164.4	173.0 / 94.0
219	21943.4	2563.0	166.0	303.0 / 18.0
222	22190.8	2563.0	166.8	334.0 / 53.0
227	22742.4	2563.0	167.9	261.0 / 46.0
231	23122.4	2563.0	168.8	248.0 / 38.0
235	23547.2	2563.0	169.9	216.0 / 21.0
243	24254.0	2430.0	172.3	50.0 / 144.0
248	24749.5	2430.0	173.5	218.0 / 22.0
251	25098.7	2430.0	174.2	207.0 / 20.0

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
Little Buffalo Creek				
256	25564.5	2430.0	174.9	225.0 / 82.0
261	26132.8	2430.0	175.8	160.0 / 74.0
267	26707.4	2430.0	176.8	55.0 / 313.0
272	27235.2	2430.0	177.4	201.0 / 156.0
277	27708.4	2430.0	178.0	270.0 / 96.0
283	28329.4	2430.0	178.9	18.0 / 344.0
290	29000.0	2430.0	179.9	380.0 / 18.0
296	29619.1	1904.0	180.6	138.0 / 337.0
301	30086.2	1904.0	181.0	55.0 / 85.0
309	30945.2	1904.0	183.5	111.0 / 237.0
315	31505.0	1904.0	183.9	146.0 / 193.0
322	32206.5	1904.0	184.5	203.0 / 86.0
330	33000.0	1904.0	185.5	63.0 / 217.0
342	34193.2	1904.0	187.2	249.0 / 89.0
347	34719.2	1904.0	187.8	205.0 / 90.0
355	35500.0	1904.0	189.0	136.0 / 145.0
361	36076.3	1904.0	189.9	172.0 / 107.0
366	36617.8	1720.0	190.8	87.0 / 190.0
372	37220.0	1720.0	191.8	157.0 / 75.0
378	37846.8	1720.0	192.5	267.0 / 102.0
385	38499.3	1720.0	193.2	78.0 / 180.0
390	38969.8	1720.0	194.0	52.0 / 240.0
395	39541.6	1720.0	194.8	160.0 / 38.0
401	40077.4	1720.0	195.9	15.0 / 201.0
407	40711.8	1720.0	197.0	74.0 / 170.0
Little Buffalo Creek Tributary				
009	909.6	3320.0	151.0 ¹	21.0 / 441.0
015	1543.6	3320.0	151.3	317.0 / 171.0
021	2075.1	3320.0	152.2	276.0 / 114.0
025	2516.3	3320.0	153.1	305.0 / 158.0
032	3159.6	3320.0	154.4	428.0 / 36.0
036	3554.1	3320.0	155.3	316.0 / 69.0
047	4715.7	3240.0	161.3	100.0 / 925.0
053	5347.1	3240.0	161.5	350.0 / 460.0
059	5925.1	3240.0	161.8	300.0 / 450.0
073	7308.7	3240.0	164.4	20.0 / 433.0
080	8015.7	3240.0	165.1	27.0 / 418.0
085	8491.3	3240.0	166.4	113.0 / 258.0
091	9128.2	2720.0	168.1	212.0 / 127.0
096	9630.3	2720.0	169.0	217.0 / 119.0
Little Creek				
550	54965.8	647.0	286.9	141.0 / 13.0
554	55403.9	647.0	289.0	13.0 / 77.0
558	55765.7	647.0	290.4	40.0 / 88.0
564	56383.0	647.0	292.1	13.0 / 118.0

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
Little Creek				
568	56808.3	619.0	294.0	67.0 / 21.0
572	57219.8	619.0	295.7	84.0 / 19.0
578	57766.0	619.0	297.6	107.0 / 16.0
583	58294.6	619.0	299.5	77.0 / 67.0
587	58713.8	502.0	301.9	18.0 / 12.0
592	59211.6	502.0	305.6	69.0 / 12.0
597	59719.3	461.0	307.3	31.0 / 14.0
603	60324.1	461.0	310.2	22.0 / 12.0
609	60914.8	427.0	313.3	14.0 / 14.0
614	61423.7	427.0	316.9	15.0 / 26.0
618	61813.7	427.0	319.7	41.0 / 10.0
Little Creek (Basin 11, Stream 2)				
008	759.9	2248.0	209.7	65.0 / 15.0
013	1276.2	2248.0	212.1	221.0 / 114.0
017	1656.0	2136.0	212.8	127.0 / 158.0
020	2010.6	2136.0	214.2	85.0 / 64.0
024	2385.4	2136.0	215.7	142.0 / 17.0
030	2877.0	2136.0	217.2	340.0 / 125.0
Little Creek (Into Middle Creek)				
020	1963.2	1935.0	203.31	21.0 / 564.0
031	3060.5	1935.0	203.31	100.0 / 344.0
035	3517.9	1935.0	203.31	22.0 / 415.0
040	4000.0	1935.0	203.31	22.0 / 256.0
050	5000.0	1935.0	203.5	230.0 / 22.0
054	5441.1	1935.0	204.4	22.0 / 127.0
065	6500.0	1867.0	207.7	738.0 / 475.0
070	7000.0	1867.0	207.8	519.0 / 256.0
075	7500.0	1867.0	207.9	90.0 / 297.0
085	8500.0	1867.0	212.0	21.0 / 221.0
090	9000.0	1867.0	214.0	197.0 / 225.0
095	9500.0	1867.0	214.9	118.0 / 366.0
100	10000.0	1867.0	216.3	125.0 / 129.0
105	10500.0	1867.0	218.2	110.0 / 263.0
110	11023.2	1711.0	219.3	228.0 / 191.0
Little Creek (Near Micro)				
004	350.8	4300.0	123.0 ¹	125.0 / 16.0
010	1000.4	4300.0	123.0 ¹	131.0 / 119.0
015	1479.6	4300.0	123.0 ¹	33.0 / 114.0
021	2102.8	4300.0	123.0 ¹	66.0 / 130.0
026	2640.2	4300.0	123.0 ¹	160.0 / 37.0
032	3209.8	4300.0	123.3	425.0 / 110.0
040	4000.0	4140.0	123.7	251.0 / 344.0
049	4932.1	4140.0	124.2	57.0 / 728.0
055	5489.2	4140.0	124.5	234.0 / 164.0
062	6249.4	4140.0	125.4	406.0 / 48.0
071	7146.3	4140.0	126.6	187.0 / 166.0

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
Little Creek (Near Micro)				
077	7740.4	4140.0	127.5	225.0 / 134.0
081	8126.0	4140.0	127.8	162.0 / 557.0
085	8477.8	4140.0	127.9	206.0 / 554.0
090	8991.2	4140.0	128.2	286.0 / 401.0
094	9391.9	4020.0	128.5	415.0 / 400.0
099	9916.9	4020.0	128.8	261.0 / 567.0
106	10647.3	4020.0	129.3	595.0 / 199.0
113	11328.7	3850.0	129.9	730.0 / 23.0
128	12773.8	3850.0	132.5	39.0 / 216.0
133	13271.6	3850.0	133.2	22.0 / 539.0
142	14157.9	3850.0	133.8	22.0 / 483.0
146	14583.4	3850.0	134.3	23.0 / 204.0
155	15495.5	3850.0	136.2	48.0 / 117.0
160	16025.3	3850.0	137.3	101.0 / 54.0
170	17000.0	3080.0	139.2	109.0 / 330.0
176	17562.5	2900.0	139.8	24.0 / 379.0
182	18221.7	2900.0	140.8	83.0 / 107.0
189	18903.7	2900.0	143.1	50.0 / 148.0
195	19500.0	2900.0	144.5	15.0 / 55.0
200	20020.0	2900.0	147.5	55.0 / 373.0
206	20591.4	2900.0	148.3	54.0 / 191.0
213	21264.0	2900.0	150.1	230.0 / 52.0
219	21864.3	2800.0	151.1	232.0 / 91.0
226	22575.6	2800.0	152.1	87.0 / 155.0
231	23052.7	2800.0	153.1	77.0 / 157.0
235	23500.0	2800.0	154.3	226.0 / 102.0
243	24298.0	2800.0	156.2	19.0 / 180.0
256	25636.9	2800.0	160.3	212.0 / 164.0
264	26398.2	2600.0	160.9	198.0 / 179.0
273	27302.6	2600.0	161.7	151.0 / 177.0
281	28120.4	2600.0	162.7	196.0 / 149.0
286	28587.4	2600.0	163.4	264.0 / 110.0
289	28879.8	2600.0	163.9	319.0 / 113.0
298	29769.9	2600.0	174.3	380.0 / 36.0
303	30298.5	2380.0	174.3	386.0 / 46.0
312	31173.4	2220.0	174.4	188.0 / 155.0
324	32365.3	2220.0	183.0	625.0 / 348.0
327	32717.6	2220.0	183.0	511.0 / 283.0
334	33353.0	2220.0	183.0	632.0 / 334.0
339	33894.0	2220.0	183.0	483.0 / 248.0
348	34809.4	2220.0	183.0	458.0 / 186.0
356	35596.5	2220.0	183.0	476.0 / 302.0
366	36553.6	2220.0	183.0	339.0 / 478.0
372	37170.1	2220.0	183.0	1043.0 / 309.0
379	37892.8	2220.0	183.0	596.0 / 418.0

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
Little Creek (Near Micro)				
385	38505.0	1990.0	183.0	190.0 / 425.0
394	39445.0	1990.0	183.1	495.0 / 198.0
404	40425.1	1750.0	183.1	420.0 / 109.0
415	41482.5	1750.0	183.2	304.0 / 335.0
427	42746.5	1750.0	183.4	471.0 / 16.0
436	43600.2	1750.0	183.7	291.0 / 118.0
446	44549.8	1560.0	184.2	182.0 / 242.0
Little River				
2735	273541.8	10400.0	181.7	425.0 / 400.0
2741	274146.0	10400.0	181.7	649.0 / 39.0
2748	274839.3	10300.0	181.9	389.0 / 1020.0
2754	275353.6	10300.0	182.0	98.0 / 681.0
2759	275891.9	10300.0	182.1	698.0 / 211.0
2766	276563.2	10300.0	182.2	369.0 / 344.0
2772	277203.3	10300.0	182.4	536.0 / 37.0
2777	277712.4	10300.0	182.6	264.0 / 403.0
2782	278179.1	10300.0	182.7	112.0 / 455.0
2786	278645.9	10300.0	182.8	318.0 / 856.0
2791	279129.3	10300.0	182.9	304.0 / 1011.0
2798	279794.6	10300.0	183.0	37.0 / 1108.0
2803	280294.6	10300.0	183.1	37.0 / 855.0
2808	280794.6	10300.0	183.2	69.0 / 865.0
2818	281846.4	10300.0	183.5	348.0 / 55.0
2838	283794.6	10300.0	184.2	1332.0 / 37.0
2868	286794.6	10300.0	184.6	37.0 / 369.0
2873	287294.6	10300.0	184.8	55.0 / 284.0
2878	287794.6	10300.0	185.3	49.0 / 312.0
2887	288734.5	10300.0	187.8	47.0 / 200.0
2894	289415.3	10300.0	188.3	281.0 / 97.0
2899	289904.1	10300.0	188.4	252.0 / 146.0
2904	290364.0	10300.0	188.6	395.0 / 96.0
2908	290794.6	10300.0	188.8	473.0 / 83.0
2913	291294.6	10300.0	188.9	315.0 / 170.0
2919	291892.6	10300.0	189.1	265.0 / 161.0
2928	292794.6	10300.0	189.5	130.0 / 318.0
2935	293526.3	10300.0	189.9	37.0 / 822.0
2948	294794.6	10300.0	190.2	522.0 / 319.0
2959	295875.8	10300.0	190.6	426.0 / 36.0
2963	296294.6	10300.0	190.7	165.0 / 125.0
2968	296794.6	10300.0	191.1	187.0 / 316.0
2978	297794.6	10300.0	191.5	204.0 / 452.0
2985	298491.0	10300.0	191.7	734.0 / 36.0
2989	298913.8	10300.0	191.8	747.0 / 721.0
2995	299452.1	10300.0	191.9	573.0 / 699.0
2999	299894.6	10200.0	192.0	505.0 / 536.0

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
Little River				
3004	300443.4	10200.0	192.0	331.0 / 486.0
3012	301192.0	10200.0	192.2	695.0 / 504.0
3019	301909.2	10200.0	192.3	365.0 / 133.0
3025	302501.2	10200.0	192.5	616.0 / 754.0
3031	303057.6	10200.0	192.6	819.0 / 779.0
3035	303531.4	10200.0	192.6	526.0 / 871.0
3042	304198.4	10200.0	192.7	1124.0 / 737.0
3049	304923.6	10200.0	192.8	1564.0 / 315.0
3053	305294.6	10200.0	192.9	1639.0 / 114.0
3060	305967.6	10200.0	193.0	990.0 / 238.0
3068	306830.6	10200.0	193.3	421.0 / 115.0
3078	307794.6	10200.0	194.1	241.0 / 287.0
3088	308794.6	10200.0	194.7	554.0 / 327.0
3093	309294.6	10200.0	195.0	178.0 / 362.0
3098	309794.6	10200.0	195.3	359.0 / 295.0
3103	310294.6	10200.0	195.7	516.0 / 394.0
3109	310916.7	10200.0	195.9	579.0 / 848.0
3118	311794.6	10200.0	196.4	471.0 / 366.0
3124	312373.0	10200.0	196.7	323.0 / 44.0
3128	312848.2	10200.0	197.2	218.0 / 41.0
3135	313450.0	10100.0	198.2	555.0 / 83.0
3139	313902.6	10100.0	198.4	778.0 / 35.0
3145	314529.2	10100.0	198.6	923.0 / 162.0
3153	315294.6	10100.0	198.9	975.0 / 68.0
3163	316294.6	10100.0	200.7	108.0 / 35.0
3167	316718.5	10100.0	201.7	35.0 / 344.0
3173	317294.6	10100.0	202.1	275.0 / 46.0
3183	318277.2	10100.0	202.8	116.0 / 390.0
3188	318794.6	10100.0	202.9	82.0 / 515.0
3193	319294.6	10100.0	203.1	686.0 / 186.0
3198	319836.7	10100.0	203.2	844.0 / 165.0
3201	320140.3	10100.0	203.3	869.0 / 134.0
3207	320684.9	10100.0	203.3	403.0 / 326.0
3213	321294.6	9950.0	203.5	1646.0 / 34.0
3222	322183.1	9950.0	203.6	1150.0 / 104.0
3227	322719.6	9950.0	203.7	798.0 / 102.0
3233	323337.0	9950.0	203.8	442.0 / 34.0
3240	324017.0	9950.0	204.3	106.0 / 131.0
3246	324637.8	9950.0	205.0	119.0 / 100.0
3253	325301.9	9950.0	205.8	75.0 / 100.0
3270	326974.3	9930.0	209.3	265.0 / 189.0
3279	327900.0	9930.0	209.6	215.0 / 605.0
3288	328817.9	9930.0	209.8	962.0 / 702.0
3296	329618.7	9930.0	209.9	1214.0 / 255.0
3303	330294.6	9930.0	209.9	1078.0 / 112.0

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
Little River				
3311	331129.0	9910.0	210.0	810.0 / 91.0
3316	331589.4	9910.0	210.1	797.0 / 54.0
3323	332294.6	9910.0	210.3	667.0 / 255.0
3328	332794.6	9910.0	210.4	483.0 / 102.0
3333	333280.8	9910.0	210.4	204.0 / 53.0
3338	333829.6	9910.0	211.0	91.0 / 121.0
3344	334418.6	9910.0	211.9	164.0 / 631.0
3352	335176.2	9890.0	212.2	34.0 / 403.0
3358	335831.8	9890.0	212.6	99.0 / 560.0
3364	336390.6	9890.0	212.7	81.0 / 408.0
3368	336794.6	9870.0	212.9	291.0 / 293.0
3373	337294.6	9870.0	213.0	118.0 / 271.0
3378	337751.3	9870.0	213.3	172.0 / 155.0
3390	339038.3	9870.0	214.7	240.0 / 190.0
3398	339764.0	9870.0	215.0	473.0 / 68.0
3403	340294.6	9850.0	215.2	591.0 / 429.0
3408	340794.6	9850.0	215.2	364.0 / 785.0
3414	341366.0	9850.0	215.3	321.0 / 699.0
3418	341811.9	9850.0	215.4	748.0 / 547.0
3424	342429.6	9830.0	215.4	995.0 / 345.0
3428	342794.6	9830.0	215.5	1024.0 / 297.0
3433	343252.0	9830.0	215.5	704.0 / 315.0
3436	343618.0	9830.0	215.6	329.0 / 262.0
3441	344082.5	9830.0	215.7	399.0 / 33.0
3446	344592.3	9830.0	216.0	455.0 / 226.0
3448	344835.9	9830.0	216.1	554.0 / 520.0
Little River Tributary 1				
005	500.0	1580.0	174.8 ¹	89.0 / 104.0
010	1000.0	1580.0	174.8 ¹	167.0 / 15.0
016	1619.4	1580.0	174.8 ¹	15.0 / 140.0
020	2000.0	1580.0	174.8 ¹	100.0 / 15.0
027	2653.9	1580.0	174.8 ¹	24.0 / 154.0
030	3000.0	1580.0	174.8 ¹	22.0 / 159.0
041	4119.9	1410.0	179.9	182.0 / 71.0
045	4545.4	1410.0	181.6	29.0 / 110.0
051	5061.2	1410.0	184.6	103.0 / 46.0
056	5596.7	1410.0	187.3	93.0 / 33.0
061	6145.3	1410.0	189.8	37.0 / 67.0
066	6616.8	1410.0	192.0	138.0 / 14.0
071	7060.1	1410.0	194.0	54.0 / 100.0
080	8000.0	1410.0	198.7	14.0 / 153.0
085	8487.8	1410.0	199.8	134.0 / 14.0
100	9974.6	1160.0	207.2	100.0 / 13.0
105	10545.6	1160.0	209.7	67.0 / 31.0
111	11142.2	1160.0	212.6	96.0 / 13.0

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
Little Swamp Branch				
002	229.6	2588.0	148.5 ¹	53.0 / 501.0
005	514.5	2588.0	148.5 ¹	93.0 / 288.0
011	1056.6	2588.0	149.7	85.0 / 300.0
015	1549.1	2588.0	150.6	85.0 / 300.0
020	2036.7	2588.0	151.9	150.0 / 150.0
027	2692.6	2588.0	153.7	300.0 / 30.0
032	3234.8	2455.0	154.2	266.0 / 43.0
036	3585.0	2455.0	154.5	224.0 / 42.0
041	4070.6	2361.0	155.1	190.0 / 17.0
044	4391.3	2361.0	156.3	103.0 / 194.0
051	5134.0	2361.0	159.3	47.0 / 332.0
057	5725.0	2361.0	160.2	73.0 / 234.0
063	6335.8	2361.0	161.6	33.0 / 293.0
067	6734.8	2361.0	162.3	71.0 / 361.0
072	7202.5	2361.0	162.9	132.0 / 261.0
080	7968.4	1792.0	163.8	79.0 / 154.0
085	8480.5	1792.0	164.5	250.0 / 15.0
090	9004.1	1792.0	165.0	250.0 / 15.0
095	9473.6	1792.0	165.7	246.0 / 15.0
100	9983.9	1207.0	166.7	188.0 / 15.0
110	11034.5	1207.0	170.1	14.0 / 120.0
115	11547.7	1207.0	171.8	13.0 / 175.0
120	12037.9	1207.0	172.9	265.0 / 9.0
125	12522.9	1207.0	173.8	60.0 / 53.0
130	13019.6	1207.0	175.6	88.0 / 20.0
135	13515.1	1207.0	176.9	97.0 / 63.0
140	14004.9	1120.0	177.9	99.0 / 163.0
147	14688.2	1120.0	181.9	13.0 / 286.0
152	15200.4	1120.0	182.4	13.0 / 205.0
157	15718.8	1120.0	183.3	18.0 / 247.0
162	16201.7	1120.0	184.3	49.0 / 142.0
166	16632.2	1120.0	185.0	16.0 / 184.0
172	17247.4	690.0	186.2	14.0 / 85.0
179	17887.6	690.0	188.3	26.0 / 12.0
Little Swamp Branch Tributary 1				
008	757.2	1024.0	169.3	54.0 / 114.0
012	1193.7	1024.0	170.6	128.0 / 21.0
017	1748.9	1024.0	172.9	13.0 / 141.0
023	2285.7	919.0	175.0	13.0 / 205.0
026	2631.8	919.0	175.7	19.0 / 200.0
029	2885.1	919.0	177.0	50.0 / 200.0
Little Swamp Branch Tributary 2				
002	219.2	626.0	185.6 ¹	14.0 / 100.0
007	717.8	626.0	186.5	50.0 / 14.0

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
Long Branch				
002	196.5	3910.0	156.9 ¹	74.0 / 495.0
009	863.9	3910.0	156.9 ¹	354.0 / 154.0
015	1471.3	3910.0	156.9 ¹	368.0 / 283.0
021	2078.8	3910.0	156.9 ¹	187.0 / 422.0
027	2651.0	3910.0	156.9 ¹	132.0 / 286.0
032	3211.1	3910.0	156.9 ¹	418.0 / 21.0
038	3812.7	3910.0	157.9	254.0 / 55.0
049	4937.3	3910.0	160.1	226.0 / 438.0
060	6000.0	3910.0	161.5	21.0 / 391.0
066	6565.4	3910.0	162.6	68.0 / 434.0
071	7052.1	3910.0	163.3	123.0 / 439.0
075	7522.8	3910.0	163.8	152.0 / 387.0
080	7969.6	3910.0	164.6	285.0 / 213.0
085	8500.0	3910.0	165.7	252.0 / 150.0
090	9000.0	3910.0	166.6	508.0 / 86.0
095	9461.9	3910.0	167.0	565.0 / 70.0
100	9964.3	3880.0	167.6	402.0 / 186.0
105	10500.0	3880.0	168.4	288.0 / 85.0
111	11093.5	3880.0	169.5	387.0 / 69.0
117	11736.5	3880.0	170.9	301.0 / 67.0
125	12499.4	3880.0	172.3	205.0 / 176.0
130	13000.0	3820.0	173.2	198.0 / 126.0
136	13560.7	3820.0	174.4	208.0 / 267.0
140	14027.8	3820.0	175.2	469.0 / 47.0
145	14500.0	3820.0	176.2	406.0 / 19.0
150	15000.0	3820.0	177.6	369.0 / 22.0
154	15446.2	3820.0	178.6	395.0 / 36.0
165	16470.6	3710.0	181.8	291.0 / 392.0
170	17043.6	3710.0	182.0	147.0 / 278.0
174	17443.7	3710.0	182.4	202.0 / 249.0
180	18000.0	3710.0	183.0	19.0 / 309.0
185	18505.5	3710.0	183.8	321.0 / 90.0
191	19061.2	3710.0	184.7	306.0 / 114.0
195	19479.1	3710.0	185.5	189.0 / 113.0
200	20000.0	3710.0	186.4	81.0 / 327.0
205	20500.0	3290.0	186.9	264.0 / 297.0
210	21000.0	3290.0	187.5	92.0 / 430.0
216	21633.6	3290.0	188.4	114.0 / 174.0
220	22000.0	3290.0	189.4	75.0 / 314.0
225	22500.0	3290.0	190.3	194.0 / 158.0
230	23000.0	2790.0	191.1	48.0 / 311.0
234	23425.2	2790.0	191.7	74.0 / 182.0
241	24091.0	2790.0	193.0	65.0 / 355.0
245	24526.7	2790.0	193.7	81.0 / 259.0
251	25113.1	2790.0	194.4	163.0 / 340.0

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
Long Branch				
257	25715.0	2790.0	194.9	410.0 / 107.0
261	26055.4	2790.0	195.3	151.0 / 118.0
264	26444.9	2790.0	196.4	186.0 / 121.0
269	26914.6	2790.0	197.4	265.0 / 151.0
276	27623.3	2330.0	198.5	168.0 / 123.0
285	28500.0	2330.0	200.1	192.0 / 143.0
291	29117.0	2330.0	201.0	178.0 / 136.0
295	29500.0	2330.0	201.7	180.0 / 115.0
300	30000.0	1900.0	202.7	97.0 / 91.0
306	30588.9	1330.0	205.1	168.0 / 110.0
310	31025.7	1330.0	205.5	119.0 / 107.0
316	31551.7	1330.0	206.3	14.0 / 134.0
321	32109.0	1330.0	207.6	32.0 / 135.0
327	32726.0	1280.0	209.1	167.0 / 13.0
332	33210.4	1280.0	210.0	13.0 / 149.0
335	33478.4	1280.0	210.5	36.0 / 224.0
339	33934.9	907.0	211.5	114.0 / 24.0
Marks Creek				
003	262.8	6064.0	158.5 ¹	29.8 / 39.3
007	699.3	6064.0	158.5 ¹	159.7 / 30.8
013	1333.8	6064.0	158.5 ¹	59.2 / 30.7
019	1912.2	6064.0	158.5 ¹	29.9 / 29.9
027	2708.5	6064.0	158.5 ¹	29.9 / 149.9
033	3275.6	6064.0	158.5 ¹	29.9 / 220.1
041	4098.9	6064.0	158.5 ¹	30.5 / 101.4
046	4563.9	6064.0	158.5 ¹	29.8 / 29.9
052	5214.5	6064.0	158.5 ¹	29.9 / 29.9
060	5957.1	6064.0	158.5 ¹	29.9 / 29.9
067	6692.5	5759.0	158.5	175.2 / 33.0
072	7225.7	5759.0	158.7	28.7 / 35.1
076	7621.3	5759.0	159.8	50.0 / 50.0
081	8059.5	5759.0	160.6	106.3 / 28.7
090	9004.3	5759.0	161.9	22.4 / 97.0
097	9653.1	5759.0	162.7	194.5 / 284.9
103	10315.3	5759.0	162.9	54.3 / 70.5
110	11040.4	5131.0	164.0	79.2 / 307.6
117	11685.1	5131.0	164.4	100.0 / 346.4
125	12500.5	5050.0	164.9	180.6 / 76.1
131	13113.5	5050.0	165.5	261.7 / 248.2
138	13814.9	5050.0	166.1	95.3 / 157.4
145	14476.2	5050.0	167.9	76.2 / 75.0
150	15017.2	5050.0	169.3	124.9 / 94.3
157	15670.8	5050.0	170.3	25.7 / 83.4
163	16262.2	5050.0	171.8	31.9 / 55.0
173	17297.1	4772.0	174.1	73.1 / 157.8

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
Marks Creek				
180	18023.8	4772.0	174.8	169.8 / 32.7
188	18817.3	4772.0	175.5	241.0 / 223.0
Marks Creek Tributary				
004	350.0	991.0	158.51	25.6 / 10.0
007	700.8	991.0	158.51	64.7 / 10.0
010	979.8	991.0	159.1	77.7 / 23.6
012	1174.6	991.0	159.9	110.7 / 10.0
014	1400.00	991.0	160.7	98.0 / 10.0
018	1750.0	991.0	162.4	83.0 / 10.0
021	2100.0	991.0	163.7	139.1 / 14.6
025	1450.0	925.0	164.4	54.6 / 40.7
026	2605.6	925.0	164.4	18.6 / 60.2
028	2750.0	925.0	165.7	57.0 / 13.9
028	2829.9	925.0	168.6	57.0 / 13.9
031	3053.1	925.0	169.7	86.6 / 10.0
032	3210.6	925.0	170.1	28.8 / 40.0
035	3500.0	925.0	171.2	10.1 / 62.1
039	3882.2	925.0	172.1	30.5 / 36.3
040	4035.1	865.0	172.4	10.0 / 21.5
042	4200.0	865.0	173.2	14.3 / 18.8
044	4361.4	865.0	174.4	44.5 / 10.0
045	4517.9	865.0	175.2	24.6 / 27.0
046	4649.8	865.0	176.4	80.0 / 10.0
McCullens Branch				
013	1307.3	1022.0	163.5 ¹	408.0 / 244.0
020	2000.0	1022.0	163.5 ¹	472.0 / 109.0
025	2500.0	1022.0	163.5 ¹	289.0 / 20.0
030	3000.0	1022.0	164.6	125.0 / 14.0
040	4000.0	1002.0	170.2	225.0 / 267.0
048	4777.4	1002.0	170.3	241.0 / 215.0
055	5500.0	1002.0	171.2	38.0 / 194.0
060	6000.0	669.0	173.8	166.0 / 13.0
065	6500.0	669.0	174.8	27.0 / 112.0
070	7000.0	669.0	175.6	13.0 / 343.0
075	7547.7	669.0	176.1	460.0 / 13.0
079	7920.2	642.0	176.6	29.0 / 28.0
082	8239.4	642.0	179.6	24.0 / 31.0
087	8699.2	642.0	181.7	12.0 / 51.0
097	9723.0	642.0	187.2	102.0 / 31.0
102	10223.0	612.0	187.9	61.0 / 59.0
107	10723.0	612.0	189.1	6.0 / 73.0
112	11223.0	565.0	192.2	22.0 / 12.0
117	11723.0	565.0	194.3	89.0 / 23.0
Mill Creek (Near Clayton)				
000	39.7	1823.0	145.4 ¹	42.6 / 114.9
004	381.9	1823.0	145.4 ¹	10.0 / 17.0

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
Mill Creek (Near Clayton)				
012	1167.0	1823.0	145.4 ¹	75.9 / 84.7
017	1654.6	1823.0	145.4 ¹	183.1 / 82.4
021	2103.7	1823.0	145.4 ¹	295.2 / 18.2
025	2526.8	1823.0	145.4 ¹	44.2 / 268.1
031	3077.2	1823.0	145.4 ¹	18.5 / 23.6
034	3386.6	1823.0	145.4 ¹	41.4 / 15.9
044	4432.1	1823.0	147.7	124.5 / 57.0
049	4924.2	1823.0	148.9	176.6 / 15.9
058	5761.2	1823.0	152.2	15.9 / 83.3
064	6362.7	1823.0	155.2	42.9 / 45.3
070	6981.4	1823.0	159.4	20.0 / 20.0
075	7455.1	1639.0	161.0	16.7 / 27.6
079	7852.4	1639.0	163.4	14.9 / 113.2
084	8396.8	1639.0	165.4	15.0 / 172.5
088	8788.4	1639.0	167.2	30.5 / 30.5
097	9739.4	1639.0	172.5	20.0 / 185.0
101	10121.4	1639.0	176.1	17.5 / 188.6
109	10902.6	1342.0	178.1	117.6 / 137.4
115	11521.1	1342.0	181.2	13.6 / 36.7
123	12318.2	1342.0	186.2	141.6 / 13.6
130	13029.8	1342.0	189.2	17.0 / 13.6
137	13706.3	1342.0	196.9	20.4 / 42.3
144	14365.3	1342.0	202.2	80.5 / 13.6
Mill Creek (Near Selma)				
033	3331.1	2211.0	129.9 ¹	156.7 / 29.6
036	3619.6	2211.0	129.9 ¹	146.3 / 34.9
039	3935.5	2200.0	129.9 ¹	54.8 / 51.5
044	4406.8	2200.0	129.9 ¹	7.4 / 243.2
051	5060.8	2200.0	129.9 ¹	28.8 / 7.4
056	5631.3	2200.0	129.9 ¹	200.0 / 30.0
062	6191.9	2200.0	129.9 ¹	7.4 / 90.4
068	6816.9	2200.0	132.3	255.0 / 129.0
074	7435.8	2200.0	139.5	35.0 / 35.0
078	7815.5	1949.0	139.8	50.0 / 10.0
081	8143.7	1949.0	139.9	300.0 / 50.0
088	8766.2	1949.0	140.2	256.4 / 48.0
094	9399.4	1949.0	140.3	330.8 / 6.5
099	9876.0	1949.0	140.6	260.2 / 184.5
102	10243.5	1949.0	140.9	42.1 / 81.1
106	10639.9	1949.0	145.1	56.3 / 96.1
107	10749.5	1949.0	145.8	326.0 / 157.9
115	11484.6	1949.0	146.0	238.0 / 96.1
119	11873.4	1949.0	146.8	338.2 / 6.5
121	12136.9	1949.0	152.0	300.0 / 50.0
128	12806.8	1949.0	152.1	285.5 / 88.0

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
Mill Creek (Near Selma)				
136	13577.7	1949.0	154.2	9.0 / 173.6
140	14012.0	1692.0	154.4	54.7 / 196.8
148	14770.9	1692.0	155.3	211.9 / 75.2
156	15602.3	1692.0	156.8	277.9 / 52.6
164	16408.3	1392.0	157.7	48.1 / 294.0
171	17066.3	1392.0	158.4	272.3 / 141.3
181	18052.6	1392.0	160.6	130.9 / 70.0
189	18907.9	1392.0	162.1	277.0 / 62.4
196	19623.3	1392.0	163.3	194.6 / 28.7
203	20327.8	1392.0	164.2	482.3 / 104.1
210	20972.8	1392.0	165.2	159.4 / 10.1
Mill Creek (South)				
788	78811.6	8430.0	105.7	884.0 / 380.0
796	79570.7	8430.0	106.3	1097.0 / 352.0
803	80315.2	8430.0	106.7	522.0 / 637.0
809	80946.8	8306.0	107.1	649.0 / 1035.0
816	81557.9	8306.0	107.3	561.0 / 995.0
821	82068.2	8306.0	107.6	672.0 / 605.0
827	82747.2	8306.0	108.3	897.0 / 42.0
835	83458.3	8306.0	109.0	646.0 / 391.0
845	84478.2	8279.0	109.6	810.0 / 458.0
850	85049.5	8279.0	109.8	650.0 / 618.0
862	86164.5	8279.0	110.3	681.0 / 763.0
869	86918.5	8279.0	110.7	1030.0 / 510.0
881	88073.1	8279.0	111.0	1289.0 / 434.0
889	88862.8	8166.0	111.6	677.0 / 875.0
894	89369.9	8166.0	111.9	600.0 / 1000.0
906	90557.3	8166.0	114.4	380.0 / 852.0
912	91199.2	8166.0	114.6	568.0 / 925.0
921	92131.4	8166.0	114.8	275.0 / 1075.0
937	93670.7	7522.0	115.5	250.0 / 710.0
943	94312.6	7459.0	115.9	600.0 / 639.0
948	94827.3	7459.0	116.1	627.0 / 675.0
954	95436.4	7459.0	116.3	600.0 / 600.0
961	96068.8	7324.0	116.6	600.0 / 575.0
966	96648.3	7324.0	117.0	150.0 / 275.0
975	97543.2	7324.0	121.1	650.0 / 650.0
982	98172.7	7324.0	121.2	750.0 / 825.0
989	98890.6	7324.0	121.2	750.0 / 930.0
995	99458.4	7061.0	121.3	565.0 / 970.0
1000	100030.2	6980.0	121.4	600.0 / 883.0
1006	100642.4	6980.0	121.4	325.0 / 929.0
1016	101567.2	6980.0	121.6	325.0 / 1100.0
1023	102261.4	6980.0	121.6	250.0 / 1099.0
1031	103066.9	6980.0	121.8	115.0 / 1050.0

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
Mill Creek (South)				
1045	104488.7	6530.0	122.4	80.0 / 880.0
1052	105192.0	6530.0	122.9	168.0 / 679.0
1058	105764.7	6530.0	123.4	219.0 / 547.0
1062	106220.6	6492.0	123.7	130.0 / 1150.0
1068	106761.0	6492.0	123.9	161.0 / 1154.0
1073	107280.4	6492.0	124.1	53.0 / 1241.0
1077	107679.4	6492.0	124.2	123.0 / 967.0
1085	108539.7	6398.0	124.6	421.0 / 335.0
1091	109077.3	6398.0	125.0	743.0 / 261.0
1097	109667.4	6398.0	125.6	1212.0 / 386.0
1104	110410.3	6398.0	126.0	1101.0 / 362.0
1109	110875.1	6337.0	126.3	950.0 / 450.0
1114	111389.4	6337.0	126.8	775.0 / 325.0
1119	111932.3	6337.0	127.4	1175.0 / 285.0
1132	113204.9	6337.0	129.7	550.0 / 400.0
1139	113872.0	6163.0	130.0	575.0 / 481.0
1144	114437.7	6163.0	130.2	600.0 / 300.0
1149	114883.2	6163.0	130.4	650.0 / 425.0
1158	115777.8	6163.0	130.7	597.0 / 816.0
1165	116540.4	6047.0	130.9	429.0 / 1408.0
1177	117688.8	6047.0	136.3	929.0 / 1313.0
1183	118260.0	6047.0	136.3	740.0 / 1255.0
1191	119083.2	6047.0	136.6	563.0 / 661.0
1196	119612.1	6047.0	136.7	150.0 / 91.0
1202	120171.2	6047.0	136.8	623.0 / 525.0
1207	120686.4	6047.0	136.9	463.0 / 789.0
1212	121245.0	5873.0	137.0	591.0 / 538.0
1219	121858.8	5873.0	137.1	645.0 / 683.0
1224	122429.2	5873.0	137.2	697.0 / 478.0
1230	122971.2	5873.0	137.3	719.0 / 304.0
1235	123516.6	5873.0	137.5	606.0 / 483.0
1240	124020.0	5873.0	137.6	301.0 / 722.0
1246	124606.3	5873.0	137.9	128.0 / 991.0
1252	125201.0	5873.0	138.3	289.0 / 922.0
1257	125688.5	5873.0	138.4	363.0 / 422.0
1263	126279.5	5873.0	138.9	514.0 / 286.0
1269	126947.2	4892.0	139.4	463.0 / 759.0
1273	127276.0	4892.0	139.6	297.0 / 589.0
1280	128036.3	4892.0	142.9	381.0 / 461.0
1286	128550.6	4892.0	143.1	183.0 / 579.0
1290	128981.2	4857.0	143.2	146.0 / 514.0
1296	129574.7	4746.0	143.5	270.0 / 544.0
1303	130346.4	4604.0	143.8	466.0 / 175.0
1308	130840.7	4604.0	144.0	442.0 / 175.0
1314	131352.0	4604.0	144.3	619.0 / 110.0

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
Mill Creek (South)				
1319	131904.9	4604.0	144.6	381.0 / 175.0
1325	132529.0	4604.0	145.0	605.0 / 75.0
1331	133075.0	4530.0	145.4	294.0 / 398.0
1334	133411.3	4530.0	145.6	438.0 / 500.0
1339	133898.7	4530.0	145.9	565.0 / 230.0
1345	134502.7	4530.0	146.4	468.0 / 266.0
1351	135080.1	4530.0	146.9	537.0 / 115.0
1356	135568.1	4530.0	147.3	513.0 / 92.0
1361	136078.7	4530.0	148.0	349.0 / 51.0
1372	137177.2	3136.0	149.5	266.0 / 149.0
1377	137665.7	3136.0	150.0	81.0 / 226.0
1382	138205.1	3106.0	150.8	37.0 / 295.0
1387	138701.8	3106.0	151.5	125.0 / 200.0
1393	139278.4	3106.0	152.6	68.0 / 179.0
1398	139770.9	3106.0	153.5	225.0 / 248.0
1405	140482.9	3106.0	156.1	176.0 / 288.0
1411	141099.2	3106.0	156.5	100.0 / 237.0
1416	141550.1	3106.0	156.9	150.0 / 317.0
1421	142083.0	3106.0	157.4	159.0 / 230.0
1426	142627.7	3106.0	158.1	50.0 / 302.0
1438	143814.2	2174.0	159.0	100.0 / 580.0
1444	144350.3	2174.0	159.3	75.0 / 471.0
1448	144847.6	2174.0	160.1	125.0 / 159.0
1455	145471.8	1996.0	161.3	114.0 / 71.0
1459	145934.8	1996.0	162.3	215.0 / 90.0
1466	146621.4	1996.0	168.9	553.0 / 105.0
1470	147012.4	1996.0	169.5	456.0 / 118.0
1474	147436.8	1996.0	169.9	281.0 / 280.0
1479	147880.4	1996.0	170.3	252.0 / 200.0
1484	148408.4	1996.0	170.8	285.0 / 66.0
1490	148966.4	1900.0	171.6	181.0 / 54.0
1493	149345.5	1900.0	172.2	206.0 / 31.0
1498	149767.1	1900.0	172.6	219.0 / 25.0
1502	150248.4	1900.0	173.0	347.0 / 125.0
1507	150747.0	1900.0	173.3	119.0 / 285.0
1512	151207.4	1900.0	173.9	17.0 / 288.0
1517	151718.1	1900.0	175.4	88.0 / 217.0
1522	152217.4	1900.0	176.7	150.0 / 202.0
1529	152889.7	1900.0	180.2	149.0 / 326.0
1535	153482.7	1900.0	180.6	150.0 / 138.0
1539	153946.9	1353.0	181.1	201.0 / 352.0
1544	154388.5	1353.0	181.5	164.0 / 65.0
1547	154734.2	1353.0	182.5	150.0 / 133.0
1552	155230.3	1353.0	183.7	247.0 / 34.0
1557	155659.4	1353.0	184.5	200.0 / 60.0

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
Mill Creek (South)				
1562	156157.7	1221.0	185.8	145.0 / 13.0
1568	156825.2	1221.0	188.6	500.0 / 100.0
1572	157235.2	1221.0	188.8	500.0 / 125.0
1577	157724.1	1221.0	189.4	335.0 / 125.0
1581	158121.4	1221.0	190.5	300.0 / 125.0
1586	158633.8	1221.0	191.3	300.0 / 100.0
1591	159147.9	1221.0	192.1	250.0 / 203.0
1596	159617.6	1221.0	193.1	218.0 / 132.0
Mill Creek Tributary 2				
023	2328.3	756.0	94.5	300.0 / 19.0
032	3182.5	709.0	96.6	72.0 / 14.0
036	3613.8	709.0	97.8	13.0 / 12.0
051	5064.3	709.0	105.2	100.0 / 36.0
056	5573.4	709.0	109.1	75.0 / 14.0
060	6003.2	663.0	110.8	78.0 / 14.0
067	6659.0	663.0	115.0	29.0 / 14.0
071	7066.8	663.0	117.6	72.0 / 14.0
077	7676.2	427.0	120.9	29.0 / 14.0
082	8195.7	427.0	125.5	24.0 / 14.0
088	8778.0	427.0	131.9	14.0 / 24.0
092	9226.8	427.0	137.8	13.0 / 75.0
Mill Creek Tributary 3				
031	3123.6	1512.0	98.8	32.0 / 49.0
041	4053.3	1355.0	106.7	85.0 / 86.0
047	4705.9	1355.0	109.7	14.0 / 75.0
057	5690.2	1159.0	118.4	194.0 / 104.0
062	6223.0	1159.0	118.9	67.0 / 78.0
066	6611.4	1159.0	119.5	100.0 / 66.0
073	7269.9	862.0	120.7	83.0 / 43.0
Mill Creek Tributary 4				
009	921.0	2029.0	115.2 ¹	390.0 / 550.0
018	1810.8	2029.0	115.2 ¹	390.0 / 550.0
026	2551.1	2029.0	117.1	118.0 / 200.0
031	3082.4	2029.0	119.0	128.0 / 128.0
036	3641.0	2029.0	120.6	131.0 / 224.0
046	4618.7	2029.0	126.5	25.0 / 225.0
052	5187.2	1581.0	126.7	25.0 / 250.0
058	5813.7	1581.0	127.1	18.0 / 142.0
063	6334.6	1581.0	128.4	38.0 / 119.0
069	6940.7	1581.0	130.6	225.0 / 20.0
075	7481.1	1581.0	132.4	200.0 / 20.0
080	8028.4	1581.0	134.1	175.0 / 43.0
085	8521.0	1379.0	135.7	84.0 / 180.0
090	9020.3	1379.0	137.2	63.0 / 128.0
099	9897.0	1379.0	142.0	75.0 / 86.0

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
Mill Creek Tributary 4				
105	10455.0	1192.0	143.4	18.0 / 92.0
108	10760.6	1192.0	144.1	52.0 / 134.0
113	11300.6	1192.0	145.5	81.0 / 46.0
Mill Creek Tributary 5				
008	784.2	1523.0	121.9 ¹	450.0 / 260.0
014	1363.5	1523.0	121.9 ¹	275.0 / 250.0
019	1893.8	1523.0	124.1	250.0 / 125.0
025	2468.6	1523.0	125.8	50.0 / 139.0
029	2933.9	1523.0	128.4	112.0 / 15.0
035	3501.6	1523.0	129.7	205.0 / 14.0
041	4127.8	1523.0	130.8	33.0 / 126.0
045	4540.4	1329.0	131.9	25.0 / 150.0
052	5179.1	1329.0	134.1	14.0 / 150.0
058	5755.1	1329.0	136.0	14.0 / 152.0
066	6588.3	1329.0	142.1	94.0 / 180.0
071	7062.6	1329.0	142.3	20.0 / 262.0
076	7617.8	1329.0	142.6	76.0 / 13.0
082	8205.4	1092.0	145.1	110.0 / 25.0
087	8679.2	1092.0	146.2	110.0 / 50.0
Mill Creek Tributary 6				
031	3102.5	1059.0	95.1	90.0 / 100.0
037	3728.5	973.0	97.9	90.0 / 100.0
042	4227.9	973.0	99.5	75.0 / 100.0
047	4744.4	973.0	101.3	175.0 / 75.0
053	5293.0	973.0	102.7	80.0 / 25.0
058	5843.2	973.0	105.7	65.0 / 25.0
063	6298.5	903.0	108.4	25.0 / 71.0
070	7029.6	903.0	111.6	76.0 / 25.0
075	7541.9	903.0	115.1	62.0 / 32.0
084	8366.9	903.0	128.4	30.0 / 214.0
089	8875.6	903.0	128.4	12.0 / 200.0
093	9302.6	758.0	128.4	14.0 / 178.0
098	9814.9	758.0	128.5	56.0 / 19.0
101	10105.2	758.0	128.9	100.0 / 14.0
Mill Swamp Branch				
006	594.7	994.0	162.9 ¹	189.0 / 12.0
011	1102.8	994.0	165.0	20.0 / 110.0
017	1686.5	994.0	167.2	13.0 / 98.0
022	2168.4	994.0	169.8	13.0 / 156.0
031	3070.4	840.0	172.8	12.0 / 256.0
036	3629.3	840.0	173.3	12.0 / 260.0
041	4098.1	840.0	174.5	36.0 / 235.0
046	4595.0	840.0	176.2	12.0 / 205.0
051	5097.6	840.0	179.1	80.0 / 26.0
056	5597.1	627.0	180.1	150.0 / 14.0
062	6162.9	627.0	182.4	50.0 / 19.0

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
Mingo Swamp				
575	57450.2	2793.0	172.8	439.0 / 211.0
581	58134.3	2747.0	173.5	478.0 / 268.0
588	58803.3	2747.0	174.1	500.0 / 317.0
596	59582.6	2747.0	174.7	898.0 / 29.0
605	60511.4	2747.0	175.5	79.0 / 517.0
612	61155.2	2689.0	176.4	29.0 / 302.0
616	61571.3	2689.0	177.0	185.0 / 455.0
621	62143.9	2689.0	177.4	234.0 / 551.0
628	62753.8	2689.0	177.8	273.0 / 396.0
633	63253.2	2636.0	178.3	514.0 / 453.0
640	63985.7	2369.0	179.0	387.0 / 132.0
645	64482.3	2369.0	180.0	30.0 / 30.0
646	64554.3	2369.0	181.8	30.0 / 30.0
652	65236.6	2369.0	182.8	696.0 / 255.0
658	65802.2	2369.0	183.0	906.0 / 250.0
664	66364.5	2369.0	183.1	839.0 / 26.0
672	67164.1	2369.0	183.5	1160.0 / 26.0
678	67763.1	2344.0	183.7	1069.0 / 26.0
679	67865.1	2344.0	183.6	312.0 / 26.0
684	68376.1	2344.0	185.0	600.0 / 500.0
692	69191.3	2070.0	185.8	90.0 / 493.0
699	69857.0	2070.0	186.2	366.0 / 148.0
705	70490.5	2070.0	186.8	297.0 / 227.0
712	71177.8	2070.0	187.8	247.0 / 222.0
719	71910.8	2070.0	188.7	246.0 / 377.0
725	72543.6	2070.0	189.4	158.0 / 413.0
732	73158.2	2070.0	190.2	466.0 / 217.0
739	73936.5	1995.0	191.3	616.0 / 23.0
745	74531.0	1995.0	192.5	506.0 / 56.0
749	74928.3	1995.0	193.0	55.0 / 55.0
750	74975.3	1995.0	193.5	55.0 / 55.0
754	75449.2	1995.0	194.1	353.0 / 170.0
761	76107.7	1995.0	194.9	121.0 / 399.0
766	76614.9	1995.0	195.5	44.0 / 44.0
767	76747.9	1995.0	196.1	44.0 / 44.0
773	77348.9	1931.0	197.0	243.0 / 221.0
781	78099.4	1931.0	197.7	275.0 / 327.0
788	78842.0	1931.0	198.9	62.0 / 103.0
795	79486.3	1931.0	200.5	251.0 / 402.0
802	80220.1	1931.0	201.0	428.0 / 379.0
812	81184.5	1931.0	201.7	35.0 / 35.0
812	81215.5	1878.0	202.0	35.0 / 35.0
814	81369.9	1878.0	202.4	36.0 / 36.0
814	81439.9	1878.0	202.9	36.0 / 36.0
817	81736.9	1878.0	203.5	33.0 / 33.0

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
Mingo Swamp				
818	81776.9	1878.0	204.3	33.0 / 33.0
824	82421.9	1467.0	205.0	321.0 / 375.0
828	82783.5	1467.0	205.1	371.0 / 146.0
832	83162.1	1467.0	205.2	378.0 / 73.0
836	83627.7	1467.0	205.5	241.0 / 191.0
841	84079.3	1467.0	205.9	148.0 / 163.0
845	84485.7	1467.0	206.4	188.0 / 88.0
850	84974.2	1467.0	207.1	128.0 / 304.0
854	85440.1	1467.0	207.6	226.0 / 303.0
859	85880.5	1467.0	208.4	217.0 / 120.0
863	86334.0	1467.0	209.5	241.0 / 161.0
867	86706.6	1467.0	210.2	228.0 / 119.0
870	87016.9	1467.0	210.5	473.0 / 146.0
874	87356.5	1467.0	210.8	217.0 / 197.0
877	87674.1	1467.0	211.5	157.0 / 210.0
880	88028.2	1467.0	212.1	67.0 / 310.0
885	88468.9	1467.0	213.0	181.0 / 222.0
888	88839.6	1467.0	213.8	267.0 / 131.0
894	89420.3	1467.0	214.6	248.0 / 292.0
900	90027.3	1467.0	215.4	133.0 / 171.0
907	90688.5	1467.0	216.5	367.0 / 19.0
913	91262.5	1467.0	217.4	185.0 / 51.0
917	91745.1	1467.0	218.2	29.0 / 29.0
918	91802.1	1467.0	219.1	29.0 / 29.0
920	91992.7	1467.0	219.6	201.0 / 301.0
923	92340.6	870.0	219.6	99.0 / 223.0
928	92758.2	870.0	219.8	58.0 / 257.0
932	93171.9	870.0	220.2	55.0 / 105.0
935	93497.2	870.0	220.9	46.0 / 161.0
940	93956.7	870.0	222.1	96.0 / 16.0
944	94397.8	870.0	223.7	108.0 / 68.0
950	94998.0	870.0	225.4	88.0 / 115.0
953	95267.6	870.0	226.2	107.0 / 106.0
957	95733.7	870.0	227.6	101.0 / 56.0
961	96148.6	870.0	229.0	106.0 / 97.0
966	96555.7	870.0	230.2	41.0 / 121.0
971	97062.9	870.0	231.7	86.0 / 207.0
977	97665.7	870.0	233.1	86.0 / 77.0
982	98185.2	870.0	234.7	238.0 / 28.0
986	98550.6	870.0	235.7	142.0 / 46.0
991	99122.5	870.0	236.7	251.0 / 72.0
996	99561.5	870.0	237.6	111.0 / 23.0
1000	100047.2	690.0	239.5	158.0 / 48.0
1005	100530.7	690.0	240.5	52.0 / 64.0
1009	100949.0	690.0	241.6	162.0 / 50.0

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
Mingo Swamp				
1012	101199.2	690.0	242.0	19.0 / 19.0
1013	101267.2	690.0	243.4	19.0 / 19.0
1018	101766.5	690.0	244.6	111.0 / 106.0
1022	102248.3	690.0	245.5	13.0 / 121.0
1028	102806.0	690.0	247.2	38.0 / 145.0
1032	103184.7	690.0	247.8	136.0 / 62.0
1037	103664.0	611.0	248.8	96.0 / 48.0
1040	104042.5	611.0	250.3	21.0 / 97.0
1045	104463.8	611.0	252.7	12.0 / 103.0
1050	104983.7	611.0	254.6	12.0 / 152.0
Mingo Swamp Tributary 2				
006	550.2	733.0	205.0 ¹	93.0 / 27.0
011	1060.7	733.0	206.6	53.0 / 19.0
015	1484.3	733.0	209.4	63.0 / 73.0
019	1874.7	733.0	211.5	50.0 / 55.0
020	1991.2	733.0	212.1	60.0 / 90.0
020	2049.2	733.0	214.0	60.0 / 90.0
023	2338.8	733.0	214.2	98.0 / 64.0
028	2837.2	733.0	215.2	78.0 / 4.0
034	3443.0	733.0	220.4	107.0 / 4.0
039	3918.8	733.0	223.5	75.0 / 50.0
042	4154.8	733.0	225.3	75.0 / 76.0
042	4210.8	733.0	227.4	75.0 / 76.0
047	4651.2	733.0	227.7	156.0 / 48.0
051	5100.2	733.0	228.1	78.0 / 162.0
056	5590.4	733.0	228.9	23.0 / 117.0
061	6124.7	733.0	231.5	4.0 / 138.0
065	6490.7	733.0	233.2	26.0 / 91.0
069	6902.6	733.0	235.4	58.0 / 66.0
073	7329.1	733.0	237.4	73.0 / 18.0
078	7828.4	541.0	239.9	58.0 / 21.0
082	8200.0	541.0	240.7	35.0 / 35.0
083	8273.0	541.0	241.8	35.0 / 35.0
087	8680.8	541.0	242.6	76.0 / 3.0
Moccasin Creek				
692	69216.5	3412.0	126.8	300.0 / 600.0
697	69708.9	3412.0	127.0	319.0 / 200.0
701	70099.3	3412.0	127.3	125.0 / 344.0
706	70572.2	3412.0	127.6	129.0 / 370.0
710	71010.7	3412.0	127.8	87.0 / 423.0
715	71467.9	3412.0	128.0	198.0 / 253.0
719	71894.8	3412.0	128.2	284.0 / 353.0
724	72354.0	3412.0	128.3	386.0 / 743.0
727	72732.8	3412.0	128.3	94.0 / 763.0
735	73471.1	3269.0	128.5	289.0 / 397.0

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
Moccasin Creek				
740	74017.9	3269.0	128.7	73.0 / 374.0
746	74605.5	3269.0	129.0	436.0 / 62.0
757	75729.4	3269.0	129.6	63.0 / 414.0
762	76241.8	3126.0	130.0	214.0 / 350.0
767	76730.1	3126.0	130.5	317.0 / 53.0
773	77315.1	3126.0	131.1	245.0 / 172.0
778	77833.4	3126.0	131.4	273.0 / 125.0
784	78358.6	3126.0	131.9	291.0 / 94.0
790	78988.2	2982.0	132.5	425.0 / 100.0
795	79538.9	2982.0	132.7	425.0 / 125.0
800	80049.1	2879.0	133.0	344.0 / 94.0
807	80691.5	2879.0	133.5	480.0 / 182.0
812	81192.5	2879.0	133.7	268.0 / 307.0
816	81606.7	2879.0	133.9	212.0 / 183.0
820	81986.8	2879.0	134.2	112.0 / 272.0
825	82539.9	2879.0	134.8	72.0 / 364.0
831	83130.1	2754.0	135.3	180.0 / 160.0
836	83633.4	2754.0	135.8	329.0 / 50.0
841	84120.3	2754.0	136.2	103.0 / 125.0
847	84717.3	2754.0	136.9	141.0 / 40.0
852	85230.8	2754.0	137.7	258.0 / 101.0
858	85757.3	2594.0	138.5	213.0 / 132.0
863	86320.7	2547.0	139.1	400.0 / 149.0
867	86691.8	2547.0	139.1	20.0 / 18.0
Moccasin Creek				
159	15923.9	17900.0	152.1	3106.0 / 737.0
186	18609.0	17800.0	152.2	3407.0 / 1180.0
196	19593.3	9929.0	152.2	2311.0 / 974.0
220	21971.1	9618.0	152.2	1975.0 / 818.0
229	22946.7	9618.0	152.2	1253.0 / 1081.0
243	24339.1	9618.0	152.2	1031.0 / 842.0
255	25517.7	9618.0	152.2	564.0 / 1774.0
265	26482.2	9618.0	152.2	704.0 / 1863.0
285	28526.7	9504.0	152.2	750.0 / 885.0
296	29592.3	9504.0	152.9	729.0 / 200.0
315	31526.9	9420.0	157.5	41.0 / 180.0
321	32112.0	9420.0	158.1	291.0 / 323.0
323	32272.9	9420.0	158.2	691.0 / 326.0
330	33001.3	9321.0	158.3	706.0 / 223.0
336	33636.3	9321.0	158.4	680.0 / 421.0
344	34373.4	9321.0	158.6	679.0 / 550.0
350	35044.4	9321.0	158.7	701.0 / 313.0
357	35691.6	9321.0	159.0	582.0 / 41.0
362	36235.8	9321.0	159.5	608.0 / 41.0
369	36885.7	9321.0	160.1	328.0 / 342.0

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
Moccasin Creek				
375	37489.5	9321.0	162.1	247.0 / 369.0
379	37864.0	9321.0	162.3	149.0 / 467.0
389	38865.7	9321.0	162.9	674.0 / 41.0
392	39248.8	9321.0	163.1	814.0 / 273.0
397	39749.5	9321.0	163.3	580.0 / 239.0
402	40202.8	9321.0	163.5	531.0 / 146.0
418	41752.4	8647.0	164.4	356.0 / 91.0
426	42577.0	8647.0	165.2	549.0 / 40.0
438	43817.0	8386.0	166.3	637.0 / 124.0
445	44470.3	8386.0	166.7	800.0 / 31.0
450	44987.4	8386.0	167.1	600.0 / 40.0
457	45702.3	8386.0	167.8	789.0 / 39.0
462	46214.2	8328.0	168.4	615.0 / 39.0
468	46759.7	8328.0	168.6	176.0 / 160.0
477	47661.9	8328.0	169.7	393.0 / 78.0
485	48510.3	8328.0	170.4	256.0 / 294.0
495	49476.4	8328.0	171.3	460.0 / 480.0
504	50422.8	8328.0	171.9	30.0 / 500.0
518	51846.6	8320.0	173.5	312.0 / 223.0
525	52500.2	8320.0	174.1	104.0 / 453.0
530	52994.3	8320.0	174.6	393.0 / 630.0
545	54467.3	8320.0	175.6	691.0 / 66.0
550	54966.5	8320.0	176.0	687.0 / 99.0
556	55620.4	8310.0	176.6	654.0 / 124.0
561	56085.6	8310.0	177.1	886.0 / 326.0
570	56994.7	8310.0	177.7	316.0 / 74.0
575	57490.8	8310.0	178.8	572.0 / 317.0
581	58120.0	8310.0	179.4	379.0 / 585.0
587	58728.3	8310.0	179.8	770.0 / 243.0
594	59387.1	8310.0	180.4	593.0 / 527.0
599	59946.5	8310.0	181.1	58.0 / 419.0
606	60558.7	8300.0	182.4	512.0 / 54.0
611	61063.6	8300.0	183.0	621.0 / 191.0
617	61736.3	8300.0	183.4	413.0 / 38.0
623	62307.4	8300.0	184.1	305.0 / 38.0
627	62700.6	8300.0	184.7	72.0 / 59.0
631	63125.0	8300.0	185.5	149.0 / 49.0
637	63686.5	8290.0	186.2	360.0 / 57.0
649	64918.4	8290.0	187.6	51.0 / 208.0
653	65293.0	8290.0	187.9	61.0 / 86.0
659	65910.4	8290.0	188.5	57.0 / 52.0
664	66361.5	8290.0	189.3	96.0 / 55.0
668	66828.5	8290.0	190.0	373.0 / 38.0
671	67121.1	8290.0	190.2	342.0 / 83.0
676	67581.7	8290.0	190.4	299.0 / 38.0

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
Moccasin Creek				
686	68572.9	8250.0	191.2	231.0 / 85.0
693	69274.8	8250.0	191.7	108.0 / 182.0
696	69621.6	8250.0	192.3	413.0 / 114.0
700	69977.0	8250.0	192.4	263.0 / 101.0
703	70312.9	8250.0	192.7	251.0 / 37.0
706	70611.3	8250.0	192.9	206.0 / 73.0
713	71303.9	8210.0	196.6	240.0 / 240.0
717	71695.0	8210.0	196.6	260.0 / 260.0
721	72144.2	8210.0	196.6	210.0 / 514.0
727	72650.1	8210.0	196.6	113.0 / 700.0
732	73210.2	8210.0	196.8	240.0 / 730.0
739	73849.9	8210.0	196.9	412.0 / 671.0
743	74337.0	8210.0	197.0	464.0 / 587.0
746	74641.7	8210.0	197.1	51.0 / 699.0
752	75222.0	8210.0	197.3	377.0 / 287.0
758	75831.5	8210.0	197.5	488.0 / 312.0
762	76229.5	8180.0	197.7	639.0 / 423.0
772	77161.3	8180.0	198.0	704.0 / 269.0
775	77516.7	8180.0	198.2	703.0 / 310.0
779	77917.1	8180.0	198.3	609.0 / 632.0
784	78365.8	8180.0	198.4	671.0 / 795.0
791	79087.7	7990.0	198.7	603.0 / 749.0
796	79588.8	7990.0	198.9	83.0 / 650.0
805	80507.8	7990.0	199.7	646.0 / 305.0
811	81144.5	7990.0	200.2	792.0 / 262.0
819	81856.9	7990.0	200.7	691.0 / 262.0
823	82270.6	7990.0	201.1	566.0 / 395.0
828	82820.1	7990.0	202.0	872.0 / 396.0
838	83837.1	7990.0	203.6	893.0 / 130.0
843	84335.1	7990.0	204.1	894.0 / 98.0
848	84804.5	7990.0	204.7	1086.0 / 49.0
852	85192.3	7990.0	205.3	465.0 / 231.0
862	86178.7	7950.0	207.8	558.0 / 537.0
878	87839.0	7470.0	208.7	360.0 / 195.0
Moccasin Creek Tributary 1				
010	1020.8	2207.0	164.0 ¹	139.0 / 61.0
015	1507.5	2207.0	164.0 ¹	36.0 / 111.0
020	1985.4	2207.0	164.0	118.0 / 75.0
025	2464.8	2207.0	165.1	212.0 / 30.0
030	3048.6	2207.0	168.9	238.0 / 150.0
036	3592.9	2207.0	169.3	119.0 / 216.0
041	4110.0	1843.0	169.7	48.0 / 21.0
049	4878.3	1843.0	175.6	35.0 / 97.0
054	5393.7	1793.0	177.4	118.0 / 11.0
060	5973.0	1793.0	179.9	11.0 / 258.0

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
Moccasin Creek Tributary 1				
064	6398.8	1793.0	181.3	11.0 / 79.0
073	7265.8	1793.0	186.4	77.0 / 61.0
079	7906.8	1793.0	188.6	171.0 / 11.0
084	8363.3	1668.0	190.0	10.0 / 74.0
093	9276.5	1668.0	195.0	114.0 / 107.0
098	9779.6	1668.0	196.5	44.0 / 114.0
104	10425.1	1383.0	199.9	62.0 / 39.0
109	10905.8	1203.0	201.6	161.0 / 8.0
117	11745.6	1203.0	204.7	14.0 / 58.0
Moccasin Creek Tributary 2				
006	571.9	1086.0	166.0 ¹	19.0 / 27.0
009	923.4	1086.0	169.1	54.0 / 35.0
012	1210.5	1086.0	171.5	41.0 / 13.0
015	1546.5	1086.0	176.2	73.0 / 8.0
020	2019.6	1086.0	180.9	16.0 / 85.0
026	2638.3	1034.0	184.4	161.0 / 32.0
031	3124.9	1034.0	187.6	16.0 / 105.0
036	3613.6	1034.0	190.8	7.0 / 132.0
041	4076.9	1034.0	193.5	50.0 / 38.0
044	4363.4	944.0	195.9	36.0 / 74.0
047	4671.1	887.0	198.4	44.0 / 21.0
050	5029.8	887.0	202.4	63.0 / 7.0
055	5465.9	887.0	206.2	71.0 / 149.0
059	5857.3	887.0	207.3	15.0 / 84.0
064	6428.4	887.0	211.8	114.0 / 22.0
068	6848.0	887.0	214.0	54.0 / 66.0
Moccasin Swamp				
868	86830.7	2547.0	140.3	36.0 / 258.0
873	87322.7	2485.0	141.0	386.0 / 277.0
877	87716.3	2485.0	141.1	510.0 / 455.0
878	87761.8	2485.0	141.2	510.0 / 455.0
882	88215.8	2485.0	141.3	56.0 / 401.0
886	88604.1	2485.0	141.9	18.0 / 260.0
890	88995.5	2485.0	142.8	18.0 / 313.0
892	89207.1	2485.0	143.1	25.0 / 221.0
893	89265.4	2485.0	143.4	25.0 / 221.0
896	89600.0	2485.0	143.7	192.0 / 355.0
901	90072.0	2485.0	144.0	196.0 / 181.0
905	90537.4	2485.0	144.6	352.0 / 118.0
910	91000.0	2485.0	144.9	315.0 / 299.0
914	91413.7	2485.0	145.1	295.0 / 239.0
919	91940.7	2485.0	145.8	177.0 / 115.0
925	92539.8	1887.0	146.4	144.0 / 281.0
929	92884.4	1887.0	146.5	116.0 / 172.0
933	93252.7	1887.0	146.8	168.0 / 19.0

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
Moccasin Swamp				
936	93566.9	1887.0	147.2	113.0 / 27.0
937	93656.4	1887.0	150.9	113.0 / 34.0
939	93936.3	1887.0	151.0	277.0 / 122.0
944	94372.6	1887.0	151.1	135.0 / 158.0
950	94994.2	1887.0	151.3	78.0 / 361.0
952	95247.1	1887.0	151.3	207.0 / 350.0
955	95540.2	1478.0	151.4	143.0 / 193.0
956	95579.8	1478.0	151.4	143.0 / 193.0
960	96000.0	1478.0	151.6	114.0 / 111.0
963	96333.0	1478.0	151.8	183.0 / 22.0
967	96739.6	1478.0	152.3	76.0 / 84.0
971	97070.7	1478.0	152.7	41.0 / 84.0
973	97297.4	1478.0	152.9	80.0 / 19.0
977	97728.6	1478.0	153.8	18.0 / 25.0
983	98278.9	1478.0	154.9	162.0 / 20.0
986	98592.8	1478.0	155.3	18.0 / 19.0
993	99288.0	1478.0	156.5	18.0 / 64.0
998	99779.9	1478.0	157.1	18.0 / 19.0
1005	100500.5	1478.0	158.8	39.8 / 54.0
1010	101013.7	1310.0	159.9	80.0 / 130.0
1013	101270.6	1310.0	160.1	90.0 / 106.0
1015	101528.7	1310.0	160.5	23.0 / 38.0
1016	101615.0	1310.0	162.4	17.0 / 120.0
1019	101859.4	1310.0	162.7	18.0 / 163.0
1022	102226.9	1310.0	162.9	180.0 / 30.0
1028	102750.8	1310.0	163.4	155.0 / 27.0
1031	103066.9	1310.0	163.8	88.0 / 38.0
1033	103330.5	1310.0	169.2	88.0 / 38.0
1037	103658.2	1310.0	169.2	18.0 / 468.0
1042	104201.3	882.0	169.3	272.0 / 187.0
1047	104652.8	882.0	169.3	205.0 / 158.0
1052	105231.2	882.0	169.4	217.0 / 94.0
1055	105534.6	882.0	169.4	299.0 / 29.0
1057	105657.5	882.0	174.0	299.0 / 29.0
1058	105822.3	882.0	174.0	497.0 / 294.0
1060	105990.9	882.0	174.0	751.0 / 167.0
1061	106058.0	882.0	174.0	751.0 / 167.0
1063	106276.5	691.0	174.0	218.0 / 230.0
1066	106587.8	691.0	174.0	251.0 / 160.0
1070	107000.0	691.0	174.1	180.0 / 244.0
1075	107500.0	691.0	174.1	161.0 / 90.0
1078	107787.1	630.0	174.2	165.0 / 162.0
1081	108080.3	630.0	174.4	206.0 / 14.8
1081	108123.2	630.0	174.4	206.0 / 13.8
1085	108455.4	630.0	174.6	143.0 / 130.0

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
Moccasin Swamp				
1088	108758.7	630.0	174.7	56.0 / 330.0
1091	109110.9	630.0	174.9	269.0 / 383.0
Neuse River Tributary 1				
006	562.5	852.0	137.8 ¹	27.6 / 20.2
008	760.2	852.0	137.8 ¹	11.1 / 21.4
009	943.5	852.0	137.8 ¹	3.6 / 13.2
015	1467.0	852.0	137.8 ¹	32.6 / 4.6
017	1701.6	852.0	137.8 ¹	20.4 / 29.9
021	2103.9	852.0	137.8 ¹	6.6 / 33.5
025	2488.9	852.0	137.8 ¹	23.5 / 29.9
030	2985.1	852.0	140.9	89.9 / 6.6
035	3494.4	745.0	144.7	91.4 / 4.0
040	3953.3	745.0	147.7	49.4 / 10.3
042	4247.4	745.0	149.9	14.3 / 19.2
046	4566.4	745.0	152.9	31.3 / 32.5
050	4976.8	745.0	154.9	86.6 / 7.3
054	5426.0	643.0	157.3	57.6 / 21.4
060	5999.1	643.0	163.6	41.9 / 9.1
066	6591.6	643.0	168.7	60.1 / 14.0
071	7141.7	643.0	173.3	34.8 / 20.0
075	7527.4	643.0	178.1	16.1 / 6.7
078	7807.0	610.0	182.2	33.8 / 18.2
081	8056.8	610.0	184.9	34.1 / 4.0
084	8352.3	610.0	189.2	49.4 / 8.4
087	8652.5	610.0	193.9	31.8 / 14.2
090	8993.8	610.0	197.9	31.1 / 7.7
092	9209.9	610.0	200.2	14.8 / 9.5
094	9376.0	610.0	212.2	14.8 / 9.5
097	9727.9	599.0	212.2	29.8 / 36.0
101	10101.1	599.0	212.3	35.6 / 42.9
103	10309.6	599.0	212.5	23.8 / 51.5
105	10460.9	599.0	213.3	37.5 / 4.8
106	10628.3	599.0	215.4	24.3 / 22.7
108	10794.4	599.0	217.4	24.8 / 32.7
111	11072.5	569.0	219.8	13.5 / 41.6
111	11115.5	569.0	221.1	23.5 / 46.6
116	11553.8	569.0	223.2	37.8 / 23.7
121	12136.6	569.0	228.6	44.4 / 66.6
126	12564.7	569.0	229.5	84.0 / 67.7
130	12997.6	569.0	230.6	54.0 / 125.2
136	13621.5	496.0	231.3	122.4 / 86.5
Neuse River Tributary 2				
002	162.2	1297.0	142.3 ¹	12.9 / 24.0
007	708.5	1297.0	142.3 ¹	84.3 / 15.6
013	1347.5	1297.0	142.3 ¹	25.6 / 300.8

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
Neuse River Tributary 2				
017	1737.6	1297.0	142.3 ¹	11.8 / 11.8
021	2148.2	1297.0	142.3 ¹	20.7 / 7.2
026	2594.8	1297.0	142.3 ¹	13.1 / 17.2
031	3088.6	1297.0	142.3 ¹	7.1 / 41.7
036	3594.4	1297.0	142.3 ¹	16.7 / 19.9
040	4014.9	1297.0	142.3 ¹	23.5 / 7.1
043	4317.2	1297.0	144.8	12.9 / 7.1
046	4648.0	816.0	148.1	12.0 / 12.0
052	5167.8	816.0	151.9	7.0 / 6.0
056	5591.1	816.0	157.0	28.1 / 24.0
057	5730.8	816.0	157.6	6.0 / 16.0
059	5886.2	816.0	161.1	6.0 / 10.0
060	5992.3	816.0	163.9	10.5 / 6.5
061	6066.8	816.0	170.4	25.0 / 23.0
065	6461.0	816.0	170.5	24.5 / 36.9
069	6870.5	816.0	172.3	27.0 / 36.2
071	7109.6	816.0	175.3	14.0 / 10.0
075	7451.6	761.0	179.7	29.3 / 6.0
078	7756.5	734.0	183.2	33.6 / 15.4
082	8214.8	734.0	185.5	19.7 / 44.2
Oak Creek				
013	1274.6	2179.0	109.4	500.0 / 200.0
018	1828.4	2179.0	109.8	500.0 / 200.0
023	2258.9	2179.0	110.3	302.0 / 250.0
031	3141.9	2179.0	111.0	35.0 / 445.0
043	4313.9	2179.0	115.3	221.0 / 149.0
048	4765.3	2179.0	115.5	249.0 / 95.0
052	5244.7	2179.0	115.7	242.0 / 100.0
062	6150.0	1604.0	116.4	220.0 / 200.0
067	6692.0	1604.0	117.0	200.0 / 140.0
071	7131.6	1604.0	117.9	297.0 / 100.0
077	7668.2	1604.0	119.2	287.0 / 150.0
082	8242.0	1604.0	120.2	180.0 / 220.0
088	8801.0	1604.0	121.0	129.0 / 158.0
092	9183.1	1407.0	121.7	120.0 / 185.0
101	10053.3	1407.0	124.4	267.0 / 103.0
105	10546.9	1407.0	124.6	250.0 / 130.0
111	11067.8	1407.0	125.0	200.0 / 211.0
117	11687.5	1407.0	126.6	216.0 / 177.0
121	12129.4	1158.0	127.9	180.0 / 80.0
129	12921.6	1158.0	131.1	155.0 / 185.0
135	13478.4	1158.0	132.1	100.0 / 200.0
139	13942.7	900.0	134.0	12.0 / 108.0
146	14614.5	900.0	136.2	191.0 / 17.0
150	15015.7	900.0	139.5	91.0 / 12.0

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
Oak Creek				
155	15499.5	900.0	143.2	210.0 / 12.0
161	16065.7	900.0	143.4	177.0 / 25.0
165	16527.3	625.0	143.7	100.0 / 62.0
171	17079.0	625.0	146.3	47.0 / 9.0
181	18057.1	625.0	152.0	75.0 / 54.0
Oak Creek Tributary				
006	556.9	1022.0	116.0 ¹	107.0 / 136.0
011	1068.4	1022.0	116.8	55.0 / 106.0
018	1829.1	1022.0	118.7	170.0 / 120.0
023	2303.6	964.0	120.0	170.0 / 12.0
028	2822.6	964.0	122.1	82.0 / 98.0
032	3221.5	964.0	123.4	35.0 / 133.0
037	3701.2	964.0	125.6	80.0 / 19.0
042	4247.9	964.0	127.3	26.0 / 149.0
048	4826.9	735.0	128.1	135.0 / 14.0
053	5310.4	735.0	128.8	87.0 / 86.0
057	5731.0	735.0	130.0	14.0 / 75.0
064	6444.2	735.0	133.1	14.0 / 153.0
Pole Branch				
016	1570.6	1220.0	144.5 ¹	18.0 / 222.0
020	2000.0	1220.0	144.5 ¹	161.0 / 28.0
025	2466.0	1220.0	144.5	107.0 / 31.0
030	2952.4	1220.0	145.7	132.0 / 53.0
035	3470.5	1183.0	146.6	142.0 / 17.0
040	4029.0	1183.0	147.8	106.0 / 55.0
045	4469.5	1183.0	148.7	85.0 / 31.0
056	5624.0	1183.0	154.0	220.0 / 17.0
060	5992.7	1116.0	154.1	249.0 / 17.0
063	6338.9	1116.0	154.3	187.0 / 17.0
070	6986.0	1116.0	154.6	17.0 / 241.0
075	7486.0	1116.0	154.9	33.0 / 143.0
080	7986.0	1116.0	155.5	176.0 / 18.0
085	8462.9	1116.0	156.0	140.0 / 71.0
090	8974.5	1116.0	156.4	203.0 / 144.0
095	9479.3	949.0	157.0	154.0 / 17.0
100	9979.3	949.0	158.7	46.0 / 20.0
105	10479.3	949.0	160.5	121.0 / 15.0
110	10979.3	949.0	161.5	42.0 / 15.0
115	11479.3	895.0	163.2	39.0 / 15.0
129	12947.4	848.0	165.5	22.0 / 64.0
134	13447.4	718.0	166.5	13.0 / 191.0
139	13947.4	718.0	167.6	13.0 / 47.0
Polecat Branch				
269	26855.0	1484.0	111.4 ¹	133.0 / 260.0
275	27460.0	1484.0	111.4 ¹	288.0 / 57.0

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
Polecat Branch				
280	27982.0	1484.0	111.4 ¹	244.0 / 145.0
286	28599.0	1250.0	111.8	283.0 / 17.0
291	29092.0	1250.0	112.9	52.0 / 28.0
297	29728.0	1250.0	115.7	17.0 / 96.0
303	30327.0	1250.0	116.5	207.0 / 114.0
315	31506.0	1250.0	121.3	129.0 / 196.0
320	31978.0	1250.0	121.3	171.0 / 197.0
326	32560.0	1250.0	121.4	221.0 / 52.0
330	32999.0	1250.0	121.6	40.0 / 186.0
336	33612.0	1250.0	122.1	104.0 / 98.0
341	34118.0	1250.0	122.7	143.0 / 124.0
347	34682.0	1250.0	123.4	194.0 / 47.0
353	35325.0	1250.0	124.1	25.0 / 239.0
360	35960.0	1250.0	125.0	99.0 / 124.0
365	36486.0	947.0	125.7	204.0 / 15.0
375	37544.0	947.0	127.8	106.0 / 15.0
382	38152.0	947.0	129.2	73.0 / 39.0
388	38760.0	947.0	130.2	86.0 / 15.0
392	39225.0	947.0	131.0	68.0 / 26.0
398	39809.0	883.0	132.3	90.0 / 14.0
400	39968.0	947.0	126.3	120.0 / 15.0
403	40319.0	883.0	133.2	211.0 / 14.0
409	40915.0	883.0	134.0	158.0 / 68.0
414	41411.0	883.0	134.9	22.0 / 106.0
419	41911.0	883.0	136.1	106.0 / 14.0
425	42453.0	706.0	137.1	99.0 / 36.0
Poplar Creek				
283	28318.6	2420.0	195.2	40.0 / 49.9
285	28536.2	694.0	195.6	70.0 / 75.0
287	28715.6	694.0	195.6	70.0 / 75.0
293	29299.6	694.0	195.6	28.6 / 50.3
297	29709.8	694.0	196.8	30.3 / 56.8
301	30132.5	694.0	199.3	7.2 / 64.5
305	30500.0	694.0	201.5	7.2 / 71.4
310	30961.8	694.0	204.4	35.3 / 34.8
314	31408.4	662.0	208.0	58.4 / 11.8
317	31682.0	662.0	208.9	29.0 / 14.0
319	31869.7	662.0	210.9	20.0 / 20.0
321	32116.6	662.0	211.5	36.4 / 11.6
326	32588.0	538.0	216.0	69.5 / 6.2
331	33128.8	538.0	219.1	6.0 / 52.6
335	33500.0	538.0	222.2	33.6 / 56.1
340	33957.0	538.0	224.3	9.4 / 70.9
340	33983.9	538.0	224.3	9.4 / 70.9
340	34013.8	538.0	224.3	15.4 / 70.9

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
Poplar Creek				
345	34500.0	489.0	227.3	26.0 / 53.3
351	35096.8	489.0	230.5	44.1 / 37.0
353	35252.1	489.0	237.0	46.1 / 102.0
358	35766.7	489.0	237.0	63.7 / 80.0
Quincosin Swamp				
012	1235.4	2283.0	110.4 ¹	59.0 / 218.0
017	1656.4	2283.0	110.4 ¹	212.0 / 182.0
022	2166.8	2259.0	110.5	82.0 / 275.0
026	2623.3	2259.0	111.0	81.0 / 244.0
031	3080.4	2259.0	111.8	240.0 / 74.0
037	3653.5	2259.0	113.0	141.0 / 94.0
041	4135.4	2075.0	113.9	33.0 / 297.0
047	4735.8	2075.0	117.5	220.0 / 311.0
050	5018.2	2075.0	117.6	193.0 / 212.0
054	5407.8	2075.0	117.7	257.0 / 151.0
064	6381.2	2075.0	118.1	255.0 / 146.0
070	7002.7	2075.0	118.6	161.0 / 234.0
076	7554.4	1883.0	119.4	400.0 / 55.0
081	8097.8	1883.0	120.4	195.0 / 112.0
086	8577.1	1883.0	121.5	157.0 / 132.0
090	9045.6	1883.0	122.2	143.0 / 200.0
095	9509.8	1883.0	123.1	41.0 / 111.0
100	10009.4	1883.0	124.5	256.0 / 70.0
105	10468.5	1883.0	125.5	47.0 / 133.0
110	10994.6	1883.0	126.4	228.0 / 43.0
115	11457.1	1883.0	127.0	129.0 / 159.0
120	12006.8	1680.0	127.9	116.0 / 129.0
125	12545.9	1680.0	128.8	214.0 / 15.0
131	13065.2	1680.0	130.5	129.0 / 15.0
136	13595.5	1680.0	132.2	120.0 / 15.0
145	14490.8	1680.0	134.3	25.0 / 150.0
150	15033.2	1680.0	134.6	200.0 / 95.0
156	15608.5	1680.0	134.9	171.0 / 14.0
162	16160.6	1468.0	135.4	140.0 / 101.0
167	16691.1	1468.0	135.8	143.0 / 23.0
171	17107.0	1468.0	136.3	161.0 / 153.0
177	17664.0	1468.0	136.7	250.0 / 14.0
184	18427.3	1468.0	138.1	83.0 / 87.0
Reedy Creek				
008	836.8	928.0	139.5 ¹	138.0 / 172.0
011	1068.8	928.0	139.5 ¹	15.0 / 527.0
014	1423.2	928.0	139.5 ¹	85.0 / 275.0
022	2238.3	928.0	140.7	210.0 / 15.0
026	2621.9	928.0	141.1	127.0 / 86.0
030	2962.3	928.0	141.9	42.0 / 108.0

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
Reedy Creek				
034	3398.5	873.0	143.0	36.0 / 79.0
039	3860.3	873.0	143.7	141.0 / 61.0
044	4386.5	873.0	144.5	53.0 / 60.0
049	4912.4	873.0	146.1	104.0 / 25.0
054	5379.5	873.0	147.8	55.0 / 52.0
058	5811.7	812.0	149.2	115.0 / 14.0
062	6232.9	812.0	150.4	85.0 / 26.0
066	6566.2	812.0	151.4	28.0 / 46.0
069	6949.1	812.0	153.2	14.0 / 108.0
076	7614.0	740.0	157.6	188.0 / 160.0
081	8149.7	740.0	157.6	14.0 / 93.0
087	8729.7	669.0	161.5	44.0 / 13.0
092	9179.8	669.0	162.8	71.0 / 44.0
Reedy Prong				
007	739.9	2333.0	139.0 ¹	77.0 / 61.0
012	1166.2	2205.0	141.7	257.0 / 85.0
014	1423.7	2205.0	141.9	120.0 / 76.0
019	1865.4	2205.0	142.7	175.0 / 50.0
024	2377.4	2205.0	143.5	154.0 / 150.0
029	2864.2	2181.0	144.4	101.0 / 189.0
034	3430.0	2181.0	145.4	124.0 / 160.0
039	3878.2	2181.0	146.2	112.0 / 173.0
043	4335.7	2181.0	147.4	86.0 / 272.0
050	5031.6	1275.0	149.3	143.0 / 68.0
055	5503.9	1275.0	150.8	171.0 / 20.0
Reedy Prong Tributary				
004	361.9	1459.0	149.6 ¹	25.0 / 225.0
009	909.4	1431.0	149.7	25.0 / 229.0
014	1408.9	1431.0	151.1	14.0 / 216.0
019	1939.1	1197.0	154.8	14.0 / 137.0
022	2222.3	1197.0	161.7	100.0 / 100.0
Sams Creek				
030	2960.4	1859.0	154.4 ¹	52.4 / 16.4
037	3724.1	1859.0	155.0	16.4 / 16.3
043	4287.6	1859.0	158.8	16.4 / 16.3
050	4977.2	1301.0	163.3	13.4 / 113.8
056	5579.1	1301.0	166.2	10.0 / 30.0
061	6142.0	1301.0	170.6	89.7 / 18.1
069	6862.8	1301.0	173.8	13.5 / 41.8
074	7365.6	1301.0	175.9	32.1 / 13.4
075	7517.9	1301.0	181.1	15.0 / 12.0
082	8213.2	1301.0	182.8	15.3 / 15.1
087	8745.6	1168.0	185.7	14.4 / 14.4
093	9305.5	1168.0	190.4	46.0 / 8.0
099	9901.4	1168.0	196.4	96.5 / 14.4

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
Sams Creek				
108	10766.0	995.0	200.9	118.0 / 5.7
112	11222.7	995.0	204.9	48.7 / 16.1
Snipes Creek				
015	1486.2	2301.0	203.7 ¹	18.0 / 540.0
021	2145.1	2301.0	203.7 ¹	18.0 / 337.0
027	2735.0	2301.0	203.7 ¹	18.0 / 337.0
033	3287.2	2301.0	203.7 ¹	18.0 / 347.0
040	3955.7	2301.0	203.7 ¹	230.0 / 119.0
044	4448.3	2301.0	203.7 ¹	113.0 / 130.0
050	4990.5	2301.0	204.8	246.0 / 68.0
056	5555.7	2301.0	206.0	367.0 / 18.0
061	6111.6	2301.0	207.2	221.0 / 46.0
066	6614.1	2301.0	208.3	47.0 / 302.0
071	7071.2	2301.0	209.2	42.0 / 194.0
076	7569.7	2301.0	210.5	182.0 / 72.0
082	8162.2	2301.0	211.6	18.0 / 257.0
088	8779.4	2301.0	213.4	104.0 / 156.0
093	9315.2	2301.0	214.8	141.0 / 92.0
099	9859.7	2091.0	215.8	215.0 / 119.0
106	10614.4	2091.0	217.1	46.0 / 271.0
114	11365.2	2091.0	218.8	120.0 / 98.0
119	11904.4	2091.0	219.9	71.0 / 126.0
125	12500.0	2091.0	221.5	61.0 / 204.0
131	13093.9	2091.0	223.1	55.0 / 136.0
136	13591.8	2091.0	225.1	217.0 / 17.0
141	14088.0	2091.0	226.3	219.0 / 75.0
146	14633.2	2091.0	227.5	221.0 / 17.0
151	15126.5	2091.0	229.0	75.0 / 85.0
162	16168.4	1499.0	233.0	191.0 / 143.0
167	16738.8	1499.0	233.6	112.0 / 35.0
174	17401.2	1499.0	236.2	111.0 / 75.0
180	18023.7	1499.0	238.3	14.0 / 133.0
185	18500.0	1499.0	240.9	31.0 / 84.0
190	19008.0	1499.0	243.4	37.0 / 112.0
196	19556.7	1499.0	245.2	120.0 / 49.0
200	20000.0	1499.0	246.8	111.0 / 14.0
205	20500.0	1499.0	249.5	135.0 / 14.0
210	21035.5	1499.0	251.3	167.0 / 14.0
216	21559.5	1499.0	252.8	91.0 / 121.0
220	22000.0	1248.0	253.9	116.0 / 80.0
225	22541.6	1248.0	255.4	181.0 / 13.0
230	23000.0	1248.0	256.9	128.0 / 38.0
236	23595.1	1248.0	259.1	151.0 / 13.0
240	24000.0	1248.0	260.6	34.0 / 154.0
246	24551.8	1248.0	262.3	92.0 / 44.0

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
Snipes Creek				
250	25000.0	1248.0	264.0	13.0 / 89.0
255	25500.0	1248.0	266.2	13.0 / 106.0
260	26000.0	1248.0	268.2	81.0 / 57.0
266	26588.2	1248.0	270.8	118.0 / 10.0
270	27000.0	1248.0	272.9	51.0 / 100.0
275	27500.0	1248.0	276.0	135.0 / 56.0
281	28051.0	723.0	279.1	65.0 / 15.0
283	28349.0	723.0	280.6	30.0 / 70.0
291	29136.4	723.0	285.2	17.0 / 43.0
Spring Branch				
035	3545.0	3380.0	121.9 ¹	53.0 / 666.0
041	4079.6	3380.0	121.9 ¹	7.0 / 432.0
045	4518.8	3380.0	121.9 ¹	15.0 / 428.0
050	5001.1	3380.0	121.9 ¹	19.0 / 321.0
060	5980.6	3380.0	123.7	149.0 / 526.0
065	6482.4	3380.0	123.8	170.0 / 425.0
075	7517.9	3380.0	125.1	133.0 / 234.0
080	8020.5	3380.0	125.9	303.0 / 136.0
085	8480.8	3380.0	127.1	301.0 / 77.0
096	9592.3	2690.0	129.9	19.0 / 318.0
101	10061.4	2690.0	130.8	73.0 / 155.0
105	10539.1	2690.0	131.6	125.0 / 50.0
110	11032.7	2690.0	133.6	150.0 / 140.0
116	11555.4	2690.0	136.0	200.0 / 190.0
123	12249.5	2690.0	136.8	234.0 / 140.0
132	13176.7	2690.0	139.3	30.0 / 50.0
135	13500.0	2690.0	141.3	225.0 / 72.0
141	14081.6	2690.0	142.0	207.0 / 39.0
144	14448.4	2690.0	142.7	159.0 / 65.0
151	15051.3	2690.0	143.8	195.0 / 171.0
157	15687.7	2690.0	145.0	204.0 / 190.0
165	16453.7	2690.0	146.0	220.0 / 128.0
170	16967.4	2690.0	146.8	217.0 / 118.0
178	17778.6	2530.0	148.3	200.0 / 232.0
185	18500.0	2530.0	149.4	50.0 / 441.0
192	19233.7	2530.0	150.2	18.0 / 598.0
199	19939.2	2530.0	151.1	40.0 / 350.0
202	20166.4	2530.0	151.7	57.0 / 359.0
207	20721.4	2530.0	152.9	142.0 / 240.0
220	22028.4	2530.0	155.9	240.0 / 14.0
225	22500.0	2530.0	157.6	321.0 / 18.0
231	23088.2	2530.0	158.9	345.0 / 20.0
236	23625.4	2530.0	159.7	229.0 / 71.0
243	24286.5	2310.0	160.7	293.0 / 45.0
248	24832.6	2020.0	161.6	253.0 / 181.0

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
Spring Branch				
256	25592.4	2020.0	163.0	206.0 / 119.0
261	26068.9	2020.0	163.5	204.0 / 117.0
265	26542.0	2020.0	164.1	224.0 / 53.0
270	27030.5	2020.0	165.3	97.0 / 149.0
278	27757.7	1200.0	167.7	13.0 / 101.0
284	28402.4	1200.0	171.0	47.0 / 39.0
291	29083.4	1200.0	174.2	70.0 / 68.0
302	30216.4	1200.0	178.9	118.0 / 66.0
309	30929.9	1200.0	180.8	14.0 / 109.0
316	31647.5	1200.0	182.9	135.0 / 31.0
326	32571.5	1200.0	185.0	48.0 / 134.0
332	33207.7	1200.0	186.2	79.0 / 92.0
340	34023.1	1200.0	188.0	70.0 / 108.0
345	34470.9	874.0	189.2	227.0 / 13.0
351	35111.0	874.0	190.9	12.0 / 147.0
358	35777.2	874.0	193.5	12.0 / 117.0
364	36445.7	874.0	198.2	36.0 / 22.0
370	37049.3	874.0	204.1	24.0 / 105.0
377	37711.4	874.0	208.8	15.0 / 103.0
383	38305.7	874.0	213.8	112.0 / 22.0
Spring Branch Tributary 1				
005	543.7	1290.0	131.4	14.0 / 207.0
010	1017.2	1290.0	134.1	164.0 / 14.0
016	1598.7	1290.0	137.2	13.0 / 122.0
022	2189.2	1290.0	140.5	167.0 / 13.0
029	2944.1	1290.0	144.9	60.0 / 69.0
036	3566.2	1110.0	147.9	138.0 / 18.0
043	4274.5	1110.0	150.4	283.0 / 13.0
053	5250.4	1110.0	155.3	259.0 / 114.0
060	6004.0	1110.0	157.6	419.0 / 273.0
066	6576.0	1110.0	160.9	168.0 / 17.0
070	7033.0	1110.0	162.8	65.0 / 13.0
076	7575.6	1110.0	166.0	96.0 / 77.0
080	8028.8	1110.0	167.8	23.0 / 55.0
084	8396.1	1110.0	169.3	13.0 / 222.0
090	9043.4	1110.0	171.3	85.0 / 63.0
101	10096.3	777.0	176.1	244.0 / 73.0
106	10595.1	777.0	176.5	115.0 / 42.0
110	11000.0	777.0	177.3	78.0 / 100.0
115	11457.2	777.0	178.2	103.0 / 12.0
120	11988.0	777.0	180.6	82.0 / 12.0
126	12580.6	777.0	183.0	80.0 / 46.0
131	13070.2	777.0	185.1	12.0 / 116.0
135	13534.8	777.0	187.0	77.0 / 73.0
144	14391.9	777.0	190.9	29.0 / 40.0

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
Spring Branch Tributary 1				
150	14957.3	777.0	194.9	45.0 / 61.0
155	15525.8	777.0	197.3	32.0 / 116.0
160	16025.5	777.0	199.6	73.0 / 24.0
166	16568.8	777.0	202.4	65.0 / 46.0
170	16959.7	777.0	204.2	33.0 / 67.0
175	17534.8	777.0	207.8	60.0 / 12.0
181	18084.9	777.0	211.2	129.0 / 12.0
Stone Creek				
091	9088.2	2957.0	108.5	409.7 / 393.0
102	10200.5	2496.0	108.8	97.0 / 768.4
108	10782.5	2496.0	109.2	230.2 / 553.7
113	11251.1	2496.0	109.6	260.1 / 201.6
117	11744.8	2496.0	110.2	332.9 / 28.4
126	12609.0	2496.0	110.9	452.7 / 138.0
135	13481.5	2496.0	111.3	171.1 / 612.1
139	13940.8	2464.0	111.6	493.2 / 115.6
144	14438.9	2464.0	111.9	239.3 / 433.0
149	14949.0	2464.0	112.2	79.5 / 694.2
154	15435.5	2464.0	112.6	21.6 / 748.3
159	15937.6	2464.0	113.0	21.6 / 687.0
165	16454.9	2464.0	113.4	21.6 / 580.5
169	16909.3	2365.0	113.8	20.8 / 518.7
178	17824.4	2365.0	114.6	20.7 / 277.4
184	18408.2	2365.0	115.3	20.8 / 540.8
189	18932.3	2365.0	115.8	24.2 / 234.0
190	19033.7	2365.0	115.8	90.0 / 93.0
191	19078.7	2365.0	116.5	140.0 / 143.0
197	19734.9	2365.0	117.2	336.7 / 224.4
203	20279.4	2365.0	117.3	404.1 / 305.2
207	20740.5	2365.0	117.5	246.7 / 799.9
213	21285.3	2365.0	117.8	20.8 / 729.8
216	21575.4	2365.0	118.1	20.8 / 744.5
222	22166.8	1708.0	118.6	15.8 / 445.8
226	22576.9	1708.0	119.0	15.8 / 552.5
233	23269.5	1708.0	119.7	56.4 / 442.3
239	23933.7	1708.0	120.6	15.8 / 490.8
244	24404.4	1708.0	121.1	36.3 / 536.8
248	24820.9	1708.0	121.5	15.8 / 440.7
254	25352.9	1708.0	122.2	15.8 / 425.8
259	25882.8	1708.0	122.9	117.6 / 341.5
268	26816.6	1626.0	123.7	149.3 / 277.9
275	27470.9	1626.0	124.4	136.0 / 15.3
280	28040.6	1626.0	126.4	72.2 / 119.1
282	28151.2	1626.0	126.5	31.1 / 31.0
282	28190.2	1626.0	127.1	31.1 / 31.0

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
Stone Creek				
289	28949.8	1626.0	127.6	133.7 / 124.0
295	29542.6	1626.0	127.9	410.9 / 87.0
300	30021.3	1626.0	128.2	438.5 / 27.2
306	30580.2	1626.0	128.7	299.5 / 47.4
310	31041.3	1626.0	129.3	455.5 / 15.2
316	31562.5	1626.0	130.0	372.1 / 14.2
322	32177.5	1463.0	130.8	381.2 / 14.2
327	32680.9	1463.0	131.4	298.2 / 22.2
331	33146.6	1463.0	132.1	217.0 / 84.8
337	33719.7	1463.0	133.0	106.5 / 224.9
341	34078.3	1463.0	133.3	394.3 / 41.9
346	34626.8	1463.0	134.0	151.1 / 14.2
351	35103.3	1463.0	134.9	203.1 / 129.6
356	35584.6	1463.0	135.6	165.9 / 14.2
361	36130.6	1463.0	136.5	278.8 / 14.2
367	36690.7	1463.0	137.4	151.7 / 167.6
372	37244.3	1340.0	138.3	118.6 / 13.4
374	37370.2	1340.0	138.7	21.0 / 21.0
374	37426.2	1340.0	139.7	21.0 / 21.0
379	37902.8	1340.0	140.2	104.3 / 97.7
384	38362.6	1340.0	140.5	260.2 / 227.7
387	38743.4	1340.0	140.8	192.1 / 178.5
391	39134.9	1340.0	141.2	196.4 / 176.8
397	39657.4	1340.0	141.8	157.4 / 32.9
401	40130.6	1340.0	142.7	93.8 / 115.3
406	40638.3	1340.0	143.5	50.2 / 31.5
410	41000.1	1199.0	144.4	12.7 / 182.6
417	41674.3	1199.0	145.2	77.3 / 248.1
421	42145.4	1199.0	145.6	113.1 / 242.4
427	42723.7	1199.0	146.6	109.4 / 167.9
432	43180.2	1199.0	148.0	122.4 / 149.5
438	43753.4	1199.0	149.1	143.7 / 73.5
443	44278.7	1066.0	150.3	12.0 / 255.3
449	44905.6	1066.0	151.5	12.0 / 304.8
455	45486.9	1066.0	152.8	107.0 / 186.8
456	45562.5	1066.0	153.1	301.0 / 17.0
457	45680.6	1066.0	157.7	300.0 / 17.0
461	46059.6	1066.0	157.7	225.0 / 395.3
465	46530.3	1066.0	157.8	12.0 / 448.4
473	47296.7	578.0	157.9	82.5 / 202.9
478	47845.3	578.0	159.1	7.4 / 126.7
484	48372.2	578.0	162.9	7.4 / 118.0
490	48956.9	464.0	165.5	6.7 / 102.4
495	49532.6	464.0	170.2	9.3 / 49.9
496	49621.7	464.0	172.6	38.5 / 65.6

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
Stone Creek				
497	49711.7	464.0	180.9	58.5 / 65.6
504	50351.4	464.0	180.9	105.7 / 90.8
511	51053.1	464.0	180.9	83.3 / 66.6
516	51634.3	430.0	181.1	16.8 / 67.9
522	52198.5	430.0	182.3	10.0 / 40.0
523	52309.9	430.0	183.0	19.6 / 30.0
524	52369.9	430.0	183.2	10.0 / 30.1
526	52553.8	430.0	184.2	9.0 / 35.0
529	52896.6	430.0	186.6	11.5 / 11.5
531	53106.6	430.0	188.8	11.5 / 11.5
535	53531.3	308.0	191.7	9.0 / 9.6
540	53960.5	308.0	196.8	13.0 / 13.1
540	54012.9	308.0	205.2	170.0 / 135.0
541	54126.2	308.0	205.2	123.9 / 125.3
547	54656.2	308.0	205.2	80.4 / 145.0
552	55193.5	308.0	205.2	45.0 / 55.0
Stone Creek Tributary				
005	455.1	1350.0	157.8 ¹	56.0 / 96.0
010	981.7	1350.0	158.1	50.0 / 150.0
015	1531.4	933.0	160.6	100.0 / 20.0
019	1917.4	933.0	164.4	56.0 / 48.0
025	2540.5	933.0	166.4	12.0 / 175.0
031	3125.8	889.0	168.4	12.0 / 155.0
039	3940.6	889.0	174.2	12.0 / 305.0
044	4415.8	889.0	176.9	12.0 / 165.0
049	4948.8	773.0	179.0	16.0 / 260.0
055	5454.5	773.0	183.3	12.0 / 110.0
059	5931.2	773.0	185.4	15.0 / 200.0
Stony Fork				
144	14419.8	2532.0	153.0	375.0 / 335.0
150	15005.1	2532.0	153.2	380.0 / 130.0
157	15682.8	1413.0	153.5	300.0 / 75.0
161	16133.6	1413.0	153.9	178.0 / 26.0
165	16524.3	1413.0	154.6	79.0 / 59.0
177	17683.1	1413.0	157.6	25.0 / 152.0
183	18313.1	1101.0	158.1	55.0 / 175.0
189	18925.3	1101.0	158.6	65.0 / 40.0
194	19406.1	1101.0	160.7	128.0 / 12.0
200	19952.5	1101.0	162.3	118.0 / 16.0
204	20416.4	1101.0	164.0	109.0 / 12.0
Stony Fork Tributary				
006	557.7	1709.0	153.3 ¹	73.0 / 125.0
011	1091.8	1709.0	154.9	125.0 / 44.0
016	1584.5	1709.0	156.2	125.0 / 126.0
021	2081.4	1709.0	157.5	50.0 / 180.0

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
Stony Fork Tributary				
026	2577.2	1597.0	159.5	281.0 / 14.0
031	3061.5	1597.0	161.7	38.0 / 166.0
038	3833.1	1597.0	162.5	75.0 / 161.0
043	4340.6	1597.0	163.7	90.0 / 72.0
049	4890.4	1518.0	164.9	52.0 / 229.0
054	5379.4	1518.0	165.6	38.0 / 253.0
059	5876.5	1518.0	167.3	130.0 / 29.0
064	6393.1	1518.0	168.8	204.0 / 16.0
068	6811.0	1368.0	169.5	52.0 / 18.0
078	7837.5	1368.0	175.4	53.0 / 75.0
083	8343.8	1368.0	178.6	50.0 / 30.0
Swift Creek Tributary 3				
068	6827.6	220.0	124.7 ¹	12.4 / 9.0
069	6922.0	220.0	124.7 ¹	9.0 / 10.0
071	7050.4	220.0	125.2	23.3 / 45.9
073	7283.3	220.0	126.7	14.9 / 12.2
074	7387.5	220.0	127.5	5.7 / 9.0
075	7500.0	220.0	128.7	15.9 / 9.0
076	7619.0	220.0	129.4	9.0 / 9.0
077	7742.0	220.0	131.6	11.0 / 21.0
080	7970.6	220.0	134.7	11.0 / 21.0
081	8103.7	220.0	135.0	19.0 / 20.0
082	8222.6	220.0	137.0	8.0 / 11.0
083	8310.9	220.0	139.1	7.0 / 13.4
084	8410.7	220.0	140.2	7.0 / 29.8
086	8574.7	220.0	141.8	16.2 / 10.4
087	8710.7	220.0	142.8	7.0 / 50.6
089	8917.8	220.0	144.4	17.1 / 19.5
090	9010.7	220.0	146.7	43.2 / 7.0
093	9310.7	148.0	149.3	19.5 / 12.1
096	9610.7	148.0	152.1	10.5 / 7.0

¹Elevation includes backwater effects

5.3 Coastal Analyses

This section is not applicable to this FIS project.

Table 18 “Summary of Coastal Analyses” does not apply to Johnston County Mapping Methods.

Table 19 “Tide Gage analysis Specifics” does not apply to Johnson County Mapping Methods.

Table 20 “Coastal Transect Parameters” does not apply to Johnson County Mapping Methods.

Figure 5, "Coastal Transect Locator Map" is not applicable to Johnson County Mapping Methods.

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 Johnston 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 Johnston 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 21, "Datum Conversion Locations and Values," is shown below.

Table 21 - Datum Conversion Locations and Values

Latitude	Longitude	Conversion from NGVD29 to NAVD88 (feet)
35.50	-78.63	-0.84
35.75	-78.37	-0.96
35.75	-78.25	-0.99
35.62	-78.50	-0.89
35.63	-78.38	-0.95
35.63	-78.25	-1.00
35.50	-78.50	-0.89
35.50	-78.37	-0.95
35.50	-78.25	-0.98
35.50	-78.13	-1.02
35.38	-78.50	-0.92
35.38	-78.37	-0.95
35.38	-78.25	-0.98
Average conversion in Johnston County from NGVD 29 to NAVD 88 = -0.95 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 Johnston 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 <https://geodesy.noaa.gov/datasheets/>, or contact the NGS Information Services Branch at:

**Communications and Outreach Branch
NOAA, N/NGS12
National Geodetic Survey
SSMC3 #8716
1315 East-West Highway
Silver Spring, MD 20910-3282
(301) 713-3242**

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

It is important to note that temporary vertical monuments, sometimes called Elevation Reference Marks, are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, interested individuals may contact FEMA to access this information.

Horizontal Datum and Control

The digital files that comprise the FIRM are georeferenced to an established coordinate system. The coordinate system used for the production of this FIRM is North Carolina State Plane (FIPZONE 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.

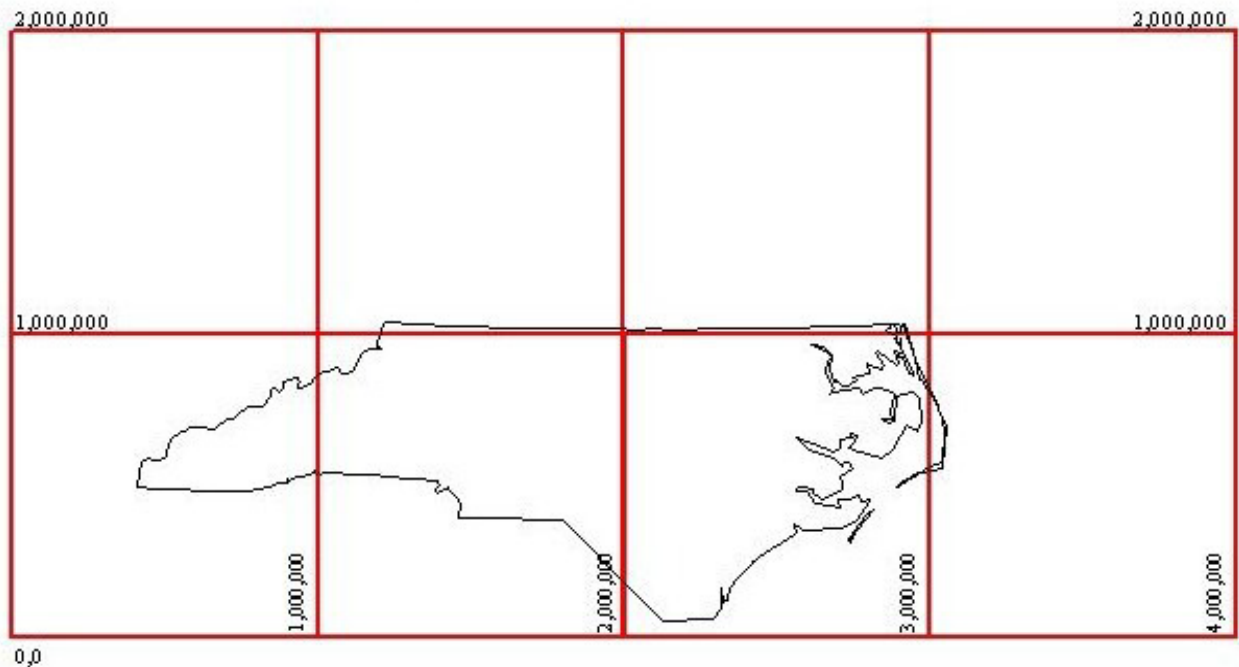


Figure 6 - North Carolina's State Plane Coordinate System

6.3 Floodplain and Floodway Delineation

Floodplain Boundaries

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 22, "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 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Black Creek									
027	2,674	610.0	4138.0	1.4	116.9 ¹	*	111.3	112.3	1.0
030	3,029	646.0	4488.0	1.3	116.9 ¹	*	111.5	112.5	1.0
040	4,005	1191.0	6774.0	0.9	116.9 ¹	*	111.9	112.9	1.0
052	5,200	1290.0	13076.0	0.5	116.9 ¹	*	112.1	113.0	0.9
063	6,276	1425.0	15681.0	0.4	116.9 ¹	*	112.1	113.1	1.0
073	7,342	779.0	7476.0	0.8	116.9 ¹	*	112.1	113.1	1.0
081	8,088	219.0	2385.0	2.5	116.9 ¹	*	112.4	113.4	1.0
092	9,163	169.0	1866.0	3.2	116.9 ¹	*	114.2	114.9	0.7
101	10,060	527.0	5492.0	1.1	119.8	*	119.8	119.8	0.0
111	11,084	372.0	3727.0	1.6	120.1	*	120.1	120.1	0.0
118	11,792	367.0	3580.0	1.7	120.2	*	120.2	120.2	0.0
130	13,002	441.0	4125.0	1.4	120.3	*	120.3	120.3	0.0
139	13,905	1324.0	13175.0	0.5	120.3	*	120.3	120.3	0.0
148	14,802	1808.0	17722.0	0.3	120.3	*	120.3	120.3	0.0
157	15,654	1052.0	9025.0	0.7	120.3	*	120.3	120.3	0.0
170	17,002	1922.0	18345.0	0.3	120.3	*	120.3	120.3	0.0
180	17,990	1963.0	20372.0	0.3	120.3	*	120.3	120.3	0.0
187	18,680	2302.0	24307.0	0.2	120.3	*	120.3	120.3	0.0
195	19,483	2016.0	23989.0	0.3	120.3	*	120.3	120.3	0.0
208	20,846	2831.0	25792.0	0.2	120.3	*	120.3	120.3	0.0
220	22,002	2081.0	17635.0	0.3	120.3	*	120.3	120.3	0.0
234	23,445	1293.0	10905.0	0.5	120.3	*	120.3	120.3	0.0
246	24,578	1932.0	15529.0	0.4	120.3	*	120.3	120.3	0.0
255	25,500	1772.0	12772.0	0.5	120.4	*	120.4	120.4	0.0
268	26,779	1992.0	12722.0	0.5	120.4	*	120.4	120.4	0.0
280	28,002	2005.0	11845.0	0.5	120.5	*	120.5	120.6	0.1
290	28,969	1844.0	11795.0	0.5	120.5	*	120.5	120.6	0.1
298	29,784	1870.0	11604.0	0.5	120.6	*	120.6	120.7	0.1
309	30,934	1809.0	7416.0	0.8	120.7	*	120.7	120.9	0.2
326	32,588	1340.0	6869.0	0.9	120.9	*	120.9	121.3	0.4
340	34,002	1399.0	7012.0	0.8	121.2	*	121.2	121.7	0.5
349	34,911	1261.0	6248.0	1.0	121.4	*	121.4	122.0	0.6
360	36,026	1420.0	6254.0	0.9	121.7	*	121.7	122.3	0.6
370	37,002	1325.0	4875.0	1.2	121.9	*	121.9	122.6	0.7
398	39,786	723.0	3871.0	1.3	125.3	*	125.3	125.9	0.6
409	40,933	676.0	4309.0	1.2	125.9	*	125.9	126.7	0.8
425	42,521	1025.0	5995.0	0.9	126.9	*	126.9	127.7	0.8
443	44,250	1108.0	5930.0	0.9	127.7	*	127.7	128.5	0.8
463	46,327	1295.0	6120.0	0.9	128.5	*	128.5	129.4	0.9
474	47,440	1108.0	5541.0	0.9	129.1	*	129.1	130.0	0.9
481	48,133	593.0	3217.0	1.6	129.8	*	129.8	130.6	0.8
491	49,077	484.0	2893.0	1.8	131.2	*	131.2	132.0	0.8
496	49,618	634.0	4108.0	1.3	131.8	*	131.8	132.7	0.9
502	50,194	909.0	5591.0	0.9	132.1	*	132.1	133.0	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Black Creek									
512	51,246	652.0	3938.0	1.3	132.6	*	132.6	133.6	1.0
523	52,321	714.0	3200.0	1.6	133.6	*	133.6	134.5	0.9
530	52,971	879.0	4166.0	1.3	134.1	*	134.1	135.1	1.0
534	53,435	697.0	4024.0	1.3	134.4	*	134.4	135.3	0.9
539	53,854	537.0	2421.0	2.2	134.7	*	134.7	135.6	0.9
542	54,215	349.0	1930.0	2.7	135.2	*	135.2	136.2	1.0
547	54,701	404.0	2100.0	2.5	136.1	*	136.1	137.0	0.9
552	55,199	464.0	2753.0	1.9	136.8	*	136.8	137.7	0.9
559	55,868	485.0	3263.0	1.6	137.4	*	137.4	138.3	0.9
566	56,611	453.0	2785.0	1.9	138.0	*	138.0	138.9	0.9
577	57,747	800.0	5592.0	0.9	139.0	*	139.0	139.8	0.8
586	58,560	524.0	3826.0	1.4	139.4	*	139.4	140.1	0.7
591	59,139	991.0	6535.0	0.7	139.6	*	139.6	140.4	0.8
609	60,863	913.0	7013.0	0.7	140.8	*	140.8	141.5	0.7
624	62,386	661.0	4420.0	1.1	141.3	*	141.3	142.0	0.7
636	63,580	890.0	6151.0	0.8	141.7	*	141.7	142.6	0.9
652	65,163	896.0	5740.0	0.9	142.3	*	142.3	143.1	0.8
658	65,797	915.0	5269.0	0.9	142.6	*	142.6	143.5	0.9
666	66,624	866.0	5157.0	0.9	142.8	*	142.8	143.8	1.0
690	69,010	750.0	5204.0	0.9	144.3	*	144.3	145.1	0.8
703	70,286	844.0	5124.0	0.9	144.6	*	144.6	145.5	0.9
710	70,994	650.0	3599.0	1.3	145.0	*	145.0	145.9	0.9
736	73,630	686.0	3984.0	1.1	147.0	*	147.0	147.7	0.7
749	74,857	770.0	3718.0	1.2	147.3	*	147.3	148.2	0.9
776	77,593	985.0	5377.0	0.9	149.1	*	149.1	149.9	0.8
786	78,585	1000.0	5136.0	0.9	149.3	*	149.3	150.3	1.0
803	80,300	884.0	3940.0	1.2	150.3	*	150.3	151.2	0.9
812	81,209	1025.0	4909.0	0.9	150.8	*	150.8	151.7	0.9
821	82,065	1061.0	5391.0	0.8	151.1	*	151.1	152.0	0.9
829	82,908	772.0	4133.0	1.1	151.4	*	151.4	152.3	0.9
838	83,846	959.0	4732.0	1.0	151.6	*	151.6	152.5	0.9
852	85,168	865.0	4016.0	1.1	152.0	*	152.0	152.9	0.9
870	87,001	804.0	3203.0	1.4	153.0	*	153.0	153.9	0.9
886	88,565	717.0	3232.0	1.4	154.1	*	154.1	155.0	0.9
896	89,610	801.0	3419.0	1.3	154.6	*	154.6	155.6	1.0
906	90,598	784.0	2856.0	1.6	155.3	*	155.3	156.2	0.9
919	91,937	944.0	3423.0	1.2	156.0	*	156.0	156.9	0.9
931	93,104	738.0	2833.0	1.4	156.6	*	156.6	157.5	0.9
946	94,610	446.0	1903.0	2.1	157.7	*	157.7	158.6	0.9
957	95,656	495.0	2030.0	2.0	158.6	*	158.6	159.5	0.9
968	96,788	719.0	2715.0	1.5	159.3	*	159.3	160.3	1.0
976	97,602	501.0	1943.0	2.1	159.9	*	159.9	160.8	0.9
987	98,708	491.0	1808.0	2.1	160.7	*	160.7	161.6	0.9
999	99,853	623.0	2025.0	1.8	161.7	*	161.7	162.6	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Black Creek									
1009	100,950	657.0	2238.0	1.7	162.7	*	162.7	163.5	0.8
1033	103,297	768.0	2851.0	1.3	165.8	*	165.8	166.1	0.3
1043	104,319	754.0	3421.0	1.1	166.5	*	166.5	167.0	0.5
1049	104,902	448.0	2194.0	1.7	166.8	*	166.8	167.4	0.6
1056	105,581	581.0	2913.0	1.3	167.1	*	167.1	167.9	0.8
1065	106,506	786.0	2799.0	1.3	167.9	*	167.9	168.7	0.8
1070	107,046	475.0	2251.0	1.7	168.4	*	168.4	169.2	0.8
1078	107,818	791.0	3413.0	1.1	169.0	*	169.0	169.9	0.9
1088	108,832	940.0	3639.0	1.0	169.6	*	169.6	170.4	0.8
1098	109,836	848.0	3313.0	1.0	170.0	*	170.0	170.8	0.8
1107	110,657	478.0	1943.0	1.7	171.0	*	171.0	171.8	0.8
1115	111,482	699.0	2518.0	1.3	172.1	*	172.1	172.9	0.8
1121	112,129	572.0	2442.0	1.4	173.0	*	173.0	173.8	0.8
1131	113,138	743.0	2831.0	1.2	173.9	*	173.9	174.8	0.9
1138	113,788	500.0	2276.0	1.5	174.7	*	174.7	175.6	0.9
1146	114,592	815.0	3245.0	1.0	175.5	*	175.5	176.5	1.0
1151	115,077	509.0	2095.0	1.6	176.1	*	176.1	177.0	0.9
1157	115,745	478.0	2433.0	1.4	176.9	*	176.9	177.9	1.0
1166	116,606	566.0	2541.0	1.3	177.9	*	177.9	178.9	1.0
1174	117,447	635.0	3348.0	1.0	178.6	*	178.6	179.6	1.0
1187	118,683	699.0	3379.0	1.0	179.3	*	179.3	180.3	1.0
1199	119,895	695.0	2867.0	1.2	180.3	*	180.3	181.3	1.0
1208	120,840	700.0	2718.0	1.2	181.2	*	181.2	182.1	0.9
1217	121,672	720.0	2949.0	1.1	181.9	*	181.9	182.9	1.0
1228	122,797	540.0	1999.0	1.7	183.0	*	183.0	183.9	0.9
1235	123,463	505.0	2135.0	1.5	183.9	*	183.9	184.8	0.9
1244	124,428	680.0	2978.0	1.1	184.7	*	184.7	185.7	1.0
1257	125,723	448.0	1771.0	1.9	185.6	*	185.6	186.6	1.0
1276	127,586	680.0	3569.0	0.9	188.2	*	188.2	189.1	0.9
1280	128,036	773.0	3904.0	0.8	188.4	*	188.4	189.3	0.9
1286	128,623	800.0	3354.0	1.0	188.6	*	188.6	189.5	0.9
1290	129,036	509.0	2330.0	1.1	188.9	*	188.9	189.9	1.0
1295	129,497	603.0	2486.0	1.0	189.1	*	189.1	190.1	1.0
1300	129,959	466.0	1859.0	1.3	189.5	*	189.5	190.4	0.9
1307	130,686	530.0	1575.0	1.6	190.1	*	190.1	191.1	1.0
1310	131,036	522.0	1756.0	1.4	190.7	*	190.7	191.6	0.9
1315	131,536	299.0	1081.0	2.3	191.4	*	191.4	192.4	1.0
1320	132,036	343.0	1496.0	1.7	192.2	*	192.2	193.2	1.0
Buffalo Creek									
008	828	350.0	2013.0	1.1	126.5 ²	*	117.3 ²	118.3 ²	1.0
014	1,398	537.0	3293.0	0.7	126.6 ²	*	117.5 ²	118.5 ²	1.0
018	1,807	296.0	1566.0	1.5	126.6 ²	*	117.6 ²	118.5 ²	0.9
025	2,457	304.0	2201.0	1.0	126.6 ²	*	117.9 ²	118.9 ²	1.0
038	3,796	222.0	2533.0	0.9	126.7 ¹	*	119.0	119.5	0.5

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Buffalo Creek									
057	5,650	302.0	2862.0	0.8	126.7 ¹	*	124.4	124.8	0.4
062	6,185	265.0	3224.0	0.7	126.7 ¹	*	124.4	124.8	0.4
067	6,746	240.0	2771.0	0.8	126.7 ¹	*	124.4	124.8	0.4
071	7,068	200.0	2459.0	0.9	126.7 ¹	*	124.4	124.9	0.5
074	7,449	136.0	1537.0	1.4	126.7 ¹	*	124.4	124.9	0.5
078	7,804	218.0	2494.0	0.9	126.7 ¹	*	124.4	125.0	0.6
082	8,232	237.0	2411.0	0.9	126.7 ¹	*	124.5	125.0	0.5
086	8,630	255.0	2489.0	0.8	126.7 ¹	*	124.5	125.1	0.6
093	9,287	275.0	2641.0	0.8	126.7 ¹	*	124.5	125.1	0.6
097	9,676	285.0	2329.0	0.9	126.7 ¹	*	124.6	125.2	0.6
101	10,072	235.0	1689.0	1.2	126.7 ¹	*	124.6	125.2	0.6
103	10,333	257.0	1927.0	1.0	126.7 ¹	*	124.6	125.3	0.7
106	10,646	245.0	1622.0	1.2	126.7 ¹	*	124.6	125.4	0.8
109	10,921	234.0	1376.0	1.4	126.7 ¹	*	124.7	125.4	0.7
112	11,230	175.0	734.0	2.7	126.7 ¹	*	124.9	125.6	0.7
117	11,691	110.0	660.0	2.9	126.7 ¹	*	125.5	126.3	0.8
120	11,991	125.0	718.0	2.6	126.7 ¹	*	125.8	126.7	0.9
123	12,343	147.0	807.0	2.4	126.7 ¹	*	126.3	127.2	0.9
127	12,671	87.0	620.0	3.1	126.9	*	126.9	127.8	0.9
130	13,000	132.0	679.0	2.8	127.9	*	127.9	128.8	0.9
134	13,388	122.0	642.0	2.9	129.2	*	129.2	130.2	1.0
137	13,713	86.0	378.0	4.9	130.6	*	130.6	131.5	0.9
139	13,945	32.0	235.0	7.9	132.1	*	132.1	132.9	0.8
142	14,195	32.0	247.0	7.5	133.8	*	133.8	134.4	0.6
148	14,814	210.0	1383.0	1.3	136.9	*	136.9	137.8	0.9
Buffalo Creek (Basin 9, Stream 1)									
005	494	1006.0	9563.0	0.7	151.9 ¹	*	146.0	147.0	1.0
014	1,427	1291.0	12151.0	0.6	151.9 ¹	*	146.2	147.2	1.0
025	2,500	1341.0	11179.0	0.6	151.9 ¹	*	146.3	147.3	1.0
036	3,562	1415.0	11171.0	0.6	151.9 ¹	*	146.5	147.5	1.0
044	4,373	764.0	4927.0	1.4	151.9 ¹	*	146.7	147.7	1.0
065	6,538	767.0	7160.0	1.0	151.9 ¹	*	150.5	151.3	0.8
079	7,878	1149.0	8906.0	0.8	151.9 ¹	*	150.8	151.7	0.9
088	8,757	1290.0	8700.0	0.8	151.9 ¹	*	151.0	151.9	0.9
096	9,607	890.0	5195.0	1.3	151.9 ¹	*	151.4	152.3	0.9
117	11,703	690.0	6667.0	1.0	155.8	*	155.8	156.3	0.5
123	12,309	800.0	6630.0	1.1	155.9	*	155.9	156.4	0.5
132	13,166	890.0	7106.0	1.0	155.9	*	155.9	156.5	0.6
138	13,836	1050.0	7430.0	0.9	156.0	*	156.0	156.6	0.6
147	14,716	1201.0	8630.0	0.8	156.2	*	156.2	157.0	0.8
156	15,616	960.0	5872.0	1.2	156.5	*	156.5	157.4	0.9
181	18,109	871.0	4402.0	1.6	158.7	*	158.7	159.7	1.0
193	19,275	1329.0	6357.0	1.1	159.7	*	159.7	160.6	0.9
204	20,395	1160.0	5080.0	1.4	160.3	*	160.3	161.3	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Buffalo Creek (Basin 9, Stream 1)									
216	21,579	1450.0	4767.0	1.5	161.8	*	161.8	162.8	1.0
233	23,295	1023.0	5743.0	1.2	163.6	*	163.6	164.7	1.1
240	23,960	1040.0	4368.0	1.6	164.6	*	164.6	165.6	1.0
254	25,386	1100.0	6263.0	1.1	166.1	*	166.1	166.9	0.8
273	27,315	709.0	5479.0	1.3	170.1	*	170.1	170.4	0.3
285	28,538	929.0	6555.0	1.1	170.4	*	170.4	171.0	0.6
295	29,489	1206.0	8080.0	0.9	170.7	*	170.7	171.5	0.8
307	30,732	1241.0	6604.0	1.1	171.2	*	171.2	172.1	0.9
321	32,059	1270.0	7297.0	1.0	171.8	*	171.8	172.8	1.0
331	33,138	1336.0	6648.0	1.0	172.3	*	172.3	173.3	1.0
339	33,931	1283.0	6086.0	1.1	172.9	*	172.9	173.9	1.0
352	35,151	1145.0	4899.0	1.4	174.3	*	174.3	175.2	0.9
365	36,469	855.0	4392.0	1.6	176.0	*	176.0	177.0	1.0
374	37,433	1089.0	4185.0	1.7	177.4	*	177.4	178.4	1.0
383	38,277	647.0	3408.0	2.0	178.9	*	178.9	179.9	1.0
387	38,737	425.0	2341.0	3.0	179.9	*	179.9	180.9	1.0
399	39,916	346.0	3523.0	2.0	186.1	*	186.1	186.2	0.1
407	40,692	450.0	4858.0	1.4	186.4	*	186.4	186.8	0.4
414	41,405	530.0	5216.0	1.3	186.5	*	186.5	187.2	0.7
421	42,069	740.0	6791.0	1.0	186.6	*	186.6	187.4	0.8
426	42,635	862.0	7321.0	1.0	186.7	*	186.7	187.6	0.9
431	43,110	1074.0	8765.0	0.8	186.8	*	186.8	187.7	0.9
437	43,670	832.0	5857.0	1.2	186.9	*	186.9	187.8	0.9
444	44,391	818.0	6249.0	1.1	187.2	*	187.2	188.2	1.0
455	45,547	740.0	5656.0	1.2	187.6	*	187.6	188.5	0.9
462	46,245	1166.0	8547.0	0.8	187.9	*	187.9	188.8	0.9
476	47,592	1178.0	6999.0	1.0	188.3	*	188.3	189.2	0.9
488	48,814	940.0	5760.0	1.2	188.7	*	188.7	189.6	0.9
495	49,549	1100.0	6401.0	1.1	189.4	*	189.4	190.1	0.7
502	50,194	1170.0	6465.0	1.1	189.9	*	189.9	190.5	0.6
508	50,802	1260.0	6107.0	1.1	190.5	*	190.5	191.0	0.5
513	51,329	1330.0	6327.0	1.1	191.0	*	191.0	191.4	0.4
528	52,766	616.0	3243.0	2.1	192.9	*	192.9	193.1	0.2
533	53,289	486.0	2532.0	2.7	193.6	*	193.6	194.1	0.5
538	53,808	609.0	3943.0	1.8	194.5	*	194.5	195.3	0.8
547	54,660	632.0	4140.0	1.7	195.4	*	195.4	196.2	0.8
554	55,414	870.0	5443.0	1.3	195.9	*	195.9	196.8	0.9
562	56,244	839.0	5147.0	1.3	196.4	*	196.4	197.3	0.9
570	57,031	520.0	3164.0	2.2	197.2	*	197.2	198.1	0.9
575	57,539	614.0	3905.0	1.8	198.0	*	198.0	198.9	0.9
582	58,213	555.0	3659.0	1.9	199.0	*	199.0	199.8	0.8
592	59,198	873.0	5817.0	1.2	199.7	*	199.7	200.6	0.9
599	59,867	726.0	4691.0	1.5	200.2	*	200.2	201.1	0.9
603	60,307	803.0	4427.0	1.6	200.6	*	200.6	201.4	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Buffalo Creek (Basin 9, Stream 1)									
608	60,758	796.0	4931.0	1.4	201.0	*	201.0	201.9	0.9
613	61,343	689.0	4319.0	1.6	201.5	*	201.5	202.4	0.9
619	61,913	585.0	3994.0	1.7	202.0	*	202.0	202.9	0.9
629	62,876	320.0	2673.0	2.6	204.8	*	204.8	205.6	0.8
633	63,257	559.0	5124.0	1.4	205.0	*	205.0	205.9	0.9
Buffalo Creek West									
017	1,668	455.0	1616.0	0.7	195.2 ¹	*	192.1	193.1	1.0
025	2,462	95.0	505.0	2.1	195.2 ¹	*	193.1	194.0	0.9
029	2,946	133.0	435.0	2.5	195.2 ¹	*	193.5	194.5	1.0
037	3,714	191.0	441.0	2.4	195.2 ¹	*	195.1	195.9	0.8
041	4,101	209.0	602.0	1.8	196.3	*	196.3	197.0	0.7
045	4,502	197.0	516.0	2.1	197.0	*	197.0	197.9	0.9
050	4,961	177.0	433.0	2.5	198.4	*	198.4	199.2	0.8
054	5,433	171.0	558.0	1.9	199.7	*	199.7	200.5	0.8
060	6,034	223.0	430.0	2.5	201.2	*	201.2	201.9	0.7
065	6,506	236.0	676.0	1.6	202.9	*	202.9	203.8	0.9
070	7,026	177.0	516.0	1.9	204.2	*	204.2	205.1	0.9
075	7,505	180.0	452.0	2.2	205.7	*	205.7	206.5	0.8
080	8,020	146.0	429.0	2.3	207.1	*	207.1	208.1	1.0
083	8,344	106.0	341.0	2.9	208.3	*	208.3	209.0	0.7
089	8,922	192.0	666.0	1.5	209.8	*	209.8	210.6	0.8
094	9,399	184.0	514.0	2.0	210.6	*	210.6	211.5	0.9
100	10,005	221.0	506.0	2.0	212.5	*	212.5	213.2	0.7
103	10,309	199.0	473.0	1.9	213.7	*	213.7	214.2	0.5
108	10,810	192.0	391.0	2.3	215.1	*	215.1	216.0	0.9
116	11,561	79.0	364.0	2.0	219.5	*	219.5	219.6	0.1
120	12,004	73.0	237.0	3.1	219.5	*	219.5	220.2	0.7
125	12,510	50.0	177.0	4.1	222.4	*	222.4	222.8	0.4
129	12,927	46.0	161.0	4.5	224.2	*	224.2	225.1	0.9
133	13,321	114.0	402.0	1.8	226.4	*	226.4	227.1	0.7
139	13,905	97.0	245.0	3.0	228.6	*	228.6	229.3	0.7
141	14,129	100.0	312.0	2.3	230.0	*	230.0	231.0	1.0
146	14,620	101.0	307.0	2.4	232.3	*	232.3	233.3	1.0
150	15,025	39.0	165.0	3.6	234.0	*	234.0	235.0	1.0
152	15,233	19.0	98.0	6.1	235.1	*	235.1	235.6	0.5
158	15,799	53.0	177.0	3.4	239.2	*	239.2	239.4	0.2
162	16,198	35.0	122.0	4.9	240.2	*	240.2	241.2	1.0
167	16,657	20.0	92.0	6.5	243.9	*	243.9	244.3	0.4
Hannah Creek									
005	500	1501.0	8765.0	1.1	95.3 ¹	*	94.7	95.7	1.0
010	1,000	1266.0	8215.0	1.1	95.3 ¹	*	94.8	95.8	1.0
015	1,500	933.0	5838.0	1.6	95.3 ¹	*	95.2	96.2	1.0
022	2,156	910.0	6125.0	1.5	95.9	*	95.9	96.9	1.0
030	3,016	632.0	4236.0	2.2	97.0	*	97.0	97.9	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Hannah Creek									
046	4,642	1192.0	10584.0	0.9	98.3	*	98.3	99.2	0.9
051	5,123	834.0	5294.0	1.7	98.4	*	98.4	99.4	1.0
065	6,497	353.0	2734.0	3.4	99.3	*	99.3	100.0	0.7
070	6,997	493.0	3995.0	2.3	100.2	*	100.2	101.1	0.9
075	7,497	535.0	4327.0	2.1	100.7	*	100.7	101.5	0.8
080	7,997	559.0	5358.0	1.7	101.5	*	101.5	102.4	0.9
085	8,525	709.0	7033.0	1.3	101.9	*	101.9	102.9	1.0
090	9,038	646.0	7104.0	1.3	102.1	*	102.1	103.0	0.9
095	9,536	630.0	6655.0	1.4	102.3	*	102.3	103.3	1.0
104	10,366	649.0	6887.0	1.3	102.8	*	102.8	103.7	0.9
111	11,106	978.0	9088.0	1.0	103.1	*	103.1	104.1	1.0
121	12,100	1494.0	12974.0	0.7	103.5	*	103.5	104.5	1.0
131	13,105	1206.0	10266.0	0.9	103.7	*	103.7	104.7	1.0
136	13,607	1239.0	9582.0	1.0	103.9	*	103.9	104.9	1.0
145	14,515	890.0	7669.0	1.2	104.5	*	104.5	105.4	0.9
156	15,559	1063.0	8162.0	1.1	105.1	*	105.1	106.1	1.0
166	16,563	1003.0	8890.0	1.0	105.7	*	105.7	106.7	1.0
176	17,555	882.0	7505.0	1.2	106.2	*	106.2	107.2	1.0
191	19,054	729.0	7336.0	1.2	107.9	*	107.9	108.6	0.7
196	19,554	805.0	8035.0	1.1	108.1	*	108.1	108.8	0.7
206	20,599	975.0	9726.0	0.9	108.4	*	108.4	109.2	0.8
213	21,292	887.0	8310.0	1.1	108.7	*	108.7	109.5	0.8
220	21,968	770.0	7471.0	1.2	108.9	*	108.9	109.7	0.8
227	22,705	618.0	6541.0	1.4	109.1	*	109.1	110.0	0.9
236	23,562	688.0	7669.0	1.2	109.6	*	109.6	110.5	0.9
241	24,062	817.0	8461.0	1.1	109.8	*	109.8	110.7	0.9
251	25,062	894.0	8615.0	1.0	110.1	*	110.1	111.0	0.9
261	26,062	1068.0	10104.0	0.9	110.3	*	110.3	111.2	0.9
266	26,562	1219.0	11315.0	0.8	110.4	*	110.4	111.3	0.9
276	27,562	1664.0	15998.0	0.6	110.5	*	110.5	111.4	0.9
286	28,562	1687.0	14908.0	0.6	110.6	*	110.6	111.5	0.9
297	29,671	1383.0	11725.0	0.8	110.7	*	110.7	111.6	0.9
305	30,525	1436.0	11147.0	0.7	110.8	*	110.8	111.8	1.0
313	31,341	1214.0	9615.0	0.9	111.0	*	111.0	112.0	1.0
323	32,305	1015.0	8861.0	0.9	111.2	*	111.2	112.2	1.0
333	33,304	933.0	9967.0	0.8	112.8	*	112.8	113.3	0.5
345	34,474	873.0	8791.0	0.9	113.1	*	113.1	113.6	0.5
351	35,051	1365.0	13413.0	0.6	113.2	*	113.2	113.7	0.5
361	36,051	1036.0	8852.0	0.8	113.3	*	113.3	113.9	0.6
369	36,878	1142.0	8861.0	0.8	113.4	*	113.4	114.1	0.7
375	37,533	1363.0	10114.0	0.7	113.6	*	113.6	114.3	0.7
385	38,533	1601.0	12249.0	0.6	113.8	*	113.8	114.5	0.7
395	39,533	1463.0	11149.0	0.7	114.0	*	114.0	114.7	0.7
405	40,495	1024.0	8148.0	0.9	114.2	*	114.2	115.0	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Hannah Creek									
413	41,335	791.0	6535.0	1.1	114.5	*	114.5	115.4	0.9
419	41,921	928.0	6810.0	1.1	114.9	*	114.9	115.8	0.9
426	42,615	941.0	7071.0	1.0	115.2	*	115.2	116.1	0.9
435	43,520	970.0	7343.0	1.0	115.5	*	115.5	116.5	1.0
440	44,001	802.0	5846.0	1.3	115.8	*	115.8	116.8	1.0
447	44,703	499.0	4617.0	1.6	116.4	*	116.4	117.4	1.0
455	45,482	500.0	4988.0	1.5	117.1	*	117.1	118.0	0.9
465	46,502	733.0	5862.0	1.3	117.7	*	117.7	118.7	1.0
479	47,876	714.0	6934.0	1.1	118.9	*	118.9	119.6	0.7
484	48,425	622.0	6694.0	1.1	119.0	*	119.0	119.8	0.8
489	48,926	669.0	6174.0	1.2	119.2	*	119.2	119.9	0.7
494	49,449	688.0	5826.0	1.3	119.4	*	119.4	120.1	0.7
499	49,949	567.0	5210.0	1.4	119.6	*	119.6	120.4	0.8
506	50,602	612.0	5915.0	1.2	119.9	*	119.9	120.7	0.8
511	51,146	762.0	6835.0	1.0	120.1	*	120.1	120.9	0.8
519	51,852	473.0	4830.0	1.4	120.2	*	120.2	121.1	0.9
525	52,510	593.0	5960.0	1.1	120.6	*	120.6	121.4	0.8
530	53,010	629.0	6879.0	1.0	120.8	*	120.8	121.6	0.8
535	53,510	523.0	5691.0	1.2	120.9	*	120.9	121.8	0.9
541	54,063	512.0	5701.0	1.2	121.1	*	121.1	122.0	0.9
555	55,514	656.0	7112.0	1.0	122.3	*	122.3	123.2	0.9
560	56,014	599.0	6176.0	1.1	122.4	*	122.4	123.4	1.0
564	56,363	597.0	6217.0	1.1	122.5	*	122.5	123.5	1.0
568	56,848	627.0	6605.0	1.0	122.7	*	122.7	123.6	0.9
573	57,319	620.0	5898.0	1.2	122.8	*	122.8	123.8	1.0
580	57,970	471.0	5080.0	1.3	123.1	*	123.1	124.0	0.9
585	58,470	492.0	4723.0	1.4	123.3	*	123.3	124.3	1.0
590	58,978	517.0	4805.0	1.4	123.5	*	123.5	124.5	1.0
605	60,459	506.0	5385.0	1.2	124.8	*	124.8	125.6	0.8
610	60,959	593.0	5426.0	1.2	124.9	*	124.9	125.7	0.8
615	61,459	747.0	6218.0	1.0	125.0	*	125.0	125.8	0.8
620	61,959	921.0	9248.0	0.7	125.1	*	125.1	126.0	0.9
625	62,459	828.0	8685.0	0.7	125.1	*	125.1	126.0	0.9
631	63,124	961.0	10034.0	0.6	125.2	*	125.2	126.1	0.9
638	63,786	827.0	8378.0	0.8	125.3	*	125.3	126.2	0.9
645	64,459	1058.0	10022.0	0.6	125.4	*	125.4	126.3	0.9
650	64,959	1005.0	9342.0	0.7	125.4	*	125.4	126.3	0.9
655	65,459	828.0	7126.0	0.9	125.5	*	125.5	126.4	0.9
660	65,959	681.0	5512.0	1.2	125.6	*	125.6	126.5	0.9
666	66,615	684.0	5896.0	1.1	125.8	*	125.8	126.7	0.9
671	67,116	655.0	5504.0	1.2	125.9	*	125.9	126.8	0.9
677	67,664	539.0	4501.0	1.4	126.1	*	126.1	127.0	0.9
683	68,257	620.0	5071.0	1.3	126.4	*	126.4	127.3	0.9
687	68,750	644.0	5325.0	1.2	126.5	*	126.5	127.5	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Hannah Creek									
695	69,500	618.0	5035.0	1.3	126.8	*	126.8	127.8	1.0
700	70,033	610.0	5059.0	1.3	127.1	*	127.1	128.0	0.9
711	71,142	458.0	3900.0	1.6	128.4	*	128.4	129.2	0.8
718	71,809	432.0	2963.0	2.0	128.7	*	128.7	129.6	0.9
723	72,317	420.0	3650.0	1.6	129.1	*	129.1	130.0	0.9
728	72,817	832.0	8591.0	0.7	129.3	*	129.3	130.2	0.9
732	73,224	932.0	9571.0	0.6	129.4	*	129.4	130.3	0.9
736	73,583	965.0	9695.0	0.6	129.4	*	129.4	130.3	0.9
741	74,139	801.0	7373.0	0.8	129.4	*	129.4	130.4	1.0
748	74,806	528.0	4844.0	1.1	129.6	*	129.6	130.5	0.9
753	75,317	698.0	6270.0	0.8	129.7	*	129.7	130.7	1.0
758	75,817	574.0	4058.0	1.3	129.8	*	129.8	130.8	1.0
763	76,327	549.0	4014.0	1.3	130.0	*	130.0	131.0	1.0
769	76,885	745.0	5277.0	1.0	130.1	*	130.1	131.1	1.0
777	77,659	1000.0	5822.0	0.9	130.3	*	130.3	131.3	1.0
783	78,312	674.0	5263.0	1.0	130.4	*	130.4	131.4	1.0
788	78,812	362.0	2693.0	1.9	130.6	*	130.6	131.5	0.9
792	79,171	394.0	3423.0	1.5	130.8	*	130.8	131.8	1.0
800	80,009	788.0	6792.0	0.8	134.0	*	134.0	134.5	0.5
813	81,274	919.0	6638.0	0.6	134.1	*	134.1	134.6	0.5
817	81,688	906.0	7031.0	0.5	134.1	*	134.1	134.7	0.6
823	82,337	438.0	3290.0	1.2	134.2	*	134.2	134.8	0.6
830	82,975	303.0	2247.0	1.7	134.3	*	134.3	135.1	0.8
837	83,749	531.0	2765.0	1.4	134.7	*	134.7	135.6	0.9
842	84,221	434.0	2407.0	1.6	134.9	*	134.9	135.9	1.0
Little Creek									
005	514	192.0	1287.0	3.0	151.7 ¹	*	139.0	139.8	0.8
011	1,134	282.0	1614.0	2.4	151.7 ¹	*	140.4	141.2	0.8
016	1,572	314.0	1448.0	2.7	151.7 ¹	*	141.1	142.0	0.9
023	2,317	220.0	1262.0	3.1	151.7 ¹	*	143.0	143.8	0.8
026	2,638	195.0	857.0	4.5	151.7 ¹	*	144.1	144.4	0.3
031	3,112	238.0	1420.0	2.7	151.7 ¹	*	146.4	146.8	0.4
036	3,622	257.0	1400.0	2.8	151.7 ¹	*	147.3	147.9	0.6
038	3,799	299.0	1683.0	2.3	151.7 ¹	*	147.8	148.4	0.6
041	4,126	226.0	1302.0	3.0	151.7 ¹	*	148.1	148.7	0.6
045	4,549	124.0	793.0	4.9	151.7 ¹	*	148.7	149.1	0.4
049	4,878	109.0	824.0	4.7	151.7 ¹	*	149.8	150.4	0.6
052	5,164	252.0	1677.0	2.3	151.7 ¹	*	150.9	151.8	0.9
059	5,921	166.0	1177.0	3.3	152.1	*	152.1	152.9	0.8
067	6,734	232.0	1783.0	2.2	153.4	*	153.4	154.3	0.9
075	7,459	180.0	1144.0	3.4	154.0	*	154.0	154.8	0.8
077	7,744	167.0	1283.0	3.0	154.6	*	154.6	155.4	0.8
083	8,293	184.0	1552.0	2.5	157.1	*	157.1	158.1	1.0
087	8,736	301.0	1995.0	1.9	158.0	*	158.0	158.8	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Little Creek									
092	9,177	310.0	1842.0	2.1	158.4	*	158.4	159.4	1.0
096	9,617	319.0	1521.0	2.5	159.1	*	159.1	160.0	0.9
100	10,049	330.0	2327.0	1.7	159.7	*	159.7	160.7	1.0
107	10,708	390.0	2832.0	1.4	160.2	*	160.2	161.1	0.9
111	11,120	320.0	2224.0	1.7	160.5	*	160.5	161.4	0.9
117	11,738	352.0	2118.0	1.8	161.4	*	161.4	162.2	0.8
124	12,402	387.0	2231.0	1.7	161.9	*	161.9	162.8	0.9
136	13,572	423.0	1904.0	1.9	162.3	*	162.3	163.3	1.0
140	14,036	319.0	1407.0	2.6	162.7	*	162.7	163.6	0.9
147	14,743	425.0	2023.0	1.8	163.9	*	163.9	164.8	0.9
153	15,313	364.0	1243.0	2.9	165.2	*	165.2	165.7	0.5
159	15,889	201.0	907.0	4.0	167.1	*	167.1	167.9	0.8
164	16,448	145.0	1023.0	3.6	169.1	*	169.1	169.9	0.8
169	16,923	170.0	1108.0	3.3	170.2	*	170.2	171.0	0.8
174	17,402	190.0	1407.0	2.6	170.5	*	170.5	171.5	1.0
178	17,761	87.0	696.0	5.3	171.4	*	171.4	172.0	0.6
182	18,226	186.0	1686.0	2.2	172.6	*	172.6	173.4	0.8
188	18,810	362.0	2964.0	1.2	173.1	*	173.1	174.0	0.9
194	19,414	210.0	1455.0	2.3	173.5	*	173.5	174.3	0.8
199	19,918	427.0	2347.0	1.4	174.0	*	174.0	174.8	0.8
206	20,609	392.0	1842.0	1.8	174.4	*	174.4	175.3	0.9
210	21,048	240.0	1221.0	2.7	175.4	*	175.4	176.2	0.8
215	21,541	160.0	942.0	3.5	176.9	*	176.9	177.7	0.8
220	22,001	183.0	1245.0	2.7	178.1	*	178.1	179.0	0.9
224	22,361	204.0	1108.0	3.0	179.0	*	179.0	179.9	0.9
231	23,135	175.0	1309.0	2.5	180.7	*	180.7	181.6	0.9
237	23,698	249.0	1942.0	1.7	181.4	*	181.4	182.3	0.9
242	24,220	224.0	1493.0	2.2	181.7	*	181.7	182.6	0.9
246	24,562	224.0	1290.0	2.6	182.1	*	182.1	182.8	0.7
255	25,508	328.0	1242.0	2.7	182.6	*	182.6	183.4	0.8
259	25,852	200.0	1317.0	2.5	183.5	*	183.5	184.0	0.5
262	26,175	158.0	1303.0	2.6	192.4	*	192.4	192.4	0.0
266	26,557	234.0	1961.0	1.7	192.5	*	192.5	192.5	0.0
271	27,115	598.0	3387.0	1.0	192.6	*	192.6	192.6	0.0
275	27,464	425.0	2265.0	1.4	192.6	*	192.6	192.6	0.0
279	27,926	356.0	1324.0	2.3	192.9	*	192.9	192.9	0.0
282	28,194	250.0	1014.0	3.1	193.4	*	193.4	193.8	0.4
287	28,695	329.0	1343.0	2.3	195.1	*	195.1	195.9	0.8
292	29,179	381.0	1877.0	1.7	196.0	*	196.0	196.8	0.8
296	29,635	435.0	1657.0	1.9	196.6	*	196.6	197.4	0.8
300	29,962	327.0	1239.0	2.5	197.2	*	197.2	198.2	1.0
308	30,808	317.0	2092.0	1.5	201.9	*	201.9	202.1	0.2
315	31,453	320.0	2007.0	1.5	202.3	*	202.3	202.6	0.3
321	32,057	236.0	1722.0	1.8	202.6	*	202.6	203.2	0.6

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Little Creek									
324	32,414	254.0	1570.0	2.0	203.0	*	203.0	203.6	0.6
327	32,719	350.0	1963.0	1.6	203.1	*	203.1	203.8	0.7
330	33,029	329.0	1389.0	2.2	203.3	*	203.3	204.1	0.8
337	33,710	346.0	1400.0	2.2	204.3	*	204.3	205.1	0.8
340	34,048	389.0	1231.0	2.5	205.5	*	205.5	206.2	0.7
346	34,601	270.0	1385.0	1.9	207.0	*	207.0	208.0	1.0
351	35,139	233.0	1098.0	2.4	207.9	*	207.9	208.8	0.9
356	35,583	251.0	802.0	3.3	209.3	*	209.3	210.1	0.8
360	35,951	250.0	1045.0	2.6	210.9	*	210.9	211.6	0.7
365	36,451	263.0	991.0	2.7	212.6	*	212.6	213.3	0.7
370	36,970	75.0	406.0	6.6	214.5	*	214.5	215.0	0.5
375	37,451	65.0	485.0	5.5	217.3	*	217.3	218.3	1.0
379	37,868	116.0	632.0	4.2	219.1	*	219.1	219.8	0.7
385	38,474	232.0	943.0	2.8	220.5	*	220.5	221.5	1.0
389	38,868	245.0	941.0	2.8	221.3	*	221.3	222.2	0.9
395	39,513	239.0	975.0	2.7	224.1	*	224.1	225.0	0.9
400	40,010	117.0	700.0	3.7	226.4	*	226.4	227.2	0.8
404	40,437	109.0	765.0	3.4	228.1	*	228.1	229.1	1.0
409	40,862	70.0	466.0	5.5	229.3	*	229.3	230.3	1.0
414	41,385	84.0	619.0	4.2	232.2	*	232.2	233.0	0.8
415	41,540	101.0	822.0	3.1	232.9	*	232.9	233.8	0.9
420	41,992	284.0	1899.0	1.4	233.9	*	233.9	234.9	1.0
426	42,618	314.0	1952.0	1.3	234.4	*	234.4	235.3	0.9
431	43,054	159.0	777.0	3.3	234.9	*	234.9	235.6	0.7
435	43,504	108.0	634.0	4.1	236.4	*	236.4	237.2	0.8
440	43,967	133.0	709.0	3.6	237.6	*	237.6	238.5	0.9
444	44,403	152.0	691.0	3.4	239.3	*	239.3	240.3	1.0
448	44,764	266.0	827.0	2.8	242.4	*	242.4	242.7	0.3
450	45,029	183.0	1056.0	2.2	242.9	*	242.9	243.2	0.3
455	45,515	149.0	890.0	2.6	243.3	*	243.3	243.7	0.4
459	45,853	130.0	560.0	4.2	243.6	*	243.6	244.0	0.4
460	46,019	90.0	719.0	3.3	244.1	*	244.1	244.7	0.6
462	46,229	184.0	960.0	2.4	244.3	*	244.3	244.9	0.6
471	47,075	187.0	854.0	2.8	245.6	*	245.6	246.3	0.7
476	47,591	241.0	773.0	3.0	247.4	*	247.4	248.0	0.6
477	47,726	150.0	726.0	3.2	248.3	*	248.3	248.9	0.6
484	48,422	233.0	1545.0	1.4	252.0	*	252.0	252.9	0.9
487	48,719	126.0	845.0	2.5	252.2	*	252.2	253.1	0.9
491	49,139	180.0	1145.0	1.8	252.8	*	252.8	253.8	1.0
496	49,576	101.0	583.0	3.6	253.3	*	253.3	254.1	0.8
501	50,093	228.0	1059.0	2.0	254.8	*	254.8	255.8	1.0
507	50,669	224.0	915.0	2.3	255.6	*	255.6	256.5	0.9
511	51,058	224.0	589.0	3.6	256.8	*	256.8	257.3	0.5
518	51,788	160.0	656.0	3.2	259.4	*	259.4	260.0	0.6

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Little Creek									
521	52,072	176.0	653.0	3.2	260.6	*	260.6	261.1	0.5
528	52,817	213.0	1358.0	1.0	265.4	*	265.4	265.7	0.3
531	53,077	97.0	536.0	2.6	265.5	*	265.5	265.8	0.3
535	53,466	101.0	483.0	2.9	265.7	*	265.7	266.1	0.4
541	54,112	116.0	461.0	3.0	267.3	*	267.3	268.1	0.8
546	54,576	85.0	353.0	3.9	269.6	*	269.6	270.4	0.8
550	55,001	69.0	297.0	4.7	272.5	*	272.5	273.3	0.8
554	55,418	153.0	731.0	1.9	274.4	*	274.4	275.3	0.9
560	55,953	134.0	461.0	3.0	276.0	*	276.0	276.5	0.5
564	56,407	83.0	374.0	3.7	278.1	*	278.1	278.4	0.3
570	56,967	94.0	409.0	3.1	280.1	*	280.1	281.0	0.9
575	57,467	156.0	487.0	2.6	282.2	*	282.2	283.0	0.8
582	58,177	67.0	237.0	5.3	285.5	*	285.5	286.3	0.8
587	58,677	94.0	420.0	2.6	288.2	*	288.2	289.1	0.9
590	58,967	48.0	254.0	4.3	289.0	*	289.0	289.9	0.9
592	59,158	94.0	319.0	3.4	289.7	*	289.7	290.5	0.8
595	59,471	74.0	316.0	3.4	290.7	*	290.7	291.6	0.9
600	59,971	75.0	183.0	5.9	293.0	*	293.0	293.0	0.0
605	60,471	111.0	454.0	2.4	296.3	*	296.3	297.1	0.8
608	60,849	83.0	315.0	3.3	297.5	*	297.5	298.3	0.8
615	61,480	101.0	350.0	3.0	300.2	*	300.2	301.1	0.9
620	61,971	65.0	227.0	4.6	303.2	*	303.2	303.8	0.6
625	62,471	83.0	331.0	2.3	306.5	*	306.5	306.8	0.3
630	62,968	75.0	193.0	4.0	308.4	*	308.4	309.0	0.6
635	63,500	45.0	221.0	3.5	312.4	*	312.4	312.9	0.5
638	63,833	62.0	236.0	3.2	313.9	*	313.9	314.6	0.7
642	64,248	24.0	133.0	5.3	316.2	*	316.2	317.0	0.8
646	64,590	60.0	235.0	3.0	318.1	*	318.1	319.0	0.9
650	64,968	104.0	301.0	2.3	319.9	*	319.9	320.7	0.8
Little Creek Tributary									
002	207	83.0	395.0	2.4	265.1 ¹	*	262.0	262.9	0.9
005	453	126.0	505.0	1.9	265.1 ¹	*	262.8	263.8	1.0
008	766	133.0	442.0	2.2	265.1 ¹	*	264.2	264.9	0.7
010	1,026	95.0	274.0	3.5	265.8	*	265.8	266.8	1.0
017	1,748	125.0	1373.0	0.7	279.4	*	279.4	279.4	0.0
020	2,029	87.0	653.0	1.5	279.4	*	279.4	279.5	0.1
022	2,233	51.0	328.0	2.9	279.5	*	279.5	279.8	0.3
Little Poplar Creek									
004	401	139.0	424.0	2.0	142.1 ¹	*	136.8	137.8	1.0
007	658	70.0	297.0	2.9	142.1 ¹	*	137.6	138.5	0.9
009	913	38.0	162.0	5.3	142.1 ¹	*	138.6	139.3	0.7
012	1,194	76.0	314.0	2.7	142.1 ¹	*	140.4	141.1	0.7
017	1,739	70.0	271.0	3.2	142.1 ¹	*	142.1	143.0	0.9
022	2,231	95.0	262.0	3.3	144.4	*	144.4	145.3	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Little Poplar Creek									
028	2,766	48.0	224.0	3.8	146.5	*	146.5	147.4	0.9
031	3,145	58.0	238.0	3.6	148.0	*	148.0	148.9	0.9
035	3,499	65.0	279.0	3.1	149.3	*	149.3	150.2	0.9
039	3,924	90.0	389.0	2.2	150.8	*	150.8	151.8	1.0
042	4,172	86.0	174.0	4.9	151.6	*	151.6	152.6	1.0
044	4,386	130.0	344.0	2.5	154.1	*	154.1	154.9	0.8
048	4,771	193.0	521.0	1.6	155.5	*	155.5	156.3	0.8
051	5,075	110.0	262.0	3.1	156.4	*	156.4	157.3	0.9
056	5,575	48.0	190.0	4.3	159.9	*	159.9	160.3	0.4
057	5,708	38.0	123.0	6.6	161.0	*	161.0	161.3	0.3
060	6,043	70.0	431.0	1.9	163.5	*	163.5	163.9	0.4
065	6,542	111.0	610.0	1.3	163.7	*	163.7	164.5	0.8
072	7,166	82.0	375.0	2.2	164.2	*	164.2	165.1	0.9
076	7,564	82.0	296.0	2.7	165.0	*	165.0	166.0	1.0
080	7,986	42.0	160.0	5.1	166.6	*	166.6	167.6	1.0
082	8,225	66.0	193.0	4.2	168.8	*	168.8	169.5	0.7
085	8,519	51.0	200.0	4.1	170.3	*	170.3	171.3	1.0
088	8,830	50.0	184.0	4.2	171.6	*	171.6	172.5	0.9
092	9,225	42.0	183.0	4.2	173.2	*	173.2	174.1	0.9
096	9,599	40.0	164.0	4.7	175.1	*	175.1	175.8	0.7
098	9,811	40.0	133.0	5.8	176.2	*	176.2	177.0	0.8
100	9,983	33.0	126.0	6.1	178.1	*	178.1	178.4	0.3
101	10,095	33.0	150.0	5.1	178.6	*	178.6	179.4	0.8
104	10,409	32.0	116.0	6.6	180.6	*	180.6	181.2	0.6
106	10,632	32.0	159.0	4.6	182.5	*	182.5	183.3	0.8
108	10,847	38.0	128.0	5.7	183.8	*	183.8	184.6	0.8
110	10,988	48.0	170.0	4.3	185.3	*	185.3	185.7	0.4
113	11,265	76.0	136.0	5.4	187.9	*	187.9	188.5	0.6
116	11,554	54.0	254.0	2.9	189.8	*	189.8	190.7	0.9
119	11,909	61.0	204.0	3.6	191.0	*	191.0	191.9	0.9
124	12,380	70.0	242.0	3.0	192.8	*	192.8	193.8	1.0
127	12,733	39.0	145.0	4.8	194.2	*	194.2	195.1	0.9
132	13,233	68.0	253.0	2.8	197.7	*	197.7	198.3	0.6
137	13,716	48.0	177.0	3.9	199.6	*	199.6	200.5	0.9
140	13,967	59.0	194.0	3.6	200.9	*	200.9	201.9	1.0
143	14,294	39.0	158.0	4.4	202.3	*	202.3	203.2	0.9
145	14,456	39.0	160.0	4.4	203.7	*	203.7	204.0	0.3
147	14,701	39.0	157.0	4.5	204.7	*	204.7	205.3	0.6
151	15,114	39.0	153.0	3.9	206.7	*	206.7	207.2	0.5
155	15,521	39.0	130.0	4.6	208.1	*	208.1	209.0	0.9
157	15,734	53.0	149.0	4.0	209.7	*	209.7	210.6	0.9
163	16,329	48.0	228.0	2.6	212.5	*	212.5	213.4	0.9
170	16,973	34.0	140.0	4.3	214.3	*	214.3	215.2	0.9
176	17,569	61.0	185.0	3.2	218.1	*	218.1	218.6	0.5

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Little Poplar Creek									
178	17,820	80.0	254.0	2.3	219.2	*	219.2	220.1	0.9
182	18,171	44.0	153.0	3.9	221.2	*	221.2	222.1	0.9
184	18,415	34.0	136.0	4.4	223.1	*	223.1	224.0	0.9
186	18,646	43.0	173.0	3.4	224.8	*	224.8	225.7	0.9
190	18,966	50.0	195.0	3.1	226.5	*	226.5	227.4	0.9
197	19,683	93.0	346.0	1.7	228.8	*	228.8	229.7	0.9
200	20,045	61.0	249.0	2.2	229.5	*	229.5	230.5	1.0
205	20,460	43.0	154.0	3.5	230.7	*	230.7	231.6	0.9
208	20,754	38.0	121.0	4.5	232.5	*	232.5	233.1	0.6
210	21,035	63.0	202.0	2.7	234.1	*	234.1	235.0	0.9
211	21,146	41.0	140.0	3.9	234.5	*	234.5	235.4	0.9
215	21,452	81.0	282.0	1.9	235.6	*	235.6	236.6	1.0
221	22,054	56.0	182.0	3.0	238.8	*	238.8	238.9	0.1
Little River									
1227	122,708	700.0	5405.0	2.7	109.0	*	109.0	109.9	0.9
1250	125,032	700.0	5610.0	2.6	108.9	*	108.9	109.7	0.8
1253	125,348	540.0	4379.0	3.3	111.3	*	111.3	112.1	0.8
1265	126,460	388.0	4674.0	3.1	112.3	*	112.3	113.1	0.8
1276	127,550	190.0	3136.0	4.7	114.0	*	114.0	114.5	0.5
1292	129,193	167.0	2941.0	5.0	115.5	*	115.5	116.2	0.7
1321	132,071	155.0	2655.0	5.5	118.9	*	118.9	119.6	0.7
1339	133,936	185.0	3379.0	4.3	121.5	*	121.5	122.2	0.7
1362	136,170	2225.0	28870.0	0.5	122.3	*	122.3	123.2	0.9
1382	138,287	2250.0	32001.0	0.4	122.4	*	122.4	123.3	0.9
1428	142,778	4540.0	50269.0	0.3	122.6	*	122.6	123.5	0.9
1448	144,847	4455.0	35614.0	0.4	122.6	*	122.6	123.6	1.0
1488	148,753	3838.0	20253.0	0.7	123.2	*	123.2	124.2	1.0
1530	152,960	1245.0	11019.0	1.3	125.5	*	125.5	126.4	0.9
1537	153,704	945.0	8616.0	1.6	126.0	*	126.0	126.8	0.8
1555	155,469	1350.0	13125.0	1.1	127.1	*	127.1	127.9	0.8
1569	156,875	1600.0	15239.0	0.9	127.5	*	127.5	128.5	1.0
1577	157,667	1150.0	13454.0	1.0	127.8	*	127.8	128.7	0.9
1588	158,760	1300.0	11226.0	1.2	128.1	*	128.1	129.1	1.0
1601	160,081	1040.0	9783.0	1.4	128.7	*	128.7	129.7	1.0
1614	161,371	1200.0	11122.0	1.2	129.2	*	129.2	130.2	1.0
1623	162,348	550.0	6246.0	2.2	129.7	*	129.7	130.6	0.9
1633	163,312	950.0	10650.0	1.3	130.5	*	130.5	131.4	0.9
1641	164,084	1150.0	8117.0	1.7	130.8	*	130.8	131.7	0.9
1649	164,901	690.0	8213.0	1.7	131.4	*	131.4	132.4	1.0
1665	166,513	740.0	7408.0	1.9	132.3	*	132.3	133.2	0.9
1680	168,023	515.0	5597.0	2.5	133.2	*	133.2	134.1	0.9
1710	171,003	500.0	6261.0	2.2	136.7	*	136.7	137.6	0.9
1723	172,311	280.0	4848.0	2.9	137.5	*	137.5	138.5	1.0
1753	175,345	650.0	8789.0	1.6	139.1	*	139.1	140.1	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Little River									
1774	177,436	615.0	7866.0	1.8	139.9	*	139.9	140.8	0.9
1791	179,110	585.0	7486.0	1.8	140.6	*	140.6	141.5	0.9
1802	180,221	410.0	6248.0	2.1	141.2	*	141.2	142.2	1.0
1837	183,729	1235.0	16818.0	0.8	142.5	*	142.5	143.4	0.9
1857	185,700	1175.0	16879.0	0.8	142.6	*	142.6	143.6	1.0
1917	191,694	779.0	9838.0	1.3	144.2	*	144.2	145.1	0.9
1963	196,326	1975.0	29976.0	0.4	146.8	*	146.8	147.7	0.9
2018	201,772	2070.0	21590.0	0.6	147.4	*	147.4	148.3	0.9
2032	203,188	1550.0	16680.0	0.8	147.5	*	147.5	148.5	1.0
2045	204,451	1590.0	15216.0	0.9	147.8	*	147.8	148.7	0.9
2082	208,153	2250.0	24362.0	0.5	148.3	*	148.3	149.3	1.0
2143	214,317	1450.0	12195.0	1.1	149.0	*	149.0	150.0	1.0
2160	216,022	560.0	6156.0	2.1	150.2	*	150.2	151.1	0.9
2174	217,440	695.0	7482.0	1.7	151.4	*	151.4	152.3	0.9
2187	218,677	1085.0	15048.0	0.9	151.8	*	151.8	152.8	1.0
2198	219,804	1075.0	10141.0	1.1	152.1	*	152.1	153.0	0.9
2247	224,746	1335.0	10670.0	1.0	153.8	*	153.8	154.7	0.9
2285	228,509	1850.0	18106.0	0.6	155.8	*	155.8	156.8	1.0
2326	232,598	2450.0	23870.0	0.5	156.4	*	156.4	157.3	0.9
2349	234,927	2960.0	25127.0	0.4	156.6	*	156.6	157.6	1.0
2375	237,543	2180.0	16345.0	0.6	157.0	*	157.0	157.9	0.9
2403	240,331	950.0	9077.0	1.2	160.1	*	160.1	160.8	0.7
2416	241,615	1030.0	8288.0	1.3	160.7	*	160.7	161.5	0.8
2432	243,179	975.0	9469.0	1.1	161.5	*	161.5	162.4	0.9
2449	244,880	1335.0	12551.0	0.8	162.2	*	162.2	163.1	0.9
2464	246,395	1550.0	17145.0	0.6	162.5	*	162.5	163.3	0.8
2485	248,488	1750.0	16899.0	0.6	162.8	*	162.8	163.8	1.0
2520	251,989	1220.0	9986.0	1.1	163.7	*	163.7	164.7	1.0
2537	253,660	1290.0	9196.0	1.1	164.7	*	164.7	165.7	1.0
2569	256,911	1450.0	10280.0	1.0	167.1	*	167.1	168.0	0.9
2582	258,191	1310.0	8976.0	1.2	168.1	*	168.1	169.0	0.9
2597	259,670	515.0	5178.0	2.0	169.5	*	169.5	170.4	0.9
2608	260,809	285.0	3194.0	3.3	171.1	*	171.1	171.9	0.8
2620	261,976	690.0	8533.0	1.2	172.6	*	172.6	173.5	0.9
2631	263,106	1085.0	10645.0	1.0	173.1	*	173.1	174.1	1.0
2641	264,106	1085.0	8507.0	1.2	173.7	*	173.7	174.7	1.0
2666	266,637	1085.0	9225.0	1.1	174.7	*	174.7	175.6	0.9
2676	267,571	460.0	5168.0	2.0	175.4	*	175.4	176.3	0.9
2691	269,095	430.0	4784.0	2.2	177.4	*	177.4	178.3	0.9
2707	270,693	255.0	3562.0	3.0	179.4	*	179.4	180.4	1.0
2735	273,539	825.0	10969.0	1.0	181.7	*	181.7	182.7	1.0
3448	344,836	1074.0	11305.0	0.9	216.1	217.7	216.1	217.0	0.9
3451	345,141	670.0	7458.0	1.4	216.2	217.7	216.2	217.1	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Middle Creek									
025	2,468	1000.0	4558.0	2.1	124.5 ¹	*	111.3	112.1	0.8
029	2,873	1205.0	5752.0	1.6	124.5 ¹	*	111.5	112.3	0.8
035	3,457	1790.0	6022.0	1.6	124.5 ¹	*	111.7	112.5	0.8
044	4,381	1820.0	7030.0	1.3	124.5 ¹	*	112.1	112.8	0.7
051	5,050	2535.0	8759.0	1.1	124.5 ¹	*	112.6	113.1	0.5
058	5,774	2780.0	8571.0	1.1	124.5 ¹	*	113.0	113.4	0.4
073	7,273	2665.0	10348.0	0.9	124.5 ¹	*	113.9	114.1	0.2
078	7,814	2280.0	6515.0	1.5	124.5 ¹	*	114.3	114.4	0.1
085	8,511	2225.0	8067.0	1.2	124.5 ¹	*	114.9	115.3	0.4
091	9,058	2115.0	7987.0	1.2	124.5 ¹	*	115.2	115.7	0.5
096	9,559	2012.0	8072.0	1.2	124.5 ¹	*	115.4	115.9	0.5
106	10,551	1415.0	6104.0	1.5	124.5 ¹	*	116.0	116.7	0.7
110	10,979	1146.0	5153.0	1.8	124.5 ¹	*	116.5	117.2	0.7
115	11,480	991.0	4155.0	2.3	124.5 ¹	*	117.2	117.9	0.7
120	12,044	709.0	3259.0	2.9	124.5 ¹	*	118.0	119.0	1.0
125	12,487	314.0	1756.0	5.4	124.5 ¹	*	118.8	119.2	0.4
133	13,256	332.0	2958.0	3.2	124.5 ¹	*	124.0	124.0	0.0
138	13,817	375.0	3428.0	2.8	124.5 ¹	*	124.4	124.8	0.4
143	14,329	679.0	5790.0	1.6	124.6	*	124.6	125.2	0.6
145	14,541	620.0	5170.0	1.8	124.7	*	124.7	125.3	0.6
149	14,944	418.0	3758.0	2.5	124.9	*	124.9	125.5	0.6
157	15,673	330.0	3929.0	2.4	125.2	*	125.2	125.9	0.7
161	16,092	655.0	5850.0	1.6	125.6	*	125.6	126.3	0.7
165	16,487	826.0	6786.0	1.4	125.7	*	125.7	126.4	0.7
168	16,839	1160.0	12110.0	0.8	125.8	*	125.8	126.6	0.8
177	17,750	1269.0	12939.0	0.7	125.9	*	125.9	126.6	0.7
182	18,206	1215.0	11760.0	0.8	125.9	*	125.9	126.7	0.8
185	18,504	1215.0	11228.0	0.8	125.9	*	125.9	126.7	0.8
190	19,000	973.0	8731.0	1.1	126.0	*	126.0	126.8	0.8
196	19,560	644.0	5816.0	1.6	126.1	*	126.1	126.9	0.8
201	20,111	362.0	3687.0	2.6	126.3	*	126.3	127.1	0.8
204	20,430	467.0	4623.0	2.0	126.7	*	126.7	127.5	0.8
210	21,015	558.0	5376.0	1.8	127.0	*	127.0	127.8	0.8
214	21,428	600.0	4644.0	2.0	127.2	*	127.2	128.0	0.8
225	22,495	855.0	7381.0	1.3	127.9	*	127.9	128.8	0.9
230	23,000	822.0	8208.0	1.2	128.0	*	128.0	129.0	1.0
235	23,514	1039.0	7471.0	1.3	128.1	*	128.1	129.1	1.0
240	24,000	1108.0	6558.0	1.4	128.3	*	128.3	129.3	1.0
245	24,500	1180.0	6725.0	1.4	128.6	*	128.6	129.5	0.9
254	25,436	1404.0	8833.0	1.1	129.1	*	129.1	130.1	1.0
260	26,028	1435.0	8213.0	1.2	129.4	*	129.4	130.4	1.0
265	26,500	1337.0	7400.0	1.3	129.8	*	129.8	130.7	0.9
270	27,000	1158.0	6238.0	1.5	130.1	*	130.1	131.0	0.9
275	27,500	1145.0	6185.0	1.5	130.4	*	130.4	131.4	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Middle Creek									
280	27,996	1173.0	6127.0	1.5	130.9	*	130.9	131.8	0.9
285	28,500	976.0	4750.0	2.0	131.3	*	131.3	132.2	0.9
290	29,000	474.0	2045.0	4.6	131.4	*	131.4	132.3	0.9
296	29,600	312.0	2527.0	3.7	133.5	*	133.5	134.4	0.9
304	30,438	1001.0	7288.0	1.3	134.5	*	134.5	135.5	1.0
312	31,198	1547.0	10746.0	0.9	134.9	*	134.9	135.9	1.0
320	32,019	1201.0	9235.0	1.0	135.2	*	135.2	136.1	0.9
325	32,511	869.0	5875.0	1.6	135.5	*	135.5	136.4	0.9
330	33,017	689.0	5355.0	1.7	135.8	*	135.8	136.7	0.9
338	33,806	600.0	4391.0	2.1	136.5	*	136.5	137.3	0.8
342	34,210	664.0	5167.0	1.8	136.9	*	136.9	137.7	0.8
350	35,000	698.0	6748.0	1.4	137.3	*	137.3	138.2	0.9
360	35,972	1200.0	8488.0	1.1	137.6	*	137.6	138.6	1.0
363	36,262	1396.0	8054.0	1.2	137.8	*	137.8	138.7	0.9
369	36,852	1571.0	9376.0	1.0	138.0	*	138.0	138.9	0.9
374	37,418	1837.0	11510.0	0.8	138.2	*	138.2	139.0	0.8
390	39,017	1523.0	9043.0	1.0	138.4	*	138.4	139.3	0.9
395	39,474	1341.0	7854.0	1.2	138.5	*	138.5	139.4	0.9
401	40,089	1157.0	7083.0	1.3	138.7	*	138.7	139.7	1.0
404	40,417	1039.0	6414.0	1.5	138.9	*	138.9	139.9	1.0
413	41,333	1047.0	5950.0	1.6	139.1	*	139.1	140.1	1.0
421	42,135	848.0	4814.0	1.9	139.5	*	139.5	140.4	0.9
428	42,776	1053.0	6172.0	1.5	140.1	*	140.1	141.1	1.0
435	43,504	1273.0	7604.0	1.2	140.6	*	140.6	141.5	0.9
439	43,934	1805.0	10367.0	0.9	141.1	*	141.1	142.0	0.9
445	44,495	2209.0	11765.0	0.8	141.4	*	141.4	142.3	0.9
450	45,022	2127.0	9607.0	1.0	141.9	*	141.9	142.7	0.8
459	45,853	2011.0	9896.0	0.9	142.5	*	142.5	143.3	0.8
465	46,498	1693.0	8228.0	1.1	142.8	*	142.8	143.6	0.8
472	47,162	1590.0	6861.0	1.4	143.0	*	143.0	143.9	0.9
477	47,661	1360.0	6763.0	1.4	143.4	*	143.4	144.2	0.8
483	48,253	1121.0	5258.0	1.8	143.9	*	143.9	144.7	0.8
489	48,939	985.0	5141.0	1.8	144.6	*	144.6	145.5	0.9
495	49,500	965.0	4917.0	1.9	145.5	*	145.5	146.4	0.9
501	50,059	958.0	5573.0	1.7	146.5	*	146.5	147.2	0.7
505	50,531	940.0	4620.0	2.0	147.2	*	147.2	147.9	0.7
512	51,189	1048.0	5809.0	1.6	147.9	*	147.9	148.7	0.8
515	51,474	1221.0	7721.0	1.2	148.1	*	148.1	148.9	0.8
536	53,560	1730.0	7394.0	1.3	148.7	*	148.7	149.6	0.9
541	54,055	1823.0	7624.0	1.2	149.0	*	149.0	149.9	0.9
550	55,042	1509.0	6256.0	1.5	149.6	*	149.6	150.3	0.7
560	56,033	1535.0	7718.0	1.2	150.2	*	150.2	151.0	0.8
568	56,827	1353.0	6915.0	1.4	150.8	*	150.8	151.5	0.7
576	57,564	1469.0	6888.0	1.4	151.3	*	151.3	152.1	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Middle Creek									
581	58,130	1540.0	7492.0	1.2	151.6	*	151.6	152.4	0.8
585	58,524	1545.0	6894.0	1.4	151.8	*	151.8	152.6	0.8
590	58,988	1402.0	6666.0	1.4	152.1	*	152.1	153.0	0.9
595	59,493	1398.0	6884.0	1.4	152.5	*	152.5	153.4	0.9
599	59,893	1619.0	7932.0	1.2	152.7	*	152.7	153.6	0.9
611	61,068	1415.0	7046.0	1.3	153.4	*	153.4	154.1	0.7
620	62,001	1416.0	6429.0	1.5	153.8	*	153.8	154.6	0.8
626	62,554	1907.0	8904.0	1.1	154.0	*	154.0	154.8	0.8
630	63,037	1876.0	8074.0	1.2	154.2	*	154.2	154.9	0.7
636	63,569	1567.0	7628.0	1.2	154.4	*	154.4	155.2	0.8
645	64,488	1033.0	5528.0	1.7	157.6	*	157.6	157.6	0.0
651	65,149	1076.0	5942.0	1.6	157.8	*	157.8	158.1	0.3
656	65,616	1155.0	5016.0	1.9	158.0	*	158.0	158.5	0.5
665	66,495	1375.0	8046.0	1.2	158.4	*	158.4	159.3	0.9
671	67,138	1550.0	8398.0	1.1	158.5	*	158.5	159.4	0.9
681	68,147	2428.0	14415.0	0.7	158.7	*	158.7	159.5	0.8
689	68,880	2396.0	12052.0	0.8	158.8	*	158.8	159.6	0.8
692	69,238	2420.0	14341.0	0.7	158.9	*	158.9	159.7	0.8
697	69,670	2194.0	13223.0	0.7	158.9	*	158.9	159.7	0.8
713	71,331	2012.0	12215.0	0.8	159.1	*	159.1	159.9	0.8
720	71,998	1945.0	8993.0	1.0	159.3	*	159.3	160.0	0.7
730	73,001	2085.0	9593.0	1.0	159.5	*	159.5	160.3	0.8
745	74,544	1791.0	7595.0	1.2	160.3	*	160.3	161.0	0.7
751	75,093	1540.0	5624.0	1.6	160.9	*	160.9	161.6	0.7
755	75,512	1205.0	3876.0	2.4	161.8	*	161.8	162.5	0.7
760	75,953	1013.0	4920.0	1.9	162.6	*	162.6	163.6	1.0
765	76,498	914.0	4787.0	1.9	163.6	*	163.6	164.2	0.6
770	76,996	1247.0	5866.0	1.6	164.0	*	164.0	164.9	0.9
780	78,042	2122.0	9936.0	0.9	164.6	*	164.6	165.6	1.0
785	78,505	1908.0	9661.0	1.0	164.8	*	164.8	165.7	0.9
789	78,897	1872.0	10130.0	0.9	164.9	*	164.9	165.8	0.9
797	79,744	1702.0	10239.0	0.9	165.0	*	165.0	165.9	0.9
805	80,511	1637.0	10329.0	0.9	165.2	*	165.2	166.0	0.8
810	81,028	1257.0	7830.0	1.2	165.3	*	165.3	166.1	0.8
815	81,483	1078.0	5645.0	1.6	165.5	*	165.5	166.3	0.8
821	82,125	853.0	6065.0	1.5	165.9	*	165.9	166.8	0.9
825	82,521	724.0	5263.0	1.8	166.0	*	166.0	166.9	0.9
832	83,160	752.0	4160.0	2.2	166.3	*	166.3	167.3	1.0
835	83,512	771.0	4241.0	2.2	166.8	*	166.8	167.7	0.9
837	83,737	779.0	4683.0	2.0	167.3	*	167.3	168.1	0.8
854	85,441	715.0	6358.0	1.5	168.3	*	168.3	169.2	0.9
858	85,821	619.0	6127.0	1.5	168.4	*	168.4	169.3	0.9
863	86,266	585.0	5694.0	1.6	168.7	*	168.7	169.6	0.9
868	86,819	702.0	6156.0	1.5	168.9	*	168.9	169.8	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Middle Creek									
874	87,423	934.0	7424.0	1.2	169.1	*	169.1	170.0	0.9
881	88,058	998.0	8412.0	1.1	169.2	*	169.2	170.2	1.0
886	88,610	1079.0	7995.0	1.2	169.4	*	169.4	170.3	0.9
895	89,514	1191.0	9060.0	1.0	169.5	*	169.5	170.5	1.0
899	89,938	1130.0	7788.0	1.2	169.6	*	169.6	170.6	1.0
905	90,495	1203.0	6619.0	1.4	169.9	*	169.9	170.9	1.0
911	91,092	1219.0	6588.0	1.4	170.2	*	170.2	171.2	1.0
915	91,534	1183.0	6319.0	1.5	170.5	*	170.5	171.4	0.9
920	92,035	1165.0	5668.0	1.6	170.8	*	170.8	171.7	0.9
926	92,621	979.0	5435.0	1.7	171.1	*	171.1	172.1	1.0
929	92,944	880.0	4147.0	2.2	171.5	*	171.5	172.5	1.0
934	93,351	705.0	3214.0	2.9	172.2	*	172.2	173.1	0.9
942	94,242	129.0	1436.0	6.4	173.1	*	173.1	174.1	1.0
947	94,681	130.0	1435.0	6.4	173.9	*	173.9	174.8	0.9
952	95,181	115.0	1515.0	6.1	174.7	*	174.7	175.6	0.9
962	96,183	125.0	1448.0	6.3	176.8	*	176.8	177.4	0.6
966	96,649	87.0	1155.0	7.9	177.4	*	177.4	178.0	0.6
970	97,009	98.0	1369.0	6.7	178.4	*	178.4	179.2	0.8
975	97,456	102.0	1413.0	6.5	179.1	*	179.1	179.9	0.8
978	97,797	123.0	1732.0	5.3	179.9	*	179.9	181.0	1.1
981	98,123	105.0	1547.0	5.9	180.1	*	180.1	181.2	1.1
987	98,710	173.0	2210.0	4.2	181.3	*	181.3	182.2	0.9
991	99,128	137.0	2215.0	4.1	181.8	*	181.8	182.8	1.0
996	99,610	250.0	3898.0	2.4	182.4	*	182.4	183.4	1.0
1001	100,099	470.0	7048.0	1.3	182.5	*	182.5	183.5	1.0
1005	100,455	469.0	7378.0	1.2	182.6	*	182.6	183.6	1.0
1009	100,859	914.0	13480.0	0.7	182.6	*	182.6	183.7	1.1
1015	101,484	753.0	10968.0	0.8	182.6	*	182.6	183.7	1.1
1019	101,929	550.0	7256.0	1.3	182.7	*	182.7	183.7	1.0
1025	102,534	919.0	12923.0	0.7	182.8	*	182.8	183.8	1.0
1030	103,035	1143.0	15370.0	0.6	182.8	*	182.8	183.8	1.0
1035	103,528	1225.0	15475.0	0.6	182.8	*	182.8	183.9	1.1
1039	103,899	1284.0	15619.0	0.6	182.8	*	182.8	183.9	1.1
1044	104,448	1459.0	15844.0	0.6	182.8	*	182.8	183.9	1.1
1049	104,917	1453.0	16069.0	0.6	182.9	*	182.9	183.9	1.0
1054	105,420	1331.0	13214.0	0.7	182.9	*	182.9	184.0	1.1
1060	105,985	1512.0	14031.0	0.7	183.0	*	183.0	184.0	1.0
1065	106,465	1806.0	16893.0	0.5	183.0	*	183.0	184.0	1.0
1071	107,125	1929.0	18334.0	0.5	183.0	*	183.0	184.1	1.1
1075	107,496	1818.0	17743.0	0.5	183.0	*	183.0	184.1	1.1
1079	107,891	1789.0	16851.0	0.5	183.1	*	183.1	184.1	1.0
1085	108,496	1917.0	15434.0	0.6	183.1	*	183.1	184.2	1.1
1094	109,383	1933.0	16054.0	0.6	183.2	*	183.2	184.2	1.0
1098	109,849	1509.0	11741.0	0.8	183.3	*	183.3	184.3	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Middle Creek									
1105	110,504	1098.0	8425.0	1.1	183.4	*	183.4	184.4	1.0
1112	111,204	805.0	6027.0	1.5	183.6	*	183.6	184.6	1.0
1115	111,497	979.0	7150.0	1.3	183.8	*	183.8	184.8	1.0
1121	112,112	1337.0	9097.0	1.0	184.2	*	184.2	185.1	0.9
1125	112,515	1439.0	9313.0	1.0	184.3	*	184.3	185.3	1.0
1130	112,971	1478.0	7946.0	1.2	184.6	*	184.6	185.6	1.0
1134	113,366	1373.0	7042.0	1.3	184.7	*	184.7	185.7	1.0
1141	114,085	1150.0	6635.0	1.4	185.0	*	185.0	186.0	1.0
1149	114,885	793.0	5506.0	1.7	185.5	*	185.5	186.5	1.0
1154	115,365	648.0	4623.0	2.0	185.9	*	185.9	186.9	1.0
1159	115,903	579.0	4234.0	2.2	186.4	*	186.4	187.4	1.0
1173	117,335	1024.0	8270.0	1.1	189.4	*	189.4	190.4	1.0
1195	119,489	1315.0	8735.0	1.0	189.9	*	189.9	190.9	1.0
1198	119,849	1288.0	8080.0	1.1	190.1	*	190.1	191.1	1.0
1207	120,680	798.0	4721.0	1.9	190.5	*	190.5	191.5	1.0
1214	121,356	598.0	3741.0	2.4	190.8	*	190.8	191.9	1.1
1219	121,926	904.0	6026.0	1.5	191.1	*	191.1	192.2	1.1
1224	122,369	913.0	4227.0	2.2	191.6	*	191.6	192.7	1.1
1230	123,004	1087.0	5434.0	1.7	192.2	*	192.2	193.2	1.0
1236	123,578	1169.0	5197.0	1.8	192.7	*	192.7	193.6	0.9
1240	123,999	1228.0	5393.0	1.7	193.3	*	193.3	194.2	0.9
1248	124,810	883.0	4373.0	2.1	194.0	*	194.0	195.0	1.0
1253	125,332	206.0	1397.0	6.5	194.2	*	194.2	195.2	1.0
1258	125,774	293.0	2091.0	4.3	195.9	*	195.9	196.8	0.9
1261	126,112	462.0	2999.0	3.0	196.6	*	196.6	197.5	0.9
1264	126,430	344.0	2366.0	3.8	197.0	*	197.0	197.9	0.9
1275	127,538	491.0	4499.0	2.0	198.6	*	198.6	199.9	1.3
1281	128,083	391.0	3274.0	2.8	199.0	*	199.0	200.1	1.1
1286	128,551	236.0	2383.0	3.8	199.3	*	199.3	200.6	1.3
1290	129,013	326.0	4217.0	2.1	200.3	*	200.3	201.3	1.0
1293	129,266	330.0	4081.0	2.2	200.4	*	200.4	201.4	1.0
1295	129,511	330.0	3854.0	2.3	200.5	*	200.5	201.6	1.1
1300	130,027	321.0	3789.0	2.4	200.9	*	200.9	201.9	1.0
1305	130,458	408.0	4766.0	1.9	201.3	*	201.3	202.4	1.1
1311	131,105	478.0	5810.0	1.6	201.7	*	201.7	202.8	1.1
1315	131,543	490.0	5904.0	1.5	201.9	*	201.9	202.9	1.0
1320	131,971	452.0	4754.0	1.9	202.0	*	202.0	203.1	1.1
1325	132,470	526.0	5633.0	1.6	202.4	*	202.4	203.4	1.0
1330	132,966	596.0	6680.0	1.4	202.6	*	202.6	203.7	1.1
1336	133,616	807.0	8188.0	1.1	202.8	*	202.8	203.9	1.1
1340	133,996	1208.0	11616.0	0.8	203.0	*	203.0	203.9	0.9
1345	134,503	1350.0	13334.0	0.7	203.0	*	203.0	204.1	1.1
1349	134,916	1501.0	13677.0	0.7	203.1	*	203.1	204.1	1.0
1355	135,496	1587.0	13001.0	0.7	203.2	*	203.2	204.2	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Middle Creek									
1360	135,979	1657.0	12428.0	0.7	203.2	*	203.2	204.3	1.1
1365	136,520	1513.0	10414.0	0.8	203.3	*	203.3	204.4	1.1
1371	137,093	1375.0	8998.0	1.0	203.6	*	203.6	204.6	1.0
1377	137,722	1278.0	8029.0	1.1	203.8	*	203.8	204.8	1.0
1382	138,209	1142.0	6914.0	1.2	204.1	*	204.1	205.0	0.9
1390	139,049	1073.0	6003.0	1.4	204.5	*	204.5	205.5	1.0
1396	139,618	1027.0	6208.0	1.4	204.9	*	204.9	205.9	1.0
1400	140,021	910.0	5494.0	1.6	205.2	*	205.2	206.2	1.0
1405	140,496	882.0	4850.0	1.8	205.6	*	205.6	206.6	1.0
1408	140,807	882.0	4915.0	1.7	206.1	*	206.1	207.2	1.1
1416	141,629	951.0	6181.0	1.4	206.9	*	206.9	207.8	0.9
1420	141,996	850.0	4923.0	1.7	207.1	*	207.1	208.1	1.0
1425	142,454	713.0	4280.0	2.0	207.6	*	207.6	208.6	1.0
1428	142,830	505.0	3262.0	2.6	208.0	*	208.0	209.0	1.0
1432	143,230	297.0	2194.0	3.9	208.7	*	208.7	209.6	0.9
1442	144,165	643.0	5607.0	1.5	212.0	*	212.0	212.7	0.7
1444	144,418	821.0	6371.0	1.3	212.1	*	212.1	212.9	0.8
1450	144,997	861.0	6834.0	1.3	212.2	*	212.2	213.1	0.9
1455	145,535	870.0	6835.0	1.3	212.4	*	212.4	213.3	0.9
1460	145,996	907.0	6730.0	1.3	212.7	*	212.7	213.6	0.9
1465	146,485	932.0	6877.0	1.2	212.9	*	212.9	213.8	0.9
1468	146,790	1004.0	7108.0	1.2	213.1	*	213.1	214.0	0.9
Mill Branch									
006	608	117.0	243.0	3.7	88.0 ¹	*	77.4	77.4	0.0
010	1,000	42.0	174.0	5.2	88.0 ¹	*	79.3	79.3	0.0
015	1,491	91.0	189.0	4.8	88.0 ¹	*	81.8	81.8	0.0
021	2,091	139.0	309.0	2.9	88.0 ¹	*	84.4	84.9	0.5
026	2,646	85.0	229.0	3.9	88.0 ¹	*	86.3	87.1	0.8
032	3,163	204.0	1057.0	0.9	91.4	*	91.4	91.5	0.1
035	3,523	166.0	639.0	1.2	91.4	*	91.4	91.7	0.3
040	4,021	132.0	575.0	1.3	91.7	*	91.7	92.2	0.5
046	4,555	139.0	403.0	1.9	92.5	*	92.5	93.0	0.5
049	4,877	100.0	375.0	2.1	93.8	*	93.8	93.9	0.1
052	5,200	117.0	241.0	3.2	94.8	*	94.8	94.8	0.0
056	5,603	81.0	250.0	3.1	96.3	*	96.3	96.5	0.2
060	6,000	85.0	346.0	2.2	97.2	*	97.2	97.5	0.3
065	6,526	98.0	329.0	2.3	98.3	*	98.3	98.5	0.2
071	7,050	112.0	357.0	2.1	99.7	*	99.7	99.9	0.2
076	7,575	151.0	331.0	2.2	101.6	*	101.6	101.7	0.1
078	7,818	164.0	452.0	1.6	102.6	*	102.6	102.7	0.1
081	8,137	153.0	384.0	1.9	103.7	*	103.7	103.8	0.1
085	8,490	112.0	356.0	2.1	105.3	*	105.3	105.5	0.2
089	8,863	121.0	379.0	1.7	106.6	*	106.6	106.9	0.3
095	9,500	175.0	498.0	1.3	108.2	*	108.2	108.4	0.2

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Mill Branch									
101	10,051	122.0	338.0	1.9	109.5	*	109.5	109.8	0.3
105	10,507	125.0	367.0	1.6	111.3	*	111.3	111.5	0.2
110	11,000	113.0	380.0	1.6	112.9	*	112.9	113.1	0.2
114	11,426	137.0	398.0	1.5	114.1	*	114.1	114.5	0.4
121	12,133	82.0	267.0	1.9	116.0	*	116.0	116.7	0.7
127	12,670	89.0	221.0	2.3	117.7	*	117.7	118.4	0.7
132	13,152	101.0	219.0	2.3	120.4	*	120.4	120.5	0.1
137	13,714	100.0	294.0	1.6	122.1	*	122.1	122.3	0.2
143	14,295	84.0	114.0	4.0	124.7	*	124.7	125.1	0.4
148	14,810	104.0	229.0	2.0	129.2	*	129.2	129.8	0.6
151	15,125	93.0	222.0	2.1	130.5	*	130.5	131.0	0.5
156	15,602	82.0	291.0	1.6	131.8	*	131.8	132.2	0.4
Mill Creek (South)									
544	54,398	1750.0	10976.0	1.0	95.1 ¹	*	93.9	94.8	0.9
553	55,299	1700.0	9682.0	1.2	95.1 ¹	*	94.6	95.4	0.8
571	57,145	1810.0	12416.0	0.9	95.5	*	95.5	96.3	0.8
583	58,337	1700.0	9865.0	1.1	95.8	*	95.8	96.8	1.0
617	61,701	1200.0	8040.0	1.4	97.9	*	97.9	98.7	0.8
629	62,889	1130.0	7230.0	1.5	98.6	*	98.6	99.4	0.8
641	64,067	1090.0	7457.0	1.5	99.3	*	99.3	100.2	0.9
652	65,247	1260.0	9771.0	1.1	100.0	*	100.0	101.0	1.0
665	66,481	1480.0	11050.0	1.0	100.5	*	100.5	101.5	1.0
677	67,707	1340.0	10284.0	1.1	101.0	*	101.0	102.0	1.0
693	69,348	1280.0	9593.0	1.2	101.8	*	101.8	102.7	0.9
727	72,743	1270.0	9358.0	1.2	103.4	*	103.4	104.0	0.6
738	73,760	1720.0	10799.0	1.0	103.8	*	103.8	104.5	0.7
750	74,980	1790.0	12726.0	0.9	104.2	*	104.2	104.9	0.7
759	75,905	2050.0	14165.0	0.8	104.5	*	104.5	105.2	0.7
769	76,947	2385.0	14563.0	0.8	104.7	*	104.7	105.5	0.8
779	77,918	2485.0	12527.0	0.9	105.0	*	105.0	105.8	0.8
793	79,322	1547.0	7793.0	1.1	105.4	*	105.4	106.4	1.0
Moccasin Creek									
074	7,442	388.0	1909.0	1.6	83.8 ¹	*	79.0	79.8	0.8
094	9,449	984.0	4851.0	0.6	83.8 ¹	*	79.8	80.7	0.9
113	11,253	869.0	4339.0	0.7	83.8 ¹	*	80.1	81.0	0.9
138	13,829	1231.0	7734.0	0.4	83.8 ¹	*	80.5	81.4	0.9
165	16,507	1460.0	7855.0	0.4	83.8 ¹	*	80.7	81.6	0.9
221	22,123	935.0	3972.0	0.8	83.8 ¹	*	81.6	82.5	0.9
229	22,880	788.0	3522.0	0.9	83.9 ²	*	82.0 ²	82.9 ²	0.9
239	23,873	755.0	3242.0	0.8	83.9 ²	*	82.7 ²	83.5 ²	0.8
253	25,319	1428.0	5237.0	0.5	83.9 ²	*	83.4 ²	84.4 ²	1.0
259	25,887	1562.0	5541.0	0.5	83.9 ²	*	83.6 ²	84.6 ²	1.0
274	27,379	2145.0	6661.0	0.4	84.0	*	84.0	84.8	0.8
286	28,648	2505.0	11115.0	0.3	84.0	*	84.0	84.8	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Moccasin Creek									
298	29,845	2689.0	9706.0	0.3	84.1	*	84.1	84.9	0.8
308	30,771	1937.0	5783.0	0.5	84.2	*	84.2	85.0	0.8
316	31,631	1424.0	3415.0	0.8	84.4	*	84.4	85.3	0.9
321	32,133	935.0	2756.0	1.0	84.8	*	84.8	85.6	0.8
333	33,272	698.0	2542.0	1.1	86.8	*	86.8	87.1	0.3
343	34,277	499.0	2027.0	1.4	87.1	*	87.1	87.7	0.6
346	34,637	744.0	2264.0	1.2	87.3	*	87.3	87.9	0.6
352	35,172	926.0	3403.0	0.8	87.5	*	87.5	88.2	0.7
357	35,678	604.0	1890.0	1.5	87.7	*	87.7	88.4	0.7
361	36,099	647.0	2153.0	1.3	88.0	*	88.0	88.8	0.8
364	36,395	724.0	2215.0	1.2	88.2	*	88.2	89.0	0.8
368	36,751	618.0	1970.0	1.4	88.5	*	88.5	89.4	0.9
373	37,270	646.0	2371.0	1.2	88.8	*	88.8	89.7	0.9
376	37,625	517.0	1815.0	1.5	89.0	*	89.0	89.9	0.9
378	37,842	548.0	1601.0	1.7	89.2	*	89.2	90.1	0.9
391	39,065	604.0	2283.0	1.1	89.9	*	89.9	90.9	1.0
394	39,429	557.0	2163.0	1.2	90.1	*	90.1	91.1	1.0
399	39,880	835.0	3040.0	0.9	90.4	*	90.4	91.3	0.9
406	40,596	811.0	3232.0	0.8	90.7	*	90.7	91.6	0.9
411	41,142	622.0	2256.0	1.1	90.9	*	90.9	91.8	0.9
417	41,708	397.0	1514.0	1.7	91.4	*	91.4	92.3	0.9
422	42,157	551.0	2013.0	1.3	91.9	*	91.9	92.8	0.9
428	42,753	892.0	3152.0	0.8	92.4	*	92.4	93.3	0.9
433	43,253	987.0	3702.0	0.7	92.6	*	92.6	93.6	1.0
438	43,754	719.0	2549.0	1.0	93.0	*	93.0	93.9	0.9
442	44,230	685.0	2460.0	1.1	93.4	*	93.4	94.3	0.9
446	44,647	537.0	2074.0	1.2	93.8	*	93.8	94.7	0.9
450	44,991	624.0	2216.0	1.2	94.3	*	94.3	95.2	0.9
454	45,419	677.0	2644.0	1.0	94.8	*	94.8	95.7	0.9
461	46,149	1043.0	3679.0	0.7	95.2	*	95.2	96.1	0.9
466	46,587	1020.0	3158.0	0.8	95.5	*	95.5	96.4	0.9
471	47,102	908.0	2683.0	0.9	96.0	*	96.0	96.8	0.8
477	47,701	877.0	2847.0	0.9	96.5	*	96.5	97.4	0.9
483	48,267	736.0	2584.0	0.9	96.8	*	96.8	97.7	0.9
486	48,587	702.0	2533.0	1.0	97.0	*	97.0	97.9	0.9
488	48,801	690.0	2380.0	1.0	97.2	*	97.2	98.0	0.8
494	49,358	767.0	2341.0	1.0	97.7	*	97.7	98.6	0.9
498	49,782	716.0	2609.0	0.9	98.2	*	98.2	99.2	1.0
501	50,110	713.0	2610.0	0.9	98.5	*	98.5	99.5	1.0
506	50,640	734.0	2816.0	0.9	98.9	*	98.9	99.9	1.0
512	51,180	733.0	2794.0	0.9	99.4	*	99.4	100.4	1.0
516	51,571	704.0	2419.0	1.0	99.8	*	99.8	100.7	0.9
522	52,156	637.0	2274.0	1.1	100.4	*	100.4	101.2	0.8
528	52,776	562.0	2283.0	1.0	100.9	*	100.9	101.7	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Moccasin Creek									
533	53,292	754.0	2912.0	0.8	101.2	*	101.2	102.0	0.8
538	53,836	614.0	2173.0	1.0	101.4	*	101.4	102.3	0.9
542	54,233	367.0	1366.0	1.6	101.8	*	101.8	102.7	0.9
546	54,631	580.0	2101.0	1.0	102.5	*	102.5	103.3	0.8
552	55,164	512.0	1899.0	1.1	103.1	*	103.1	103.8	0.7
558	55,751	488.0	2118.0	1.0	103.7	*	103.7	104.5	0.8
562	56,213	527.0	2525.0	0.9	104.0	*	104.0	104.8	0.8
569	56,893	514.0	2232.0	1.0	104.3	*	104.3	105.2	0.9
572	57,222	351.0	1677.0	1.3	104.5	*	104.5	105.4	0.9
577	57,688	490.0	1899.0	1.1	104.9	*	104.9	105.8	0.9
583	58,301	494.0	1957.0	1.1	105.2	*	105.2	106.2	1.0
591	59,145	517.0	1886.0	1.2	105.6	*	105.6	106.5	0.9
594	59,406	187.0	774.0	2.8	105.8	*	105.8	106.7	0.9
598	59,804	232.0	1075.0	2.0	106.4	*	106.4	107.3	0.9
602	60,189	321.0	1429.0	1.5	106.7	*	106.7	107.6	0.9
608	60,847	484.0	1703.0	1.3	107.0	*	107.0	108.0	1.0
614	61,413	470.0	1371.0	1.5	107.3	*	107.3	108.3	1.0
620	61,975	488.0	1013.0	2.0	107.9	*	107.9	108.7	0.8
625	62,450	246.0	800.0	2.5	108.4	*	108.4	109.3	0.9
629	62,917	95.0	493.0	4.1	109.0	*	109.0	109.9	0.9
635	63,458	69.0	467.0	4.3	110.1	*	110.1	110.8	0.7
640	63,979	75.0	461.0	4.4	111.0	*	111.0	111.5	0.5
644	64,416	76.0	479.0	4.2	111.8	*	111.8	112.2	0.4
647	64,707	77.0	507.0	4.0	112.3	*	112.3	112.6	0.3
651	65,094	88.0	460.0	4.4	114.1	*	114.1	114.3	0.2
654	65,376	226.0	2601.0	0.8	126.4	*	126.4	126.5	0.1
655	65,484	226.0	2567.0	0.8	126.4	*	126.4	126.5	0.1
657	65,669	441.0	4707.0	0.4	126.4	*	126.4	126.5	0.1
661	66,064	502.0	5116.0	0.4	126.4	*	126.4	126.5	0.1
665	66,484	555.0	6629.0	0.3	126.4	*	126.4	126.5	0.1
670	66,984	690.0	7854.0	0.3	126.4	*	126.4	126.5	0.1
674	67,401	564.0	7613.0	0.3	126.4	*	126.4	126.5	0.1
683	68,319	913.0	9259.0	0.2	126.5	*	126.5	126.6	0.1
688	68,806	805.0	6794.0	0.3	126.5	*	126.5	126.6	0.1
696	69,583	733.0	3734.0	0.5	126.5	*	126.5	126.6	0.1
878	87,845	555.0	3856.0	1.9	208.5	*	208.5	209.5	1.0
887	88,695	700.0	5560.0	1.3	210.1	*	210.1	211.0	0.9
Neuse River									
8211	821,075	8400.0	81886.0	0.4	83.9	*	83.9	84.9	1.0
8226	822,628	9580.0	77080.0	0.4	83.9	*	83.9	84.9	1.0
8253	825,301	11300.0	91752.0	0.4	84.0	*	84.0	85.0	1.0
8275	827,468	11300.0	75993.0	0.4	84.0	*	84.0	85.0	1.0
8304	830,408	11500.0	79982.0	0.4	84.1	*	84.1	85.1	1.0
8341	834,148	9675.0	54542.0	0.6	84.3	*	84.3	85.2	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Neuse River									
8356	835,617	10140.0	64868.0	0.5	84.4	*	84.4	85.3	0.9
8372	837,207	10300.0	61229.0	0.5	84.5	*	84.5	85.4	0.9
8407	840,664	10300.0	60413.0	0.5	84.6	*	84.6	85.5	0.9
8435	843,494	8250.0	41440.0	0.7	84.8	*	84.8	85.6	0.8
8504	850,407	8750.0	45846.0	0.7	86.6	*	86.6	87.5	0.9
8543	854,271	10150.0	55369.0	0.6	86.8	*	86.8	87.7	0.9
8562	856,193	9900.0	46365.0	0.7	87.0	*	87.0	87.9	0.9
8571	857,137	10300.0	51239.0	0.6	87.2	*	87.2	88.0	0.8
8596	859,622	11250.0	51886.0	0.6	87.7	*	87.7	88.4	0.7
8637	863,693	11600.0	50412.0	0.6	88.5	*	88.5	89.4	0.9
8657	865,709	11100.0	52330.0	0.6	88.9	*	88.9	89.7	0.8
8679	867,929	10700.0	56555.0	0.5	89.2	*	89.2	90.0	0.8
8709	870,876	10600.0	51395.0	0.6	89.5	*	89.5	90.3	0.8
8743	874,326	10200.0	45768.0	0.7	89.9	*	89.9	90.6	0.7
8775	877,510	9750.0	47003.0	0.7	90.5	*	90.5	91.1	0.6
8815	881,463	10250.0	39984.0	0.8	91.5	*	91.5	92.0	0.5
8828	882,844	10500.0	42427.0	0.7	92.1	*	92.1	92.6	0.5
8875	887,468	11000.0	51931.0	0.6	92.7	*	92.7	93.2	0.5
8889	888,938	11175.0	56192.0	0.6	92.9	*	92.9	93.5	0.6
8916	891,603	10800.0	60019.0	0.5	93.2	*	93.2	93.8	0.6
8936	893,619	9650.0	48680.0	0.6	93.4	*	93.4	94.2	0.8
8958	895,777	9395.0	50455.0	0.6	93.8	*	93.8	94.6	0.8
8981	898,071	11300.0	43458.0	0.7	94.2	*	94.2	95.1	0.9
9013	901,287	12700.0	49724.0	0.6	94.5	*	94.5	95.5	1.0
9039	903,944	12600.0	47847.0	0.6	94.8	*	94.8	95.7	0.9
9062	906,220	12100.0	44468.0	0.7	95.7	*	95.7	96.4	0.7
9074	907,373	11500.0	36419.0	0.8	96.5	*	96.5	97.0	0.5
9093	909,337	10350.0	40232.0	0.8	97.4	*	97.4	97.9	0.5
9115	911,511	9400.0	39869.0	0.8	98.2	*	98.2	98.6	0.4
9131	913,140	9515.0	43282.0	0.7	98.6	*	98.6	98.9	0.3
9148	914,764	9550.0	33073.0	0.9	99.2	*	99.2	99.4	0.2
9164	916,436	9250.0	40023.0	0.8	100.0	*	100.0	100.2	0.2
9205	920,532	10300.0	52083.0	0.6	100.4	*	100.4	100.6	0.2
9222	922,155	9550.0	34822.0	0.9	100.8	*	100.8	101.2	0.4
9236	923,647	9450.0	40141.0	0.8	101.2	*	101.2	101.6	0.4
9263	926,330	8550.0	30048.0	1.0	101.8	*	101.8	102.4	0.6
9282	928,152	7975.0	32510.0	0.9	102.2	*	102.2	102.9	0.7
9321	932,063	8100.0	32587.0	0.9	103.1	*	103.1	103.8	0.7
9336	933,562	7450.0	31468.0	1.0	104.1	*	104.1	104.9	0.8
9356	935,579	8750.0	36374.0	0.8	104.9	*	104.9	105.7	0.8
9399	939,929	8925.0	40880.0	0.8	105.7	*	105.7	106.5	0.8
9418	941,760	7850.0	35208.0	0.9	106.0	*	106.0	106.9	0.9
9431	943,078	6950.0	32593.0	0.9	106.6	*	106.6	107.4	0.8
9476	947,557	7400.0	33250.0	0.9	108.6	*	108.6	109.5	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Neuse River									
9515	951,468	6449.0	31857.0	1.0	109.8	*	109.8	110.5	0.7
9566	956,640	5012.0	29759.0	1.0	111.2	*	111.2	112.1	0.9
9597	959,726	5739.0	30856.0	1.0	111.9	*	111.9	112.9	1.0
9643	964,278	4000.0	22974.0	1.3	113.6	*	113.6	114.5	0.9
9673	967,302	2900.0	18362.0	1.7	115.0	*	115.0	116.0	1.0
9700	969,977	1875.0	16212.0	1.9	116.4	*	116.4	117.3	0.9
9718	971,793	1325.0	9943.0	2.9	117.3	*	117.3	118.3	1.0
9738	973,788	750.0	9202.0	3.2	119.6	*	119.6	120.4	0.8
9758	975,802	540.0	9359.0	3.1	122.8	*	122.8	123.4	0.6
9775	977,521	800.0	13247.0	2.2	123.7	*	123.7	124.4	0.7
9794	979,415	1500.0	24716.0	1.2	124.1	*	124.1	125.0	0.9
9816	981,646	1550.0	21866.0	1.3	124.4	*	124.4	125.3	0.9
9827	982,688	2200.0	32552.0	0.9	124.4	*	124.4	125.5	1.1
9854	985,420	3450.0	42359.0	0.6	124.6	*	124.6	125.7	1.1
9875	987,482	2950.0	37152.0	0.7	124.7	*	124.7	125.8	1.1
9898	989,824	1850.0	24606.0	1.0	124.8	*	124.8	125.9	1.1
9918	991,810	2000.0	23590.0	1.1	125.1	*	125.1	126.2	1.1
9933	993,257	1200.0	16022.0	1.6	125.5	*	125.5	126.5	1.0
9950	994,974	1925.0	23957.0	1.1	126.5	*	126.5	127.4	0.9
9979	997,900	1300.0	15840.0	1.6	127.7	*	127.7	128.6	0.9
9981	998,068	1550.0	16766.0	1.5	127.0	*	127.0	127.9	0.9
9989	998,900	1500.0	17290.0	1.5	128.0	*	128.0	128.8	0.8
9995	999,477	1200.0	15177.0	1.7	127.3	*	127.3	128.3	1.0
10013	1,001,332	1550.0	23796.0	1.1	127.8	*	127.8	128.7	0.9
10037	1,003,723	1575.0	23682.0	1.1	128.1	*	128.1	129.0	0.9
10055	1,005,468	1625.0	22119.0	1.1	128.3	*	128.3	129.3	1.0
10079	1,007,907	1025.0	13863.0	1.8	129.0	*	129.0	129.9	0.9
10091	1,009,130	1100.0	13194.0	1.9	129.5	*	129.5	130.3	0.8
10115	1,011,468	1225.0	17038.0	1.5	130.2	*	130.2	131.0	0.8
10141	1,014,108	700.0	12055.0	2.3	134.7	*	134.7	135.4	0.7
10151	1,015,069	1400.0	24958.0	1.0	135.3	*	135.3	136.0	0.7
10174	1,017,435	1079.0	18594.0	1.3	135.5	*	135.5	136.1	0.6
10195	1,019,468	998.0	16845.0	1.5	135.6	*	135.6	136.3	0.7
10219	1,021,945	1068.0	15815.0	1.6	135.8	*	135.8	136.5	0.7
10257	1,025,656	946.0	16491.0	1.5	136.5	*	136.5	137.3	0.8
10275	1,027,514	1058.0	17112.0	1.5	136.9	*	136.9	137.6	0.7
10287	1,028,728	948.0	15604.0	1.6	137.0	*	137.0	137.8	0.8
10317	1,031,710	599.0	10469.0	2.4	137.5	*	137.5	138.3	0.8
10343	1,034,265	600.0	10300.0	2.4	138.3	*	138.3	139.2	0.9
10352	1,035,218	650.0	11671.0	2.1	138.6	*	138.6	139.6	1.0
10367	1,036,659	875.0	14987.0	1.7	139.1	*	139.1	140.0	0.9
10375	1,037,468	1100.0	17695.0	1.4	139.3	*	139.3	140.2	0.9
10391	1,039,082	875.0	14665.0	1.7	139.5	*	139.5	140.5	1.0
10415	1,041,468	1100.0	17759.0	1.4	140.5	*	140.5	141.4	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Neuse River									
10429	1,042,899	900.0	14819.0	1.7	140.8	*	140.8	141.6	0.8
10444	1,044,442	1000.0	16911.0	1.5	141.1	*	141.1	142.0	0.9
10456	1,045,610	1260.0	20512.0	1.2	141.3	*	141.3	142.2	0.9
10472	1,047,240	779.0	12176.0	2.0	141.5	*	141.5	142.4	0.9
10489	1,048,938	535.0	8866.0	2.8	142.0	*	142.0	142.9	0.9
10504	1,050,411	603.0	9981.0	2.5	142.8	*	142.8	143.7	0.9
10521	1,052,054	600.0	10012.0	2.5	143.4	*	143.4	144.3	0.9
10533	1,053,337	538.0	10255.0	2.4	143.8	*	143.8	144.7	0.9
10555	1,055,468	600.0	9556.0	2.6	144.4	*	144.4	145.3	0.9
10574	1,057,380	485.0	7969.0	3.1	145.1	*	145.1	146.0	0.9
10594	1,059,390	600.0	9112.0	2.7	145.8	*	145.8	146.8	1.0
10615	1,061,469	500.0	7399.0	3.3	146.8	*	146.8	147.7	0.9
10638	1,063,825	405.0	6460.0	3.8	148.1	*	148.1	149.0	0.9
10655	1,065,468	510.0	9430.0	2.6	149.0	*	149.0	149.9	0.9
10679	1,067,905	650.0	8835.0	2.8	149.7	*	149.7	150.6	0.9
10708	1,070,824	947.0	11810.0	2.1	151.4	*	151.4	152.3	0.9
10723	1,072,263	658.0	7578.0	3.2	151.8	*	151.8	152.6	0.8
10749	1,074,906	567.0	8916.0	2.7	152.8	*	152.8	153.7	0.9
10766	1,076,583	642.0	9904.0	2.5	153.3	*	153.3	154.2	0.9
10776	1,077,598	608.0	8355.0	2.9	153.5	*	153.5	154.4	0.9
10800	1,080,023	698.0	10387.0	2.3	154.4	*	154.4	155.2	0.8
10819	1,081,867	717.0	9332.0	2.6	154.9	*	154.9	155.7	0.8
10834	1,083,409	723.0	11225.0	2.2	155.4	*	155.4	156.3	0.9
10845	1,084,484	499.0	8197.0	3.0	155.6	*	155.6	156.5	0.9
10855	1,085,468	567.0	10157.0	2.4	156.4	*	156.4	157.2	0.8
10863	1,086,319	583.0	8251.0	2.9	156.7	*	156.7	157.4	0.7
10874	1,087,397	637.0	9505.0	2.5	157.2	*	157.2	157.9	0.7
10898	1,089,849	720.0	9776.0	2.5	158.0	*	158.0	158.7	0.7
10920	1,091,980	745.0	12391.0	1.6	158.5	*	158.5	159.3	0.8
10940	1,094,032	527.0	7937.0	2.5	158.9	*	158.9	159.6	0.7
10957	1,095,661	416.0	6473.0	3.0	159.3	*	159.3	160.0	0.7
10975	1,097,468	982.0	11750.0	1.7	159.9	*	159.9	160.7	0.8
10993	1,099,305	675.0	9857.0	2.0	160.3	*	160.3	161.1	0.8
11016	1,101,589	686.0	9463.0	2.1	160.9	*	160.9	161.6	0.7
11042	1,104,153	640.0	8499.0	2.3	161.7	*	161.7	162.4	0.7
11056	1,105,567	749.0	11129.0	1.8	162.1	*	162.1	162.9	0.8
Poplar Creek									
006	640	1300.0	15840.0	1.6	127.7 ²	*	-8888.0	-8888.0	0.0
020	1,990	1500.0	17290.0	1.5	128.0 ²	*	117.8	117.8	0.0
047	4,680	620.0	3854.0	1.8	127.9 ¹	*	118.1	118.3	0.2
057	5,706	480.0	3749.0	1.9	127.9 ¹	*	118.5	119.6	1.1
063	6,280	470.0	3826.0	1.8	127.9 ¹	*	119.4	120.2	0.8
081	8,074	330.0	2443.0	2.9	127.9 ¹	*	124.2	124.8	0.6
089	8,911	280.0	2209.0	3.2	127.9 ¹	*	126.3	126.7	0.4

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Poplar Creek									
098	9,847	410.0	2978.0	2.4	128.6	*	128.6	129.3	0.7
107	10,653	515.0	3852.0	1.8	130.2	*	130.2	131.1	0.9
116	11,576	190.0	1312.0	5.5	133.0	*	133.0	133.3	0.3
126	12,628	835.0	5783.0	1.2	135.7	*	135.7	136.7	1.0
137	13,724	680.0	5052.0	1.4	136.8	*	136.8	137.8	1.0
144	14,437	560.0	4082.0	1.8	137.6	*	137.6	138.6	1.0
156	15,617	325.0	1941.0	3.7	139.1	*	139.1	140.0	0.9
179	17,888	195.0	1264.0	3.2	143.9	*	143.9	144.7	0.8
187	18,724	345.0	2347.0	1.7	146.2	*	146.2	147.2	1.0
198	19,812	170.0	931.0	4.4	149.4	*	149.4	150.2	0.8
207	20,656	250.0	1605.0	2.5	154.5	*	154.5	155.3	0.8
217	21,731	220.0	1739.0	2.3	157.3	*	157.3	158.3	1.0
228	22,787	145.0	748.0	5.4	161.7	*	161.7	162.3	0.6
234	23,425	240.0	1532.0	2.7	167.0	*	167.0	168.0	1.0
241	24,076	215.0	1239.0	3.3	169.9	*	169.9	170.9	1.0
254	25,445	145.0	859.0	2.8	174.3	*	174.3	175.3	1.0
263	26,287	157.0	851.0	2.8	178.1	*	178.1	179.1	1.0
Sams Creek									
119	11,904	48.0	172.0	5.8	209.8	*	209.8	210.0	0.2
121	12,125	93.0	149.0	6.3	211.8	*	211.8	211.8	0.0
123	12,271	60.0	153.0	6.1	213.5	*	213.5	213.7	0.2
124	12,396	115.0	177.0	5.3	216.1	*	216.1	216.1	0.0
126	12,552	95.0	248.0	3.8	218.0	*	218.0	218.0	0.0
127	12,655	36.0	103.0	9.1	218.1	*	218.1	218.1	0.0
128	12,754	71.0	162.0	5.7	219.9	*	219.9	219.9	0.0
129	12,880	116.0	247.0	3.8	221.2	*	221.2	221.2	0.0
130	12,992	117.0	317.0	2.9	222.3	*	222.3	222.3	0.0
131	13,097	126.0	233.0	4.0	222.9	*	222.9	222.9	0.0
132	13,215	66.0	281.0	3.3	224.4	*	224.4	224.4	0.0
133	13,345	60.0	163.0	5.7	226.0	*	226.0	226.0	0.0
134	13,442	47.0	250.0	3.7	227.3	*	227.3	228.0	0.7
135	13,540	37.0	171.0	5.4	227.6	*	227.6	228.4	0.8
136	13,636	47.0	268.0	3.5	229.2	*	229.2	229.7	0.5
137	13,745	42.0	178.0	5.2	229.7	*	229.7	230.2	0.5
139	13,854	42.0	272.0	3.4	231.1	*	231.1	231.5	0.4
140	13,966	56.0	274.0	3.0	231.5	*	231.5	232.0	0.5
144	14,363	80.0	705.0	1.2	240.0	*	240.0	241.0	1.0
Spring Branch									
001	116	42.0	119.0	3.4	125.4 ¹	*	109.1	109.1	0.0
002	177	30.0	110.0	3.7	125.4 ¹	*	109.2	109.2	0.0
003	260	27.0	88.0	4.6	125.4 ¹	*	109.4	109.4	0.0
004	418	50.0	182.0	2.2	125.4 ¹	*	109.9	109.9	0.0
006	622	86.0	340.0	1.2	125.4 ¹	*	110.0	110.0	0.0
008	844	60.0	151.0	2.7	125.4 ¹	*	110.0	110.0	0.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Spring Branch									
011	1,070	45.0	161.0	2.5	125.4 ¹	*	110.3	110.3	0.0
017	1,707	59.0	661.0	0.6	127.6	*	127.6	127.8	0.2
021	2,135	45.0	269.0	1.4	127.7	*	127.7	128.0	0.3
026	2,552	110.0	357.0	1.1	129.1	*	129.1	129.1	0.0
027	2,729	45.0	154.0	2.5	129.1	*	129.1	129.2	0.1
031	3,079	110.0	387.0	1.0	130.7	*	130.7	131.7	1.0
038	3,812	75.0	201.0	1.9	132.4	*	132.4	133.3	0.9
057	5,729	37.0	72.0	3.7	140.5	*	140.5	141.3	0.8
Stone Creek									
029	2,854	1648.0	3554.0	0.9	105.6 ¹	*	102.0	102.2	0.2
032	3,195	1197.0	2806.0	1.1	105.6 ¹	*	102.4	102.6	0.2
035	3,540	937.0	2955.0	1.0	105.6 ¹	*	103.0	103.2	0.2
041	4,056	777.0	2015.0	1.5	105.6 ¹	*	103.7	103.9	0.2
046	4,551	644.0	2219.0	1.4	105.6 ¹	*	104.6	104.7	0.1
051	5,083	518.0	2008.0	1.5	105.6 ¹	*	105.3	105.5	0.2
055	5,500	621.0	2595.0	1.2	105.7	*	105.7	106.1	0.4
061	6,124	795.0	3838.0	0.8	105.9	*	105.9	106.5	0.6
065	6,505	710.0	2585.0	1.2	106.1	*	106.1	106.8	0.7
077	7,733	331.0	1711.0	1.7	107.8	*	107.8	108.3	0.5
081	8,092	430.0	2292.0	1.3	108.1	*	108.1	108.9	0.8
086	8,619	602.0	3479.0	0.9	108.4	*	108.4	109.3	0.9
Stony Fork									
011	1,147	671.0	2288.0	1.3	134.1 ¹	*	127.6	128.5	0.9
017	1,692	496.0	1772.0	1.7	134.1 ¹	*	128.7	129.7	1.0
020	2,036	436.0	1634.0	1.8	134.1 ¹	*	129.7	130.7	1.0
024	2,383	312.0	1382.0	2.1	134.1 ¹	*	130.7	131.6	0.9
029	2,851	525.0	2329.0	1.3	134.1 ¹	*	131.7	132.6	0.9
032	3,214	589.0	2603.0	1.1	134.1 ¹	*	132.0	133.0	1.0
036	3,649	482.0	1745.0	1.5	134.1 ¹	*	132.4	133.4	1.0
039	3,948	278.0	753.0	3.5	134.1 ¹	*	133.5	134.0	0.5
041	4,149	216.0	965.0	2.8	134.7	*	134.7	135.5	0.8
048	4,765	77.0	514.0	5.2	136.5	*	136.5	137.5	1.0
054	5,372	40.0	318.0	8.4	140.1	*	140.1	140.2	0.1
056	5,634	44.0	422.0	6.3	141.6	*	141.6	142.3	0.7
058	5,815	40.0	369.0	7.2	142.3	*	142.3	142.9	0.6
060	6,037	29.0	230.0	11.6	143.7	*	143.7	144.3	0.6
071	7,115	100.0	1303.0	2.0	150.7	*	150.7	151.3	0.6
076	7,555	170.0	1932.0	1.4	150.7	*	150.7	151.5	0.8
080	8,016	269.0	2824.0	0.9	150.7	*	150.7	151.6	0.9
085	8,457	290.0	2779.0	1.0	150.7	*	150.7	151.6	0.9
092	9,156	405.0	3814.0	0.7	150.8	*	150.8	151.7	0.9
098	9,817	410.0	3776.0	0.7	150.8	*	150.8	151.8	1.0
104	10,399	567.0	4856.0	0.6	150.9	*	150.9	151.8	0.9
110	11,031	507.0	3675.0	0.7	150.9	*	150.9	151.9	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Stony Fork									
117	11,675	620.0	4569.0	0.6	151.0	*	151.0	151.9	0.9
124	12,429	343.0	2488.0	1.1	151.1	*	151.1	152.0	0.9
127	12,668	307.0	2264.0	1.2	151.1	*	151.1	152.1	1.0
132	13,158	258.0	1744.0	1.5	151.3	*	151.3	152.3	1.0
Swift Creek									
037	3,701	2877.0	11421.0	1.2	124.7 ¹	*	111.0	111.6	0.6
041	4,131	2745.0	8252.0	1.7	124.7 ¹	*	111.2	111.8	0.6
047	4,687	2327.0	8270.0	1.7	124.7 ¹	*	111.7	112.4	0.7
053	5,296	2192.0	8214.0	1.7	124.7 ¹	*	112.0	112.9	0.9
059	5,896	2060.0	8530.0	1.6	124.7 ¹	*	112.4	113.4	1.0
064	6,370	1831.0	7722.0	1.8	124.7 ¹	*	112.8	113.7	0.9
075	7,494	1565.0	7706.0	1.8	124.7 ¹	*	113.7	114.6	0.9
078	7,812	1371.0	7612.0	1.8	124.7 ¹	*	114.0	114.9	0.9
081	8,096	1177.0	4848.0	2.9	124.7 ¹	*	114.4	115.3	0.9
090	9,005	1191.0	7353.0	1.9	124.7 ¹	*	116.5	117.0	0.5
095	9,500	1070.0	7074.0	2.0	124.7 ¹	*	116.9	117.5	0.6
105	10,464	1101.0	6581.0	2.1	124.7 ¹	*	117.4	118.1	0.7
113	11,315	1002.0	7490.0	1.9	124.7 ¹	*	118.3	119.1	0.8
129	12,937	1709.0	13535.0	1.0	124.7 ¹	*	119.9	120.5	0.6
135	13,496	2146.0	16797.0	0.8	124.7 ¹	*	120.0	120.6	0.6
140	14,007	2526.0	17762.0	0.8	124.7 ¹	*	120.1	120.6	0.5
148	14,790	2997.0	21527.0	0.7	124.7 ¹	*	120.1	120.7	0.6
155	15,469	2927.0	18683.0	0.8	124.7 ¹	*	120.2	120.8	0.6
162	16,249	2596.0	16210.0	0.9	124.7 ¹	*	120.2	120.9	0.7
166	16,591	2412.0	13292.0	1.1	124.7 ¹	*	120.3	121.0	0.7
170	17,000	2048.0	10973.0	1.3	124.7 ¹	*	120.5	121.2	0.7
175	17,475	1866.0	10110.0	1.4	124.7 ¹	*	121.1	121.7	0.6
180	17,974	1557.0	8810.0	1.6	124.7 ¹	*	121.8	122.6	0.8
184	18,394	1494.0	7576.0	1.8	124.7 ¹	*	122.2	122.9	0.7
190	18,989	1327.0	7575.0	1.8	124.7 ¹	*	122.9	123.6	0.7
195	19,531	1249.0	6830.0	2.0	124.7 ¹	*	123.6	124.3	0.7
204	20,369	1110.0	7368.0	1.9	124.7 ¹	*	124.3	125.0	0.7
212	21,206	1206.0	9178.0	1.5	124.6	*	124.6	125.4	0.8
215	21,500	1243.0	8750.0	1.6	124.8	*	124.8	125.6	0.8
221	22,146	1058.0	7786.0	1.8	125.0	*	125.0	126.0	1.0
225	22,500	598.0	4245.0	3.3	125.4	*	125.4	126.4	1.0
230	23,041	470.0	3157.0	4.4	126.1	*	126.1	126.9	0.8
235	23,507	409.0	3481.0	4.0	127.5	*	127.5	128.1	0.6
240	23,955	357.0	3342.0	4.2	128.3	*	128.3	128.9	0.6
242	24,227	383.0	3184.0	4.4	129.1	*	129.1	129.3	0.2
245	24,499	373.0	3375.0	4.1	129.4	*	129.4	130.1	0.7
250	24,985	467.0	4856.0	2.9	130.1	*	130.1	131.0	0.9
255	25,500	800.0	7225.0	1.9	130.5	*	130.5	131.4	0.9
260	26,000	828.0	6548.0	2.1	130.7	*	130.7	131.5	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Swift Creek									
263	26,343	817.0	5973.0	2.3	130.8	*	130.8	131.7	0.9
271	27,125	1171.0	11265.0	1.2	131.1	*	131.1	132.0	0.9
277	27,652	1237.0	10540.0	1.3	131.2	*	131.2	132.1	0.9
281	28,110	1171.0	10788.0	1.3	131.3	*	131.3	132.1	0.8
285	28,486	1300.0	11051.0	1.3	131.3	*	131.3	132.2	0.9
288	28,845	1296.0	11068.0	1.3	131.4	*	131.4	132.3	0.9
293	29,344	1331.0	11367.0	1.2	131.5	*	131.5	132.4	0.9
300	30,000	1331.0	10693.0	1.3	131.6	*	131.6	132.5	0.9
304	30,436	1305.0	10661.0	1.3	131.7	*	131.7	132.6	0.9
308	30,800	1331.0	10124.0	1.4	131.7	*	131.7	132.6	0.9
314	31,389	1220.0	8373.0	1.7	131.9	*	131.9	132.8	0.9
321	32,109	941.0	4996.0	2.8	132.2	*	132.2	133.1	0.9
329	32,944	851.0	6824.0	2.0	132.8	*	132.8	133.7	0.9
334	33,435	817.0	6635.0	2.1	133.1	*	133.1	134.0	0.9
340	34,000	633.0	4974.0	2.8	133.2	*	133.2	134.1	0.9
345	34,501	487.0	3648.0	3.8	133.7	*	133.7	134.6	0.9
350	35,010	302.0	2371.0	5.9	134.2	*	134.2	135.1	0.9
354	35,437	191.0	3223.0	4.3	135.5	*	135.5	136.5	1.0
360	36,000	312.0	2437.0	5.7	135.6	*	135.6	136.5	0.9
365	36,490	362.0	3794.0	3.7	137.1	*	137.1	137.9	0.8
370	37,028	340.0	3598.0	3.9	137.6	*	137.6	138.4	0.8
373	37,331	227.0	3231.0	4.3	137.8	*	137.8	138.6	0.8
376	37,578	212.0	2903.0	4.8	137.9	*	137.9	138.8	0.9
382	38,163	243.0	3698.0	3.8	138.8	*	138.8	139.7	0.9
385	38,494	238.0	2951.0	4.7	139.1	*	139.1	139.8	0.7
390	39,000	210.0	2722.0	5.1	139.6	*	139.6	140.6	1.0
395	39,521	233.0	3379.0	4.1	140.6	*	140.6	141.6	1.0
400	39,957	185.0	2546.0	5.5	140.8	*	140.8	141.8	1.0
402	40,176	157.0	2335.0	6.0	141.2	*	141.2	142.1	0.9
405	40,530	149.0	2533.0	5.5	142.0	*	142.0	142.9	0.9
410	41,036	218.0	3242.0	4.3	142.6	*	142.6	143.5	0.9
416	41,650	558.0	5317.0	2.6	143.5	*	143.5	144.3	0.8
421	42,098	622.0	5387.0	2.6	143.8	*	143.8	144.5	0.7
425	42,455	551.0	6029.0	2.3	143.9	*	143.9	144.7	0.8
430	43,013	253.0	3263.0	4.3	144.0	*	144.0	144.7	0.7
435	43,500	271.0	3801.0	3.7	144.5	*	144.5	145.2	0.7
439	43,905	284.0	3722.0	3.7	144.7	*	144.7	145.4	0.7
443	44,328	285.0	3536.0	3.9	145.0	*	145.0	145.7	0.7
447	44,691	274.0	3979.0	3.5	145.4	*	145.4	146.2	0.8
452	45,164	218.0	3404.0	4.1	145.7	*	145.7	146.4	0.7
455	45,500	209.0	3282.0	4.3	145.9	*	145.9	146.6	0.7
460	46,000	158.0	2732.0	5.1	146.2	*	146.2	146.9	0.7
465	46,500	139.0	2631.0	5.3	146.6	*	146.6	147.4	0.8
470	47,005	141.0	2637.0	5.3	147.0	*	147.0	147.8	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Swift Creek									
475	47,502	229.0	4545.0	3.1	147.8	*	147.8	148.5	0.7
479	47,923	256.0	4225.0	3.3	147.9	*	147.9	148.7	0.8
483	48,345	296.0	3910.0	3.6	148.0	*	148.0	148.8	0.8
490	48,997	192.0	3322.0	4.2	148.6	*	148.6	149.3	0.7
495	49,502	178.0	3211.0	4.3	148.8	*	148.8	149.5	0.7
500	50,013	176.0	2903.0	4.8	149.0	*	149.0	149.7	0.7
506	50,610	189.0	3244.0	4.3	149.6	*	149.6	150.4	0.8
510	51,000	159.0	3016.0	4.6	150.1	*	150.1	150.8	0.7
515	51,456	153.0	2924.0	4.8	150.4	*	150.4	151.1	0.7
518	51,819	203.0	3258.0	4.3	150.6	*	150.6	151.4	0.8
521	52,108	155.0	2964.0	4.7	150.9	*	150.9	151.7	0.8
525	52,537	278.0	4570.0	3.1	151.4	*	151.4	152.1	0.7
529	52,937	367.0	5854.0	2.4	151.6	*	151.6	152.4	0.8
535	53,539	760.0	12371.0	1.1	151.9	*	151.9	152.7	0.8
541	54,093	735.0	10170.0	1.3	151.9	*	151.9	152.8	0.9
545	54,458	485.0	6067.0	2.2	151.9	*	151.9	152.8	0.9
550	54,984	387.0	4543.0	2.9	152.1	*	152.1	152.9	0.8
555	55,527	303.0	4066.0	3.2	152.3	*	152.3	153.2	0.9
560	55,997	202.0	2889.0	4.5	152.5	*	152.5	153.4	0.9
565	56,498	219.0	3300.0	4.0	153.1	*	153.1	153.9	0.8
569	56,896	259.0	3545.0	3.7	153.4	*	153.4	154.3	0.9
573	57,268	434.0	6038.0	2.2	154.0	*	154.0	154.8	0.8
575	57,503	385.0	4266.0	3.1	153.9	*	153.9	154.8	0.9
579	57,902	285.0	3907.0	3.3	154.2	*	154.2	155.1	0.9
585	58,482	196.0	2483.0	5.2	154.9	*	154.9	155.7	0.8
590	58,980	193.0	2826.0	4.6	156.2	*	156.2	157.0	0.8
595	59,545	317.0	4103.0	3.2	157.1	*	157.1	157.9	0.8
600	60,000	177.0	2700.0	4.8	157.2	*	157.2	158.0	0.8
604	60,410	178.0	3015.0	4.3	157.8	*	157.8	158.7	0.9
611	61,076	231.0	3239.0	4.0	158.3	*	158.3	159.2	0.9
617	61,698	499.0	5921.0	2.2	159.3	*	159.3	160.1	0.8
621	62,074	485.0	7131.0	1.8	159.6	*	159.6	160.4	0.8
625	62,515	479.0	6316.0	2.1	159.7	*	159.7	160.5	0.8
630	62,976	386.0	4439.0	2.9	159.8	*	159.8	160.5	0.7
635	63,521	248.0	3094.0	4.2	159.9	*	159.9	160.8	0.9
639	63,885	334.0	4061.0	3.2	160.6	*	160.6	161.4	0.8
652	65,171	269.0	4063.0	3.2	161.6	*	161.6	162.3	0.7
655	65,524	420.0	6232.0	2.1	161.9	*	161.9	162.7	0.8
659	65,885	623.0	7972.0	1.6	162.0	*	162.0	162.8	0.8
665	66,479	641.0	8120.0	1.6	162.1	*	162.1	162.8	0.7
669	66,873	566.0	8567.0	1.5	162.1	*	162.1	162.9	0.8
673	67,307	658.0	8887.0	1.5	162.3	*	162.3	163.1	0.8
680	68,000	780.0	10558.0	1.2	162.4	*	162.4	163.2	0.8
684	68,403	926.0	11146.0	1.2	162.4	*	162.4	163.2	0.8

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Swift Creek									
689	68,924	823.0	9044.0	1.4	162.4	*	162.4	163.2	0.8
695	69,538	264.0	3548.0	3.7	162.4	*	162.4	163.2	0.8
700	69,993	130.0	2366.0	5.5	162.5	*	162.5	163.3	0.8
705	70,500	135.0	2369.0	5.5	162.8	*	162.8	163.7	0.9
710	71,027	201.0	3162.0	4.1	163.6	*	163.6	164.4	0.8
714	71,365	235.0	3614.0	3.6	163.8	*	163.8	164.7	0.9
717	71,700	340.0	4704.0	2.8	164.2	*	164.2	165.1	0.9
720	71,989	392.0	6653.0	2.0	164.5	*	164.5	165.4	0.9
726	72,607	688.0	11701.0	1.1	164.7	*	164.7	165.6	0.9
729	72,941	680.0	10830.0	1.2	164.7	*	164.7	165.7	1.0
733	73,256	963.0	13461.0	1.0	164.8	*	164.8	165.7	0.9
740	73,964	749.0	9683.0	1.3	164.8	*	164.8	165.8	1.0
745	74,518	619.0	7636.0	1.7	165.0	*	165.0	165.9	0.9
751	75,076	431.0	4527.0	2.9	165.1	*	165.1	166.0	0.9
756	75,596	351.0	4167.0	3.1	165.3	*	165.3	166.2	0.9
761	76,107	420.0	4431.0	2.9	165.6	*	165.6	166.5	0.9
768	76,774	569.0	6492.0	2.0	166.2	*	166.2	167.2	1.0
771	77,128	750.0	9192.0	1.4	166.5	*	166.5	167.4	0.9
777	77,721	833.0	9188.0	1.4	166.6	*	166.6	167.6	1.0
781	78,096	989.0	10554.0	1.2	166.7	*	166.7	167.7	1.0
784	78,429	1303.0	9609.0	1.4	166.7	*	166.7	167.7	1.0
787	78,717	1417.0	10546.0	1.2	166.8	*	166.8	167.8	1.0
791	79,128	1211.0	8785.0	1.5	166.9	*	166.9	167.9	1.0
798	79,799	1060.0	10391.0	1.3	167.2	*	167.2	168.1	0.9
802	80,162	907.0	10162.0	1.3	167.3	*	167.3	168.2	0.9
806	80,607	725.0	7103.0	1.8	167.4	*	167.4	168.4	1.0
811	81,119	666.0	5797.0	2.3	167.8	*	167.8	168.7	0.9
816	81,613	454.0	4274.0	3.1	168.1	*	168.1	169.0	0.9
822	82,179	366.0	4106.0	3.2	168.6	*	168.6	169.6	1.0
826	82,602	369.0	4302.0	3.0	168.9	*	168.9	169.9	1.0
831	83,116	296.0	3588.0	3.6	169.1	*	169.1	170.1	1.0
836	83,624	198.0	3188.0	4.1	169.6	*	169.6	170.5	0.9
841	84,145	502.0	5835.0	2.2	170.1	*	170.1	171.0	0.9
844	84,399	524.0	5938.0	2.2	170.2	*	170.2	171.1	0.9
852	85,166	641.0	8762.0	1.5	170.8	*	170.8	171.5	0.7
857	85,697	798.0	10952.0	1.2	171.0	*	171.0	171.7	0.7
861	86,098	799.0	10467.0	1.2	171.1	*	171.1	171.8	0.7
865	86,512	650.0	8617.0	1.5	171.1	*	171.1	171.9	0.8
870	87,035	813.0	8983.0	1.5	171.2	*	171.2	172.0	0.8
881	88,107	1407.0	13782.0	0.9	171.2	*	171.2	172.2	1.0
886	88,639	1303.0	12620.0	1.0	171.3	*	171.3	172.2	0.9
889	88,929	1231.0	11087.0	1.2	171.3	*	171.3	172.2	0.9
896	89,620	1049.0	9152.0	1.4	171.3	*	171.3	172.3	1.0
901	90,091	704.0	6054.0	2.2	171.4	*	171.4	172.4	1.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Swift Creek									
908	90,834	520.0	5062.0	2.6	171.8	*	171.8	172.8	1.0
911	91,126	645.0	5754.0	2.3	172.0	*	172.0	172.9	0.9
916	91,558	650.0	6745.0	1.9	172.2	*	172.2	173.2	1.0
926	92,639	933.0	11912.0	1.1	173.7	*	173.7	174.6	0.9
931	93,107	1122.0	12528.0	1.0	173.8	*	173.8	174.7	0.9
936	93,607	959.0	9363.0	1.4	173.9	*	173.9	174.8	0.9
941	94,107	941.0	9139.0	1.4	174.0	*	174.0	174.9	0.9
946	94,617	745.0	7533.0	1.7	174.0	*	174.0	174.9	0.9
951	95,107	574.0	7065.0	1.8	174.2	*	174.2	175.0	0.8
956	95,552	482.0	5632.0	2.3	174.3	*	174.3	175.1	0.8
961	96,110	478.0	6080.0	2.1	174.7	*	174.7	175.6	0.9
966	96,611	663.0	8041.0	1.6	174.9	*	174.9	175.7	0.8
971	97,094	501.0	6197.0	2.0	175.0	*	175.0	175.9	0.9
976	97,621	587.0	6571.0	1.9	175.3	*	175.3	176.2	0.9
980	98,022	806.0	8451.0	1.5	175.5	*	175.5	176.4	0.9
983	98,296	927.0	9597.0	1.3	175.6	*	175.6	176.5	0.9
991	99,106	890.0	10061.0	1.2	175.9	*	175.9	176.8	0.9
996	99,585	1051.0	10297.0	1.2	176.0	*	176.0	177.0	1.0
1001	100,061	1233.0	14074.0	0.9	176.2	*	176.2	177.1	0.9
1006	100,607	1101.0	11048.0	1.1	176.2	*	176.2	177.1	0.9
1012	101,219	987.0	11302.0	1.1	176.3	*	176.3	177.3	1.0
1016	101,614	836.0	9566.0	1.3	176.4	*	176.4	177.4	1.0
1020	101,980	853.0	10210.0	1.2	176.5	*	176.5	177.5	1.0
1026	102,634	1001.0	11557.0	1.1	176.6	*	176.6	177.6	1.0
1030	103,049	1195.0	12582.0	1.0	176.7	*	176.7	177.7	1.0
1036	103,574	1342.0	12557.0	1.0	176.8	*	176.8	177.8	1.0
1041	104,135	1416.0	13158.0	0.9	177.0	*	177.0	178.0	1.0
1046	104,627	1505.0	14433.0	0.9	177.1	*	177.1	178.1	1.0
1051	105,106	1577.0	14072.0	0.9	177.2	*	177.2	178.2	1.0
1056	105,649	1754.0	15583.0	0.8	177.3	*	177.3	178.3	1.0
1061	106,116	1948.0	16594.0	0.8	177.4	*	177.4	178.4	1.0
1065	106,453	2141.0	15349.0	0.8	177.4	*	177.4	178.4	1.0
1074	107,379	2350.0	16872.0	0.7	177.4	*	177.4	178.4	1.0
1081	108,124	2431.0	16502.0	0.8	177.5	*	177.5	178.5	1.0
1086	108,628	2219.0	12490.0	1.0	177.5	*	177.5	178.5	1.0
1095	109,488	1539.0	7818.0	1.6	177.7	*	177.7	178.6	0.9
1101	110,072	1239.0	6069.0	2.1	177.8	*	177.8	178.7	0.9
1106	110,588	994.0	6261.0	2.0	178.1	*	178.1	178.9	0.8
1110	111,012	872.0	5350.0	2.3	178.1	*	178.1	179.0	0.9
1115	111,491	809.0	5671.0	2.2	178.4	*	178.4	179.2	0.8
1122	112,159	749.0	5365.0	2.3	178.6	*	178.6	179.4	0.8
1124	112,425	837.0	5445.0	2.3	178.9	*	178.9	179.6	0.7
1127	112,726	702.0	4612.0	2.7	179.2	*	179.2	180.0	0.8
1131	113,074	608.0	3493.0	3.6	179.6	*	179.6	180.3	0.7

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Swift Creek									
1136	113,574	389.0	3050.0	4.1	180.5	*	180.5	181.4	0.9
1141	114,088	310.0	2866.0	4.3	181.3	*	181.3	182.3	1.0
1145	114,546	310.0	2803.0	4.4	182.3	*	182.3	183.1	0.8
1151	115,068	597.0	7114.0	1.7	183.7	*	183.7	184.7	1.0
1155	115,533	706.0	8192.0	1.5	183.9	*	183.9	184.8	0.9
1160	115,958	522.0	5927.0	2.1	184.0	*	184.0	185.0	1.0
1166	116,564	208.0	2785.0	4.5	184.2	*	184.2	185.2	1.0
1171	117,122	256.0	3473.0	3.2	185.2	*	185.2	186.0	0.8
1177	117,681	398.0	5427.0	2.0	185.7	*	185.7	186.7	1.0
1180	118,025	446.0	5528.0	2.0	185.9	*	185.9	186.9	1.0
1183	118,308	488.0	4473.0	2.4	186.2	*	186.2	187.1	0.9
1190	118,987	691.0	8237.0	1.3	186.4	*	186.4	187.4	1.0
1197	119,690	507.0	5653.0	1.9	186.4	*	186.4	187.4	1.0
1201	120,081	465.0	5572.0	2.0	186.6	*	186.6	187.6	1.0
1206	120,572	784.0	8599.0	1.3	186.9	*	186.9	187.9	1.0
1211	121,073	950.0	9828.0	1.1	187.0	*	187.0	188.0	1.0
1220	121,993	934.0	9442.0	1.2	187.9	*	187.9	188.5	0.6
1227	122,671	934.0	9145.0	1.2	188.0	*	188.0	188.7	0.7
1231	123,069	762.0	7851.0	1.4	188.2	*	188.2	188.9	0.7
1233	123,317	555.0	4141.0	2.6	188.3	*	188.3	189.1	0.8
1237	123,687	423.0	4044.0	2.7	188.5	*	188.5	189.3	0.8
1239	123,922	874.0	8961.0	1.2	189.1	*	189.1	190.0	0.9
1246	124,569	1479.0	14656.0	0.8	189.3	*	189.3	190.2	0.9
1250	124,960	1589.0	15113.0	0.7	189.3	*	189.3	190.2	0.9
1255	125,543	1605.0	15062.0	0.7	189.4	*	189.4	190.3	0.9
1258	125,845	1648.0	15257.0	0.7	189.4	*	189.4	190.3	0.9
1265	126,477	1720.0	15454.0	0.7	189.5	*	189.5	190.3	0.8
1271	127,074	1492.0	12651.0	0.9	189.5	*	189.5	190.4	0.9
1276	127,615	1198.0	9386.0	1.2	189.6	*	189.6	190.6	1.0
1281	128,134	1025.0	7808.0	1.4	189.8	*	189.8	190.7	0.9
1287	128,678	932.0	7040.0	1.6	190.0	*	190.0	190.9	0.9
1290	129,024	912.0	6551.0	1.7	190.2	*	190.2	191.0	0.8
1296	129,606	933.0	7634.0	1.4	190.5	*	190.5	191.3	0.8
1301	130,128	943.0	6372.0	1.7	190.6	*	190.6	191.5	0.9
1308	130,771	935.0	6542.0	1.7	191.0	*	191.0	191.9	0.9
1318	131,761	669.0	6785.0	1.6	193.7	*	193.7	194.2	0.5
1320	132,050	697.0	6328.0	1.7	193.7	*	193.7	194.2	0.5
1326	132,592	726.0	6592.0	1.7	194.0	*	194.0	194.6	0.6
1331	133,098	735.0	8096.0	1.3	194.1	*	194.1	194.7	0.6
1336	133,575	770.0	5956.0	1.8	194.3	*	194.3	194.9	0.6
1338	133,841	758.0	5279.0	2.0	194.4	*	194.4	195.1	0.7
1343	134,343	895.0	7097.0	1.5	194.7	*	194.7	195.5	0.8
1349	134,911	862.0	6623.0	1.6	194.9	*	194.9	195.7	0.8
1355	135,466	1013.0	7690.0	1.4	195.2	*	195.2	196.1	0.9

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Swift Creek									
1359	135,894	901.0	6222.0	1.5	193.6	*	193.6	194.4	0.8
1384	138,418	618.0	5547.0	1.7	195.0	*	195.0	195.8	0.8
1407	140,722	821.0	5813.0	2.0	197.1	*	197.1	197.7	0.6
1421	142,050	416.0	4451.0	2.7	201.0	*	201.0	201.5	0.5
1445	144,485	1090.0	9478.0	1.3	202.1	*	202.1	202.7	0.6
Unnamed Tributary (#1) to Swift Creek									
004	378	131.0	663.0	3.0	194.1 ¹	*	188.0	188.9	0.9
8	840	188.0	883.0	2.2	194.1 ¹	*	189.2	190.2	1.0
11	1,130	194.0	916.0	2.1	194.1 ¹	*	190.0	191.0	1.0
15	1,472	155.0	644.0	3.1	194.1 ¹	*	191.1	192.0	0.9
19	1,940	93.0	530.0	3.7	194.1 ¹	*	193.3	194.1	0.8
22	2,178	120.0	649.0	3.0	194.3	*	194.3	195.2	0.9
23	2,322	197.0	1141.0	1.7	194.7	*	194.7	195.7	1.0
27	2,660	273.0	1423.0	1.4	195.0	*	195.0	196.0	1.0
30	2,971	238.0	1170.0	1.7	195.2	*	195.2	196.2	1.0
33	3,288	157.0	607.0	3.2	195.8	*	195.8	196.7	0.9
35	3,453	145.0	650.0	3.0	196.5	*	196.5	197.5	1.0
37	3,703	184.0	843.0	2.3	197.2	*	197.2	198.2	1.0
41	4,106	163.0	739.0	2.7	198.2	*	198.2	199.2	1.0
43	4,340	105.0	525.0	3.7	198.8	*	198.8	199.8	1.0
51	5,128	206.0	1248.0	1.6	201.4	*	201.4	202.4	1.0
54	5,442	248.0	1136.0	1.6	201.7	*	201.7	202.7	1.0
57	5,699	201.0	892.0	2.0	202.0	*	202.0	203.0	1.0
61	6,100	227.0	869.0	2.0	202.6	*	202.6	203.6	1.0
64	6,378	353.0	1176.0	1.5	203.3	*	203.3	204.2	0.9
68	6,841	210.0	771.0	2.3	204.4	*	204.4	205.2	0.8
71	7,067	140.0	434.0	4.1	205.7	*	205.7	206.5	0.8
73	7,332	79.0	367.0	4.8	207.4	*	207.4	208.2	0.8
75	7,526	101.0	516.0	3.4	208.4	*	208.4	209.3	0.9
77	7,681	198.0	1039.0	1.7	209.1	*	209.1	210.0	0.9
79	7,853	230.0	1120.0	1.6	209.3	*	209.3	210.3	1.0
80	8,041	140.0	697.0	2.5	209.7	*	209.7	210.6	0.9
85	8,520	164.0	793.0	1.9	210.9	*	210.9	211.8	0.9
89	8,899	173.0	713.0	2.1	211.8	*	211.8	212.7	0.9
93	9,340	162.0	709.0	2.2	213.0	*	213.0	214.0	1.0
98	9,769	118.0	420.0	3.6	214.7	*	214.7	215.7	1.0
100	10,035	48.0	259.0	5.9	216.4	*	216.4	217.4	1.0
Unnamed Tributary (#2) to Swift Creek									
005	483	136.0	325.0	3.1	174.9 ¹	*	168.4	169.4	1.0
010	958	79.0	188.0	5.3	174.9 ¹	*	171.9	172.2	0.3
015	1,500	78.0	328.0	3.0	174.9 ¹	*	174.2	175.1	0.9
019	1,897	56.0	143.0	6.9	175.7	*	175.7	176.0	0.3
022	2,198	47.0	183.0	5.4	177.8	*	177.8	178.7	0.9
025	2,498	46.0	146.0	6.8	179.8	*	179.8	180.4	0.6

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Unnamed Tributary (#2) to Swift Creek									
033	3,251	84.0	353.0	2.5	184.4	*	184.4	184.8	0.4
036	3,617	78.0	280.0	3.2	185.0	*	185.0	185.9	0.9
039	3,916	40.0	166.0	5.4	186.5	*	186.5	187.3	0.8
047	4,726	90.0	618.0	1.4	192.5	*	192.5	193.2	0.7
051	5,059	130.0	393.0	2.3	192.7	*	192.7	193.3	0.6
055	5,511	60.0	217.0	4.1	193.7	*	193.7	194.7	1.0
060	6,037	36.0	158.0	5.1	196.7	*	196.7	197.2	0.5
063	6,255	34.0	113.0	7.1	197.8	*	197.8	197.9	0.1
066	6,553	52.0	211.0	3.8	200.3	*	200.3	200.9	0.6
071	7,074	110.0	303.0	2.7	204.0	*	204.0	204.6	0.6
076	7,614	152.0	404.0	2.0	206.4	*	206.4	207.3	0.9
080	7,982	45.0	176.0	3.6	207.8	*	207.8	208.7	0.9
083	8,252	36.0	131.0	4.8	209.9	*	209.9	210.2	0.3
086	8,594	50.0	209.0	3.0	211.7	*	211.7	212.2	0.5
091	9,086	48.0	153.0	4.1	213.8	*	213.8	214.5	0.7
095	9,524	58.0	147.0	4.3	216.9	*	216.9	217.7	0.8
101	10,065	25.0	116.0	4.3	219.8	*	219.8	220.8	1.0
106	10,555	22.0	87.0	5.7	222.6	*	222.6	222.8	0.2
109	10,910	22.0	90.0	5.6	224.6	*	224.6	224.8	0.2
115	11,475	21.0	92.0	5.5	227.3	*	227.3	227.3	0.0
120	11,990	19.0	66.0	7.6	230.0	*	230.0	230.0	0.0
126	12,598	22.0	85.0	5.9	235.9	*	235.9	236.0	0.1
129	12,939	22.0	65.0	5.2	238.5	*	238.5	238.5	0.0
136	13,597	19.0	44.0	7.6	244.5	*	244.5	244.5	0.0
141	14,054	18.0	63.0	5.3	250.5	*	250.5	250.7	0.2
144	14,413	113.0	381.0	0.9	256.5	*	256.5	256.5	0.0
White Oak Creek									
002	217	108.0	742.0	5.1	184.8 ¹	*	176.4	176.4	0.0
006	616	67.0	463.0	8.2	184.8 ¹	*	177.3	177.3	0.0
010	1,046	215.0	1218.0	3.1	184.8 ¹	*	179.5	179.7	0.2
015	1,500	382.0	1996.0	1.9	184.8 ¹	*	180.0	180.4	0.4
021	2,060	290.0	1482.0	2.6	184.8 ¹	*	180.5	181.0	0.5
025	2,456	362.0	1785.0	2.1	184.8 ¹	*	181.0	181.6	0.6
031	3,054	449.0	2159.0	1.8	184.8 ¹	*	181.7	182.3	0.6
036	3,629	338.0	1414.0	2.7	184.8 ¹	*	182.3	182.9	0.6
038	3,845	487.0	1545.0	2.5	184.8 ¹	*	182.6	183.3	0.7
041	4,062	451.0	1949.0	2.0	184.8 ¹	*	183.7	184.0	0.3
047	4,694	524.0	2133.0	1.8	185.0	*	185.0	185.1	0.1
051	5,084	417.0	1611.0	2.4	185.7	*	185.7	185.7	0.0
058	5,829	202.0	1050.0	3.5	189.2	*	189.2	189.2	0.0
063	6,292	451.0	3921.0	0.9	196.6	*	196.6	196.6	0.0
072	7,229	177.0	1533.0	2.4	196.6	*	196.6	196.6	0.0
080	8,045	655.0	3373.0	1.1	196.8	*	196.8	196.8	0.0
087	8,727	291.0	2911.0	1.3	196.8	*	196.8	196.8	0.0

Table 22 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	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
White Oak Creek									
097	9,735	433.0	3552.0	1.0	196.9	*	196.9	196.9	0.0
103	10,314	224.0	1694.0	2.2	196.9	*	196.9	196.9	0.0
108	10,804	645.0	4044.0	0.9	197.0	*	197.0	197.0	0.0
112	11,206	437.0	1937.0	1.9	197.1	*	197.1	197.1	0.0
115	11,514	466.0	1777.0	2.1	197.4	*	197.4	197.4	0.0
119	11,882	460.0	1673.0	2.2	197.7	*	197.7	197.9	0.2
125	12,514	446.0	2088.0	1.8	198.0	*	198.0	198.3	0.3
134	13,435	269.0	976.0	3.2	198.4	*	198.4	198.7	0.3
143	14,336	369.0	1248.0	2.5	201.3	*	201.3	202.0	0.7
147	14,694	463.0	1588.0	2.0	202.3	*	202.3	203.0	0.7
159	15,857	355.0	1785.0	1.8	206.2	*	206.2	206.3	0.1
164	16,387	444.0	1816.0	1.7	206.6	*	206.6	206.8	0.2
173	17,298	392.0	1430.0	2.2	207.3	*	207.3	207.8	0.5
178	17,809	267.0	880.0	3.6	208.6	*	208.6	209.2	0.6
183	18,267	93.0	656.0	4.8	209.9	*	209.9	210.6	0.7
184	18,410	51.0	377.0	8.3	210.0	*	210.0	210.5	0.5
189	18,930	276.0	1705.0	1.8	211.8	*	211.8	212.5	0.7
196	19,604	112.0	578.0	5.2	212.5	*	212.5	213.1	0.6
200	20,042	235.0	1230.0	2.4	214.0	*	214.0	214.8	0.8
208	20,758	410.0	2244.0	1.3	214.9	*	214.9	215.7	0.8
211	21,097	308.0	1516.0	2.0	215.2	*	215.2	216.0	0.8
218	21,756	123.0	883.0	3.4	216.3	*	216.3	217.0	0.7
220	21,963	120.0	748.0	4.0	216.7	*	216.7	217.4	0.7
225	22,473	86.0	658.0	4.5	218.4	*	218.4	219.1	0.7
234	23,401	356.0	2377.0	1.3	220.1	*	220.1	221.0	0.9
238	23,844	178.0	1323.0	2.3	220.5	*	220.5	221.3	0.8
243	24,310	335.0	2462.0	1.2	221.1	*	221.1	222.0	0.9
248	24,828	275.0	1779.0	1.5	221.5	*	221.5	222.3	0.8
252	25,192	358.0	1966.0	1.4	221.8	*	221.8	222.6	0.8
254	25,412	262.0	1366.0	2.0	222.0	*	222.0	222.7	0.7
258	25,831	240.0	1205.0	5.5	222.5	*	222.5	223.2	0.7

¹Elevation includes backwater effects

²Neuse River

6.4 Coastal Flood Hazard Mapping

This section is not applicable to this FIS project.

Table 23 "Summary of Coastal Transect Mapping Considerations" is not applicable to this FIS project.

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 Johnston 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 Johnston County, are presented in Table 24, "Map Revision History."

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Johnston 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 Johnston County.

Table 24 - Map Revision History

Community	Initial Identification Date	Initial FIRM Effective Date	FIRM Revision Date
JOHNSTON COUNTY	1/3/1975	9/30/1983	7/19/2022
JOHNSTON COUNTY	1/3/1975	9/30/1983	6/20/2018
JOHNSTON COUNTY	1/3/1975	9/30/1983	7/7/2014
JOHNSTON COUNTY	1/3/1975	9/30/1983	4/16/2013
JOHNSTON COUNTY	1/3/1975	9/30/1983	1/5/2007
JOHNSTON COUNTY	1/3/1975	9/30/1983	10/3//2006
JOHNSTON COUNTY	1/3/1975	9/30/1983	5/2/2006
JOHNSTON COUNTY	1/3/1975	9/30/1983	12/2/2005
TOWN OF ARCHER LODGE	12/2/2005	12/2/2005	7/19/2022
TOWN OF ARCHER LODGE	12/2/2005	12/2/2005	12/2/2005
TOWN OF BENSON	10/20/2000	10/20/2000	6/20/2018
TOWN OF BENSON	10/20/2000	10/20/2000	10/3/2006
TOWN OF BENSON	10/20/2000	10/20/2000	5/2/2006
TOWN OF CLAYTON	12/28/1973	4/1/1982	7/19/2022
TOWN OF CLAYTON	12/28/1973	4/1/1982	6/20/2018
TOWN OF CLAYTON	12/28/1973	4/1/1982	5/2/2006
TOWN OF CLAYTON	12/28/1973	4/1/1982	12/2/2005
TOWN OF FOUR OAKS	10/20/2000	10/20/2000	6/20/2018
TOWN OF FOUR OAKS	10/20/2000	10/20/2000	1/5/2007
TOWN OF FOUR OAKS	10/20/2000	10/20/2000	12/2/2005
TOWN OF KENLY	10/20/2000	10/20/2000	12/2/2005
TOWN OF MICRO	10/20/2000	10/20/2000	6/20/2018
TOWN OF MICRO	10/20/2000	10/20/2000	12/2/2005
TOWN OF PINE LEVEL	10/20/2000	10/20/2000	6/20/2018
TOWN OF PINE LEVEL	10/20/2000	10/20/2000	12/2/2005
TOWN OF PRINCETON	1/3/1975	9/30/1983	6/20/2018
TOWN OF PRINCETON ^{1, 2}	1/3/1975	9/30/1983	12/2/2005
TOWN OF SELMA	10/20/2000	10/20/2000	6/20/2018
TOWN OF SELMA	10/20/2000	10/20/2000	12/2/2005
TOWN OF SMITHFIELD	10/29/1976	4/1/1982	6/20/2018
TOWN OF SMITHFIELD	10/29/1976	4/1/1982	12/2/2005
TOWN OF WILSON'S MILLS	10/20/2000	10/20/2000	6/20/2018
TOWN OF WILSON'S MILLS	10/20/2000	10/20/2000	12/2/2005

¹Dates for this community were taken from Johnston County, Unincorporated Areas.

²This community did not have a FIRM prior to the first countywide FIRM for Johnston County.

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 Johnston County and Incorporated Areas. Table 25, "Authority and Acknowledgments," includes information for the previous countywide FIS if applicable and for this revision.

Table 25 — Authority and Acknowledgments

Community	FIS Dated	Study Contracted By	Data Source	Contract or IAA Number	Work Completed In
JOHNSTON COUNTY	7/19/2022	NCFMP	NCFMP	EMA-2009-CA-5933	5/13/2013
JOHNSTON COUNTY	6/20/2018	NCFMP	NCFMP	EMA-2009-CA-5933	5/13/2013
JOHNSTON COUNTY	12/2/2005	NCFMP	NCFMP	NA	7/14/2004

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 Johnston County were produced by NCFMP under contract with the State of North Carolina and issued effective 6/20/2018. For this revision, the hydrologic and hydraulic analyses and the FIRM panels were produced by NCFMP, under contract with FEMA.

8.2 Consultation Coordination Officer's Meetings/Scoping Meetings

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 with the County and all incorporated Areas including Extra Territorial Jurisdictions 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 Johnston County are shown in Table 26, "Scoping Meetings." Meetings held for the map maintenance revision are also included below for Johnston County.

Table 26 — Scoping Meetings

Community	River Basin	Initial Scoping Date	Attended By	Final Scoping Date	Attended By
JOHNSTON COUNTY and Incorporated Communities	CAPE FEAR/NEUSE	Not Applicable	Not Applicable	5/28/2008	JOHNSTON COUNTY and all incorporated communities and the NCFMP
JOHNSTON COUNTY	NEUSE	12/12/2000, 12/13/2000	Representatives of Johnston County, Johnston County incorporated communities, FEMA, the State and Dewberry.	4/24/2001, 1/5/2001	Representatives of Johnston County, Johnston County incorporated communities, FEMA, the State and Dewberry.

Consultation Coordination Officer's 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 consultation coordination officer's and public participation meetings are shown in Table 27, "Consultation Coordination Officer's and Public Participation Meetings."

Table 27-Consultation Coordination Officer's and Public Participation Meetings

Community	For FIS Dated	Meeting Locations	Preliminary Meeting Date	Attended By	Public Meeting Date	Attended By
JOHNSTON COUNTY	7/19/2022	Wake County, NC	5/13/2015	JOHNSTON COUNTY, JOHNSTON COUNTY Incorporated Areas Wake County, and the NCFMP	10/5/2015-Holly Springs 10/7/2015-Raleigh 10/8/2015-Wake Forest 10/15/2015-Cary	JOHNSTON COUNTY, JOHNSTON COUNTY Incorporated Areas, the NCFMP and the Public
JOHNSTON COUNTY	6/20/2018	Smithfield, NC	7/16/2014	JOHNSTON COUNTY, JOHNSTON COUNTY Incorporated Areas and the NCFMP.	12/1/1982	JOHNSTON COUNTY, JOHNSTON COUNTY Incorporated Areas, the NCFMP and the Public
JOHNSTON COUNTY	12/5/2005	Smithfield, NC	10/29/2003	JOHNSTON COUNTY, JOHNSTON COUNTY Incorporated Areas, and the NCFMP.	12/18/2003 12/16/2003	JOHNSTON COUNTY, JOHNSTON COUNTY Incorporated Areas, the NCFMP and the Public

9.0 Guide to Additional Information

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see <http://www.fema.gov>.

The Map Repositories table below lists locations where FIRMs for Johnston County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

Table 28 — Map Repositories

Community	Address	City	State	Zip Code
Town of Micro	Town Hall, 101 U.S. 301 South	Micro	NC	27555
Town of Smithfield	Town Hall, 350 East Market Street	Smithfield	NC	27577
Town of Wilson's Mills	Town Hall, 100 Railroad Street	Wilson's Mills	NC	27593
Town of Princeton	Town Hall, 503 Doctor Donnie H. Jones, Jr. Boulevard W	Princeton	NC	27569
Town of Kenly	Town Hall, 206 West 2nd Street	Kenly	NC	27542
Town of Selma	Planning Department, 114 North Raiford Street	Selma	NC	27576
Town of Four Oaks	Town Hall, 304 North Main Street	Four Oaks	NC	27524
Town of Pine Level	Town Hall, 306 East Brown Street	Pine Level	NC	27568
Town of Benson	Town Hall, 303 East Church Street	Benson	NC	27504
Johnston County	Johnston County Land Use Center 309 East Market Street	Smithfield	NC	27577
Town of Clayton	Town Hall, 111 East 2nd Street	Clayton	NC	27520
Town of Archer Lodge	Archer Lodge Town Hall, 14094 Buffalo Road	Clayton	NC	27577

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 29, "Additional Information" is not applicable in Johnston 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:

NC Floodplain Mapping Program

4218 Mail Service Center

Raleigh, NC 27699-4218

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