

PRELIMINARY FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

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



Community Name	Community Number
ALAMANCE COUNTY	370001
CITY OF BURLINGTON	370002
CITY OF GRAHAM	370283
CITY OF MEBANE	370390
TOWN OF ELON	370411
TOWN OF GIBSONVILLE	370387
TOWN OF GREEN LEVEL	370482
TOWN OF HAW RIVER	370003
TOWN OF OSSIPEE	370689
TOWN OF SWEPSONVILLE	370073
VILLAGE OF ALAMANCE	370457



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Federal Emergency Management Agency

State of North Carolina

Flood Insurance Study Number

37001CV000

www.fema.gov and www.ncfloodmaps.com



FOREWORD

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

NOTICE TO FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

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

Date	Reason
9/6/2006	Initial Countywide FIS Report Effective Date

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

Table 1 - Jurisdictions in Alamance County

Community	Included in this FIS	If Not Included, Location of Flood Hazard/Flood Insurance Rate Data
ALAMANCE COUNTY	Yes	*
CITY OF BURLINGTON	Yes	*
CITY OF GRAHAM	Yes	*
CITY OF MEBANE	Yes	*
TOWN OF ELON	Yes	*
TOWN OF GIBSONVILLE	Yes	*
TOWN OF GREEN LEVEL	Yes	*
TOWN OF HAW RIVER	Yes	*
TOWN OF OSSIPEE	Yes	*
TOWN OF SWEPSONVILLE	Yes	*
VILLAGE OF ALAMANCE	Yes	*

1.3 FIS Components

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

Flood Insurance Study Report

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

2.0 Floodplain Management Applications

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

2.1 Floodplains

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

2.2 Floodways

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

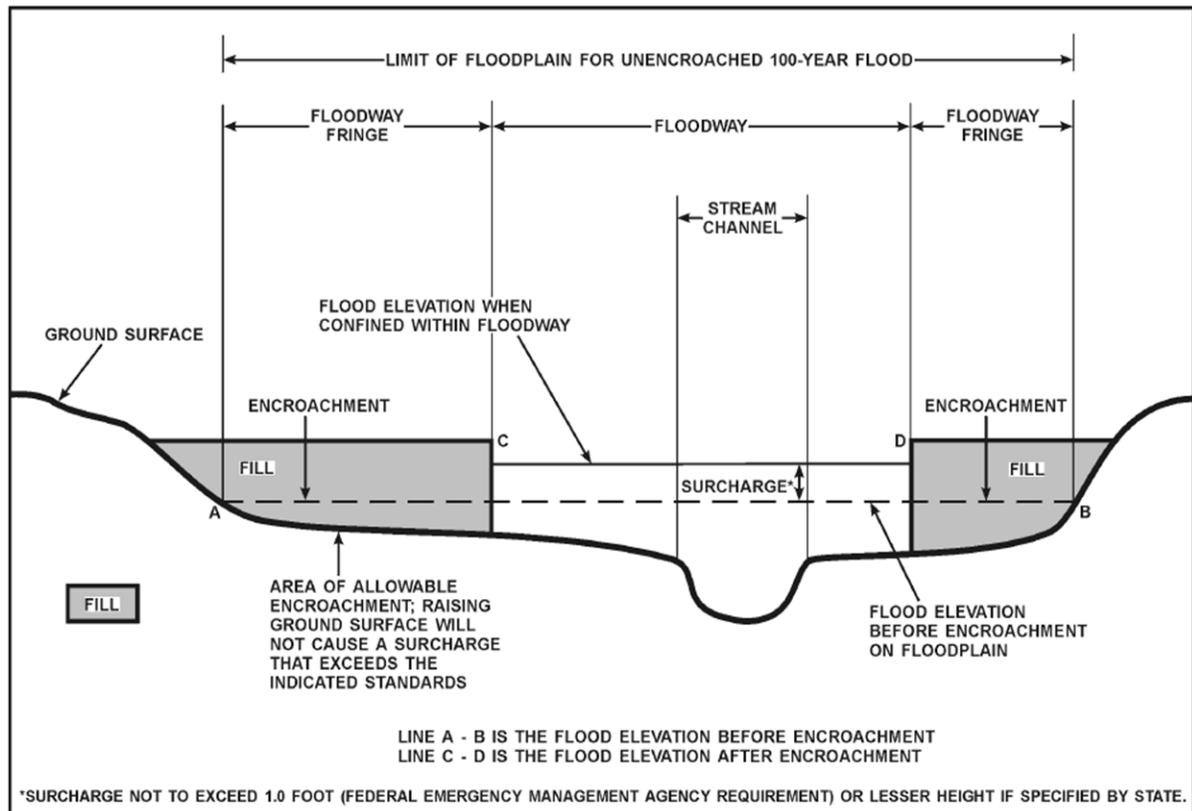


Figure 1- Floodway Schematic

2.3 Base Flood Elevations

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

2.4 Watershed Characteristics

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

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

Drainage Area

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

Soil Permeability and Infiltration

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

rate of overland flow increases.

Soil Moisture Conditions

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

Channel and Floodplain Geometry

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

Channel and Floodplain Roughness

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

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

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

Data Validity and Reliability

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

Developmental and Topographic Changes Over Time

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

Erosion, Deposition, and Debris Flow

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

Meandering and Lateral Migration

FISs are based on the assumption that channel geometry will remain stable during normal drainage and during flood events. This assumption is valid for most streams, which flow over bedrock or between bedrock outcroppings that form non-alluvial channels. However, alluvial streams change the channel geometry with time, significantly so during flood events. Alluvial streams are subject to erosion and deposition, which may result in braided or meandering channels. Streams of this type may be characterized by lateral migration, or channel shifting, in which the stream may change course entirely during a flood. Whenever clear evidence is available, a FIRM will identify the alluvial nature of a studied flooding source and designate wider

floodways to allow for potential migration. However, these floodways are based on qualitative assessments and not on quantitative geomorphic and engineering analyses.

3.0 Insurance Applications

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

Table 2 - Flood Designations

Zone	Description
A	Zone A is the flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined in the FIS Report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no Base Flood Elevations or depths are shown within this zone.
AE	Zone AE is the flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined in the FIS Report by detailed methods. In most instances, whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.
AH	Zone AH is the flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.
AO	Zone AO is the flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone.
AR	Zone AR is the flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
A99	Zone A99 is the flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No Base Flood Elevations or depths are shown within this zone.
V	Zone V is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no Base Flood Elevations are shown within this zone.
VE	Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.
X	Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2% annual chance floodplain, areas within the 0.2% annual chance floodplain, and to areas of 1% annual chance flooding where average depths are less than 1 foot, areas of 1% annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone.
X (Future)	Zone X (Future Base Flood) is the flood insurance risk zone that corresponds to the 1-percent-annual-chance floodplains that are determined based on future-conditions hydrology. No BFEs or base flood depths are shown within this zone.
D	Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

3.1 Coastal Barrier Resources System

This section is not applicable to this FIS project.

4.0 Area Studied

Alamance County is found in the Piedmont region of North Carolina. It is surrounded by Caswell County to the north, Orange County to the east, Chatham County to the south, Guilford 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)
Deep	03030003	Deep River	The Deep River Basin flows out of southeast Forsyth County. From there it continues southeast, draining parts of Guilford, Randolph, Moore, and Lee Counties before emptying into the Cape Fear River in Chatham County.	1,450
Haw	03030002	Haw River	The Haw River Basin begins in eastern Forsyth County, flowing across low, rolling hills. The basin drains large portions of Guilford, Alamance, and Chatham counties before entering B. Everett Jordan Lake at the headwaters of the Cape Fear River.	1,707
Lower Dan	03010104	Dan River	The Lower Dan Basin begins in eastern Rockingham County and flows northeast into southern Virginia. The basin drains parts of Rockingham, Caswell, and Person counties.	1,284

4.2 Principal Flood Problems

Table 4, "Principal Flood Problems" is not applicable in Alamance County.

4.3 Historic Flood Elevations

September 2006 Storm

(9/1/2006)

Flooding occurred on Cane Creek (South) Tributary around 2863 Stephens Trail. Flooding occurred near stream station 23,448 due to Hurricane Fran. Flood elevations reached a peak of 602.7 feet. This event had approximately a 50-year recurrence interval.

July 2003 Storm

(7/1/2003)

Flooding occurred on Eastside Creek (RAS Station 5747). Flooding occurred near stream station 5,747. Flood elevations reached a peak of 611.8 feet. This event had approximately a 10-year recurrence interval.

July 2003 Storm

(7/1/2003)

Flooding occurred on Eastside Creek, just downstream of footbridge. Flooding occurred near stream station 9,602. Flood elevations reached a peak of 637.6 feet. This event had approximately a 10-year recurrence interval.

July 2003 Storm

(7/1/2003)

Flooding occurred on Steelhouse Branch (RAS Station 5921). Flooding occurred near stream station 5,921. Flood elevations reached a peak of 536.4. This event had approximately a 10-year recurrence interval.

June 2003 Storm

(6/1/2003)

Flooding occurred on Michaels Branch, just downstream of Oakview Drive. Flooding occurred near stream station 10,600. Flood elevations reached a peak of 643.9 feet. This event had approximately a 50-year recurrence interval.

June 2003 Storm

(6/1/2003)

Flooding occurred on Willowbrook Creek, just upstream of South Mebane Street. Flooding occurred near stream station 2,876. Flood elevations

reached a peak of 583.2 feet. This event had approximately a 10-year recurrence interval.

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.

September 1996 Storm

(9/1/1996)

Flooding occurred on Greenbrier Creek, approximately 200 feet downstream of Staley Store Road. Flooding occurred near stream station 27,040. Flood elevations reached a peak of 648.34 feet. This event had approximately a 50-year recurrence interval.

September 1996 Storm

(9/1/1996)

Flooding occurred on Little Alamance Creek, just downstream of Monroe Holt Road. Flooding occurred near stream station 19,900. Flood elevations reached a peak of 514.6 feet. This event had approximately a 50-year recurrence interval.

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 Lone 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" is not applicable in Alamance County.

4.4 Flood Protection Measures

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

policies, or practices).

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

Table 6 - Non-Levee Flood Protection Measures

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
Haw River	B. EVERETT JORDAN	DAM	B. Everett Jordan Dam on B. Everett Jordan Lake	Undetermined Flood Protection

N/A - Not Applicable

Table 7, "Levees" is not applicable in Alamance County.

4.5 Scope of Study

For this map maintenance revision, a scoping meeting was held in Alamance 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 Alamance 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 Alamance County, North Carolina, and all jurisdictions therein. The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction. Limits of detailed study are indicated on the Flood Profiles and/or Water-surface elevation rasters and/or the FIRM.

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

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

Source	Riverine Sources		Affected Communities
	From	To	
Big Alamance Creek	Approximatley 1,800 feet downstream of Alamance Road	At the Lake Mackintosh Spillway	City Of Burlington Village Of Alamance
Big Alamance Creek ¹	Confluence with Haw River	Approximately 2,200 feet upstream of the confluence with Haw River	Alamance County City Of Burlington City Of Graham Town Of Swepsonville Village Of Alamance
Boyd Branch	At the confluence with Little Alamance Creek	Approximately 300 feet upstream of Interstate 40/85	City Of Burlington City Of Graham
Boyds Creek	At the confluence with Haw River	Approximately 2.8 miles upstream of Hopedale Road	Town Of Green Level Town Of Haw River
Cane Creek (South)	At the confluence with Haw River	Approximately 800 feet upstream of Bethel South Fork Road	Alamance County
Dry Creek	At the confluence with Haw River	Approximately 300 feet upstream of Power Line Road	Alamance County City Of Burlington Town Of Elon
East Back Creek	At the confluence with Haw River	At the Graham-Mebane Lake Spillway	Alamance County City Of Graham Town Of Haw River
East Back Creek Overflow	Approximately 0.2 mile downstream of Stone Street Extension	Approximately 400 feet upstream of the confluence of McAdams Creek	Town Of Haw River
Eastside Creek	Approximately 285 feet downstream of Fifth Street	Approximately 500 feet upstream of Ninth Street	City Of Mebane
Eastside Creek	At the confluence with Mill Creek	Approximately 300 feet downstream of 5th Street	City Of Mebane
Gunn Creek	At the confluence with Big Alamance Creek	Approximately 200 feet downstream of Mill Pointe Way	City Of Burlington Town Of Elon
Haw Creek	At the confluence with Haw River	Approximately 2,000 feet upstream of I-40/85	Alamance County City Of Mebane
Haw River	Jordan Lake	Approximately 0.5 mile upstream of the Guilford/Alamance County boundary	Alamance County City Of Burlington City Of Graham Town Of Haw River Town Of Swepsonville

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

Source	Riverine Sources		Affected Communities
	From	To	
Lake Michael Tributary ¹	Confluence with Mill Creek	Approximately 1,500 feet upstream of the confluence with Mill Creek	City Of Mebane
Little Alamance Creek	Approximately 2,200 feet downstream of Tucker Street	Approximately 1,100 feet upstream of Woodland Avenue	City Of Burlington
McAdams Creek	At the confluence with East Back Creek	Approximately 400 feet upstream of Corrigidor Street	Alamance County City Of Mebane Town Of Haw River
Meadow Creek	At the confluence with Haw River	Approximately 500 feet upstream of NC Highway 54	Alamance County
Michaels Branch	At the confluence with West Back Creek	Approximately 300 feet upstream of Long Street	City Of Burlington Town Of Elon
Michaels Branch Tributary	At the confluence with Michaels Branch	Approximately 400 feet upstream of Driftwood Road	Town Of Elon Town Of Gibsonville
Mill Creek	Approximately 50 feet upstream of the confluence of Lake Michael Tributary	Approximately 1.4 miles upstream of Mill Creek Road	City Of Mebane
Mill Creek	At the confluence with Graham Mebane Lake	Approximately 400 feet upstream of the confluence with Lake Michael Tributary	Alamance County City Of Mebane
Otter Creek	At the confluence with Graham Mebane Lake	Approximately 60 feet upstream of Mebane Rogers Road	Alamance County Town Of Green Level
Reedy Fork	At the confluence with Haw River	At the Alamance/Guilford County boundary	Alamance County Town Of Ossipee
Rock Creek	At the confluence with Stinking Quarter Creek	Immediately downstream of Mill road	Alamance County
Servis Creek	At the confluence with Haw River	Approximately 1,700 feet downstream of Burch Bridge Road	City Of Burlington
Servis Creek Tributary A	At the confluence with Servis Creek	Approximately 100 feet upstream of Beaumont Avenue	City Of Burlington
Staley Creek	At the confluence with Servis Creek	Approximately 300 feet downstream of Jackson Street	City Of Burlington
Steelhouse Branch ¹	Confluence with Town Branch	Approximately 1,000 feet upstream of the confluence with Town Branch	City Of Graham
Stinking Quarter Creek	At the confluence with Big Alamance Creek	Approximately 3,400 ft. downstream of NC 49	Alamance County
Stony Creek	At the confluence with Haw River	Approximately 1,200 feet upstream of Stony Creek Church Road	Alamance County
Tickle Creek	At the confluence with Travis Creek	Approximately 200 feet downstream of the Alamance/Guilford County boundary	Alamance County
Town Branch	At the confluence with Haw River	Approximately 1,000 feet upstream of I-40/85	City Of Graham
Travis Creek	At the confluence with Haw River	Approximately 500 feet downstream of the Alamance/Guilford County boundary	Alamance County Town Of Elon Town Of Gibsonville
Tributary A to Haw Creek	At the confluence with Haw Creek	Approximately 1,500 feet upstream of Jones Drive	Alamance County
Tributary A to Travis Creek	At the confluence with Travis Creek	Approximately 500 feet downstream of the Alamance/Guilford County boundary	Alamance County Town Of Gibsonville
Tributary to Travis Creek	At the confluence with Travis Creek	Approximately 200 feet downstream of the Alamance/Guilford County boundary	Alamance County Town Of Gibsonville
Unnamed Tributary to East Back Creek	At the confluence with East Back Creek	Approximately 300 feet downstream of Trollingwood Hawfields Road and I-40/85	Alamance County City Of Graham City Of Mebane
Unnamed Tributary to Gunn Creek	At the confluence with Gunn Creek	Approximately 200 feet upstream of I-40/85	City Of Burlington
Unnamed Tributary to Haw River at Glencoe	At the confluence with Haw River	Approximately 200 feet upstream of Greenwood Road	Alamance County
Varnals Creek	At the confluence with Haw River	Approximately 1,600 feet downstream of Bass Mountain Road	Alamance County
West Back Creek	At the confluence with Big Alamance Creek	At the confluence of Michaels Branch	City Of Burlington
West Back Creek Tributary	At the confluence of West Back Creek	Approximately 3,200 feet downstream of University Drive	City Of Burlington
Willowbrook Creek ¹	Confluence with Little Alamance Creek	Approximately 1,600 feet upstream of the confluence with Little Alamance Creek	City Of Burlington

¹Revised to reflect backwater effects from new detailed study

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

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

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

Source	Riverine Sources		Affected Communities
	From	To	
Back Creek	Confluence with Michaels Branch/West Back Creek	The confluence of Back Creek Tributary	City Of Burlington Town Of Gibsonville
Big Branch ¹	Alamance/Chatham County boundary	Approximately 3,500 feet upstream of the Alamance/Chatham County boundary	Alamance County
Boyd's Creek	Approximately 0.3 mile downstream of confluence with Boyd's Creek Tributary 2	Approximately 1.2 miles upstream of Sandy Cross Road	Town Of Green Level
Boyd's Creek Tributary 1 ¹	Confluence with Boyd's Creek	Approximately 400 feet upstream of the confluence with Boyd's Creek	Alamance County Town Of Haw River
Boyd's Creek Tributary 2 ¹	Confluence with Boyd's Creek	Approximately 950 feet upstream of the confluence with Boyd's Creek	Alamance County Town Of Green Level
Buttermilk Creek ¹	Confluence with Stony Creek	Approximately 4,500 feet upstream of the confluence with Stony Creek	Alamance County
Cane Creek (North) ¹	Approximately 1.5 miles upstream of confluence of Well Creek	Approximately 3.5 miles upstream of confluence of Well Creek	Alamance County
Cane Creek (North) Tributary 4 ¹	The confluence with Cane Creek (North)	Approximately 850 feet upstream of the confluence with Cane Creek (North)	Alamance County
Cane Creek (South)	Approximately 840 feet upstream of Bethel South Fork Road	Approximately 1.5 miles upstream of confluence of Well Creek	Alamance County
Cane Creek (South) Tributary 1	Approximately 2,210 feet downstream	Approximately 2,180 feet upstream of Stephens Trail	Alamance County
Deep Creek ¹	Confluence with Stony Creek	Approximately 1,600 feet upstream of the confluence with Stony Creek	Alamance County
Dry Creek	Approximately 530 feet upstream of Power Line Road	Approximately 0.8 mile upstream of Power Line Road	Town Of Elon
Eastside Creek Tributary	Confluence with Eastside Creek	Approximately 530 feet upstream of the confluence with Eastside Creek	City Of Mebane
Foust Creek ¹	Confluence with Cane Creek (South)	Approximately 1,500 feet upstream of the confluence with Cane Creek (South)	Alamance County
Gunn Creek	Approximately 230 feet downstream of Mill Pointe Way	Approximately 0.8 mile upstream of Mill Pointe Way	City Of Burlington Town Of Elon
Haw Creek Tributary 1 ¹	Confluence with Haw Creek	Approximately 3,000 feet upstream of the confluence with Haw Creek	Alamance County City Of Mebane
Haw River Tributary 10 ¹	Confluence with Unnamed Tributary to Haw River at Glencoe	Approximately 1,000 feet upstream of the confluence with Unnamed Tributary to Haw River at Glencoe	Alamance County
Haw River Tributary 11 ¹	Confluence with Haw River	Approximately 5,000 feet upstream of the confluence with Haw River	Alamance County
Haw River Tributary 13 ¹	Confluence with Haw River	Approximately 600 feet upstream of the confluence with Haw River	Alamance County
Haw River Tributary 14 ¹	Confluence with Haw River	Approximately 2,300 feet upstream of the confluence with Haw River	Alamance County
Haw River Tributary 2 ¹	Confluence with Haw River	Approximately 2,000 feet upstream of the confluence with Haw River	Alamance County
Haw River Tributary 3 ¹	Confluence with Haw River	Approximately 2,100 feet upstream of the confluence with Haw River	Alamance County
Haw River Tributary 4 ¹	Confluence with Haw River	Approximately 3,200 feet upstream of the confluence with Haw River	Alamance County
Haw River Tributary 6 ¹	Approximately 2300 feet upstream of the confluence with Haw River	Approximately 5,000 feet upstream of the confluence with Haw River	Alamance County
Haw River Tributary 8 ¹	Confluence with Haw River	Approximately 2,000 feet upstream of the confluence with Haw River	Alamance County City Of Burlington
Jordan Creek ¹	Confluence with Stony Creek	Approximately 6,100 feet upstream of the confluence with Stony Creek	Alamance County
Marys Creek ¹	Confluence with Haw River	Approximately 6,500 feet upstream of the confluence with Haw River	Alamance County
McAdams Creek Tributary ¹	Confluence with McAdams Creek	Approximately 500 feet upstream of confluence with McAdams Creek	City Of Mebane
Meadow Creek	Approximately 360 feet upstream of NC 54	Approximately 1.2 miles upstream of NC 54	Alamance County
Mine Creek ¹	Confluence with Stony Creek	Approximately 1,100 feet upstream of the confluence with Stony Creek	Alamance County
Motes Creek ¹	Confluence with Haw River	Approximately 1,000 feet upstream of the confluence with Haw River	Alamance County
North Prong Stinking Quarter Creek ¹	Confluence with Stinking Quarter Creek	Approximately 1,000 feet upstream of the confluence with Stinking Quarter Creek	Alamance County Village Of Alamance
Owens Creek	Confluence with Jordan Creek	Approximately 1.8 miles upstream of Blanchard Road	Alamance County
Parks Creek ¹	Approximately 1,850 feet upstream of Shepherd Road	Approximately 4,200 feet upstream of Shepherd Road	Alamance County
Pine Branch ¹	Confluence with Cane Creek (South)	Approximately 742 feet upstream of confluence with Cane Creek (South)	Alamance County
Quaker Creek Tributary 2	Approximately 300 feet upstream of confluence with Quaker Creek	Approximately 1 mile upstream of Tangle Ridge Trail	Alamance County

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

Source	Riverine Sources		Affected Communities
	From	To	
Reedy Branch ¹	Confluence with Cane Creek (South)	Approximately 1,500 feet upstream of the confluence with Cane Creek (South)	Alamance County
Rock Creek	Mill Road	Approximately 1.2 miles upstream of Beale Road	Alamance County
Rock Creek Tributary ¹	Confluence with Rock Creek	Approximately 600 feet upstream of the confluence with Rock Creek	Alamance County
Servis Creek	Approximately 1,630 feet downstream of Burch Bridge Road	Approximately 500 feet upstream of Cadiz Street	City Of Burlington
South Fork ¹	Confluence with Cane Creek (South)	Approximately 5,000 feet upstream of the confluence with Cane Creek (South)	Alamance County
Staley Creek	Approximately 380 feet upstream of Rauhut Street	Approximately 200 feet upstream of Chestnut Street	City Of Burlington
Stinking Quarter Creek	The confluence with Stinking Quarter Creek	Approximately 1 mile downstream of Kimesville Road	Alamance County
Town Branch	Approximately 680 feet upstream of Riverbend Road	Approximately 150 feet downstream of Parket Street	City Of Graham
Travis Creek	The Guilford/Alamance County boundary	Approximately 1,000 feet upstream of NC 61	Town Of Gibsonville
Travis Creek Tributary 2 ¹	Confluence with Travis Creek	Approximately 700 feet upstream of the confluence with Travis Creek	Alamance County Town Of Elon Town Of Gibsonville
Tributary A to Travis Creek	The Guilford/Alamance County boundary	Approximately 610 feet upstream of Howerton Road	Alamance County
Tributary to Travis Creek	Approximately 250 feet downstream of the Alamance/Guilford County boundary	Approximately 0.6 miles upstream of Alamance/Guilford County Boundary	Town Of Gibsonville
Unnamed Stream	At the confluence of West Back Creek	Approximately 534 feet downstream of Bonnar Bridge Road	City Of Burlington
Unnamed Tributary to Haw River at Glencoe	Approximately 660 feet upstream of Greenwood Drive	Approximately 1.6 miles upstream of Iseley School Road	Alamance County
Varnals Creek	Approximately 0.4 mile downstream of Bass Mountain Road	Approximately 0.9 mile upstream of Bass Mountain Road	Alamance County
Varnals Creek Tributary ¹	Confluence with Varnals Creek	Approximately 400 feet upstream of the confluence with Varnals Creek	Alamance County
West Back Creek Tributary	Approximately .58 miles downstream of University Drive	Approximately 1400 feet upstream of University Drive	City Of Burlington
Willowbrook Creek	Approximately 380 feet downstream of South Mebane Street	Approximately 50 feet upstream of Albright Avenue	City Of Burlington

¹Revised to reflect backwater effects from new detailed study

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

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

Source	Riverine Sources		Affected Communities
	From	To	
Back Creek	Approximately 50 feet downstream of the confluence of Back Creek Tributary (Stream No. 90)	Approximately 185 feet upstream of NC 100	City Of Burlington Town Of Gibsonville
Big Alamance Creek	Approximately 1,800 feet downstream of Alamance Road	At the Lake Mackintosh Spillway	City Of Burlington Village Of Alamance
Big Alamance Creek	Confluence with Haw River	Approximately 2.1 miles upstream of confluence of Gunn Creek	Alamance County City Of Burlington City Of Graham Town Of Swepsonville Village Of Alamance
Boyd Branch	At the confluence with Little Alamance Creek	Approximately 300 feet upstream of Interstate 40/85	City Of Burlington City Of Graham
Boyds Creek	At the confluence with Haw River	Approximately 2.8 miles upstream of Hopedale Road	Town Of Green Level Town Of Haw River
Cane Creek (South)	At the confluence with Haw River	Approximately 800 feet upstream of Bethel South Fork Road	Alamance County
Coblebrook Creek	Confluence with Little Alamance Creek	Approximately 650 feet upstream of Engleman Avenue	City Of Burlington
Dry Creek	At the confluence with Haw River	Approximately 300 feet upstream of Power Line Road	Alamance County City Of Burlington Town Of Elon
East Back Creek	At the confluence with Haw River	At the Graham-Mebane Lake Spillway	Alamance County City Of Graham Town Of Haw River

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

Source	Riverine Sources		Affected Communities
	From	To	
East Back Creek Overflow	Approximately 0.2 mile downstream of Stone Street Extension	Approximately 400 feet upstream of the confluence of McAdams Creek	Town Of Haw River
Eastside Creek	Approximately 285 feet downstream of Fifth Street	Approximately 500 feet upstream of Ninth Street	City Of Mebane
Eastside Creek	At the confluence with Mill Creek	Approximately 300 feet downstream of 5th Street	City Of Mebane
Gunn Creek	At the confluence with Big Alamance Creek	Approximately 200 feet downstream of Mill Pointe Way	City Of Burlington Town Of Elon
Haw Creek	At the confluence with Haw River	Approximately 2,000 feet upstream of I-40/85	Alamance County City Of Mebane
Haw River	Jordan Lake	Approximately 0.5 mile upstream of the Guilford/Alamance County boundary	Alamance County City Of Burlington City Of Graham Town Of Haw River Town Of Swepsonville
Lake Michael Tributary	Confluence with Mill Creek	Approximately 0.2 mile upstream of Lancaster Road	City Of Mebane
Little Alamance Creek	Approximately 2,200 feet downstream of Tucker Street	Approximately 1,100 feet upstream of Woodland Avenue	City Of Burlington
Little Alamance Creek	Confluence with Big Alamance Creek	Approximately 0.9 mile upstream of Interstate 40/ 85	City Of Burlington City Of Graham
McAdams Creek	At the confluence with East Back Creek	Approximately 400 feet upstream of Corrigidor Street	Alamance County City Of Mebane Town Of Haw River
Meadow Creek	At the confluence with Haw River	Approximately 500 feet upstream of NC Highway 54	Alamance County
Michaels Branch	At the confluence with West Back Creek	Approximately 300 feet upstream of Long Street	City Of Burlington Town Of Elon
Michaels Branch Tributary	At the confluence with Michaels Branch	Approximately 400 feet upstream of Driftwood Road	Town Of Elon Town Of Gibsonville
Mill Creek	Approximately 50 feet upstream of the confluence of Lake Michael Tributary	Approximately 1.4 miles upstream of Mill Creek Road	City Of Mebane
Mill Creek	At the confluence with Graham Mebane Lake	Approximately 400 feet upstream of the confluence with Lake Michael Tributary	Alamance County City Of Mebane
Otter Creek	At the confluence with Graham Mebane Lake	Approximately 60 feet upstream of Mebane Rogers Road	Alamance County Town Of Green Level
Reedy Fork	At the confluence with Haw River	At the Alamance/Guilford County boundary	Alamance County Town Of Ossipee
Rock Creek	At the confluence with Stinking Quarter Creek	Immediately downstream of Mill road	Alamance County
Servis Creek	At the confluence with Haw River	Approximately 1,700 feet downstream of Burch Bridge Road	City Of Burlington
Servis Creek Tributary A	At the confluence with Servis Creek	Approximately 100 feet upstream of Beaumont Avenue	City Of Burlington
Staley Creek	At the confluence with Servis Creek	Approximately 300 feet downstream of Jackson Street	City Of Burlington
Steelhouse Branch	Confluence with Town Branch	Approximately 650 feet upstream of East Crescent Square Drive	City Of Graham
Stinking Quarter Creek	At the confluence with Big Alamance Creek	Approximately 3,400 ft. downstream of NC 49	Alamance County
Stony Creek	At the confluence with Haw River	Approximately 1,200 feet upstream of Stony Creek Church Road	Alamance County
Tickle Creek	At the confluence with Travis Creek	Approximately 200 feet downstream of the Alamance/Guilford County boundary	Alamance County
Town Branch	At the confluence with Haw River	Approximately 1,000 feet upstream of I-40/85	City Of Graham
Travis Creek	At the confluence with Haw River	Approximately 500 feet downstream of the Alamance/Guilford County boundary	Alamance County Town Of Elon Town Of Gibsonville
Tributary A to Haw Creek	At the confluence with Haw Creek	Approximately 1,500 feet upstream of Jones Drive	Alamance County
Tributary A to Travis Creek	At the confluence with Travis Creek	Approximately 500 feet downstream of the Alamance/Guilford County boundary	Alamance County Town Of Gibsonville
Tributary to Travis Creek	At the confluence with Travis Creek	Approximately 200 feet downstream of the Alamance/Guilford County boundary	Alamance County Town Of Gibsonville
Unnamed Tributary to East Back Creek	At the confluence with East Back Creek	Approximately 300 feet downstream of Trollingwood Hawfields Road and I-40/85	Alamance County City Of Graham City Of Mebane
Unnamed Tributary to Gunn Creek	At the confluence with Gunn Creek	Approximately 200 feet upstream of I-40/85	City Of Burlington
Unnamed Tributary to Haw River at Glencoe	At the confluence with Haw River	Approximately 200 feet upstream of Greenwood Road	Alamance County
Varnals Creek	At the confluence with Haw River	Approximately 1,600 feet downstream of Bass Mountain Road	Alamance County

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

Source	Riverine Sources		Affected Communities
	From	To	
West Back Creek	At the confluence with Big Alamance Creek	At the confluence of Michaels Branch	City Of Burlington
West Back Creek Tributary	At the confluence of West Back Creek	Approximately 3,200 feet downstream of University Drive	City Of Burlington
Willowbrook Creek	Confluence with Little Alamance Creek	Approximately 380 feet downstream of South Mebane Street	City Of Burlington

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	
Back Creek Tributary (Stream No. 90)	Confluence with Back Creek	Approximately 0.4 mile upstream of Sanitary Landfill Road	Town Of Gibsonville
Big Alamance Creek	Approximately 2.1 miles upstream of confluence of Gunn Creek	Approximately 75 feet upstream of the confluence of West Back Creek	Alamance County City Of Burlington Village Of Alamance
East Back Creek			Alamance County City Of Mebane Town Of Haw River
Haw River	The Chatham / Alamance County boundary	The upstream side of Stigall Road	Alamance County City Of Burlington City Of Graham Town Of Haw River Town Of Swepsonville
Otter Creek	Confluence with Graham-Mebane Lake	Approximately 50 feet upstream of Mebane-Rogers Road	Alamance County Town Of Green Level
Reedy Fork	Confluence with Haw River	The Guilford/Forsyth County boundary	Alamance County Town Of Ossipee
West Back Creek	Confluence with Big Alamance Creek	Approximately 275 feet upstream of Interstate 40/85	City Of Burlington

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

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

Source	Riverine Sources		Affected Communities
	From	To	
Back Creek	Confluence with Michaels Branch/West Back Creek	The confluence of Back Creek Tributary	City Of Burlington Town Of Gibsonville
Back Creek Tributary 2	Confluence with Back Creek	Approximately 0.7 mile upstream of Alamance/Guilford County boundary	City Of Burlington Town Of Gibsonville
Beaver Creek	Confluence with Lake MacIntosh	Alamance/Guilford County boundary	Alamance County Village Of Alamance
Big Alamance Creek	The confluence of Big Alamance Creek Tributary 1 (Stream No. 69)	Approximately 1.4 miles upstream of Minden Road	Alamance County City Of Burlington Village Of Alamance
Big Branch	Alamance/Chatham County boundary	Approximately 0.7 mile upstream of Mandale Road	Alamance County
Boyds Creek	Approximately 0.3 mile downstream of confluence with Boyds Creek Tributary 2	Approximately 1.2 miles upstream of Sandy Cross Road	Town Of Green Level
Boyds Creek Tributary 1	Confluence with Boyds Creek	Approximately 0.9 mile upstream of Lakeview Drive	Alamance County Town Of Haw River
Boyds Creek Tributary 2	Confluence with Boyds Creek	Approximately 0.8 mile upstream of Sandy Cross Road	Alamance County Town Of Green Level
Buttermilk Creek	Confluence with Stony Creek	Approximately 1.0 mile upstream of Reid Road	Alamance County
Buttermilk Creek Tributary 1	Confluence with Buttermilk Creek	Approximately 1.1 miles upstream of confluence with Buttermilk Creek	Alamance County
Buttermilk Creek Tributary 2	Confluence with Buttermilk Creek	Approximately 450 feet upstream of confluence with Buttermilk Creek Tributary 3	Alamance County
Buttermilk Creek Tributary 3	Confluence with Buttermilk Creek Tributary 2	Approximately 0.3 mile upstream of confluence with Buttermilk Creek Tributary 2	Alamance County
Cane Creek (North)	Approximately 1.5 miles upstream of confluence of Well Creek	Alamance County (UNincorporated Areas)	Alamance County

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

Source	Riverine Sources		Affected Communities
	From	To	
Cane Creek (North) Tributary 4	The confluence with Cane Creek (North)	Approximately 0.6 mile upstream of confluence with Cane Creek (North)	Alamance County
Cane Creek (South)	Approximately 840 feet upstream of Bethel South Fork Road	Approximately 1.5 miles upstream of confluence of Well Creek	Alamance County
Cane Creek (South) Tributary 1	Confluence with Cane Creek (South)	Approximately 1.3 miles upstream of confluence with Cane Creek (South) Tributary 2	Alamance County
Cane Creek (South) Tributary 2	Confluence with Cane Creek (South) Tributary 1	Approximately 0.7 mile upstream of confluence with Cane Creek (South) Tributary 1	Alamance County
Deep Creek	Confluence with Stony Creek	Approximately 0.5 mile upstream of Jeffries Cross Road	Alamance County
Dry Creek	Approximately 530 feet upstream of Power Line Road	Approximately 0.8 mile upstream of Power Line Road	Town Of Elon
East Back Creek	Confluence with Graham-Mebane Lake	Just downstream of Carr Store Road	Alamance County City Of Mebane
Eastside Creek Tributary	Confluence with Eastside Creek	Approximately 530 feet upstream of the confluence with Eastside Creek	City Of Mebane
Foust Creek	Confluence with Cane Creek (South)	Approximately 0.7 mile upstream of Snow Camp Road	Alamance County
Greenbriar Creek	The confluence with Rocky River	Approximately 1.1 miles upstream of Staley Store Road	Alamance County
Gunn Creek	Approximately 230 feet downstream of Mill Pointe Way	Approximately 0.8 mile upstream of Mill Pointe Way	City Of Burlington Town Of Elon
Haw Creek Tributary 1	Confluence with Haw Creek	Approximately 1.5 miles upstream of Turner Road	Alamance County City Of Mebane
Haw River Tributary 10	Confluence with Unnamed Tributary to Haw River at Glencoe	Approximately 1.3 miles upstream of Mansfield Road	Alamance County
Haw River Tributary 11	Confluence with Haw River	Approximately 1,300 feet upstream of Lonzie Foster Trail	Alamance County
Haw River Tributary 12	Confluence with Haw River Tributary 11	Approximately 600 feet upstream of Altamahaw Racetrack Road	Alamance County
Haw River Tributary 13	Confluence with Haw River	Approximately 0.6 mile upstream of Mack's Chapel Road	Alamance County
Haw River Tributary 14	Confluence with Haw River	Approximately 0.6 mile upstream of Gilliam Church Road	Alamance County
Haw River Tributary 15	The confluence with Haw River (Stream No. 44)	Approximately 0.6 mile upstream of Lee Lewis Road	Alamance County
Haw River Tributary 2	Confluence with Haw River	Approximately 1.2 miles upstream of confluence with Haw River	Alamance County
Haw River Tributary 3	Confluence with Haw River	Approximately 0.5 mile upstream of Austin Quarter Road	Alamance County
Haw River Tributary 4	Confluence with Haw River	Approximately 0.9 mile upstream of Saxapahaw-Bethlehem Church Road	Alamance County
Haw River Tributary 5	Confluence with Haw River Tributary 4	Approximately 525 feet upstream of John Thompson Road	Alamance County
Haw River Tributary 6	Confluence with Haw River	Approximately 0.6 mile upstream of NC 87	Alamance County
Haw River Tributary 8	Confluence with Haw River	Approximately 0.4 mile upstream of Atwater Road	Alamance County City Of Burlington
Hughes Mill Creek	Confluence with Jordan Creek	Approximately 1.2 miles upstream of NC Highway 62	Alamance County
Jones Creek	Confluence with Buttermilk Creek	Approximately 1,850 feet upstream of Altamahaw Racetrack Road	Alamance County
Jordan Creek	Confluence with Stony Creek	Approximately 1.3 miles upstream of Hughes Mill Road	Alamance County
Laughin Creek	Confluence with Buttermilk Creek	Approximately 300 feet downstream of the Alamance/Caswell County boundary	Alamance County
Laughin Creek Tributary 1	Confluence with Laughin Creek	Approximately 1.0 mile upstream of confluence with Laughin Creek	Alamance County
Lick Creek	The confluence with Terrells Creek (West)	Approximately 2.4 miles upstream of confluence with Terrells Creek West	Alamance County
Little Alamance Creek Tributary	Confluence with Little Alamance Creek	Approximately 350 feet upstream of Maple Avenue	City Of Burlington
Little Creek	Confluence with Stinking Quarter Creek	Approximately 0.9 mile upstream of confluence with Little Creek Tributary 2	Alamance County
Little Creek Tributary 1	Confluence with Little Creek	Approximately 1,700 feet upstream of Swannie Coble Road	Alamance County
Little Creek Tributary 2	Confluence with Little Creek	Approximately 0.5 mile upstream of Vernon Lane	Alamance County
Long Branch	Confluence with Marys Creek	Approximately 0.9 mile upstream of Stockard Road	Alamance County
Marys Creek	Confluence with Haw River	Approximately 0.7 mile upstream of Snow Camp Road	Alamance County

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

Source	Riverine Sources		Affected Communities
	From	To	
McAdams Creek Tributary	Confluence with McAdams Creek	Approximately 0.6 mile upstream of 3rd Street	City Of Mebane
Meadow Creek	Approximately 110 feet upstream of NC 54	Approximately 1.2 miles upstream of NC 54	Alamance County
Meadow Creek	Approximately 360 feet upstream of NC 54	Approximately 1.2 miles upstream of NC 54	Alamance County
Mine Creek	Confluence with Stony Creek	Approximately 2.5 miles upstream of Mine Creek Road	Alamance County
Motes Creek	Confluence with Haw River	Approximately 100 feet upstream of NC 54	Alamance County
Motes Creek Tributary	Confluence with Motes Creek	Approximately 0.6 mile upstream of Mineral Springs Road	Alamance County
North Prong Creek	Confluence with North Prong Rocky River	Approximately 1,210 feet upstream of Unnamed Road	Alamance County
North Prong Rocky River	The confluence with Rocky River	Approximately 210 feet upstream of South Cook Street	Alamance County
North Prong Stinking Quarter Creek	Confluence with Stinking Quarter Creek	Alamance/Guilford County boundary	Alamance County Village Of Alamance
Owens Creek	Confluence with Jordan Creek	Approximately 1.8 miles upstream of Blanchard Road	Alamance County
Parks Creek	Approximately 1,850 feet upstream of Shepherd Road	Approximately 800 feet upstream of the Guilford/Alamance County boundary	Alamance County
Pine Branch	Confluence with Cane Creek (South)	Approximately 742 feet upstream of confluence with Cane Creek (South)	Alamance County
Pine Hill Branch	Confluence with South Fork	Alamance/Chatham County boundary	Alamance County
Pine Hill Branch Tributary	Confluence with Pine Hill Branch	Approximately 320 feet upstream of Quakenbush Road	Alamance County
Poppaw Creek	Confluence with Stinking Quarter Creek	Approximately 0.8 mile upstream of confluence of Poppaw Creek Tributary 2	Alamance County
Poppaw Creek Tributary 1	Confluence with Poppaw Creek	Approximately 100 feet upstream of Timber Ridge Lake Road	Alamance County
Poppaw Creek Tributary 2	Confluence with Poppaw Creek	Approximately 0.9 mile upstream of confluence with Poppaw Creek	Alamance County
Quaker Creek	Confluence with Graham-Mebane Lake	Approximately 2.4 miles upstream of confluence with Quaker Creek Tributary 2	Alamance County
Quaker Creek Tributary 1	Confluence with Quaker Creek	Approximately 0.5 mile upstream of Cates Loop Road	Alamance County
Quaker Creek Tributary 2	Approximately 300 feet upstream of confluence with Quaker Creek	Approximately 1 mile upstream of Tangle Ridge Trail	Alamance County
Reedy Branch	Confluence with Cane Creek (South)	Approximately 0.4 mile upstream of Clark Road	Alamance County
Rock Creek	Mill Road	Approximately 1.2 miles upstream of Beale Road	Alamance County
Rock Creek Tributary	Confluence with Rock Creek	Approximately 1.3 miles upstream of NC 49	Alamance County
Serub Creek	Confluence with Graham-Mebane Lake	Approximately 0.4 mile upstream of Dickey Mill Road	Alamance County
Servis Creek	Approximately 1,630 feet downstream of Burch Bridge Road	Approximately 500 feet upstream of Cadiz Street	City Of Burlington
South Fork	Confluence with Cane Creek (South)	Alamance/Chatham County boundary	Alamance County
Stagg Creek	Approximately 1.0 mile downstream of NC 119	Approximately 0.5 mile upstream of Atkins Road	Alamance County
Stagg Creek Tributary 1	Confluence with Stagg Creek	Approximately 515 feet upstream of Corbett Road	Alamance County
Stagg Creek Tributary 2	Confluence with Stagg Creek	Alamance/Orange County boundary	Alamance County
Staley Creek	Approximately 380 feet upstream of Rauhut Street	Approximately 200 feet upstream of Chestnut Street	City Of Burlington
Stinking Quarter Creek	Approximately 350 feet upstream of the confluence with Rock Creek	The confluence with South Prong Stinking Quarter Creek	Alamance County
Stinking Quarter Creek	The confluence with Stinking Quarter Creek	Approximately 1 mile downstream of Kimesville Road	Alamance County
Stinking Quarter Creek	The confluence with Stinking Quarter Creek	The Guilford/Randolph County boundary	Alamance County
Stony Creek	Approximately 1,300 feet upstream of Stony Creek Church Road	Approximately 2.4 miles upstream of Moore Road	Alamance County
Tickle Creek	The Guilford/Alamance County boundary	Approximately 1.0 mile upstream of the Guilford/Alamance County boundary	Alamance County
Toms Creek	Confluence with Burlington Reservoir	Alamance/Caswell County boundary	Alamance County
Town Branch	Approximately 680 feet upstream of Riverbend Road	Approximately 150 feet downstream of Parket Street	City Of Graham
Travis Creek	The Guilford/Alamance County boundary	Approximately 1,000 feet upstream of NC 61	Town Of Gibsonville

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

Source	Riverine Sources		Affected Communities
	From	To	
Travis Creek Tributary 2	Confluence with Travis Creek	Approximately 290 feet upstream of Burlington Avenue	Alamance County Town Of Elon Town Of Gibsonville
Tributary A to Haw Creek	Approximately .25 miles upstream of Jones Drive	Alamance/Orange County boundary	Alamance County
Tributary A to Travis Creek	The Guilford/Alamance County boundary	Approximately 610 feet upstream of Howerton Road	Alamance County
Tributary to Travis Creek	Approximately 250 feet downstream of the Alamance/Guilford County boundary	Approximately 0.6 miles upstream of Alamance/Guilford County Boundary	Town Of Gibsonville
Unnamed Tributary to Haw River at Glencoe	Approximately 660 feet upstream of Greenwood Drive	Approximately 1.6 miles upstream of Iseley School Road	Alamance County
Varnals Creek	Approximately 0.4 mile downstream of Bass Mountain Road	Approximately 0.9 mile upstream of Bass Mountain Road	Alamance County
Varnals Creek Tributary	Confluence with Varnals Creek	Approximately 1.9 miles upstream of confluence with Varnals Creek	Alamance County
Well Creek	Confluence with Cane Creek (South)	Approximately 1.8 miles upstream of Beale Road	Alamance County
West Back Creek Tributary	Approximately .58 miles downstream of University Drive	Approximately 1400 feet upstream of University Drive	City Of Burlington
West Back Creek Tributary 2	At the confluence of West Back Creek	Approximately 534 feet downstream of Bonnar Bridge Road	City Of Burlington
Whittie Creek	Confluence with Buttermilk Creek	Approximately 0.6 mile upstream of Baker Bell Farm Rd	Alamance County
Willowbrook Creek	Approximately 380 feet downstream of South Mebane Street	Approximately 50 feet upstream of Albright Avenue	City Of Burlington

Table 11, "Stream Name Changes" is not applicable in Alamance County.

This FIS also incorporates the determinations of letters issued by FEMA resulting in map changes (Letters of Map Revision [LOMRs]), as shown in Table 12, "Letters of Map Revision".

Table 12 - Letters of Map Revision

Case Number	Date Issued	Flooding Source/Description	Communities
10-04-2172P	4/22/2011	Cane Creek (South) Tributary 3 / 10-04-2172P	Alamance County
09-04-5598P	12/29/2009	Coblebrook Creek / 09-04-5598P	City Of Burlington

5.0 Engineering Methods

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

5.1 Hydrologic Analyses

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

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

Discharges".

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Back Creek					
Eastern county boundary	6.30	*	*	2,400	*
Approximately 1,000 feet downstream of Springwood Church Road (State Route 2748)	5.60	*	*	2,320	*
Approximately 150 feet upstream of Springwood Church Road (SR 2748)	4.70	926	1,600	1,950	2,950
Approximately 300 feet upstream of US Hwy 70/Burlington Road	3.20	725	1,270	1,550	2,360
Approximately 0.4 mile upstream of US Hwy 70/Burlington Road	2.90	673	1,180	1,440	2,200
Approximately 0.4 mile downstream of NC 61/100	1.90	507	899	1,110	1,700
Back Creek Tributary (Stream No. 90)					
At mouth	1.30	530	1,070	1,420	2,600
Sewage Treatment Plant	1.00	450	920	1,210	2,240
Back Creek Tributary 2					
Alamance/Guilford County boundary	0.90	*	*	939	*
Beaver Creek					
Confluence with Big Alamance Creek	12.40	*	*	4,120	*
Approximately 0.5 mile upstream of confluence of Big Alamance Creek	11.40	*	*	3,910	*
Approximately 1.2 miles downstream of Beaver Creek Road (SR 1134)	10.70	*	*	3,780	*
Approximately 0.6 mile downstream of Beaver Creek Road (SR 1134)	9.80	*	*	3,570	*
Approximately 465 feet upstream of Beaver Creek Road (SR 1134)	9.00	*	*	3,370	*
Big Alamance Creek					
Confluence with Haw River	261.80	15,300	23,800	27,800	38,700
Approximately 1,500 feet upstream of Boy Woods Road (SR 2116)	261.60	15,300	23,700	27,800	38,700
Approximately 0.4 mile upstream of Boy Woods Road (SR 2116)	260.60	15,300	23,700	27,700	38,600
Approximately 0.8 mile upstream of Boy Woods Road (SR 2116)	259.70	15,200	23,600	27,700	38,500
Approximately 370 feet upstream of NC 87 (South Main Street)	243.00	14,600	22,700	26,500	37,000
Approximately 0.8 mile upstream of NC 87 (South Main Street)	242.80	14,500	22,600	26,400	36,900
Approximately 1.2 mile upstream of NC 87 (South Main Street)	241.40	14,500	22,600	26,400	36,900
Approximately 0.6 mile upstream of Rodgers Road (SR 2309)	158.00	11,000	17,200	20,300	28,500
Approximately 0.9 mile upstream of Rodgers Road (SR 2309)	157.90	11,000	17,200	20,300	28,500
Approximately 0.5 mile downstream of NC 49	157.00	10,900	17,200	20,200	28,400
Approximately 970 feet upstream of NC 49	156.30	10,900	17,100	20,100	28,300
Confluence of Gunn Creek	147.40	10,500	16,500	19,400	27,400
Approximately 1,800 feet upstream of confluence of Gunn Creek	147.30	10,500	16,500	19,400	27,300
Approximately 1.1 miles upstream of confluence of Gunn Creek	146.30	10,400	16,400	19,300	27,200
Approximately 1.0 mile downstream of NC 62	145.30	10,400	16,300	19,200	27,100
Approximately 0.9 mile downstream of NC 62	145.00	10,400	16,300	19,200	27,100
Below confluence of West Back Creek	142.70	9,620	16,915	20,990	33,260
Confluence of West Back Creek	129.50	*	*	17,900	*
Confluence of Beaver Creek	116.90	*	*	16,800	*
Approximately 245 feet downstream of SR 1149	115.90	*	*	16,700	*
Approximately 0.9 mile upstream of SR 1149	113.90	*	*	16,500	*
Big Branch					
Confluence with Haw River	3.10	*	*	1,740	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 0.4 mile upstream of confluence with Haw River	3.00	*	*	1,690	*
Approximately 1,950 feet upstream of Mandale Road (SR 2104)	2.00	*	*	1,330	*
Boyd Branch					
At the confluence with Little Alamance Creek	2.68	1,390	2,120	2,320	3,020
Approximately 1,500 ft. upstream of Hanford Road	2.13	1,240	1,900	2,090	2,720
Immediately downstream of I-40/85	1.81	1,150	1,760	1,930	2,510
Boyds Creek					
At the confluence with Haw River	7.31	1,360	2,180	2,530	3,420
Immediately downstream of Hopedale Road	6.53	1,270	2,040	2,370	3,200
Approximately 1,200 ft. downstream from the confluence of Boyds Creek Tributary 1	6.26	1,230	1,990	2,310	3,120
At the confluence of Boyds Creek Tributary 1	4.66	1,030	1,660	1,940	2,630
Approximately 1,600 ft. upstream from the confluence of Boyds Creek Tributary 1	4.56	1,020	1,640	1,910	2,600
Approximately 0.7 mile upstream from the confluence of Boyds Creek Tributary 1	3.85	915	1,480	1,730	2,350
Approximately 1.2 miles upstream from the confluence of Boyds Creek Tributary 1	3.24	822	1,340	1,560	2,130
Approximately 1.7 miles upstream from the confluence of Boyds Creek Tributary 1	2.76	745	1,210	1,420	1,940
Approximately 2.0 miles upstream from the confluence of Boyds Creek Tributary 1	2.26	658	1,080	1,260	1,720
Boyds Creek Tributary 1					
Confluence with Boyds Creek	1.50	*	*	974	*
Approximately 330 feet downstream of Sandy Cross Road	1.00	*	*	754	*
Boyds Creek Tributary 2					
Confluence with Boyds Creek	0.60	*	*	562	*
Buttermilk Creek					
Confluence with Stony Creek	16.10	*	*	4,226	*
Approximately 1.1 miles upstream of confluence with Stony Creek	15.60	*	*	4,141	*
Approximately 0.5 mile downstream of Altamahaw Union Ridge Road (SR 1002)	14.60	*	*	3,977	*
Confluence of Whittie Creek	11.00	*	*	3,328	*
Approximately 375 feet downstream of Pagetown Road (SR 1587)	10.10	*	*	3,159	*
Confluence of Laughin Creek	5.30	*	*	2,103	*
Approximately 1,600 feet downstream of confluence of Buttermilk Creek Tributary 1	4.60	*	*	1,922	*
Confluence of Buttermilk Creek Tributary 1	3.70	*	*	1,696	*
Confluence of Jones Creek	2.30	*	*	1,264	*
Confluence of Buttermilk Creek Tributary 2	1.30	*	*	1,264	*
Buttermilk Creek Tributary 1					
Confluence with Buttermilk Creek	0.40	*	*	403	*
Buttermilk Creek Tributary 2					
Confluence with Buttermilk Creek	0.90	*	*	713	*
Confluence of Buttermilk Creek Tributary 3	0.20	*	*	276	*
Buttermilk Creek Tributary 3					
Confluence with Buttermilk Creek Tributary 2	0.30	*	*	355	*
Cane Creek (North)					
Confluence with Haw River	39.20	*	*	7,360	*
Approximately 0.64 mile downstream of Morrow Mill Road	36.90	*	*	7,080	*
Cane Creek (North) Tributary 4					
Confluence with Cane Creek (North)	1.40	*	*	905	*

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
Cane Creek (South)					
Confluence with Haw River	68.00	5,880	10,200	12,800	21,500
NC 87	64.50	5,840	10,100	12,700	21,400
Confluence of South Fork	58.20	5,700	9,910	12,400	21,000
Upstream of confluence of South Fork	39.20	4,290	7,550	9,510	16,300
Approximately 1.2 miles upstream of State Route 1003 (Lindley Mill Road)	36.40	4,210	7,420	9,350	16,000
State Route 2351 (Bethel South Fork Road)	34.00	4,140	7,310	9,230	15,800
Approximately 200 feet upstream of Bethel South Fork Road (SR 2351)	33.70	*	*	7,720	*
Confluence of Foust Creek	29.80	*	*	7,150	*
Confluence of Reedy Branch	26.00	*	*	6,560	*
Approximately 0.7 mile upstream of Holman Mill Road (SR 2356)	22.80	*	*	6,040	*
Approximately 0.8 mile upstream of Holman Mill Road (SR 2356)	22.70	*	*	6,040	*
Confluence of Cane Creek (South) Tributary 1	15.70	*	*	4,790	*
Confluence of Cane Creek (South) Tributary 3	10.70	*	*	3,770	*
Approximately 500 feet downstream of Pleasant Hill Church Road	10.60	*	*	3,740	*
Confluence of Well Creek	5.30	*	*	2,420	*
Approximately 1.2 miles upstream of confluence of Well Creek	4.30	*	*	2,130	*
Cane Creek (South) Tributary 1					
Confluence with Cane Creek (South)	6.10	*	*	2,640	*
Approximately 0.5 mile downstream of Workman Road	4.50	*	*	2,200	*
Approximately 0.4 mile downstream of Snow Camp Road	3.60	*	*	1,920	*
Confluence of Cane Creek (South) Tributary 2	1.60	*	*	1,140	*
Approximately 1.1 miles upstream of confluence of Cane Creek (South) Tributary 2	1.20	*	*	954	*
Cane Creek (South) Tributary 2					
Confluence with Cane Creek (South) Tributary 1	1.30	*	*	1,010	*
Approximately 0.6 mile upstream of confluence with Cane Creek (South) Tributary 1	1.00	*	*	857	*
Cane Creek (South) Tributary 3					
Confluence with Cane Creek (South)	4.40	*	*	2,170	*
Approximately 0.9 mile upstream of confluence with Cane Creek (South)	3.80	*	*	1,970	*
Approximately 1.1 miles downstream of Old Dam Road	2.80	*	*	1,620	*
Approximately 0.5 mile downstream of Old Dam Road	2.00	*	*	1,340	*
Coblebrook Creek					
Confluence with Little Alamance Creek	1.10	720	1,170	1,300	1,650
Approximately 1,673 feet upstream of confluence with Little Alamance Creek	0.90	*	*	1,230	*
Approximately 630 feet upstream of Engleman Avenue	0.90	680	1,100	1,230	1,560
Deep Creek					
Confluence with Stony Creek	9.20	*	*	2,987	*
Approximately 0.4 mile downstream of Faucette Lane	8.30	*	*	2,793	*
Approximately 0.4 mile upstream of Faucette Lane	6.60	*	*	2,423	*
Approximately 70 feet downstream of McCray Road	5.70	*	*	2,216	*
Approximately 0.7 mile downstream of Fleming Graham Road	3.60	*	*	1,661	*
Approximately 175 feet upstream of Fleming Graham Road	2.60	*	*	1,360	*
Approximately 0.5 mile upstream of Fleming Graham Road	1.90	*	*	1,105	*
Approximately 0.9 mile downstream of Jeffries Cross Road	1.30	*	*	892	*

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
Dry Creek					
At the confluence with Haw River	4.05	1,390	2,200	2,460	3,240
Approximately 1,400 ft. upstream of confluence with Haw River	3.70	1,310	2,090	2,340	3,090
Immediately downstream of Durham Street	2.31	1,210	2,020	2,270	3,050
Approximately 0.5 mile downstream of Gerringer Road	1.16	733	1,190	1,330	1,770
Immediately downstream of Gerringer Road	0.97	693	1,120	1,250	1,660
Immediately downstream of Power Line Road	0.77	637	1,030	1,140	1,520
East Back Creek					
Confluence with Haw River	81.10	7,650	13,500	17,000	29,100
Upstream of confluence of Unnamed Tributary to East Back Creek	76.20	7,510	13,300	16,800	28,700
State Route 1940 (Trollingwood Road)	74.50	7,520	13,300	16,800	28,800
Approximately 800 feet upstream of State Route 1936 (Stone Street Extension)	67.70	7,290	13,000	16,400	28,100
State Route 1936 (Stone Street Extension)	67.70	414	2,704	6,000	15,000
Approximately 1,500 feet downstream of NC 119	14.60	*	*	3,982	*
Approximately 0.9 mile upstream of NC 119	13.50	*	*	3,795	*
Approximately 1.5 miles upstream of NC 119	12.50	*	*	3,620	*
Eastside Creek					
At the confluence with Mill Creek	1.82	945	1,520	1,690	2,240
Immediately downstream of dirt road, approximately 0.5 mile downstream of NC Highway 119	1.73	927	1,490	1,650	2,190
Immediately downstream of NC Highway 119	1.45	838	1,350	1,500	1,990
Immediately downstream of Stage Coach Road	1.32	821	1,320	1,460	1,940
Eastside Creek Tributary					
Confluence with Eastside Creek	0.60	*	*	547	*
Foust Creek					
Confluence with Cane Creek (South)	3.60	*	*	1,890	*
Approximately 0.5 mile downstream of Snow Camp Road	2.60	*	*	1,560	*
Approximately 1,160 feet downstream of Snow Camp Road	2.00	*	*	1,310	*
Greenbriar Creek					
Approximately 0.6 mile downstream of Staley Store Road (SR 2307)	3.30	*	*	1,583	*
Approximately 0.5 mile upstream of Staley Store Road (SR 2307)	2.40	*	*	1,278	*
Approximately 1.2 miles upstream of Staley Store Road (SR 2307)	1.00	*	*	737	*
Gunn Creek					
At the confluence with Big Alamance Creek	7.88	2,640	3,860	4,210	5,380
Approximately 0.8 mile upstream of confluence with Big Alamance Creek	7.63	2,630	3,830	4,180	5,330
Immediately downstream of Anthony Road	7.16	2,570	3,740	4,080	5,200
Approximately 1,000 ft. downstream of confluence of Unnamed Tributary to Gunn Creek	6.60	2,450	3,580	3,910	4,990
Immediately upstream of confluence of Unnamed Tributary to Gunn Creek	4.46	1,920	2,850	3,120	4,010
Immediately downstream of Airport Runway	4.30	1,900	2,830	3,090	3,980
Immediately downstream of Alamance Road	3.95	1,840	2,730	2,980	3,830
Immediately downstream of Grand Oaks Boulevard	3.33	1,720	2,550	2,780	3,570
Approximately 1,000 ft. downstream of I-40/ 85	2.95	1,620	2,400	2,620	3,370
Immediately downstream of Huffman Mill Road	2.53	1,420	2,140	2,340	3,030
Immediately downstream of Boone Station Road	2.40	1,340	2,030	2,230	2,890

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 1,200 ft. downstream of Church Street	1.97	1,080	1,700	1,870	2,460
Approximately 1,000 ft. upstream of Church Street	1.07	651	1,080	1,210	1,620
Immediately downstream of Berwick Road	0.89	558	942	1,060	1,430
Haw Creek					
Immediately upstream of confluence with Haw River	28.46	3,330	5,240	5,910	7,780
Immediately downstream of Swepsonville-Saxapahaw Road	27.68	3,300	5,180	5,850	7,690
Approximately 800 feet upstream of Swepsonville-Saxapahaw Road	26.16	3,210	5,050	5,700	7,500
Immediately downstream of Worm Ranch Road	23.74	3,070	4,820	5,440	7,150
Immediately downstream of NC 54 Highway	23.43	3,040	4,790	5,400	7,110
Approximately 0.9 mile downstream of Jim Minor Lane	17.73	2,470	3,970	4,500	5,970
Immediately downstream of Jim Minor Lane	16.85	2,390	3,840	4,360	5,780
Approximately 1.2 miles downstream of Jones Drive	14.92	2,250	3,640	4,120	5,480
Approximately 0.6 mile downstream of Jones Drive	8.94	1,900	3,030	3,410	4,510
Immediately downstream of Jones Drive	8.84	1,890	3,020	3,400	4,500
Approximately 1.4 miles upstream of Jones Drive	7.72	1,820	2,890	3,240	4,280
Approximately 1.3 miles downstream of Mebane Oaks Road	6.79	1,710	2,720	3,050	4,030
Approximately 400 feet downstream of Mebane Oaks Road (Driveway)	6.45	1,680	2,670	2,990	3,950
Immediately downstream of Mebane Oaks Road	6.15	1,610	2,570	2,880	3,810
Immediately downstream of Old Hillsborough Road	2.35	1,030	1,660	1,850	2,460
Approximately 0.5 mile upstream of Old Hillsborough Road	2.09	994	1,600	1,780	2,360
Immediately downstream of Interstate 40/85	1.91	915	1,480	1,660	2,210
Haw Creek Tributary 1					
Confluence with Haw Creek	4.70	*	*	2,240	*
Approximately 0.9 mile upstream of South Jim Minor Road	3.30	*	*	1,810	*
Approximately 370 feet downstream of Turner Road	2.90	*	*	1,680	*
Approximately 1.0 mile upstream of Turner Road	2.00	*	*	1,310	*
Approximately 1.4 miles upstream of Turner Road	1.00	*	*	857	*
Haw River					
Approximately 1.8 miles upstream of Chicken Bridge Road	1156.12	39,300	56,700	64,000	82,400
Immediately downstream of E Greensboro-Chapel Hill Road	1080.00	36,500	52,900	59,700	76,800
Approximately 1.3 miles upstream of E Greensboro-Chapel Hill Road	1038.79	35,000	50,800	57,400	73,800
Approximately 3.4 miles upstream of E Greensboro-Chapel Hill Road	1023.56	34,500	50,100	56,500	72,700
Immediately downstream of spillway N of Church Road	1012.37	34,100	49,500	55,900	71,900
Immediately downstream of confluence of Varnals Creek	987.10	33,200	48,300	54,500	70,100
Approximately 1.3 miles downstream of Swepsonville-Saxapahaw Road	957.06	32,100	46,800	52,900	68,000
Immediately downstream of Swepsonville-Saxapahaw Road	693.40	23,500	35,100	40,200	48,100
Immediately downstream of Interstate 40/85	605.48	22,000	32,900	38,000	44,200
At confluence of Servis Creek	583.99	21,400	32,100	37,000	43,300
Approximately 2,400 feet upstream of NC Highway 62	477.43	18,500	27,800	31,900	38,700
Approximately 0.9 mile downstream of Burch Bridge Road	475.39	18,500	27,700	31,800	38,600
Immediately downstream of Gerring Mill Road	450.38	17,800	26,700	30,600	37,500
Approximately 300 feet upstream of NC Highway 87	187.46	10,100	15,300	17,400	22,700
Approximately 1.0 mile upstream of NC Highway 87	184.85	9,970	15,100	17,200	22,500
Haw River Tributary 10					
Confluence with Unnamed Tributary to Haw River at Glencoe	0.80	*	*	665	*

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
Haw River Tributary 11					
Confluence with Haw River	5.40	*	*	2,126	*
Confluence of Haw River Tributary 12	3.00	*	*	1,487	*
Approximately 1,050 feet upstream of SR 1594	1.70	*	*	1,037	*
Approximately 0.6 mile downstream of Saw Mill Drive	0.90	*	*	720	*
Approximately 500 feet downstream of Saw Mill Drive	0.30	*	*	327	*
Haw River Tributary 12					
Confluence with Haw River Tributary 11	1.10	*	*	787	*
Approximately 1,360 feet upstream of Dodd Road (SR 1565)	0.40	*	*	447	*
Haw River Tributary 13					
Confluence with Haw River	0.60	*	*	545	*
Haw River Tributary 14					
Confluence with Haw River	2.00	*	*	1,161	*
Approximately 0.5 mile upstream of Haw River	1.50	*	*	947	*
Approximately 600 feet downstream of Gilliam Church Road	0.70	*	*	593	*
Haw River Tributary 2					
Confluence with Haw River	0.40	*	*	491	*
Haw River Tributary 3					
Confluence with Haw River	0.80	*	*	736	*
Approximately 1,260 feet downstream of Unnamed Road	0.50	*	*	575	*
Haw River Tributary 4					
Approximately 0.4 mile upstream of confluence with Haw River	2.40	*	*	1,470	*
Confluence with Haw River	2.40	*	*	1,500	*
Confluence of Haw River Tributary 5	1.40	*	*	1,050	*
Approximately 0.7 mile upstream of confluence of Haw River Tributary 5	1.00	*	*	861	*
Approximately 100 feet downstream of Saxapahaw-Bethlehem Church Road	0.60	*	*	653	*
Haw River Tributary 5					
Confluence with Haw River Tributary 4	0.80	*	*	747	*
Approximately 290 feet downstream of Saxapahaw-Bethlehem Church Road	0.70	*	*	693	*
Approximately 570 feet upstream of Saxapahaw-Bethlehem Church Road	0.50	*	*	556	*
Haw River Tributary 6					
Confluence with Haw River	4.30	*	*	2,120	*
Approximately 1,400 feet upstream of Rumley Road (SR 2178)	3.90	*	*	2,010	*
Approximately 0.6 mile upstream of Rumley Road (SR 2178)	2.90	*	*	1,670	*
Approximately 0.6 mile downstream of Cedar Cliff Road (SR 2176)	2.00	*	*	1,320	*
Haw River Tributary 8					
Confluence with Haw River	1.50	*	*	949	*
Approximately 0.5 mile upstream of Greenwood Drive	0.50	*	*	456	*
Haw River Tributary A					
Confluence with Haw River	1.00	500	910	1,110	1,730
Approximately 300 feet upstream of Lang Street	0.70	420	770	950	1,450
Hughes Mill Creek					
Confluence with Jordan Creek	4.70	*	*	1,966	*
Approximately 0.5 mile upstream of confluence with Jordan Creek	3.40	*	*	1,614	*

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
Jones Creek					
Confluence with Buttermilk creek	1.30	*	*	880	*
Approximately 770 feet downstream of Altamahaw Racetrack Road	0.70	*	*	575	*
Jordan Creek					
Confluence with Stony Creek	26.20	*	*	5,739	*
Approximately 1.1 miles upstream of confluence with Stony Creek	25.40	*	*	5,628	*
Approximately 0.5 mile downstream of McCray Road	24.40	*	*	5,489	*
Confluence of Owens Creek	14.20	*	*	3,917	*
Approximately 0.4 mile upstream of Jeffries Cross Road	13.20	*	*	3,737	*
Approximately 0.7 mile downstream Willie Pace Road	12.20	*	*	3,563	*
Approximately 1,250 feet upstream of Willie Pace Road	11.30	*	*	3,383	*
Approximately 0.9 mile downstream of confluence of Hughes Mill Creek	10.30	*	*	3,192	*
Confluence of Hughes Mill Creek	4.30	*	*	1,861	*
Approximately 0.5 mile downstream of NC 62	3.40	*	*	1,615	*
Lake Michael Tributary					
Confluence with Mill Creek	3.30	730	1,270	1,560	2,370
Laughin Creek					
Confluence with Buttermilk Creek	4.00	*	*	1,764	*
Confluence of Laughin Creek Tributary 1	2.60	*	*	1,361	*
Confluence of Laughin Creek Tributary 2	0.50	*	*	473	*
Laughin Creek Tributary 1					
Confluence with Laughin Creek	0.50	*	*	470	*
Little Alamance Creek					
Confluence with Big Alamance Creek	15.90	3,610	5,260	5,760	7,090
Approximately 0.8 mile upstream of confluence with Big Alamance Creek	15.10	3,530	5,150	5,640	6,930
Just downstream of Rodgers Road (SR 2309)	14.50	3,490	5,090	5,560	6,830
Confluence of Boyd Branch	10.90	3,010	4,410	4,820	5,910
Approximately 0.4 mile downstream of Maple Avenue (NC 49)	9.90	2,960	4,310	4,700	5,740
Approximately 0.6 mile upstream of Maple Avenue (NC 49)	9.00	2,870	4,180	4,550	5,530
Approximately 1,570 feet downstream of Interstate 40/85	8.00	2,700	3,940	4,290	5,220
Approximately 1,040 feet upstream of Interstate 40/85	7.00	2,490	3,650	3,980	4,850
Approximately 700 ft. downstream of Tucker Street	6.75	2,670	3,830	4,150	5,260
Immediately downstream of Chapel Hill Road	6.54	2,620	3,770	4,090	5,190
Immediately upstream of confluence of Willowbrook Creek	4.56	1,960	2,910	3,180	4,090
Immediately downstream of Mebane Street	4.50	1,940	2,880	3,140	4,040
Immediately downstream of Overbrook Road	4.25	1,880	2,800	3,060	3,940
Immediately downstream of Church Street	3.68	1,710	2,560	2,800	3,610
Immediately downstream of O'Neal Street	3.53	1,650	2,480	2,720	3,520
Immediately downstream of confluence of Coblebrook Creek	3.42	1,620	2,440	2,670	3,450
Immediately upstream of confluence of Coblebrook Creek	2.06	1,120	1,750	1,930	2,530
Immediately downstream of Edgewood Ave	1.91	1,050	1,660	1,830	2,410
Approximately 1,000 ft. upstream of Edgewood Avenue	1.62	934	1,480	1,640	2,160
Approximately 1,200 ft. downstream of Woodland Avenue	1.10	694	1,140	1,270	1,700
Immediately downstream of Woodland Avenue	1.05	675	1,110	1,240	1,660

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 Alamance Creek Tributary					
At confluence with Little Alamance Creek	0.70	*	*	938	*
Little Creek					
At confluence with Stinking Quarter Creek	5.20	*	*	2,400	*
Approximately 750 feet upstream of confluence with Stinking Quarter Creek	5.00	*	*	2,330	*
At confluence of Little Creek Tributary 1	2.90	*	*	1,660	*
Approximately 0.2 mile upstream of confluence of Little Creek Tributary 2	1.00	*	*	858	*
At confluence of Little Creek Tributary 2	1.00	*	*	871	*
Little Creek Tributary 1					
At confluence with Little Creek	1.10	*	*	932	*
Approximately 300 feet upstream of Swannie Coble Road (SR 1120)	1.00	*	*	859	*
Little Creek Tributary 2					
At confluence with Little Creek	1.30	*	*	1,020	*
Approximately 130 feet downstream of Mount Zion Road (SR 110)	1.00	*	*	863	*
Long Branch					
At confluence with Marys Creek	2.90	*	*	1,670	*
Approximately 0.4 mile upstream of Stockard Road (SR 2338)	1.90	*	*	1,290	*
Marys Creek					
At confluence with Haw River	12.50	*	*	4,160	*
Approximately 0.4 mile downstream of Whitney Road (SR 2174)	12.10	*	*	4,080	*
Approximately 400 feet downstream of Whitney Road (SR 2174)	12.00	*	*	4,040	*
Approximately 870 feet upstream of Whitney Road (SR 2174)	11.40	*	*	3,910	*
At confluence with Long Branch	7.40	*	*	3,000	*
Approximately 920 feet upstream of Stockard Road (SR 2338)	6.50	*	*	2,770	*
Approximately 0.4 mile upstream of Lindley Mill Road (SR 1003)	4.10	*	*	2,070	*
Approximately 0.4 mile upstream of Jewell Road (SR 2334)	3.80	*	*	1,970	*
Approximately 0.5 mile downstream of Snow Camp Road (SR 1004)	2.80	*	*	1,620	*
Approximately 0.4 mile upstream of Snow Camp Road (SR 1004)	2.00	*	*	1,310	*
McAdams Creek					
At the confluence with East Back Creek	4.98	1,470	2,350	2,640	3,490
Approximately 1.0 mile upstream of the confluence with East Back Creek	4.66	1,440	2,290	2,570	3,390
Approximately 1.2 miles downstream of Gibson Road	3.81	1,290	2,080	2,320	3,080
Immediately downstream of Gibson Road	3.18	1,230	1,960	2,180	2,880
Approximately 0.6 mile upstream of Gibson Road	2.38	1,050	1,690	1,880	2,500
Approximately 0.8 mile downstream of Corrigidor Street	2.11	1,010	1,620	1,800	2,390
Approximately 0.6 mile downstream of Corrigidor Street	1.16	700	1,150	1,290	1,720
Immediately downstream of Corrigidor Street	0.95	646	1,060	1,180	1,580
McAdams Creek Tributary					
At confluence with McAdams Creek	0.70	*	*	860	*
Approximately 410 feet upstream of Emerson Drive	0.20	*	*	359	*
Meadow Creek					
At confluence with Haw River	4.70	1,120	1,950	2,430	4,090
At State Route 2158 (Swepsonville-Saxapahaw Road)	3.70	852	1,450	1,790	2,940

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 2,000 feet downstream of State Route 2158 (Swepsonville-Saxapahaw Road)	2.50	704	1,200	1,490	2,470
Approximately 230 feet upstream of NC 54	1.70	*	*	1,180	*
Approximately 1.2 miles upstream of Steel Way Drive	1.00	*	*	872	*
Michaels Branch					
At the confluence with West Back and Back Creek	2.58	1,280	1,980	2,180	2,850
Immediately downstream of Nire Valley Road	2.50	1,260	1,950	2,150	2,810
Approximately 400 ft. downstream of US-70	1.99	1,120	1,740	1,910	2,500
Coincidental peak flow at the confluence with Michaels Branch	1.65	904	1,520	1,700	2,300
Immediately downstream of Michaels Branch Dam 1	1.16	904	1,520	1,700	2,300
Approximately 300 ft. upstream of Westbrook Avenue	0.52	410	706	794	1,080
Approximately 700 ft. downstream of Oakview Drive	0.47	388	669	753	1,020
Immediately downstream of Oakview Drive	0.41	353	614	693	944
Immediately downstream of Timber Lake Drive	0.37	337	587	662	903
Immediately downstream of Courtland Drive	0.29	281	498	563	772
Immediately downstream of Branchwood Drive	0.26	263	468	530	727
Approximately 300 ft. downstream of Neal Street	0.08	132	245	279	388
Immediately downstream of Neal Street	0.07	123	230	261	364
Immediately downstream of Ballpark Street	0.06	113	212	241	336
Immediately downstream of Long Street	0.04	100	179	202	278
Michaels Branch Tributary					
Immediately downstream of University Drive	0.54	471	788	879	1,180
Approximately 700 ft. upstream of University Drive	0.50	446	749	837	1,130
Immediately downstream of Westbrook Avenue	0.41	400	675	755	1,020
Immediately downstream of Brookview Road	0.36	371	629	704	952
Approximately 200 ft. upstream of Brookview Road	0.35	365	620	693	937
Approximately 200 ft. downstream of Travis Lane	0.28	325	555	620	840
Immediately downstream of Travis Lane	0.27	318	544	608	824
Immediately downstream of Driftwood Road	0.23	290	499	558	758
Mill Creek					
At confluence with Graham-Mebane Lake	12.50	2,200	4,110	5,260	9,350
At the confluence with Graham Mebane Lake	12.49	2,160	3,460	3,910	5,180
Immediately downstream of Cooks Mill Road	12.29	2,140	3,430	3,870	5,130
Approximately 600 feet upstream of State Route 1920 (Cooks Mill Road)	11.70	2,180	4,080	5,240	9,350
Approximately 500 ft. upstream of Cooks Mill Road	11.66	2,040	3,290	3,720	4,940
Approximately 800 feet downstream of NC 119 (North First Street)	11.10	2,140	4,000	5,140	9,210
Approximately 700 feet downstream of NC 119 (North First Street)	9.30	1,680	3,200	4,120	7,460
Immediately upstream of the confluence of East Creek	9.21	1,520	2,570	2,940	3,970
Immediately downstream of NC Highway 119	9.19	1,520	2,560	2,930	3,950
Approximately 0.3 mile upstream of NC Highway 119	8.98	1,490	2,520	2,880	3,890
Approximately 0.5 mile upstream of NC Highway 119	8.09	1,450	2,320	2,690	3,630
Approximately 0.8 mile upstream of NC Highway 119	7.95	1,360	2,320	2,660	3,600
Downstream of confluence of Lake Michael Tributary	7.90	1,450	2,750	3,550	6,410
Upstream of confluence of Lake Michael Tributary	4.60	854	1,670	2,180	4,010
At the Alamance/Orange County boundary	4.50	1,180	1,970	2,230	2,970

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
Mine Creek					
At confluence with Stony Creek	3.30	*	*	1,583	*
Approximately 0.6 mile downstream of Mine Creek Road (SR 1605)	2.80	*	*	1,425	*
Approximately 1.9 miles upstream of Mine Creek Road (SR 1605)	0.30	*	*	338	*
Motes Creek					
At confluence with Haw River	5.70	*	*	2,530	*
Approximately 0.5 mile upstream of Saxapahaw-Bethlehem Church Road (SR 2146)	5.10	*	*	2,370	*
Approximately 0.8 mile downstream of Salem Church Road (SR 2142)	4.20	*	*	2,110	*
Approximately 400 feet downstream of Salem Church Road (SR 2142)	3.80	*	*	1,970	*
At confluence of Motes Creek Tributary	2.80	*	*	1,630	*
Approximately 1.0 mile downstream of NC 54	2.00	*	*	1,330	*
Approximately 120 feet upstream of NC 54	1.00	*	*	877	*
Motes Creek Tributary					
At confluence with Motes Creek Tributary	0.70	*	*	691	*
North Prong Creek					
At confluence with North Prong Rocky River	4.30	*	*	1,848	*
Approximately 0.4 mile upstream of confluence with North Prong Rocky River	3.20	*	*	1,535	*
North Prong Rocky River					
At Alamance/Chatham County boundary	7.60	*	*	2,651	*
Approximately 1,000 feet upstream of Alamance/Chatham County boundary	6.70	*	*	2,445	*
At confluence of North Prong Creek	1.40	*	*	928	*
North Prong Stinking Quarter Creek					
At confluence with Stinking Quarter Creek	25.10	*	*	6,420	*
Approximately 0.6 mile downstream of Kimesville Road (SR 1113)	24.30	*	*	6,300	*
Approximately 840 feet upstream of Kimesville Road (SR 1113)	23.60	*	*	6,190	*
Approximately 1.2 miles downstream of Clapp Mill Road (SR 1129)	22.80	*	*	6,040	*
Approximately 30 feet downstream of Clapp Mill Road (SR 1129)	20.30	*	*	5,620	*
Approximately 1.4 miles upstream of Clapp Mill Road (SR 1129)	19.90	*	*	5,560	*
Approximately 720 feet upstream of Stafford Mill Road (SR 1124)	19.00	*	*	5,390	*
Otter Creek					
At the confluence with Graham Mebane Lake	2.13	635	1,040	1,220	1,670
Approximately 0.3 mile upstream of Graham Mebane Lake confluence	1.43	496	819	960	1,320
Approximately 0.6 mile downstream of Deer Run Trail	1.29	466	770	903	1,240
Approximately 850 ft. downstream of Deer Run Trail	1.06	413	684	804	1,110
Immediately downstream of Deer Run Trail	0.92	378	628	739	1,020
Immediately downstream of Winding Trail	0.71	322	538	633	878
Approximately 700 ft. upstream of Winding Trail	0.59	287	481	567	788
Approximately 1,300 ft. downstream of Mebane Rogers Road	0.55	275	462	544	756
Immediately downstream of Mebane Rogers Road (SR 1921)	0.34	205	346	409	571
Owens Creek					
At confluence with Jordan Creek	9.10	*	*	2,964	*
Approximately 0.5 mile downstream of Jeffries Cross Road (SR 1002)	8.40	*	*	2,807	*
Approximately 330 feet upstream of Jeffries Cross Road (SR 1002)	7.10	*	*	2,539	*
Approximately 0.5 mile downstream of Blanchard Road (SR 1762)	5.00	*	*	2,028	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 0.4 mile upstream of Blanchard Road (SR 1762)	2.60	*	*	1,403	*
Approximately 1.5 miles downstream of NC 62	1.80	*	*	1,069	*
Parks Creek					
At confluence with Reedy Fork	1.70	*	*	1,046	*
Approximately 0.6 mile upstream of Shepherd Road (SR 1554)	1.00	*	*	763	*
Pine Branch					
At confluence with Cane Creek (South)	1.40	*	*	1,070	*
Pine Hill Branch					
At confluence with South Fork	6.50	*	*	2,750	*
Approximately 560 feet upstream of confluence with South Fork	5.60	*	*	2,500	*
Approximately 0.4 mile upstream of confluence with South Fork	5.10	*	*	2,360	*
At confluence of Pine Hill Branch Tributary	2.00	*	*	1,320	*
Approximately 1,630 feet downstream of Clark Road (SR 2352)	1.40	*	*	1,070	*
Pine Hill Branch Tributary					
At confluence with Pine Hill Branch	2.50	*	*	1,510	*
Approximately 1,200 feet upstream of confluence with Pine Hill Branch	1.10	*	*	913	*
Approximately 390 feet downstream of Quakenbush Road (SR 2354)	1.10	*	*	888	*
Poppaw Creek					
At confluence with Stinking Quarter Creek	8.00	*	*	3,140	*
Approximately 0.6 mile downstream of Foster Store Road (SR 1113)	7.60	*	*	3,050	*
Approximately 700 feet downstream of Greensboro Chapel Hill Road (SR 1005)	6.70	*	*	2,820	*
Approximately 1.5 miles upstream of Greensboro Chapel Hill Road (SR 1005)	5.90	*	*	2,610	*
At confluence of Poppaw Creek Tributary 1	1.60	*	*	1,160	*
At confluence of Poppaw Creek Tributary 2	0.80	*	*	727	*
Poppaw Creek Tributary 1					
At confluence with Poppaw Creek	3.40	*	*	1,840	*
Approximately 190 feet upstream of Spoon Loop (SR 1107)	2.80	*	*	1,630	*
Approximately 710 feet downstream of Timber Ridge Lake Road (SR 1105)	1.90	*	*	1,260	*
Poppaw Creek Tributary 2					
At confluence with Poppaw Creek	0.90	*	*	776	*
Quaker Creek					
At confluence of Serub Creek	10.50	*	*	3,242	*
Approximately 0.5 mile downstream of Dickey Mill Road (SR 1912)	9.90	*	*	3,130	*
Approximately 0.9 mile upstream of Dickey Mill Road (SR 1912)	8.90	*	*	2,929	*
Approximately 1.4 mile downstream of Barnett Road (SR 1910)	8.00	*	*	2,731	*
Approximately 0.8 mile downstream of Barnett Road (SR 1910)	7.20	*	*	2,549	*
Approximately 0.5 mile upstream of Barnett Road (SR 1910)	5.00	*	*	2,031	*
Approximately 0.8 mile upstream of Barnett Road (SR 1910)	4.00	*	*	1,777	*
At confluence of Quaker Creek Tributary 2	1.70	*	*	1,047	*
Approximately 1.2 miles upstream of confluence of Quaker Creek Tributary 2	1.10	*	*	775	*
Approximately 2.1 miles upstream of confluence of Quaker Creek Tributary 2	0.10	*	*	219	*
Quaker Creek Tributary 1					
At confluence with Quaker Creek	1.40	*	*	928	*
Approximately 0.6 mile upstream of confluence with Quaker Creek	1.20	*	*	831	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 400 feet upstream of Cates Loop Road (SR1909)	0.20	*	*	278	*
Quaker Creek Tributary 2					
At confluence with Quaker Creek	2.00	*	*	1,157	*
Approximately 770 feet downstream of Tangle Ridge Trail	1.80	*	*	602	*
Approximately 0.8 mile upstream of Tangle Ridge Trail	0.20	*	*	281	*
Reedy Branch					
At confluence with Cane Creek (South)	3.50	*	*	1,860	*
Approximately 670 feet downstream of Holman Mill Road (SR 2356)	3.00	*	*	1,700	*
Approximately 0.6 mile upstream of Quakenbush Road (SR 2358)	2.00	*	*	1,350	*
Approximately 690 feet upstream of Clark Road (SR 2352)	1.20	*	*	944	*
Reedy Fork					
Immediately downstream of NC Highway 87	255.34	12,100	18,300	20,900	27,100
At mouth	253.00	9,270	15,665	21,185	36,475
Immediately upstream of the confluence of Parks Creek	252.27	12,100	18,200	20,700	26,900
At Guilford County boundary	250.00	9,050	15,350	20,750	35,200
Rock Creek					
At mouth	14.40	2,125	3,880	4,885	7,990
Above Tributary at Station 18,700	11.90	1,870	3,430	4,320	7,085
At State Route 1130 (Mill Rd)	10.80	1,755	3,225	4,065	6,675
Just upstream of Mill Road (SR 1130)	10.50	*	*	3,720	*
Approximately 0.7 mile upstream of Mill Road (SR 1130)	9.50	*	*	3,500	*
At confluence of Rock Creek Tributary 1	6.00	*	*	2,630	*
Approximately 1,200 feet downstream of Russel McPherson Road	5.70	*	*	2,550	*
Approximately 1,900 feet upstream of Russel McPherson Road	4.70	*	*	2,260	*
Approximately 0.6 mile downstream of Beale Road (SR 2363)	4.30	*	*	2,130	*
Approximately 1,800 feet upstream of Beale Road (SR 2363)	1.90	*	*	1,290	*
Rock Creek Tributary					
At confluence with Rock Creek	3.30	*	*	1,810	*
Approximately 1,850 feet upstream of NC-49	2.80	*	*	1,640	*
Approximately 1.1 miles upstream of NC 49	1.90	*	*	1,270	*
Serub Creek					
At confluence with Quaker Creek	2.90	*	*	1,453	*
Approximately 0.8 mile downstream of Dickey Mill Road (SR 1912)	2.10	*	*	1,188	*
Servis Creek					
At the confluence with Haw River	7.98	2,460	3,660	4,020	5,180
Immediately downstream of Squaw Valley Trail	7.96	2,460	3,650	4,010	5,160
Immediately downstream of Graham-Hopedale Road	7.38	2,340	3,490	3,830	4,940
Immediately upstream of confluence of Servis Creek Tributary A near Graham-Hopedale Road	4.97	1,490	2,380	2,660	3,520
Immediately downstream of Apple Street	4.65	1,460	2,320	2,600	3,430
Immediately upstream of the confluence of Staley Creek	2.68	907	1,520	1,730	2,330
Immediately downstream of Lower Hopedale Road	2.45	870	1,460	1,660	2,230
Immediately downstream of Glencoe Road	2.20	817	1,380	1,560	2,110
Approximately 0.5 mile upstream of Glencoe Road	1.91	750	1,270	1,440	1,940
Approximately 0.5 mile downstream of Lakeside Avenue	1.50	688	1,160	1,320	1,780

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
Immediately downstream of Lakeside Avenue	1.35	650	1,100	1,250	1,690
Approximately 1,200 ft. upstream of Lakeside Avenue	1.17	599	1,020	1,150	1,560
Servis Creek Tributary A					
At the confluence with Servis Creek	2.41	1,440	2,160	2,350	3,040
Approximately 700 ft. downstream of Morningside Road	2.34	1,430	2,140	2,330	3,010
Immediately downstream of Morningside Road	2.19	1,400	2,090	2,270	2,930
Immediately downstream of Homewood Street	1.69	1,180	1,780	1,940	2,510
Immediately downstream of Beaumont Avenue	1.64	1,160	1,760	1,920	2,490
South Fork					
Approximately 0.4 mile upstream of confluence with Cane Creek (South)	18.90	*	*	5,380	*
Approximately 530 feet upstream of Lindley Mill Road (SR 1003)	18.00	*	*	5,230	*
Approximately 600 feet upstream of Lindley Mill Road (SR 1003)	17.10	*	*	5,050	*
At confluence of Pine Hill Branch	10.40	*	*	3,710	*
Approximately 1.0 mile upstream of confluence of Pine Hill Branch	10.10	*	*	3,650	*
Approximately 1.2 miles upstream of confluence of Pine Hill Branch	8.50	*	*	3,260	*
Approximately 250 feet upstream of Bethel South Fork Road (SR 2351)	8.00	*	*	3,140	*
Stagg Creek					
Approximately 1.7 miles upstream of confluence of East Back Creek	16.30	*	*	4,453	*
Approximately 1,300 feet downstream of NC 119	15.60	*	*	4,263	*
Approximately 0.7 mile upstream of NC 119	14.70	*	*	4,152	*
Approximately 1.2 miles upstream of NC 119	13.80	*	*	3,989	*
Approximately 1.5 miles downstream of NC 49	12.90	*	*	3,840	*
Approximately 1.1 miles downstream of NC 49	12.40	*	*	3,681	*
Approximately 1.1 miles downstream of NC 49	10.70	*	*	3,276	*
At confluence of Stagg Creek Tributary 1	7.50	*	*	2,618	*
Approximately 0.5 mile upstream of confluence of Stagg Creek Tributary 1	7.00	*	*	2,521	*
NP	2.60	*	*	1,354	*
At confluence of Stagg Creek Tributary 2	2.10	*	*	1,171	*
Stagg Creek Tributary 1					
At confluence with Stagg Creek	2.60	*	*	1,344	*
Approximately 1,120 feet downstream of Dailey Store Road (SR 1901)	2.00	*	*	1,151	*
Approximately 1.1 miles upstream of Dailey Store Road (SR 1901)	1.00	*	*	751	*
Approximately 0.4 mile downstream of Corbett Road (SR 1902)	0.10	*	*	209	*
Stagg Creek Tributary 2					
Approximately 500 feet upstream of confluence with Stagg Creek	3.70	*	*	1,678	*
At confluence with Stagg Creek	3.70	*	*	1,678	*
Staley Creek					
At the confluence with Servis Creek	1.91	928	1,500	1,670	2,220
Immediately downstream of Sharpe Street	1.61	865	1,400	1,560	2,070
Immediately downstream of Ross Street	1.53	837	1,360	1,510	2,010
Approximately 800 ft. upstream of Ross Street	1.27	749	1,220	1,360	1,810
Approximately 700 ft. downstream of Rosenwald Street	1.16	711	1,160	1,300	1,730
Immediately downstream of Rosenwald Street	1.03	668	1,100	1,220	1,630
Steelhouse Branch					

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
At confluence with Town Branch	1.60	938	1,490	1,650	2,070
Approximately 1,380 feet upstream of East Gilbreath Street (SR 2100)	1.20	836	1,330	1,490	1,840
Approximately 380 feet upstream of Ivey Street (SR 2183)	0.70	598	969	1,070	1,350
Approximately 385 feet downstream of SR 2184	0.30	374	625	693	882
Stinking Quarter Creek					
At mouth	82.80	6,725	11,925	14,850	23,710
Below confluence of Rock Creek	80.50	6,600	11,715	14,590	23,300
At confluence of North Prong Stinking Quarter Creek	36.20	*	*	8,070	*
Approximately 1.0 mile downstream of Boyd Wright Road (SR1117)	35.20	*	*	7,940	*
Approximately 0.7 mile downstream of Boyd Wright Road (SR 1117)	34.00	*	*	7,770	*
Approximately 1,380 feet upstream of Boyd Wright Road (SR 1117)	33.50	*	*	7,690	*
Approximately 1.1 miles upstream of Boyd Wright Road (SR 1117)	32.50	*	*	7,550	*
At confluence of Little Creek	26.50	*	*	6,640	*
At confluence of Poppaw Creek	18.30	*	*	5,270	*
Approximately 0.4 mile upstream of Kimesville Road (SR 1113)	17.70	*	*	5,160	*
Stony Creek					
At the confluence with Haw river	104.72	7,020	10,800	12,300	16,100
Immediately downstream of Deep Creek Church Road	104.37	7,010	10,700	12,300	16,100
At the Stony Creek Reservoir Spillway / 0.4 mile upstream of Deep Creek Church Road	104.26	7,000	10,700	12,300	16,100
Immediately upstream of confluence of Deep Creek	94.02	6,570	10,100	11,500	15,100
Immediately downstream of NC Highway 62	93.57	6,550	10,100	11,500	15,100
Immediately upstream of confluence of Mine Creek	89.76	6,380	9,810	11,200	14,700
Immediately downstream of Union Ridge Road	63.11	5,140	7,940	9,100	12,000
Immediately downstream of Stony Creek Church Road	46.76	4,270	6,640	7,620	10,100
Approximately 0.9 mile upstream of Stony Creek Church Road	46.30	*	*	8,185	*
At confluence of Toms Creek	32.40	*	*	6,548	*
Approximately 1,800 feet upstream of Altamahaw Union Ridge Road (SR 1002)	32.10	*	*	6,517	*
Approximately 0.5 mile downstream of Sartin Road (SR 1611)	31.10	*	*	6,393	*
Approximately 250 feet upstream of Sartin Road (SR 1611)	30.20	*	*	6,265	*
Approximately 0.9 mile upstream of Sartin Road (SR 1611)	27.40	*	*	5,897	*
Approximately 1.9 miles upstream of Sartin Road (SR 1611)	26.30	*	*	5,748	*
Approximately 2.4 miles upstream of Sartin Road (SR 1611)	24.50	*	*	5,507	*
Tickle Creek					
At the confluence with Travis Creek	4.25	972	1,570	1,830	2,490
Immediately downstream of Elon-Ossipee Road	4.01	938	1,520	1,770	2,410
Approximately 500 ft. upstream of Elon-Ossipee Road	3.90	922	1,490	1,740	2,370
Approximately 0.7 mile downstream of Gibsonville Ossipee Road	3.29	830	1,350	1,570	2,150
Immediately downstream of Gibsonville Ossipee Road	2.85	760	1,240	1,450	1,970
Approximately 1,800 ft. upstream of Gibsonville Ossipee Road	2.32	669	1,090	1,280	1,750
Toms Creek					
At confluence with Stony Creek	12.90	*	*	3,685	*
Approximately 230 feet downstream of Altamahaw Union Ridge Road (SR 1002)	12.50	*	*	3,613	*
Approximately 1.2 miles upstream of Altamahaw Union Ridge Road (SR 1002)	10.50	*	*	3,247	*
Approximately 1,580 feet downstream of Stoney Mountain Road	9.70	*	*	3,076	*

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 1,050 feet downstream of Rascoe Road (SR 1615)	7.10	*	*	2,539	*
Town Branch					
Immediately downstream of Cooper Road	4.05	1,670	2,540	2,800	3,640
Immediately downstream of Waste Water Plant Road	2.16	1,140	1,780	1,970	2,590
Immediately downstream of Ivey Street	1.87	1,090	1,690	1,870	2,450
Immediately downstream of Whittmore Road	1.83	1,080	1,680	1,850	2,420
Immediately downstream of Woody Drive	1.67	1,030	1,610	1,770	2,320
Immediately downstream of I-40/85	1.53	953	1,500	1,660	2,190
Immediately downstream of Riverbend Road	1.25	824	1,310	1,450	1,920
Travis Creek					
Immediately downstream of Durham Street	15.71	2,180	3,450	3,990	5,340
Immediately downstream of NC Highway 87	15.33	2,150	3,400	3,930	5,260
Immediately downstream of Phibbs Road	13.73	1,950	3,230	3,690	4,940
Immediately upstream of confluence of Tickle Creek	9.27	1,640	2,710	3,090	4,140
Approximately 1,500 ft. upstream of confluence of Tickle Creek	8.99	1,610	2,670	3,040	4,070
Approximately 300 ft. upstream of Elon-Ossipee Road	8.80	1,600	2,650	3,010	4,030
Immediately downstream of Elon-Ossipee Road	6.70	1,290	2,070	2,400	3,250
Immediately upstream of confluence of Tributary to Travis Creek	4.45	1,000	1,620	1,880	2,560
Immediately downstream of Gibsonville Ossipee Road	4.19	964	1,560	1,820	2,470
Immediately upstream of confluence of Travis Creek Tributary A	2.40	683	1,120	1,310	1,790
Travis Creek Tributary 2					
At confluence with Travis Creek	2.00	*	*	1,400	*
Approximately 1,400 feet downstream of Manning Avenue (SR 1503)	0.60	*	*	761	*
Tributary A to Haw Creek					
At mouth	5.50	1,125	2,090	2,645	4,390
Approximately 220 feet upstream of Jones Drive	4.90	*	*	2,320	*
At Jones Drive	4.90	1,045	1,945	2,460	4,090
Approximately 0.7 mile upstream of Jones Drive	2.60	*	*	1,570	*
Tributary A to Travis Creek					
At the confluence with Travis Creek	1.49	509	839	984	1,350
Tributary to Travis Creek					
At the confluence with Travis Creek	1.91	600	1,070	1,240	1,700
Immediately downstream of Gibsonville Ossipee Road	1.81	590	1,050	1,210	1,660
Approximately 0.4 mile upstream of Gibsonville Ossipee Road	1.61	558	999	1,150	1,580
Approximately 0.8 mile upstream of Gibsonville Ossipee Road	1.28	436	808	938	1,300
Unnamed Tributary to East Back Creek					
Immediately upstream of the confluence with East Back Creek	4.79	1,210	2,010	2,280	3,060
Immediately downstream of Jimmy Kerr Road	4.64	1,180	1,970	2,230	3,000
Approximately 1,000 ft. upstream of Jimmy Kerr Road	3.98	1,090	1,830	2,080	2,800
Approximately 0.3 mile downstream of Governor Scott Farm Road	3.60	1,060	1,770	2,010	2,700
Immediately downstream of Governor Scott Farm Road	2.72	950	1,580	1,790	2,400
Approximately 0.7 mile upstream of Governor Scott Farm Road	2.24	922	1,520	1,700	2,280
Approximately 1.1 miles upstream of Governor Scott Farm Road	1.59	798	1,310	1,470	1,960
Approximately 1.7 miles upstream of Governor Scott Farm Road	1.16	744	1,210	1,340	1,790

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)			
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Approximately 2.1 miles upstream of Governor Scott Farm Road	0.56	574	920	1,010	1,340
Unnamed Tributary to Gunn Creek					
At the confluence with Gunn Creek	2.12	1,150	1,780	1,970	2,580
Approximately 1,100 ft. upstream of confluence with Gunn Creek	2.08	1,140	1,780	1,960	2,570
Approximately 2,000 ft. upstream of confluence with Gunn Creek (Airport Runway)	1.61	1,040	1,610	1,770	2,320
Approximate 1,800 ft. downstream of Alamance Road	0.88	641	1,050	1,160	1,550
Immediately downstream of Alamance Road	0.75	608	990	1,100	1,470
Approximately 1,200 ft. upstream of Alamance Road	0.71	602	976	1,080	1,440
Immediately downstream of Bonnie Lane	0.60	562	912	1,010	1,340
Immediately downstream of Eric Lane	0.57	539	878	972	1,300
Approximately 1,200 ft. downstream of I-40/85	0.51	489	806	895	1,200
Approximately 800 ft. downstream of I-40/85	0.50	479	792	880	1,180
Immediately downstream of I-40/85	0.40	394	666	745	1,010
Unnamed Tributary to Haw River at Glencoe					
At the confluence with Haw River	2.45	692	1,130	1,320	1,810
Approximately 1,000 ft. upstream of the confluence with Haw River	2.43	689	1,130	1,320	1,800
Immediately downstream of Greenwood Drive	2.23	653	1,070	1,250	1,710
Varnals Creek					
At confluence with Haw River	11.80	2,630	4,380	5,390	8,720
Approximately 0.6 mile upstream of State Route 2116 (Preacher Holmes Road)	9.10	2,270	3,740	4,580	7,370
Approximately 1,800 feet downstream of State Route 2328 (Thompson Mill Road)	7.30	2,120	3,510	4,310	6,940
Approximately 1,700 feet downstream of State Route 2328 (Thompson Mill Road)	6.30	1,850	3,070	3,770	6,070
Approximately 2,000 feet upstream of State Route 2328 (Thompson Mill Road)	4.40	1,370	2,270	2,790	4,500
At State Route 2327 (Bass Mountain Road)	3.20	1,090	1,810	2,230	3,600
Approximately 120 feet upstream of Bass Mountain Road (SR 2327)	2.60	*	*	1,550	*
Approximately 1,300 feet upstream of Bass Mountain Road (SR 2327)	2.10	*	*	1,370	*
Varnals Creek Tributary					
At confluence with Varnals Creek	2.30	*	*	1,430	*
Approximately 1.1 miles upstream of Unnamed Road	1.40	*	*	1,080	*
Well Creek					
At confluence with Cane Creek (South)	4.30	*	*	2,130	*
Approximately 370 feet downstream of West Greensboro Chapel Hill Road (SR 1005)	3.10	*	*	1,730	*
Approximately 1,300 upstream of West Greensboro Chapel Hill Road (SR 1005)	3.00	*	*	1,710	*
Approximately 0.6 mile upstream of Beale Road (SR 2363)	2.00	*	*	1,330	*
West Back Creek					
At the confluence with Big Alamance Creek	13.74	2,840	4,300	4,780	6,200
Immediately downstream of Huffman Mill Road	12.40	2,710	4,120	4,570	5,940
Immediately upstream of the confluence of West Back Creek Tributary	11.19	2,430	3,750	4,180	5,460
Immediately upstream of the confluence of Unnamed Stream (Alamance Co)	10.18	2,240	3,480	3,890	5,090
Immediately downstream of Bonnar Bridge Parkway	9.93	2,220	3,450	3,860	5,060
Immediately downstream of I-40/85	9.24	2,130	3,320	3,700	4,850
West Back Creek Tributary					
Immediately upstream of the confluence with West Back Creek	1.15	766	1,230	1,370	1,820
Approximately 1,000 ft. upstream of the confluence with West Back Creek	1.07	748	1,200	1,330	1,760

Table 13 - Summary of Discharges

Flooding Source		Discharges (cfs)				
Location	Drainage Area (square miles)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance	
Approximately 1,700 ft. upstream of the confluence with West Back Creek		1.03	741	1,190	1,320	1,750
West Back Creek Tributary 2						
Approximately 300 feet downstream of Hillcrest Drive		0.70	332	618	716	995
Whittie Creek						
At confluence with Buttermilk Creek		2.70	*	*	1,399	*
Approximately 0.4 mile downstream of Pagetown Road (SR 1587)		1.80	*	*	1,064	*
Approximately 1,800 feet upstream of Pagetown Road (SR 1587)		1.50	*	*	946	*
Willowbrook Creek						
At confluence with Little Alamance Creek		1.90	1,190	1,820	1,990	2,440
Approximately 670 feet downstream of South Mebane Street		1.20	960	1,480	1,620	1,990

The stillwater elevations have been determined for the 1% [add 10%, 2%, and 0.2% here if that data is available] annual chance flood for the flooding sources studied by detailed methods and are summarized in Table 14, "Summary of Stillwater Elevations."

Table 14 - Summary of Stillwater Elevations

Flooding Source	FIRM Panel Number(s)	Elevations (feet NAVD)			
		10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Graham Mebane Lake	3710980500	531	532	533	534

Table 15, "Gage Information", lists the stream gages located in Alamance 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
02096700	Big Alamance Creek	USGS 02096700 BIG ALAMANCE CREEK NEAR ELON COLLEGE, NC	116.00	1945	1980
02096740	Gunn Creek	USGS 02096740 GUN BRANCH NEAR ALAMANCE, N. C.	4.06	1954	1973
02096500	Haw River	Haw River at Haw River	606.00	1929	2011

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"
Back Creek	0.038 to 0.046	0.080 to 0.200
Back Creek Tributary (Stream No. 90)	0.060	0.120
Back Creek Tributary 2	0.040 to 0.060	0.120 to 0.155
Beaver Creek	0.035 to 0.055	0.140 to 0.160
Big Alamance Creek	0.035 to 0.060	0.050 to 0.200
Big Branch	0.050	0.130 to 0.150
Boyd Branch	0.042 to 0.060	0.048 to 0.150
Boyds Creek	0.035 to 0.060	0.080 to 0.200
Boyds Creek Tributary 1	0.047 to 0.050	0.110 to 0.300
Boyds Creek Tributary 2	0.042	0.100 to 0.150
Buttermilk Creek	0.045 to 0.050	0.110 to 0.150
Buttermilk Creek Tributary 1	0.035 to 0.050	0.120 to 0.150
Buttermilk Creek Tributary 2	0.035 to 0.500	0.120 to 0.150
Buttermilk Creek Tributary 3	0.035 to 0.050	0.130
Cane Creek (North)	0.040 to 0.050	0.100 to 0.150
Cane Creek (North) Tributary 4	0.045	0.140
Cane Creek (South)	0.040 to 0.120	0.055 to 0.150
Cane Creek (South) Tributary 1	0.045 to 0.050	0.100 to 0.150
Cane Creek (South) Tributary 2	0.050	0.100 to 0.102
Cane Creek (South) Tributary 3	0.050	0.100 to 0.150
Coblebrook Creek	0.040 to 0.045	0.120 to 0.200
Deep Creek	0.050	0.100 to 0.150
Dry Creek	0.043 to 0.055	0.050 to 0.200
East Back Creek	0.040 to 0.055	0.050 to 0.190
East Back Creek Overflow	0.014 to 0.048	0.110 to 0.190
Eastside Creek	0.040 to 0.055	0.015 to 0.200
Eastside Creek Tributary	0.050	0.130
Foust Creek	0.045 to 0.050	0.100 to 0.150
Greenbriar Creek	0.050 to 0.055	0.080 to 0.200
Gunn Creek	0.040 to 0.060	0.050 to 0.200
Haw Creek	0.040 to 0.065	0.050 to 0.140
Haw Creek Tributary 1	0.042 to 0.050	0.130 to 0.150
Haw River	0.030 to 0.140	0.045 to 0.200
Haw River Tributary 10	0.043	0.100 to 0.150
Haw River Tributary 11	0.035 to 0.045	0.130 to 0.140
Haw River Tributary 12	0.046	0.130
Haw River Tributary 13	0.042 to 0.046	0.130 to 0.140
Haw River Tributary 14	0.050	0.150
Haw River Tributary 15	0.030 to 0.050	0.040 to 0.150
Haw River Tributary 2	0.044 to 0.053	0.110 to 0.160
Haw River Tributary 3	0.039 to 0.060	0.070 to 0.190
Haw River Tributary 4	0.024 to 0.050	0.100 to 0.150
Haw River Tributary 5	0.025 to 0.050	0.090 to 0.150
Haw River Tributary 6	0.036 to 0.050	0.090 to 0.150
Haw River Tributary 8	0.035 to 0.045	0.100 to 0.150
Hughes Mill Creek	0.045 to 0.050	0.120 to 0.150
Jones Creek	0.040 to 0.050	0.120 to 0.150
Jordan Creek	0.045 to 0.055	0.120 to 0.150
Lake Michael Tributary	0.040 to 0.055	0.100 to 0.150
Lake Michael Tributary 2	0.045 to 0.050	0.140 to 0.150
Laughin Creek	0.035 to 0.057	0.120 to 0.160

Table 16 - Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Laughin Creek Tributary 1	0.040 to 0.050	0.110 to 0.150
Lick Creek	0.040 to 0.050	0.110 to 0.150
Little Alamance Creek	0.044 to 0.060	0.050 to 0.220
Little Alamance Creek Tributary	0.040 to 0.055	0.100 to 0.150
Little Creek	0.035 to 0.050	0.100 to 0.150
Little Creek Tributary 1	0.015 to 0.080	0.100 to 0.150
Little Creek Tributary 2	0.045 to 0.050	0.130 to 0.150
Long Branch	0.045 to 0.050	0.100 to 0.150
Marys Creek	0.050	0.100 to 0.150
McAdams Creek	0.030 to 0.065	0.050 to 0.200
McAdams Creek Tributary	0.045 to 0.050	0.120 to 0.150
Meadow Creek	0.040 to 0.065	0.050 to 0.200
Michaels Branch	0.030 to 0.055	0.040 to 0.200
Michaels Branch Tributary	0.040 to 0.060	0.050 to 0.150
Mill Creek	0.044 to 0.055	0.050 to 0.200
Mine Creek	0.040 to 0.050	0.110 to 0.150
Motes Creek	0.035 to 0.050	0.090 to 0.150
Motes Creek Tributary	0.040 to 0.050	0.100 to 0.150
North Prong Creek	0.050	0.110 to 0.150
North Prong Rocky River	0.050	0.100 to 0.150
North Prong Stinking Quarter Creek	0.050	0.100 to 0.150
Otter Creek	0.047 to 0.480	0.050 to 0.150
Owens Creek	0.040 to 0.050	0.130 to 0.150
Parks Creek	0.040	0.100 to 0.150
Pine Branch	0.050	0.130 to 0.150
Pine Hill Branch	0.045 to 0.050	0.110 to 0.150
Pine Hill Branch Tributary	0.045 to 0.050	0.100 to 0.140
Poppaw Creek	0.010 to 0.080	0.100 to 0.150
Poppaw Creek Tributary 1	0.024 to 0.050	0.130 to 0.150
Poppaw Creek Tributary 2	0.050	0.150
Quaker Creek	0.040 to 0.050	0.110 to 0.150
Quaker Creek Tributary 1	0.045 to 0.050	0.110 to 0.150
Quaker Creek Tributary 2	0.045 to 0.050	0.100 to 0.150
Reedy Branch	0.045 to 0.050	0.100 to 0.150
Reedy Fork	0.030 to 0.060	0.050 to 0.150
Rock Creek	0.045 to 0.060	0.050 to 0.200
Rock Creek Tributary	0.045	0.130
Serub Creek	0.050	0.110 to 0.150
Servis Creek	0.040 to 0.065	0.050 to 0.200
Servis Creek Tributary A	0.040 to 0.055	0.050 to 0.200
South Fork	0.045 to 0.050	0.110 to 0.269
Stagg Creek	0.040 to 0.050	0.110 to 0.150
Stagg Creek Tributary 1	0.050	0.120 to 0.150
Stagg Creek Tributary 2	0.040	0.100
Staley Creek	0.040 to 0.060	0.050 to 0.150
Steelhouse Branch	0.042 to 0.047	0.100 to 0.200
Stinking Quarter Creek	0.035 to 0.060	0.050 to 0.200
Stony Creek	0.030 to 0.130	0.050 to 0.200
Tickle Creek	0.040 to 0.065	0.050 to 0.200
Toms Creek	0.035 to 0.050	0.140 to 0.150
Town Branch	0.044 to 0.060	0.050 to 0.200
Travis Creek	0.050 to 0.060	0.050 to 0.200
Travis Creek Tributary 2	0.042 to 0.046	0.100 to 0.150
Tributary A to Haw Creek	0.045 to 0.060	0.055 to 0.140
Tributary A to Travis Creek	0.050 to 0.060	0.080 to 0.150
Tributary to Travis Creek	0.040 to 0.060	0.080 to 0.150
Unnamed Tributary to East Back Creek	0.041 to 0.051	0.050 to 0.200
Unnamed Tributary to Gunn Creek	0.045 to 0.060	0.050 to 0.200
Unnamed Tributary to Haw River at Glencoe	0.038 to 0.080	0.080 to 0.200
Varnals Creek	0.040 to 0.065	0.050 to 0.150
Varnals Creek Tributary	0.040 to 0.050	0.110 to 0.150

Table 16 - Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Well Creek	0.045 to 0.050	0.100 to 0.150
West Back Creek	0.040 to 0.065	0.050 to 0.200
West Back Creek Tributary	0.050	0.050 to 0.150
West Back Creek Tributary 2	0.050	0.050 to 0.150
Whittie Creek	0.050	0.120 to 0.150
Willowbrook Creek	0.035 to 0.053	0.100 to 0.200

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

The results of the HEC-RAS computations are tabulated for all cross sections (Table 17, "Limited Detailed Flood Hazard Data"). Flood Profiles have not been developed for streams studied by limited detailed methods. Water-surface elevation rasters were developed for 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(c)(10).

Between cross sections for streams studied by limited detailed methods, 1% annual chance water-surface elevations can be calculated by mathematical interpolation using the distance along the stream centerline. Non-encroachment widths and, therefore, the location of a non-encroachment area boundary between cross sections should be determined based on either 1) mathematical interpolation, or 2) the non-encroachment width at the upstream or downstream cross section, whichever is larger. If the width determined by this second method is wider than the Special Flood Hazard Area (SFHA) or the 1% annual chance floodplain delineated on the FIRM for this location along the stream, the non-encroachment area shall be considered to be coincident with the SFHA. A full detailed study incorporating field survey data in the HEC-RAS hydraulic model may be submitted for a Letter of Map Revision (LOMR) request to map a regulatory floodway along a section of a stream in lieu of applying the non-encroachment widths listed in Table 17.

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
Back Creek				
003	340	2,400	576.0	19 / 18
006	622	2,400	576.5	35 / 45
012	1,199	2,400	578.4	90 / 26
016	1,616	2,400	580.7	50 / 36
021	2,088	2,400	583.0	24 / 24
025	2,500	2,400	584.5	23 / 23
030	3,000	2,400	586.0	25 / 30
035	3,500	2,320	587.2	22 / 32
040	4,000	2,320	588.6	29 / 110
042	4,219	2,320	589.0	46 / 50
043	4,294	2,320	591.2	50 / 50
048	4,758	2,240	591.4	34 / 34
052	5,169	2,240	593.4	30 / 30
052	5,243	2,240	595.2	30 / 30
052	5,244	2,240	595.1	33 / 27

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
Back Creek Tributary 2				
002	238	939	590.6	6 / 8
006	627	939	596.9	6 / 8
008	815	939	600.7	15 / 15
009	915	939	610.1	16 / 16
015	1,500	939	610.8	60 / 60
018	1,799	939	611.5	244 / 208
020	2,000	939	614.9	33 / 27
025	2,500	939	620.2	44 / 13
032	3,167	939	624.9	71 / 11
037	3,707	939	628.0	59 / 9
042	4,170	939	631.4	22 / 29
045	4,500	939	633.6	32 / 51
051	5,057	939	636.3	78 / 30
055	5,500	939	639.3	37 / 39
060	6,000	939	643.1	33 / 71
065	6,451	939	646.1	30 / 55
068	6,838	939	649.2	20 / 104
075	7,485	939	656.1	21 / 46
080	8,041	939	662.8	33 / 42
085	8,474	939	667.1	70 / 10
Beaver Creek				
006	559	4,120	557.1 ¹	426 / 912
013	1,270	4,120	557.1 ¹	890 / 447
020	2,000	4,120	557.1 ¹	378 / 766
026	2,582	4,120	557.1 ¹	510 / 352
031	3,148	3,910	557.1 ¹	503 / 346
035	3,485	3,910	557.1 ¹	400 / 555
039	3,935	3,910	557.1 ¹	272 / 392
045	4,531	3,910	557.1 ¹	266 / 303
051	5,138	3,910	557.1 ¹	203 / 191
057	5,666	3,910	557.1 ¹	172 / 149
059	5,939	3,910	557.1 ¹	147 / 243
066	6,560	3,910	557.1 ¹	275 / 171
070	7,000	3,910	557.1 ¹	256 / 387
075	7,536	3,780	557.1 ¹	265 / 194
080	8,000	3,780	557.1 ¹	350 / 225
084	8,416	3,780	557.1 ¹	218 / 268
091	9,147	3,780	557.1 ¹	254 / 214
099	9,851	3,780	557.1 ¹	88 / 72
105	10,481	3,570	557.1 ¹	159 / 157
109	10,915	3,570	557.1 ¹	22 / 22
116	11,565	3,570	557.8	234 / 44
120	11,991	3,570	558.3	38 / 110
126	12,585	3,570	559.3	183 / 24
129	12,867	3,570	559.7	190 / 20

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
132	13,206	3,570	560.1	94 / 55
134	13,366	3,570	560.4	71 / 43
134	13,406	3,570	560.6	71 / 43
140	14,015	3,370	561.2	168 / 20
145	14,480	3,370	561.6	174 / 19
150	14,998	3,370	562.2	30 / 29
157	15,741	3,370	563.6	123 / 25
162	16,243	3,370	565.0	56 / 19
166	16,642	3,370	566.6	20 / 136
172	17,157	3,370	567.4	20 / 19
176	17,624	3,370	569.1	70 / 20
Big Alamance Creek				
550	54,964	17,900	515.5	140 / 135
555	55,500	17,900	515.7	66 / 129
560	56,000	17,900	516.0	42 / 128
563	56,338	17,900	516.6	105 / 105
567	56,659	17,900	557.0 ¹	300 / 300
572	57,180	17,900	557.0 ¹	255 / 397
575	57,543	17,900	557.0 ¹	378 / 401
580	58,000	17,900	557.0 ¹	555 / 321
585	58,500	17,900	557.0 ¹	841 / 359
590	59,000	17,900	557.0 ¹	991 / 974
592	59,229	16,800	557.0 ¹	952 / 826
599	59,859	16,800	557.0 ¹	724 / 660
605	60,500	16,800	557.0 ¹	550 / 404
610	61,000	16,800	557.0 ¹	700 / 371
615	61,500	16,800	557.0 ¹	546 / 511
620	62,000	16,800	557.0 ¹	564 / 401
625	62,500	16,800	557.0 ¹	298 / 260
632	63,163	16,800	557.0 ¹	370 / 506
637	63,687	16,800	557.0 ¹	633 / 890
643	64,294	16,800	557.0 ¹	610 / 392
647	64,697	16,800	557.0 ¹	522 / 1,070
651	65,142	16,800	557.0 ¹	151 / 151
652	65,196	16,700	557.0 ¹	151 / 151
656	65,597	16,700	557.0 ¹	1,136 / 464
662	66,216	16,700	557.0 ¹	425 / 402
667	66,745	16,700	557.0 ¹	530 / 566
673	67,313	16,700	557.0 ¹	477 / 386
682	68,225	16,700	557.0 ¹	331 / 258
689	68,923	16,700	557.0 ¹	210 / 305
698	69,847	16,500	557.0 ¹	530 / 443
Big Branch				
005	471	1,740	411.4 ¹	14 / 20
009	915	1,740	411.4 ¹	25 / 19
015	1,524	1,740	411.4 ¹	56 / 14

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
020	2,018	1,690	411.4 ¹	87 / 101
025	2,470	1,690	411.4 ¹	14 / 61
029	2,936	1,690	411.4 ¹	98 / 69
035	3,451	1,690	411.5	14 / 24
038	3,784	1,690	417.7	25 / 22
041	4,083	1,690	421.4	12 / 14
041	4,123	1,690	424.0	12 / 14
047	4,712	1,690	426.8	14 / 23
052	5,172	1,690	430.5	24 / 47
058	5,822	1,690	432.5	16 / 58
065	6,450	1,690	435.1	14 / 59
070	6,985	1,690	438.1	68 / 23
075	7,540	1,690	440.6	33 / 17
081	8,053	1,690	443.3	29 / 22
081	8,092	1,690	444.8	29 / 22
085	8,489	1,690	446.0	74 / 30
095	9,495	1,690	449.8	6 / 40
100	10,015	1,330	455.2	46 / 63
105	10,511	1,330	457.6	13 / 41
110	10,993	1,330	462.1	55 / 20
115	11,509	1,330	464.6	58 / 15
Boyd's Creek				
180	18,000	1,372	572.1	70 / 80
185	18,498	1,372	576.3	25 / 25
191	19,067	1,372	579.0	70 / 70
191	19,147	1,372	586.0	70 / 70
195	19,502	1,372	586.0	60 / 60
200	20,002	1,372	586.1	32 / 57
205	20,544	776	587.1	25 / 38
210	21,001	776	591.4	35 / 15
216	21,574	776	595.0	54 / 13
220	22,044	776	596.4	26 / 26
221	22,144	776	604.1	26 / 26
225	22,495	776	604.2	26 / 79
228	22,832	776	604.6	49 / 51
235	23,495	776	608.1	38 / 19
242	24,157	776	616.3	64 / 18
246	24,600	776	619.6	63 / 13
250	24,995	776	622.0	40 / 60
254	25,391	776	624.6	13 / 77
258	25,845	776	629.3	61 / 13
265	26,460	776	633.3	61 / 19
271	27,129	776	641.5	13 / 25
272	27,214	776	651.8	102 / 173
275	27,495	776	651.8	142 / 209

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
280	27,995	776	652.9	70 / 20
Boys Creek Tributary 1				
001	101	974	509.5 ¹	20 / 13
004	403	974	513.4	11 / 12
007	712	974	519.0	11 / 12
012	1,195	974	525.0	21 / 18
015	1,539	974	528.2	11 / 12
020	2,000	974	534.0	12 / 11
027	2,685	974	537.9	59 / 16
031	3,122	974	539.3	11 / 12
036	3,584	974	543.2	30 / 12
040	4,000	974	545.4	17 / 12
044	4,372	974	547.5	12 / 29
052	5,190	974	551.2	30 / 22
055	5,546	974	554.2	11 / 12
060	6,000	974	559.0	39 / 13
066	6,642	974	562.3	13 / 12
070	7,000	974	565.7	22 / 31
076	7,625	974	569.7	27 / 27
082	8,174	974	573.1	36 / 25
086	8,563	974	575.0	39 / 15
088	8,835	974	576.2	20 / 20
089	8,935	754	579.8	20 / 20
095	9,500	754	580.4	43 / 22
101	10,054	754	582.7	39 / 64
104	10,423	754	583.9	22 / 14
105	10,467	754	584.2	22 / 14
105	10,485	754	585.9	50 / 23
106	10,570	754	591.0	50 / 23
106	10,633	754	600.8	281 / 70
113	11,259	754	600.8	75 / 176
119	11,935	754	600.8	90 / 75
124	12,419	754	601.9	20 / 34
125	12,494	754	604.6	20 / 34
130	13,000	754	606.2	22 / 18
134	13,424	754	611.4	11 / 22
138	13,841	754	616.4	70 / 9
142	14,157	754	621.7	50 / 11
142	14,203	754	622.7	50 / 11
145	14,453	754	625.2	20 / 25
150	15,028	754	635.4	19 / 12
155	15,528	754	643.0	18 / 27
160	16,028	754	649.8	20 / 9
165	16,528	754	662.9	33 / 14
170	17,028	754	677.3	52 / 60
Boys Creek Tributary 2				

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
003	266	562	586.0 ¹	13 / 42
005	479	562	586.0 ¹	25 / 20
005	527	562	586.0 ¹	25 / 20
009	928	562	586.8	30 / 15
012	1,214	562	589.2	8 / 10
013	1,304	562	594.5	8 / 10
015	1,500	562	595.0	41 / 25
020	2,000	562	597.4	14 / 21
025	2,546	562	603.7	14 / 62
030	3,000	562	607.8	14 / 67
036	3,646	562	615.8	13 / 14
042	4,183	562	621.4	14 / 14
047	4,715	562	627.0	14 / 14
053	5,314	562	635.6	23 / 14
Buttermilk Creek				
005	500	4,226	552.9 ¹	184 / 77
010	1,000	4,226	552.9 ¹	213 / 19
015	1,500	4,226	552.9 ¹	29 / 89
020	2,000	4,226	552.9 ¹	48 / 36
025	2,459	4,226	552.9 ¹	137 / 32
029	2,875	4,226	552.9 ¹	172 / 127
035	3,491	4,226	552.9 ¹	223 / 150
040	3,993	4,226	552.9 ¹	198 / 19
045	4,493	4,226	553.1	127 / 130
050	4,993	4,226	553.7	26 / 195
054	5,399	4,226	554.4	81 / 25
060	5,993	4,141	555.9	132 / 114
065	6,493	4,141	556.5	77 / 139
070	6,993	4,141	557.0	222 / 89
075	7,493	4,141	557.2	195 / 225
080	7,993	3,977	557.5	170 / 275
087	8,651	3,977	557.8	344 / 27
090	8,993	3,977	558.1	271 / 87
094	9,403	3,977	558.4	89 / 128
100	9,993	3,977	559.2	81 / 76
103	10,258	3,977	559.8	60 / 60
103	10,303	3,977	560.5	60 / 60
108	10,751	3,977	562.1	38 / 86
111	11,096	3,977	563.1	73 / 77
117	11,697	3,977	564.5	101 / 92
123	12,303	3,977	565.3	79 / 111
128	12,765	3,977	565.8	205 / 118
132	13,224	3,977	566.0	26 / 130
137	13,673	3,977	566.7	101 / 123
139	13,869	3,977	566.9	80 / 78

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
145	14,527	3,977	567.7	240 / 35
155	15,493	3,328	568.3	39 / 82
159	15,928	3,328	569.3	46 / 90
164	16,429	3,328	570.1	50 / 35
170	16,993	3,328	571.4	44 / 75
176	17,619	3,328	572.3	62 / 35
180	17,993	3,328	572.9	90 / 18
187	18,730	3,328	573.9	126 / 52
195	19,502	3,328	574.5	61 / 135
201	20,076	3,328	574.7	51 / 40
208	20,813	3,328	576.3	77 / 148
213	21,341	3,328	576.8	114 / 40
220	21,993	3,328	577.9	46 / 110
230	22,955	3,159	579.6	40 / 180
233	23,345	3,159	579.8	75 / 70
234	23,395	3,159	580.1	75 / 70
240	23,957	3,159	581.5	103 / 155
246	24,595	3,159	582.4	41 / 64
250	24,993	3,159	583.4	58 / 65
254	25,405	3,159	584.1	24 / 222
256	25,593	3,159	584.2	135 / 16
266	26,595	3,159	585.3	174 / 201
272	27,187	3,159	585.7	120 / 76
278	27,800	3,159	586.7	22 / 209
282	28,156	3,159	587.3	15 / 354
286	28,596	3,159	587.8	103 / 101
290	28,993	3,159	588.6	159 / 15
298	29,757	2,103	589.7	138 / 252
302	30,182	2,103	589.9	171 / 78
305	30,486	2,103	590.3	71 / 62
310	30,993	2,103	592.3	104 / 14
314	31,368	2,103	593.6	88 / 16
317	31,673	2,103	594.5	45 / 45
317	31,714	2,103	594.9	45 / 45
322	32,184	2,103	596.8	93 / 12
326	32,630	2,103	597.8	97 / 63
331	33,123	2,103	598.5	160 / 30
337	33,681	1,922	599.2	139 / 83
345	34,493	1,922	600.2	138 / 149
351	35,131	1,696	601.4	149 / 10
355	35,493	1,696	604.1	63 / 35
362	36,178	1,696	606.3	141 / 23
364	36,403	1,696	606.6	50 / 50
364	36,444	1,696	606.8	50 / 50
367	36,665	1,696	607.3	10 / 79

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
369	36,934	1,264	608.1	79 / 27
373	37,291	1,264	608.9	8 / 58
380	37,997	1,264	611.5	94 / 53
385	38,490	1,264	615.5	36 / 22
386	38,576	1,264	616.8	25 / 25
386	38,642	1,264	618.6	25 / 25
389	38,899	1,264	620.3	12 / 37
393	39,337	1,264	631.5	23 / 12
400	40,003	1,264	638.7	24 / 50
405	40,503	1,264	648.7	16 / 28
410	41,003	1,264	652.3	37 / 37
416	41,584	1,264	654.4	38 / 50
420	42,003	1,264	659.4	41 / 32
427	42,660	1,264	662.7	63 / 33
430	43,045	1,264	664.6	30 / 30
431	43,120	1,264	667.4	30 / 30
436	43,628	1,264	670.3	24 / 26
442	44,191	1,264	675.1	41 / 89
447	44,718	1,264	677.9	9 / 42
452	45,215	1,264	683.9	37 / 48
457	45,672	1,264	688.0	11 / 30
460	46,022	1,264	692.2	35 / 31
467	46,710	1,264	698.5	70 / 40
472	47,165	1,264	702.4	94 / 35
477	47,691	1,264	706.5	47 / 54
482	48,234	1,264	712.3	44 / 37
485	48,494	1,264	714.6	16 / 45
Buttermilk Creek Tributary 1				
001	113	403	600.6 ¹	35 / 11
002	226	403	599.9	11 / 10
004	370	403	611.8	103 / 115
012	1,157	403	611.6	30 / 58
016	1,639	403	619.2	46 / 21
021	2,073	403	628.6	9 / 19
025	2,500	403	638.1	10 / 10
030	3,000	403	645.1	25 / 30
036	3,599	403	654.7	21 / 18
040	4,000	403	661.2	10 / 10
044	4,390	403	666.1	11 / 10
050	5,000	403	679.5	30 / 12
053	5,319	403	685.8	10 / 11
060	6,000	403	712.9	10 / 8
Buttermilk Creek Tributary 2				
000	41	713	621.1 ¹	11 / 40
004	400	713	628.6	11 / 19
011	1,128	713	638.8	10 / 30

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
015	1,500	713	642.9	12 / 36
018	1,844	713	647.0	10 / 21
026	2,612	713	653.9	19 / 21
032	3,168	713	659.0	40 / 40
032	3,218	713	660.9	40 / 40
036	3,579	713	663.0	25 / 60
037	3,659	713	669.4	25 / 60
042	4,160	713	669.6	30 / 30
047	4,659	713	674.5	15 / 50
047	4,696	713	676.7	15 / 50
051	5,129	713	680.7	35 / 60
052	5,211	713	685.0	35 / 60
057	5,660	713	685.5	30 / 20
062	6,160	713	690.3	51 / 37
063	6,286	713	690.7	39 / 20
064	6,426	276	701.4	240 / 105
067	6,716	276	701.4	135 / 145
068	6,761	276	701.4	105 / 105
068	6,835	276	708.1	230 / 90
072	7,196	276	708.1	46 / 85
Buttermilk Creek Tributary 3				
002	166	355	694.0 ¹	59 / 1
005	500	355	694.4	15 / 15
007	681	355	696.9	29 / 20
008	802	355	708.7	140 / 140
012	1,234	355	708.7	111 / 210
015	1,500	355	708.7	135 / 110
Cane Creek (North)				
009	938	7,360	427.6 ¹	35 / 50
014	1,404	7,360	427.6 ¹	40 / 35
020	2,000	7,360	427.6 ¹	44 / 40
061	6,053	7,360	427.6 ¹	36 / 50
065	6,521	7,360	427.6 ¹	36 / 55
070	7,040	7,360	427.6 ¹	42 / 35
075	7,540	7,080	427.6 ¹	36 / 53
Cane Creek (North) Tributary 4				
002	250	905	427.6 ¹	18 / 19
008	842	905	429.7	8 / 18
014	1,398	905	439.3	19 / 19
020	1,958	905	446.9	35 / 10
024	2,386	905	451.0	17 / 36
031	3,115	905	455.5	43 / 15
Cane Creek (South)				
779	77,884	7,720	505.7	371 / 28
786	78,564	7,720	505.9	100 / 220
789	78,914	7,720	506.0	100 / 80

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
794	79,432	7,720	506.3	240 / 80
801	80,073	7,720	506.4	150 / 80
805	80,543	7,720	506.8	122 / 72
811	81,078	7,150	507.2	105 / 18
816	81,592	7,150	507.7	30 / 125
824	82,379	7,150	508.3	80 / 25
828	82,834	7,150	508.9	75 / 91
833	83,346	7,150	509.1	104 / 57
840	84,020	6,560	509.6	59 / 23
843	84,298	6,560	509.8	36 / 57
849	84,918	6,560	510.8	65 / 70
854	85,441	6,560	511.4	62 / 54
855	85,480	6,560	511.8	62 / 54
856	85,612	6,560	511.7	112 / 25
859	85,906	6,560	525.6	200 / 22
863	86,272	6,560	525.8	66 / 28
867	86,659	6,560	528.3	25 / 105
871	87,094	6,560	529.5	107 / 55
878	87,835	6,560	530.6	93 / 42
887	88,672	6,560	531.9	59 / 123
893	89,275	6,040	532.5	108 / 62
898	89,778	6,040	533.0	139 / 47
902	90,246	6,040	533.4	189 / 23
907	90,681	6,040	533.6	167 / 27
913	91,336	6,040	534.0	69 / 192
920	92,018	6,040	534.2	97 / 37
925	92,478	6,040	534.6	51 / 96
928	92,815	6,040	535.1	23 / 258
936	93,556	4,790	535.4	163 / 32
941	94,069	4,790	535.6	36 / 39
945	94,512	4,790	537.7	22 / 64
951	95,066	4,790	539.4	25 / 101
957	95,712	4,790	540.2	85 / 19
963	96,313	4,790	541.0	33 / 33
964	96,371	4,790	541.7	33 / 33
965	96,519	4,790	541.0	22 / 22
969	96,890	4,790	545.4	70 / 34
974	97,380	4,790	548.2	95 / 68
978	97,757	4,790	549.4	93 / 49
981	98,123	4,790	550.4	41 / 59
987	98,664	4,790	552.0	48 / 89
992	99,162	4,790	553.0	27 / 77
996	99,605	4,790	553.8	62 / 58
1002	100,162	4,790	554.5	146 / 75
1007	100,687	4,790	554.7	111 / 25

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
1012	101,190	4,790	555.3	43 / 103
1017	101,748	4,790	556.1	17 / 114
1021	102,132	4,790	556.8	41 / 54
1022	102,172	4,790	556.9	41 / 54
1028	102,842	4,790	557.6	117 / 30
1035	103,474	3,770	558.6	72 / 75
1036	103,591	3,770	562.0	72 / 75
1039	103,874	3,770	562.6	78 / 41
1046	104,585	3,740	565.8	95 / 133
1048	104,847	3,740	566.2	87 / 72
1052	105,177	3,740	567.1	26 / 29
1052	105,222	3,740	567.4	26 / 29
1056	105,645	3,740	568.3	42 / 34
1060	105,963	3,740	569.8	18 / 76
1063	106,293	3,740	570.6	154 / 98
1069	106,896	3,740	570.9	255 / 86
1079	107,869	3,740	571.3	37 / 53
1084	108,402	3,740	572.4	62 / 113
1089	108,923	3,740	573.2	19 / 74
1100	109,976	2,420	575.9	86 / 19
1104	110,421	2,420	577.3	15 / 101
1112	111,172	2,420	580.2	38 / 31
1116	111,636	2,420	582.4	17 / 43
1120	111,996	2,420	583.7	85 / 28
1128	112,763	2,420	585.2	104 / 26
1132	113,233	2,420	586.3	237 / 19
1137	113,667	2,420	587.2	81 / 117
1142	114,246	2,420	589.3	20 / 61
1148	114,835	2,420	591.5	51 / 99
1155	115,477	2,420	592.8	160 / 20
1161	116,071	2,130	594.4	10 / 129
1165	116,528	2,130	595.9	57 / 65
Cane Creek (South) Tributary 1				
003	321	2,640	535.3 ¹	30 / 206
006	640	2,640	535.3 ¹	45 / 20
009	886	2,640	535.3 ¹	40 / 40
009	927	2,640	535.3 ¹	40 / 40
011	1,131	2,640	535.3 ¹	100 / 18
015	1,501	2,640	535.3 ¹	106 / 21
022	2,225	2,640	536.4	18 / 159
028	2,773	2,640	537.8	18 / 66
034	3,394	2,640	540.1	86 / 18
040	4,013	2,640	542.2	19 / 34
046	4,568	2,200	546.2	21 / 31
051	5,079	2,200	549.2	49 / 33

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
057	5,681	2,200	551.0	122 / 16
061	6,123	2,200	551.9	36 / 26
066	6,603	2,200	554.2	20 / 52
068	6,814	2,200	554.6	26 / 27
069	6,882	2,200	556.4	26 / 27
073	7,280	2,200	556.7	34 / 22
081	8,075	2,200	558.9	35 / 29
088	8,750	2,200	560.7	190 / 29
092	9,205	2,200	560.8	20 / 26
095	9,547	2,200	563.2	16 / 59
100	10,044	2,200	564.8	56 / 22
105	10,542	2,200	565.8	86 / 18
112	11,222	2,200	567.2	95 / 17
117	11,665	1,920	568.7	31 / 62
122	12,249	1,920	570.6	71 / 31
127	12,707	1,920	571.4	15 / 184
130	13,019	1,920	571.7	61 / 58
136	13,591	1,920	572.8	20 / 21
137	13,659	1,920	574.5	20 / 21
143	14,317	1,920	575.8	59 / 51
148	14,819	1,920	576.5	70 / 39
154	15,382	1,920	577.6	31 / 37
159	15,878	1,920	578.5	51 / 39
167	16,720	1,920	579.3	58 / 112
171	17,112	1,920	579.6	44 / 74
178	17,810	1,920	581.7	22 / 22
179	17,880	1,920	584.5	22 / 22
185	18,479	1,140	586.2	57 / 29
190	18,972	1,140	587.7	52 / 45
195	19,469	1,140	590.3	15 / 17
201	20,105	1,140	593.8	40 / 32
205	20,503	1,140	594.4	63 / 101
214	21,396	1,140	595.6	77 / 34
219	21,855	1,140	596.4	23 / 48
223	22,349	1,140	597.4	13 / 45
225	22,484	1,140	597.8	11 / 65
232	23,154	1,140	599.7	26 / 46
235	23,493	1,140	600.5	29 / 23
237	23,697	1,140	603.1	29 / 23
244	24,387	954	604.4	28 / 28
250	24,984	954	607.3	36 / 34
253	25,349	954	608.7	16 / 36
258	25,791	954	610.5	31 / 26
Cane Creek (South) Tributary 2				
003	324	1,010	585.8 ¹	42 / 35

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
006	578	1,010	585.8	32 / 42
006	618	1,010	588.8	32 / 42
010	982	1,010	589.1	21 / 43
014	1,364	1,010	589.7	45 / 29
019	1,933	1,010	590.6	7 / 75
025	2,466	1,010	592.1	14 / 42
030	3,012	857	594.2	47 / 19
033	3,312	857	594.7	44 / 26
Cane Creek (South) Tributary 3				
095	9,455	1,620	586.1	57 / 85
097	9,652	1,620	586.6	129 / 51
099	9,874	1,620	586.9	224 / 23
101	10,108	1,620	587.2	201 / 34
104	10,389	1,620	587.5	340 / 20
108	10,770	1,620	588.3	127 / 14
111	11,080	1,620	589.6	106 / 74
113	11,328	1,340	590.3	116 / 69
115	11,481	1,340	590.8	110 / 23
117	11,691	1,340	591.5	62 / 78
119	11,899	1,340	592.5	113 / 32
123	12,252	1,340	594.0	77 / 86
124	12,422	1,340	594.4	45 / 88
127	12,674	1,340	595.0	15 / 105
129	12,853	1,340	595.5	103 / 27
130	13,014	1,340	596.6	71 / 19
132	13,248	1,340	598.3	12 / 55
134	13,383	1,340	599.3	25 / 65
135	13,532	1,340	600.3	25 / 80
Coblebrook Creek				
017	1,673	1,230	614.0	44 / 70
022	2,186	1,135	614.7	96 / 13
027	2,700	1,097	617.4	13 / 50
028	2,817	1,097	618.6	90 / 15
029	2,890	1,097	619.1	90 / 15
030	2,983	1,097	619.2	70 / 40
034	3,352	1,003	620.8	57 / 99
036	3,574	1,003	621.1	18 / 110
037	3,736	1,003	621.4	50 / 14
038	3,762	1,003	623.1	50 / 14
039	3,880	1,003	623.5	50 / 13
040	4,026	838	623.8	16 / 57
041	4,088	838	625.2	50 / 50
042	4,190	838	625.8	23 / 54
044	4,382	838	626.7	11 / 8
044	4,434	838	629.4	32 / 18
045	4,484	838	630.8	74 / 23

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
045	4,492	838	631.6	67 / 19
046	4,564	838	632.0	67 / 19
047	4,732	838	632.2	57 / 60
049	4,897	838	632.4	115 / 35
050	4,951	430	632.3	20 / 9
050	5,033	430	633.3	20 / 9
052	5,198	430	633.7	20 / 15
054	5,392	430	636.5	17 / 9
056	5,616	430	641.8	50 / 9
057	5,667	430	642.0	54 / 30
058	5,843	430	642.0	28 / 14
060	5,952	430	642.7	28 / 30
060	6,014	430	643.0	21 / 25
Deep Creek				
004	384	2,987	541.8	170 / 33
016	1,598	2,987	543.2	28 / 106
024	2,441	2,987	544.4	101 / 36
030	3,000	2,987	545.2	43 / 64
035	3,500	2,987	545.9	183 / 29
041	4,066	2,987	546.3	50 / 32
050	5,047	2,987	548.0	30 / 32
055	5,500	2,987	548.7	53 / 30
061	6,053	2,987	549.6	164 / 94
066	6,625	2,987	550.0	28 / 82
070	7,000	2,793	550.6	25 / 86
077	7,661	2,793	551.7	30 / 30
083	8,334	2,793	553.2	33 / 35
087	8,719	2,793	554.0	25 / 25
088	8,783	2,793	554.9	75 / 75
088	8,834	2,793	555.0	75 / 75
096	9,551	2,793	555.0	24 / 27
104	10,368	2,793	556.9	23 / 20
111	11,143	2,423	558.5	30 / 30
117	11,657	2,423	560.0	37 / 25
126	12,621	2,423	563.9	34 / 25
132	13,172	2,423	566.5	20 / 25
137	13,710	2,423	568.8	20 / 25
141	14,118	2,423	570.2	19 / 42
145	14,459	2,423	570.9	48 / 43
150	15,002	2,423	571.9	83 / 22
155	15,500	2,423	573.4	61 / 74
162	16,233	2,423	575.6	71 / 18
166	16,561	2,423	576.6	40 / 40
166	16,600	2,216	577.0	40 / 40
175	17,468	2,216	578.5	25 / 77

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
182	18,206	2,216	580.8	83 / 74
185	18,500	2,216	581.5	213 / 42
195	19,500	2,216	583.2	184 / 125
199	19,882	2,216	583.8	30 / 202
201	20,135	2,216	584.5	54 / 80
211	21,118	1,661	587.4	64 / 149
218	21,788	1,661	589.1	39 / 39
223	22,286	1,661	591.6	47 / 43
226	22,606	1,661	592.6	18 / 138
235	23,500	1,661	594.6	143 / 61
237	23,718	1,661	595.3	68 / 24
238	23,794	1,661	601.2	68 / 24
246	24,613	1,360	601.4	97 / 15
251	25,139	1,360	601.6	25 / 15
254	25,446	1,360	604.6	25 / 16
261	26,056	1,360	607.8	11 / 25
265	26,500	1,105	611.6	78 / 40
270	27,000	1,105	613.3	55 / 12
276	27,558	1,105	616.3	69 / 34
277	27,739	1,105	616.9	33 / 56
283	28,296	1,105	619.6	45 / 43
289	28,880	1,105	623.0	14 / 38
296	29,573	1,105	625.4	75 / 72
303	30,342	1,105	627.4	91 / 20
310	31,000	1,105	631.5	156 / 23
314	31,359	892	632.8	24 / 67
320	32,000	892	635.6	32 / 72
325	32,504	892	637.6	59 / 49
332	33,240	892	641.8	25 / 61
338	33,830	892	646.2	43 / 42
347	34,675	892	653.6	37 / 16
353	35,281	892	659.7	38 / 13
357	35,661	892	663.2	34 / 25
357	35,723	892	668.4	34 / 25
364	36,438	892	671.4	88 / 13
371	37,056	892	680.4	21 / 50
376	37,570	892	686.7	16 / 20
376	37,611	892	687.2	16 / 20
378	37,849	892	690.5	29 / 50
385	38,500	892	698.3	25 / 31
Dry Creek				
165	16,500	724	630.4	100 / 100
169	16,859	724	631.0	16 / 37
172	17,199	724	633.2	17 / 100
173	17,334	724	644.8	17 / 100

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
178	17,841	724	644.8	75 / 57
184	18,368	724	645.0	44 / 61
190	19,004	724	647.8	19 / 23
195	19,494	724	656.3	14 / 21
East Back Creek				
595	59,500	3,982	530.9	16 / 15
600	60,000	3,982	537.0	75 / 45
605	60,500	3,982	540.0	167 / 20
609	60,923	3,982	541.7	26 / 26
610	60,979	3,982	543.1	26 / 26
615	61,500	3,982	544.2	232 / 95
620	62,000	3,982	544.6	121 / 157
625	62,500	3,982	545.1	220 / 94
630	63,000	3,982	545.7	174 / 20
635	63,500	3,982	546.7	70 / 215
640	64,000	3,982	547.1	592 / 20
645	64,500	3,982	547.4	303 / 247
650	65,000	3,982	548.0	50 / 140
655	65,500	3,982	550.1	136 / 38
660	66,000	3,795	552.5	66 / 84
665	66,500	3,795	553.8	27 / 363
670	67,000	3,795	554.4	29 / 285
675	67,500	3,795	555.3	238 / 28
679	67,936	3,795	556.0	57 / 52
685	68,500	3,795	557.7	81 / 156
Eastside Creek Tributary				
002	151	782	617.4 ¹	10 / 130
005	534	782	620.7	10 / 65
Foust Creek				
002	203	1,890	506.9 ¹	10 / 12
007	713	1,890	506.9 ¹	25 / 20
014	1,449	1,890	517.0	15 / 35
016	1,632	1,890	519.0	60 / 25
017	1,720	1,890	523.8	60 / 25
024	2,388	1,890	524.0	20 / 37
028	2,844	1,890	526.0	43 / 50
032	3,214	1,890	527.4	54 / 88
037	3,661	1,890	529.2	47 / 39
041	4,090	1,890	531.6	48 / 34
047	4,743	1,890	534.9	37 / 31
052	5,209	1,890	537.1	17 / 47
060	5,964	1,890	540.5	25 / 118
066	6,636	1,560	544.6	20 / 44
072	7,207	1,310	548.6	140 / 16
078	7,781	1,310	550.3	105 / 15
083	8,339	1,310	553.0	20 / 25

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
084	8,400	1,310	557.0	20 / 25
090	9,000	1,310	557.8	77 / 73
094	9,399	1,310	559.3	24 / 20
099	9,884	1,310	563.1	8 / 177
105	10,464	1,310	565.3	52 / 65
110	11,042	1,310	570.2	18 / 92
114	11,421	1,310	572.2	8 / 116
120	11,979	1,310	574.8	13 / 59
Greenbriar Creek				
216	21,571	1,693	633.2	109 / 30
223	22,300	1,693	635.3	37 / 160
230	23,000	1,693	636.7	101 / 131
235	23,500	1,693	638.0	50 / 226
240	24,000	1,693	640.1	35 / 150
246	24,641	1,583	642.3	80 / 77
254	25,412	1,583	643.7	80 / 234
260	26,000	1,583	644.8	100 / 87
265	26,500	1,583	646.8	75 / 42
270	27,000	1,583	648.9	100 / 51
272	27,207	1,583	649.4	31 / 29
272	27,248	1,583	649.7	31 / 29
274	27,381	1,583	650.4	136 / 20
280	28,000	1,583	652.0	14 / 114
285	28,500	1,583	653.4	116 / 15
289	28,921	1,583	654.8	46 / 78
295	29,450	1,583	655.7	149 / 90
300	29,991	1,278	656.4	144 / 60
305	30,494	1,278	657.7	12 / 108
311	31,052	1,278	659.3	93 / 183
315	31,500	1,278	660.6	62 / 57
321	32,051	1,278	663.5	81 / 74
325	32,500	1,278	664.8	151 / 15
330	33,000	1,278	666.1	84 / 156
335	33,500	737	667.3	65 / 82
Gunn Creek				
338	33,750	707	635.9	17 / 60
339	33,928	707	636.4	22 / 23
340	34,038	707	636.6	22 / 23
344	34,395	707	640.2	7 / 26
346	34,618	707	642.5	24 / 80
347	34,695	707	642.7	50 / 90
350	35,014	707	642.8	44 / 34
352	35,242	707	645.8	30 / 120
354	35,389	707	645.9	24 / 79
357	35,744	707	648.5	29 / 26
363	36,311	707	657.2	7 / 45

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
368	36,789	707	661.6	19 / 20
373	37,345	707	669.6	12 / 17
378	37,762	707	677.0	16 / 17
381	38,147	707	684.1	9 / 33
Haw Creek Tributary 1				
004	354	2,240	498.2 ¹	28 / 30
009	932	2,240	498.3	22 / 23
014	1,429	2,240	505.0	21 / 21
015	1,473	2,240	505.4	21 / 21
019	1,945	2,240	506.4	69 / 37
027	2,703	2,240	509.2	193 / 67
031	3,128	2,240	509.6	101 / 21
038	3,760	2,240	511.2	81 / 23
040	4,042	2,240	512.5	43 / 17
046	4,603	2,240	514.6	86 / 17
054	5,431	2,240	516.2	78 / 17
059	5,885	2,240	517.3	74 / 16
066	6,625	1,810	519.8	68 / 29
076	7,630	1,810	522.5	88 / 47
084	8,418	1,810	524.2	118 / 34
089	8,880	1,810	525.6	48 / 33
094	9,441	1,810	528.4	58 / 84
101	10,134	1,810	530.8	15 / 103
107	10,667	1,810	533.6	34 / 35
107	10,730	1,680	536.2	34 / 35
114	11,371	1,680	537.7	20 / 35
119	11,927	1,680	541.8	96 / 47
125	12,540	1,680	543.6	22 / 15
131	13,060	1,680	547.5	112 / 91
136	13,629	1,680	548.8	14 / 81
140	13,954	1,680	550.9	62 / 62
145	14,482	1,680	552.7	129 / 14
149	14,886	1,680	553.9	49 / 34
154	15,374	1,680	556.4	22 / 90
159	15,870	1,680	558.1	76 / 141
165	16,473	1,310	560.0	268 / 13
172	17,160	1,310	563.5	64 / 19
177	17,736	1,310	568.6	75 / 40
182	18,239	857	571.1	36 / 64
188	18,840	857	574.7	13 / 75
Haw River Tributary 10				
003	266	665	578.1 ¹	10 / 10
010	1,002	665	579.3	10 / 9
014	1,358	665	583.4	20 / 20
014	1,419	665	588.9	20 / 20
018	1,795	665	589.5	22 / 30

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
023	2,296	665	596.1	16 / 32
027	2,733	665	600.4	12 / 14
034	3,353	665	606.5	12 / 24
042	4,184	665	613.3	41 / 16
051	5,083	665	621.6	51 / 15
055	5,500	665	625.7	32 / 21
059	5,935	665	630.0	18 / 60
063	6,275	665	634.5	62 / 12
063	6,310	665	635.3	62 / 12
067	6,667	665	637.9	35 / 14
072	7,168	665	647.6	24 / 12
076	7,637	665	659.8	13 / 12
080	8,012	665	670.0	12 / 29
Haw River Tributary 11				
005	500	2,126	588.5 ¹	20 / 17
011	1,061	2,126	588.5 ¹	28 / 31
016	1,613	2,126	588.5 ¹	100 / 18
020	2,000	2,126	588.5 ¹	83 / 74
024	2,450	2,126	588.5 ¹	79 / 70
030	3,000	2,126	588.5 ¹	38 / 170
037	3,664	2,126	588.5 ¹	140 / 70
041	4,101	2,126	588.5 ¹	41 / 95
045	4,500	2,126	588.5 ¹	50 / 25
050	4,990	2,126	588.9	27 / 25
055	5,502	2,126	594.9	65 / 27
060	6,000	2,126	597.8	27 / 17
065	6,500	2,126	602.3	20 / 37
069	6,896	2,126	604.9	43 / 30
075	7,500	2,126	607.7	44 / 18
081	8,109	1,487	610.5	14 / 90
085	8,500	1,487	611.8	43 / 47
091	9,084	1,487	614.4	41 / 58
095	9,500	1,487	615.4	150 / 54
099	9,877	1,487	616.1	80 / 65
105	10,523	1,487	617.2	50 / 80
106	10,607	1,487	619.4	50 / 80
110	11,000	1,487	619.8	33 / 67
115	11,500	1,037	620.7	42 / 49
119	11,905	1,037	621.3	51 / 48
124	12,430	1,037	622.4	16 / 44
130	13,000	1,037	624.5	24 / 27
133	13,346	1,037	626.0	22 / 60
134	13,414	1,037	633.3	22 / 60
139	13,852	1,037	633.3	122 / 51
145	14,500	1,037	633.6	68 / 87

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
149	14,882	1,037	633.8	48 / 87
155	15,453	1,037	634.7	57 / 25
160	16,000	1,037	636.6	17 / 82
165	16,457	1,037	638.1	25 / 54
170	17,000	1,037	640.1	17 / 51
175	17,500	720	642.2	21 / 50
180	18,000	720	644.6	25 / 54
185	18,500	720	649.5	47 / 16
190	19,000	720	651.8	56 / 46
196	19,574	720	655.0	16 / 51
200	20,000	327	658.9	12 / 12
203	20,348	327	661.5	11 / 12
204	20,382	327	663.6	11 / 12
205	20,500	327	664.5	35 / 45
210	21,000	327	669.4	40 / 60
212	21,204	327	671.5	20 / 50
217	21,748	327	682.5	231 / 360
220	22,000	327	682.5	109 / 142
225	22,500	327	683.9	15 / 14
227	22,690	327	686.3	22 / 21
227	22,722	327	689.6	22 / 21
230	23,000	327	690.7	20 / 20
234	23,401	327	698.6	14 / 16
236	23,552	327	710.3	218 / 240
237	23,721	327	710.3	135 / 135
240	24,004	327	710.1	30 / 70
Haw River Tributary 12				
005	500	787	609.9	14 / 53
010	1,000	787	612.4	35 / 25
015	1,506	787	614.8	16 / 68
020	2,000	787	617.2	29 / 58
025	2,528	787	620.2	27 / 37
030	3,000	787	622.3	24 / 66
035	3,500	787	624.4	15 / 46
040	4,002	787	627.5	35 / 25
045	4,500	787	631.3	20 / 15
049	4,939	787	634.5	16 / 16
050	4,998	787	638.2	16 / 16
055	5,500	787	638.5	90 / 24
058	5,843	787	640.0	15 / 14
059	5,900	787	642.9	15 / 14
065	6,500	787	645.1	25 / 20
070	7,000	787	649.2	60 / 40
071	7,102	787	649.4	20 / 20
072	7,162	787	651.7	20 / 20

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
080	8,000	787	656.3	32 / 40
085	8,500	447	660.4	17 / 29
090	9,000	447	665.5	15 / 16
094	9,425	447	669.6	20 / 29
100	10,000	447	674.1	27 / 15
105	10,500	447	679.9	22 / 22
110	10,978	447	685.0	30 / 20
115	11,500	447	693.2	35 / 31
120	12,000	447	708.3	15 / 20
125	12,500	447	714.4	20 / 25
130	13,000	447	722.8	20 / 34
134	13,379	447	731.2	24 / 22
134	13,444	447	735.4	24 / 22
140	14,000	447	742.2	24 / 22
Haw River Tributary 13				
003	341	545	602.9 ¹	102 / 114
004	433	545	602.9 ¹	102 / 114
005	505	545	602.9 ¹	40 / 25
006	568	545	608.4	40 / 25
010	998	545	609.0	17 / 16
013	1,263	545	611.9	28 / 27
013	1,301	545	612.9	28 / 27
018	1,756	545	615.3	8 / 8
022	2,165	545	620.4	7 / 8
026	2,592	545	625.3	12 / 10
030	3,000	545	630.5	14 / 8
036	3,578	545	649.7	12 / 10
040	3,981	545	663.2	29 / 7
042	4,200	545	682.0	100 / 100
045	4,489	545	682.0	158 / 140
047	4,737	545	689.0	12 / 24
Haw River Tributary 14				
004	364	1,161	620.8 ¹	53 / 30
006	643	1,161	620.8 ¹	43 / 210
009	926	1,161	620.8 ¹	18 / 134
015	1,500	1,161	620.8 ¹	92 / 78
018	1,827	1,161	620.8 ¹	49 / 80
023	2,280	1,161	620.8 ¹	73 / 10
023	2,325	1,161	621.0	73 / 10
025	2,501	1,161	621.1	116 / 100
030	3,000	947	621.4	150 / 26
035	3,500	947	622.3	7 / 87
040	3,993	947	624.8	93 / 39
045	4,500	947	625.8	42 / 217
050	5,000	947	627.1	52 / 60
055	5,500	947	630.8	36 / 40

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
060	6,000	947	635.3	17 / 29
063	6,328	947	636.8	100 / 25
070	7,001	947	639.2	14 / 15
075	7,500	947	646.3	23 / 29
080	8,000	947	649.7	12 / 63
085	8,500	947	652.9	19 / 37
090	9,000	593	657.0	13 / 30
094	9,420	593	658.2	20 / 20
095	9,482	593	658.8	20 / 20
100	10,000	593	662.6	8 / 19
104	10,370	593	667.5	38 / 34
106	10,599	593	668.3	10 / 10
106	10,644	593	669.9	10 / 10
110	11,000	593	672.8	19 / 31
115	11,500	593	678.0	23 / 33
121	12,062	593	684.6	21 / 36
125	12,500	593	692.4	36 / 11
127	12,725	593	696.3	10 / 38
Haw River Tributary 15				
053	5,257	680	668.2	42 / 23
055	5,513	680	669.6	30 / 30
056	5,575	680	671.8	30 / 30
058	5,846	680	673.6	34 / 20
062	6,186	680	677.0	37 / 18
065	6,504	680	679.0	23 / 18
068	6,788	680	681.7	19 / 28
071	7,087	680	687.1	70 / 6
074	7,375	680	700.0	111 / 201
081	8,095	680	702.2	18 / 8
086	8,596	680	711.5	22 / 6
Haw River Tributary 2				
004	381	491	431.9 ¹	8 / 22
010	1,000	491	431.9 ¹	32 / 16
016	1,558	491	439.2	14 / 18
020	2,038	491	449.2	12 / 13
025	2,500	491	459.3	12 / 12
030	3,000	491	470.4	16 / 12
035	3,526	491	479.9	12 / 12
040	4,041	491	489.8	17 / 12
048	4,806	491	504.9	15 / 12
056	5,575	491	517.6	14 / 21
061	6,109	491	534.4	12 / 18
Haw River Tributary 3				
003	270	736	434.2 ¹	9 / 12
008	843	736	434.2 ¹	20 / 5
014	1,432	736	435.5	19 / 13

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
021	2,107	736	443.8	8 / 28
027	2,738	736	454.6	12 / 10
033	3,270	736	462.9	15 / 8
038	3,792	736	471.9	6 / 18
042	4,226	575	480.8	20 / 12
046	4,647	575	488.0	16 / 10
050	5,019	575	494.8	6 / 11
054	5,444	575	501.2	17 / 14
055	5,534	575	503.0	17 / 14
060	6,032	575	510.0	22 / 13
065	6,543	575	519.9	54 / 33
066	6,600	575	519.7	54 / 33
072	7,182	575	530.1	50 / 57
076	7,602	575	536.3	9 / 50
080	7,989	575	543.8	20 / 58
081	8,118	575	569.1	40 / 48
085	8,456	575	569.0	100 / 100
088	8,845	575	570.1	50 / 80
091	9,055	575	571.2	33 / 50
092	9,217	575	591.0	110 / 42
094	9,423	575	595.8	11 / 12
095	9,499	575	601.9	6 / 18
096	9,561	575	605.0	13 / 12
096	9,611	575	608.6	16 / 8
Haw River Tributary 4				
004	415	1,500	437.2 ¹	12 / 17
011	1,107	1,500	437.2 ¹	12 / 28
018	1,841	1,500	437.2 ¹	17 / 18
025	2,533	1,470	438.0	15 / 18
032	3,229	1,470	444.8	19 / 20
039	3,927	1,470	450.8	12 / 37
046	4,551	1,470	458.8	14 / 15
049	4,907	1,470	462.2	22 / 18
052	5,153	1,470	462.8	22 / 22
053	5,253	1,470	472.3	22 / 22
058	5,828	1,050	472.3	20 / 24
064	6,387	1,050	476.4	30 / 10
069	6,880	1,050	481.8	14 / 15
074	7,361	1,050	487.2	22 / 22
078	7,849	1,050	492.7	17 / 19
084	8,360	1,050	499.9	15 / 16
090	9,000	1,050	513.0	15 / 16
095	9,500	861	524.3	19 / 14
099	9,906	861	535.8	16 / 15
105	10,515	861	543.3	26 / 37

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
112	11,180	861	550.2	14 / 39
119	11,883	861	557.6	19 / 23
125	12,532	861	562.9	50 / 34
131	13,086	861	566.9	56 / 27
134	13,425	861	569.4	48 / 152
135	13,500	653	571.6	48 / 152
140	14,016	653	573.1	98 / 41
145	14,463	653	575.2	53 / 13
151	15,066	653	579.2	32 / 45
155	15,522	653	582.1	22 / 30
160	16,000	653	585.4	82 / 13
167	16,690	653	593.9	24 / 13
173	17,274	653	604.5	27 / 15
176	17,597	653	609.0	21 / 20
177	17,705	653	620.5	41 / 40
183	18,330	653	623.0	75 / 13
Haw River Tributary 5				
004	386	747	471.7	16 / 18
009	880	747	478.6	33 / 14
015	1,510	747	487.0	10 / 68
016	1,565	693	490.5	10 / 68
021	2,110	693	492.3	12 / 20
025	2,500	556	496.9	16 / 35
031	3,093	556	502.2	12 / 40
036	3,608	556	510.7	30 / 12
041	4,105	556	517.2	16 / 27
047	4,678	556	524.3	12 / 12
051	5,128	556	530.6	39 / 12
057	5,698	556	536.4	38 / 15
061	6,078	556	540.7	30 / 12
065	6,511	556	545.7	14 / 72
066	6,591	556	548.4	14 / 72
067	6,679	556	548.4	32 / 87
068	6,791	556	552.8	32 / 87
070	6,978	556	552.8	53 / 61
Haw River Tributary 6				
006	606	2,120	456.8 ¹	60 / 61
009	857	2,120	456.8 ¹	58 / 58
013	1,314	2,120	456.8 ¹	28 / 28
018	1,786	2,120	456.8 ¹	29 / 30
025	2,510	2,120	456.8 ¹	28 / 25
030	3,019	2,120	456.8 ¹	26 / 55
031	3,059	2,120	459.6 ¹	26 / 55
035	3,480	2,120	459.6 ¹	29 / 23
039	3,929	2,120	459.6 ¹	69 / 34
045	4,479	2,010	459.6 ¹	25 / 92

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
049	4,930	2,010	460.1	21 / 63
054	5,431	2,010	461.6	70 / 43
059	5,942	2,010	463.1	39 / 99
063	6,334	1,670	464.5	60 / 118
069	6,901	1,670	465.5	33 / 111
075	7,500	1,670	466.9	35 / 150
080	7,968	1,670	468.1	95 / 56
084	8,413	1,670	469.2	110 / 37
090	8,966	1,670	471.4	73 / 22
096	9,648	1,670	475.8	26 / 48
101	10,064	1,320	476.7	20 / 38
104	10,418	1,320	477.9	42 / 17
109	10,869	1,320	479.5	33 / 21
114	11,445	1,320	482.2	17 / 17
118	11,804	1,320	484.6	37 / 35
123	12,286	1,320	486.2	17 / 17
126	12,579	1,320	488.7	31 / 31
127	12,659	1,320	490.6	31 / 31
132	13,205	1,320	491.3	26 / 19
137	13,738	1,320	494.6	48 / 22
141	14,099	1,320	495.8	53 / 17
144	14,445	1,320	497.2	32 / 20
147	14,746	1,320	498.7	26 / 26
148	14,832	1,320	500.5	26 / 26
156	15,563	1,320	508.0	24 / 27
162	16,230	1,320	515.6	38 / 17
167	16,660	1,320	519.8	19 / 16
170	16,951	1,320	524.2	31 / 16
173	17,274	1,320	528.2	38 / 16
179	17,925	1,320	539.2	24 / 20
Haw River Tributary 8				
008	764	949	556.8 ¹	26 / 26
008	830	949	556.8 ¹	26 / 26
016	1,556	949	556.8 ¹	197 / 16
020	2,000	949	561.0	16 / 16
024	2,367	949	556.8 ¹	37 / 33
030	3,000	949	574.7	14 / 24
037	3,714	456	581.7	85 / 35
038	3,801	456	589.0	85 / 85
044	4,369	456	589.0	64 / 36
046	4,558	456	589.3	18 / 18
046	4,638	456	595.2	18 / 18
050	4,987	456	596.3	13 / 33
053	5,308	456	599.5	13 / 44
056	5,604	456	601.0	14 / 30

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
057	5,684	456	603.4	14 / 30
059	5,917	456	604.3	13 / 30
062	6,154	456	608.4	40 / 74
062	6,232	456	612.4	40 / 60
064	6,415	456	612.5	36 / 42
067	6,716	456	615.7	14 / 15
068	6,778	456	619.8	14 / 15
073	7,276	456	621.6	13 / 13
074	7,429	456	624.1	14 / 18
077	7,719	456	627.4	13 / 14
082	8,179	456	635.4	14 / 13
085	8,500	456	639.3	27 / 13
090	9,000	456	649.4	19 / 13
Hughes Mill Creek				
008	753	1,966	603.4	127 / 47
013	1,288	1,966	605.2	33 / 74
018	1,788	1,966	607.3	34 / 77
022	2,206	1,966	608.6	58 / 73
027	2,705	1,966	609.6	100 / 80
036	3,582	1,614	611.8	22 / 49
044	4,368	1,614	614.0	60 / 54
050	4,968	1,614	615.1	50 / 16
054	5,390	1,614	617.0	95 / 31
Jones Creek				
003	295	880	608.1 ¹	20 / 15
010	1,000	880	611.4	16 / 36
016	1,572	880	614.7	54 / 38
022	2,189	880	616.6	33 / 33
027	2,695	880	618.4	18 / 36
031	3,086	880	620.2	23 / 12
036	3,564	880	626.0	46 / 15
040	4,009	880	629.3	21 / 27
045	4,500	880	634.6	13 / 19
048	4,809	880	641.4	11 / 15
049	4,913	880	645.6	23 / 7
050	5,015	880	660.8	100 / 80
055	5,504	575	662.6	20 / 12
056	5,626	575	663.9	18 / 18
057	5,667	575	664.8	18 / 18
062	6,217	575	670.0	20 / 10
066	6,565	575	674.0	24 / 19
070	7,044	575	678.6	20 / 13
074	7,441	575	684.2	13 / 18
Jordan Creek				
013	1,297	5,739	550.2 ¹	121 / 189
020	1,996	5,739	550.2 ¹	30 / 49

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
040	4,000	5,739	550.6	34 / 229
046	4,640	5,739	551.2	104 / 117
051	5,106	5,739	551.7	96 / 126
061	6,118	5,628	552.6	354 / 334
066	6,640	5,628	552.8	31 / 204
072	7,242	5,628	553.2	30 / 86
075	7,500	5,628	553.8	60 / 64
079	7,895	5,628	554.3	78 / 50
084	8,359	5,628	555.0	172 / 59
090	9,039	5,628	555.5	241 / 49
095	9,542	5,628	555.9	139 / 119
098	9,772	5,628	556.2	90 / 133
106	10,556	5,489	557.2	285 / 38
110	11,025	5,489	557.4	177 / 49
116	11,619	5,489	558.0	45 / 106
122	12,207	5,489	558.8	29 / 135
126	12,641	5,489	559.7	90 / 90
127	12,687	5,489	561.7	90 / 90
134	13,441	5,489	562.2	115 / 174
140	14,033	5,489	562.6	163 / 97
146	14,631	5,489	563.2	279 / 203
153	15,251	5,489	563.4	211 / 209
157	15,659	5,489	563.7	166 / 192
170	16,950	3,917	564.5	337 / 353
174	17,437	3,917	564.7	187 / 372
180	18,012	3,917	565.2	23 / 343
185	18,501	3,917	565.7	129 / 313
192	19,229	3,917	566.5	114 / 164
197	19,741	3,917	567.3	137 / 234
201	20,138	3,917	567.9	21 / 274
202	20,181	3,917	569.0	21 / 274
208	20,781	3,917	570.0	148 / 188
214	21,416	3,917	570.8	349 / 74
221	22,080	3,917	571.8	167 / 252
226	22,581	3,737	572.3	452 / 71
232	23,176	3,737	573.0	80 / 130
238	23,792	3,737	574.9	67 / 107
241	24,139	3,737	575.8	126 / 30
248	24,800	3,737	577.3	63 / 101
251	25,115	3,737	578.0	138 / 46
256	25,562	3,737	578.7	191 / 51
261	26,054	3,737	579.2	28 / 120
265	26,499	3,737	580.2	22 / 139
269	26,916	3,563	581.3	50 / 108
277	27,678	3,563	582.6	32 / 109

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
282	28,227	3,563	583.5	113 / 32
287	28,672	3,563	584.2	55 / 120
292	29,210	3,563	585.2	126 / 56
297	29,704	3,563	586.3	54 / 63
304	30,392	3,563	587.6	191 / 104
304	30,439	3,563	588.4	191 / 104
310	30,994	3,563	588.7	330 / 98
317	31,665	3,383	589.0	55 / 220
320	31,990	3,383	589.3	107 / 200
325	32,457	3,383	589.8	50 / 208
333	33,252	3,383	590.7	146 / 135
340	34,036	3,383	592.1	183 / 48
343	34,267	3,383	592.6	178 / 89
346	34,588	3,383	593.2	196 / 46
355	35,476	3,383	595.6	50 / 71
360	35,966	3,383	597.4	38 / 82
365	36,473	3,192	598.9	82 / 35
371	37,102	3,192	600.3	69 / 78
375	37,488	3,192	601.0	91 / 89
381	38,119	3,192	601.9	34 / 64
387	38,698	3,192	602.8	25 / 211
392	39,185	3,192	603.1	232 / 158
406	40,631	3,192	604.1	137 / 134
410	40,988	1,861	605.2	36 / 56
416	41,585	1,861	607.6	60 / 55
424	42,356	1,861	610.1	35 / 40
424	42,401	1,861	611.7	35 / 40
428	42,841	1,861	614.5	45 / 50
434	43,365	1,861	619.0	21 / 23
440	43,974	1,861	621.4	56 / 40
445	44,502	1,861	623.0	42 / 42
448	44,823	1,861	623.9	21 / 86
454	45,380	1,861	624.9	133 / 24
457	45,743	1,861	625.5	99 / 24
463	46,347	1,861	627.1	65 / 16
469	46,907	1,861	631.0	93 / 16
474	47,406	1,861	632.7	47 / 44
480	47,961	1,861	633.7	54 / 69
484	48,425	1,861	634.2	138 / 106
489	48,858	1,615	634.5	111 / 192
495	49,464	1,615	634.9	40 / 169
Laughin Creek				
006	606	1,764	589.1 ¹	115 / 25
012	1,174	1,764	590.1	30 / 30
012	1,234	1,764	593.5	30 / 30

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
018	1,809	1,764	594.2	164 / 89
020	2,004	1,764	594.4	165 / 58
023	2,265	1,764	594.7	170 / 80
030	3,000	1,764	595.5	11 / 116
035	3,500	1,764	597.2	97 / 45
040	3,962	1,764	598.5	46 / 85
045	4,500	1,764	599.6	138 / 30
049	4,926	1,764	600.5	15 / 42
052	5,207	1,764	602.1	114 / 12
053	5,254	1,764	604.2	114 / 12
055	5,467	1,764	604.6	110 / 13
060	6,000	1,764	605.6	31 / 18
065	6,500	1,764	607.7	33 / 18
071	7,108	1,361	611.4	20 / 17
074	7,382	1,361	614.4	19 / 18
082	8,159	1,361	621.3	38 / 35
087	8,672	1,361	625.6	29 / 20
090	9,000	1,361	629.8	16 / 54
095	9,500	1,361	635.7	21 / 38
100	10,000	1,361	640.6	27 / 38
105	10,500	1,361	643.6	31 / 36
109	10,948	1,361	645.4	99 / 21
114	11,396	1,361	647.0	79 / 41
119	11,879	1,361	649.3	45 / 71
125	12,500	1,361	653.8	29 / 18
131	13,140	1,361	658.7	62 / 72
135	13,500	1,361	659.9	62 / 36
140	14,000	1,361	662.8	106 / 9
146	14,556	1,361	665.4	55 / 119
150	15,000	1,361	667.3	73 / 70
155	15,500	1,361	670.0	91 / 73
160	16,000	473	673.5	25 / 22
165	16,504	473	678.4	16 / 25
169	16,875	473	681.6	40 / 10
169	16,950	473	686.1	40 / 10
174	17,367	473	686.9	35 / 12
177	17,672	473	691.7	18 / 63
177	17,747	473	703.0	215 / 135
182	18,249	473	703.0	89 / 122
191	19,073	473	707.4	20 / 8
195	19,500	473	711.1	40 / 31
200	20,000	473	716.3	24 / 8
205	20,500	473	724.5	12 / 18
210	21,000	473	730.5	9 / 8
215	21,500	473	739.0	32 / 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
Laughin Creek Tributary 1				
001	96	470	608.9 ¹	11 / 10
005	500	470	611.7	11 / 10
010	1,000	470	616.7	11 / 10
015	1,500	470	631.0	17 / 15
020	2,000	470	640.3	11 / 10
025	2,500	470	646.9	10 / 23
030	3,005	470	652.4	10 / 17
035	3,531	470	657.1	11 / 25
040	4,031	470	664.2	17 / 11
045	4,522	470	669.5	12 / 40
046	4,561	470	669.7	12 / 40
050	5,030	470	673.8	12 / 11
053	5,330	470	678.0	14 / 10
054	5,370	470	678.4	14 / 10
055	5,496	470	679.6	13 / 11
Lick Creek				
125	12,541	1,968	473.3	29 / 235
Little Alamance Creek Tributary				
001	108	938	564.8 ¹	14 / 14
004	444	938	563.7	23 / 40
007	684	938	564.8	51 / 83
011	1,115	938	567.1	26 / 40
013	1,322	938	569.3	18 / 35
014	1,384	938	578.4	18 / 35
017	1,671	938	578.5	27 / 58
019	1,905	938	578.7	30 / 38
020	1,967	938	579.8	30 / 38
022	2,190	938	580.6	24 / 69
025	2,499	938	582.7	20 / 17
030	2,998	938	590.1	29 / 23
035	3,535	938	594.4	14 / 53
043	4,251	938	600.2	43 / 30
045	4,529	938	603.4	16 / 17
048	4,803	938	607.0	25 / 60
049	4,865	938	612.2	25 / 60
052	5,190	938	612.3	91 / 55
Little Creek				
004	427	2,400	541.7 ¹	328 / 118
012	1,232	2,330	541.7 ¹	75 / 29
017	1,728	2,330	541.7 ¹	46 / 68
021	2,077	2,330	541.7 ¹	7 / 266
030	3,048	2,330	541.7 ¹	10 / 150
034	3,383	2,330	542.0	52 / 77
040	4,017	2,330	544.0	25 / 25
041	4,097	2,330	549.2	25 / 25

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
046	4,560	2,330	549.4	206 / 71
051	5,094	2,330	549.5	211 / 130
056	5,558	2,330	549.8	160 / 31
059	5,921	2,330	550.2	45 / 13
063	6,263	1,660	552.3	39 / 27
068	6,781	1,660	553.7	80 / 67
071	7,099	1,660	554.0	82 / 21
075	7,488	1,660	555.0	41 / 141
079	7,865	1,660	555.7	4 / 103
085	8,526	1,660	558.5	32 / 16
090	9,000	1,660	562.4	91 / 5
094	9,443	1,660	563.8	115 / 9
102	10,237	1,660	565.7	35 / 35
103	10,319	1,660	569.9	35 / 35
109	10,926	1,660	570.1	20 / 80
117	11,653	871	572.8	15 / 101
122	12,188	858	574.6	70 / 4
127	12,671	858	578.2	15 / 14
134	13,434	858	583.8	10 / 28
140	14,045	858	588.7	47 / 32
145	14,537	858	593.5	31 / 17
152	15,152	858	599.2	43 / 20
156	15,562	858	602.7	9 / 20
159	15,942	858	608.0	21 / 9
Little Creek Tributary 1				
001	78	932	551.6 ¹	5 / 45
002	183	932	551.6 ¹	6 / 35
004	440	932	553.8	16 / 7
005	537	932	563.6	202 / 22
006	599	932	563.6	202 / 22
009	888	932	563.8	87 / 62
013	1,332	932	564.7	40 / 20
020	1,994	932	568.3	20 / 80
022	2,229	932	569.5	35 / 20
023	2,303	932	575.1	35 / 20
026	2,557	932	575.2	78 / 30
029	2,905	859	575.4	23 / 36
033	3,303	859	577.2	4 / 29
038	3,787	859	583.5	18 / 16
038	3,824	859	586.8	49 / 48
039	3,874	859	590.5	49 / 48
040	4,019	859	590.9	33 / 73
Little Creek Tributary 2				
002	172	1,020	570.6	10 / 30
004	380	1,020	572.6	20 / 20
010	995	1,020	577.9	56 / 14

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
016	1,600	1,020	580.6	38 / 17
022	2,154	1,020	583.6	16 / 20
027	2,690	1,020	587.3	53 / 10
031	3,139	1,020	590.5	6 / 80
035	3,548	1,020	593.3	21 / 27
042	4,221	1,020	599.4	13 / 40
045	4,504	1,020	602.0	60 / 20
048	4,828	1,020	604.9	59 / 15
051	5,051	1,020	608.2	25 / 20
051	5,096	863	610.1	25 / 20
055	5,491	863	611.5	15 / 60
060	5,956	863	615.1	21 / 89
066	6,562	863	619.0	4 / 28
070	7,015	863	623.4	30 / 45
073	7,296	863	628.6	55 / 30
073	7,346	863	629.8	55 / 30
073	7,350	863	629.8	60 / 25
074	7,390	863	630.0	60 / 25
075	7,496	863	630.6	60 / 40
077	7,739	863	631.3	50 / 40
082	8,230	863	633.7	52 / 34
086	8,573	863	636.1	12 / 29
092	9,198	863	644.5	10 / 30
097	9,748	863	651.5	14 / 43
Long Branch				
005	536	1,670	460.6	20 / 20
011	1,121	1,670	469.4	30 / 14
016	1,591	1,670	473.0	25 / 25
017	1,686	1,670	478.0	25 / 25
022	2,181	1,670	478.4	64 / 64
025	2,513	1,670	478.6	154 / 64
031	3,070	1,670	479.0	70 / 35
035	3,499	1,670	479.9	44 / 35
040	4,001	1,670	482.2	39 / 41
043	4,251	1,670	483.1	28 / 45
048	4,787	1,670	486.0	34 / 21
050	5,043	1,670	487.2	113 / 89
056	5,565	1,670	488.0	40 / 36
056	5,605	1,670	489.6	40 / 36
060	5,996	1,670	491.4	71 / 36
064	6,412	1,670	493.6	91 / 67
067	6,715	1,670	494.7	55 / 57
072	7,209	1,670	496.9	30 / 37
079	7,871	1,290	498.5	114 / 70
083	8,306	1,290	499.0	11 / 82

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
089	8,851	1,290	502.0	100 / 8
094	9,353	1,290	504.7	20 / 41
097	9,736	1,290	507.4	18 / 32
101	10,147	1,290	509.8	34 / 97
104	10,386	1,290	510.8	15 / 78
Marys Creek				
011	1,099	4,160	432.5 ¹	57 / 22
015	1,470	4,160	432.5 ¹	60 / 86
019	1,892	4,160	432.5 ¹	119 / 31
024	2,441	4,160	432.5 ¹	82 / 22
027	2,690	4,160	432.5 ¹	35 / 63
030	3,001	4,160	432.5 ¹	61 / 54
032	3,199	4,080	432.5 ¹	21 / 81
035	3,499	4,080	432.5 ¹	21 / 69
037	3,750	4,080	432.5 ¹	56 / 58
040	4,000	4,080	432.5 ¹	212 / 21
042	4,210	4,080	432.5 ¹	262 / 70
050	4,963	4,040	432.5 ¹	78 / 21
052	5,158	4,040	432.5 ¹	37 / 37
052	5,202	4,040	432.5 ¹	37 / 37
056	5,611	4,040	432.5 ¹	24 / 24
061	6,052	3,910	432.5 ¹	22 / 22
063	6,251	3,910	433.7	22 / 22
065	6,516	3,910	436.2	55 / 24
069	6,925	3,910	437.7	23 / 23
075	7,549	3,910	441.8	35 / 74
080	8,014	3,910	443.0	26 / 26
087	8,659	3,910	448.9	20 / 18
092	9,168	3,910	454.6	25 / 20
096	9,602	3,910	456.9	21 / 46
100	10,017	3,910	458.6	35 / 19
104	10,441	3,910	460.7	109 / 56
112	11,153	3,000	461.8	60 / 25
116	11,648	3,000	463.8	48 / 20
122	12,185	3,000	466.8	35 / 35
127	12,694	3,000	469.8	25 / 26
133	13,317	3,000	473.4	40 / 30
138	13,767	3,000	475.0	18 / 36
142	14,155	3,000	476.8	26 / 35
146	14,617	3,000	478.9	66 / 22
151	15,093	3,000	481.0	36 / 20
155	15,528	3,000	483.1	35 / 18
161	16,082	3,000	486.0	43 / 18
166	16,576	3,000	488.5	53 / 25
168	16,755	3,000	489.5	79 / 28

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
171	17,082	3,000	490.4	152 / 144
175	17,535	3,000	490.7	19 / 19
176	17,615	3,000	492.5	19 / 19
181	18,101	3,000	493.5	46 / 84
186	18,608	3,000	494.1	311 / 91
187	18,673	3,000	496.4	311 / 91
192	19,225	3,000	496.5	81 / 166
196	19,561	2,770	496.7	85 / 131
203	20,296	2,770	497.4	23 / 94
206	20,614	2,770	498.3	61 / 25
212	21,208	2,770	499.8	143 / 18
218	21,750	2,770	500.2	222 / 81
222	22,250	2,770	500.7	115 / 73
228	22,788	2,770	501.9	134 / 21
233	23,258	2,770	502.7	178 / 73
238	23,850	2,770	503.5	81 / 126
244	24,384	2,770	504.7	50 / 46
247	24,708	2,770	505.7	29 / 310
252	25,192	2,770	506.0	56 / 105
254	25,432	2,770	506.5	27 / 28
255	25,480	2,770	507.0	27 / 28
259	25,917	2,770	507.8	50 / 30
262	26,250	2,770	510.7	181 / 29
267	26,693	2,770	511.2	225 / 104
272	27,229	2,770	511.7	99 / 227
276	27,626	2,070	512.2	73 / 116
284	28,369	2,070	513.8	131 / 17
289	28,874	2,070	516.8	43 / 30
290	29,005	2,070	517.6	35 / 30
291	29,099	2,070	520.4	35 / 30
298	29,750	2,070	521.7	114 / 16
302	30,186	2,070	524.4	124 / 34
305	30,500	2,070	525.9	50 / 67
309	30,906	2,070	527.9	19 / 39
314	31,396	1,970	529.8	112 / 29
318	31,812	1,970	530.5	22 / 86
323	32,277	1,970	532.6	20 / 17
327	32,701	1,970	536.7	178 / 17
332	33,198	1,970	538.7	18 / 21
337	33,680	1,970	542.1	23 / 140
340	34,000	1,970	543.3	46 / 79
345	34,502	1,970	545.6	19 / 132
349	34,943	1,970	546.7	169 / 113
357	35,690	1,620	548.4	46 / 35
364	36,437	1,620	551.1	92 / 130

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
370	36,954	1,620	552.1	77 / 76
373	37,348	1,620	553.4	105 / 57
378	37,756	1,620	554.5	16 / 16
378	37,816	1,620	558.7	20 / 20
381	38,103	1,620	559.5	104 / 25
387	38,652	1,620	560.8	38 / 34
392	39,250	1,620	565.2	26 / 42
396	39,587	1,620	568.4	22 / 62
400	40,018	1,620	570.5	134 / 34
401	40,052	1,310	571.4	134 / 34
405	40,466	1,310	571.8	187 / 14
408	40,750	1,310	572.5	124 / 79
411	41,124	1,310	573.7	85 / 92
412	41,172	1,310	577.8	85 / 92
416	41,581	1,310	578.0	125 / 108
McAdams Creek Tributary				
002	188	860	585.7	36 / 22
005	500	860	589.3	45 / 20
007	664	860	591.8	13 / 16
010	1,000	860	595.4	22 / 41
015	1,500	860	599.1	19 / 30
020	2,000	860	603.3	30 / 90
025	2,500	860	606.5	20 / 40
030	3,000	860	614.1	20 / 20
032	3,233	860	615.5	25 / 40
033	3,328	860	622.5	25 / 40
040	4,000	860	622.8	20 / 82
045	4,472	860	624.1	25 / 20
046	4,563	860	626.1	25 / 20
050	5,000	359	628.6	17 / 17
055	5,500	359	634.0	7 / 7
060	6,000	359	639.6	9 / 36
061	6,105	359	639.8	15 / 20
062	6,196	359	644.3	15 / 20
065	6,500	359	645.1	20 / 10
Meadow Creek				
242	24,173	1,180	582.6	61 / 100
244	24,394	1,180	582.6	63 / 51
244	24,446	1,180	582.6	63 / 60
249	24,910	1,180	583.6	31 / 25
255	25,538	1,180	586.2	21 / 18
260	25,994	1,180	588.3	36 / 10
265	26,544	1,180	589.9	17 / 17
273	27,255	1,180	594.3	22 / 24
278	27,835	1,180	595.9	42 / 25
284	28,426	1,180	598.0	37 / 19

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
290	29,020	1,180	600.4	70 / 41
295	29,470	1,180	601.3	23 / 55
303	30,337	1,180	603.5	72 / 58
308	30,761	872	604.5	14 / 73
Mine Creek				
003	269	1,583	547.7 ¹	23 / 31
010	1,026	1,583	547.7 ¹	35 / 35
011	1,078	1,583	548.9	35 / 35
017	1,700	1,583	552.9	34 / 16
026	2,555	1,583	557.6	82 / 18
034	3,382	1,583	560.2	108 / 18
037	3,670	1,583	560.8	29 / 19
042	4,172	1,583	564.2	40 / 54
047	4,715	1,583	564.9	138 / 17
051	5,088	1,425	565.3	57 / 53
057	5,687	1,425	566.5	106 / 26
062	6,236	1,425	568.1	45 / 28
068	6,786	1,425	570.5	52 / 35
070	6,971	1,425	571.0	45 / 55
074	7,385	1,425	571.0	45 / 55
081	8,088	1,425	574.5	18 / 40
082	8,210	1,425	575.9	25 / 25
083	8,273	1,425	578.6	25 / 25
089	8,899	1,425	579.3	51 / 16
093	9,306	1,425	582.4	66 / 45
099	9,913	1,425	584.7	29 / 79
107	10,665	1,425	588.1	39 / 26
110	10,986	1,425	589.8	48 / 41
114	11,432	1,425	590.9	66 / 52
122	12,216	1,425	593.0	27 / 17
126	12,588	1,425	596.3	26 / 65
135	13,493	1,425	600.1	23 / 12
137	13,731	1,425	603.5	56 / 28
141	14,088	1,425	604.6	64 / 22
147	14,703	1,425	607.3	55 / 20
151	15,088	1,425	609.7	99 / 53
156	15,588	1,425	611.8	13 / 69
160	16,036	1,425	613.9	100 / 20
163	16,344	1,425	615.1	90 / 21
167	16,740	1,425	617.3	26 / 44
174	17,413	1,425	622.8	28 / 70
179	17,892	1,425	624.9	39 / 39
185	18,471	338	631.5	13 / 4
192	19,184	338	638.6	34 / 14
196	19,599	338	641.6	15 / 11

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
201	20,088	338	646.6	41 / 8
207	20,670	338	653.0	36 / 8
211	21,088	338	657.8	8 / 8
Motes Creek				
003	342	2,530	438.7 ¹	16 / 25
008	803	2,530	438.7 ¹	25 / 25
010	1,007	2,530	452.5	37 / 103
015	1,500	2,530	452.9	28 / 115
022	2,192	2,530	453.3	34 / 94
024	2,449	2,530	453.5	24 / 54
027	2,700	2,530	453.8	29 / 29
028	2,786	2,530	457.8	29 / 29
033	3,274	2,530	458.2	62 / 24
038	3,798	2,530	458.9	21 / 21
044	4,420	2,530	463.4	19 / 19
051	5,058	2,530	468.7	17 / 45
056	5,642	2,370	473.5	28 / 10
061	6,128	2,370	478.0	17 / 83
067	6,676	2,370	479.6	103 / 17
070	7,010	2,370	480.6	49 / 27
075	7,467	2,370	485.2	76 / 25
080	7,977	2,370	486.4	44 / 56
084	8,392	2,370	488.3	104 / 39
091	9,070	2,370	491.3	51 / 17
096	9,589	2,110	495.0	22 / 85
101	10,086	2,110	497.6	81 / 16
109	10,902	2,110	500.1	100 / 51
115	11,478	2,110	501.2	42 / 38
120	11,952	2,110	504.4	39 / 47
124	12,392	2,110	506.7	99 / 40
131	13,081	1,970	509.0	190 / 33
135	13,476	1,970	509.7	210 / 44
135	13,514	1,970	509.7	170 / 34
142	14,224	1,970	512.2	62 / 186
147	14,661	1,970	513.8	106 / 65
151	15,071	1,970	516.1	39 / 125
155	15,511	1,630	517.6	138 / 54
160	16,011	1,630	519.6	14 / 105
166	16,601	1,630	522.8	14 / 118
170	17,044	1,630	524.5	20 / 110
177	17,670	1,630	527.5	26 / 40
182	18,159	1,630	532.3	31 / 50
185	18,550	1,630	534.4	16 / 84
192	19,160	1,630	537.9	15 / 50
196	19,640	1,330	541.4	85 / 47

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
201	20,123	1,330	542.7	36 / 87
207	20,702	1,330	545.3	44 / 155
211	21,131	1,330	547.3	55 / 134
215	21,531	1,330	548.6	86 / 42
220	22,005	1,330	550.9	96 / 31
225	22,481	1,330	553.6	49 / 30
231	23,089	1,330	556.7	13 / 154
234	23,432	1,330	557.8	24 / 105
240	24,014	1,330	561.2	117 / 13
244	24,387	1,330	563.4	134 / 14
248	24,818	1,330	565.7	40 / 69
249	24,892	1,330	568.5	40 / 69
250	25,014	877	568.6	60 / 45
Motes Creek Tributary				
002	161	691	517.4	40 / 19
003	269	691	517.8	23 / 20
003	336	691	522.5	23 / 20
008	810	691	527.4	40 / 20
014	1,399	691	533.3	12 / 29
020	1,962	691	539.2	14 / 19
025	2,531	691	544.7	14 / 51
031	3,125	691	550.5	15 / 85
036	3,596	691	556.6	24 / 36
North Prong Creek				
007	666	1,848	657.9 ¹	170 / 29
009	891	1,848	658.1	100 / 18
009	932	1,848	658.8	100 / 18
103	1,034	1,848	659.4	91 / 100
015	1,500	1,848	660.6	35 / 173
020	2,000	1,848	661.8	140 / 16
025	2,500	1,535	663.4	51 / 61
030	3,038	1,535	665.7	49 / 13
035	3,500	1,535	667.2	50 / 120
040	4,000	1,535	668.1	97 / 16
045	4,500	1,535	670.5	35 / 21
050	5,000	1,535	675.9	35 / 46
055	5,505	1,535	680.0	50 / 50
060	5,992	1,535	680.8	72 / 46
065	6,500	1,535	681.4	172 / 20
070	7,000	1,535	682.1	162 / 15
075	7,500	1,535	683.4	51 / 108
079	7,919	1,535	684.5	59 / 128
085	8,500	1,535	685.9	119 / 11
North Prong Rocky River				
296	29,550	2,651	647.4	123 / 212
301	30,053	2,651	647.6	46 / 90

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
305	30,459	2,651	648.3	89 / 70
310	31,000	2,651	649.2	142 / 48
315	31,500	2,445	649.9	50 / 112
323	32,308	2,445	651.6	41 / 106
332	33,206	2,445	653.4	87 / 78
338	33,774	2,445	654.6	15 / 67
345	34,500	2,445	656.8	51 / 184
350	34,975	2,445	657.7	92 / 101
355	35,521	928	658.4	40 / 39
362	36,221	928	661.5	26 / 31
369	36,891	928	666.3	16 / 72
375	37,500	928	669.1	48 / 65
380	38,000	928	671.4	47 / 39
385	38,500	928	673.7	62 / 65
390	39,000	928	675.7	39 / 101
North Prong Stinking Quarter Creek				
004	391	6,420	508.9 ¹	268 / 27
010	1,000	6,420	508.9 ¹	19 / 155
015	1,500	6,420	509.2	119 / 19
020	2,000	6,420	510.0	40 / 131
024	2,372	6,420	510.4	106 / 19
028	2,809	6,420	511.1	110 / 30
034	3,438	6,420	512.0	48 / 102
041	4,120	6,420	512.9	71 / 41
048	4,838	6,300	513.9	27 / 190
059	5,856	6,300	514.8	289 / 45
065	6,545	6,300	515.2	298 / 34
072	7,248	6,300	515.6	19 / 345
076	7,639	6,300	515.8	54 / 53
077	7,685	6,300	516.1	54 / 53
081	8,055	6,300	516.6	200 / 75
085	8,500	6,190	517.1	152 / 116
089	8,887	6,190	517.5	230 / 134
095	9,534	6,190	518.0	169 / 19
101	10,120	6,190	518.7	123 / 180
105	10,548	6,190	519.0	61 / 114
110	11,014	6,190	520.1	155 / 18
115	11,500	6,190	520.7	18 / 264
119	11,934	6,190	521.2	209 / 80
125	12,452	6,190	521.5	112 / 80
130	13,000	6,040	522.5	29 / 193
134	13,439	6,040	523.2	74 / 29
139	13,904	6,040	524.4	76 / 36
144	14,408	6,040	525.6	21 / 172
152	15,167	6,040	526.3	171 / 18

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
157	15,714	6,040	526.7	67 / 90
163	16,253	6,040	527.2	18 / 59
168	16,757	6,040	528.6	37 / 125
173	17,347	6,040	529.1	69 / 43
183	18,290	6,040	530.9	39 / 77
186	18,591	6,040	531.4	70 / 70
186	18,639	6,040	531.8	70 / 70
190	19,017	5,620	532.8	41 / 26
194	19,359	5,620	534.7	72 / 23
199	19,908	5,620	536.0	144 / 39
210	20,971	5,620	537.4	16 / 177
214	21,364	5,620	538.0	43 / 97
221	22,106	5,620	538.9	113 / 34
225	22,532	5,620	539.7	103 / 16
230	22,978	5,620	540.4	84 / 26
236	23,605	5,620	541.6	85 / 27
245	24,511	5,620	543.7	21 / 115
254	25,383	5,620	546.2	70 / 17
259	25,932	5,560	548.4	45 / 16
268	26,754	5,560	552.8	29 / 65
276	27,562	5,560	554.6	31 / 38
286	28,587	5,560	559.2	52 / 19
291	29,127	5,560	561.1	60 / 26
300	29,959	5,560	563.2	27 / 133
306	30,565	5,560	563.9	23 / 219
310	31,015	5,560	563.6	16 / 63
315	31,469	5,560	565.2	35 / 71
324	32,447	5,560	567.4	116 / 16
330	33,017	5,560	568.3	27 / 106
335	33,467	5,560	569.0	107 / 25
340	34,046	5,560	569.9	28 / 42
349	34,887	5,560	571.5	24 / 111
355	35,489	5,560	572.0	37 / 47
362	36,193	5,560	573.3	31 / 85
366	36,615	5,560	574.1	60 / 18
370	37,031	5,560	574.9	39 / 41
373	37,314	5,560	575.6	62 / 42
377	37,656	5,560	576.0	60 / 53
377	37,697	5,560	576.5	60 / 53
379	37,870	5,560	576.9	165 / 16
383	38,310	5,560	577.6	82 / 23
384	38,373	5,560	577.7	72 / 39
387	38,736	5,390	580.4	68 / 35
394	39,447	5,390	585.9	20 / 135
401	40,121	5,390	587.3	43 / 104

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
410	40,978	5,390	589.1	92 / 139
Owens Creek				
013	1,343	2,964	564.2 ¹	105 / 95
021	2,059	2,964	565.4	70 / 145
026	2,579	2,964	566.5	120 / 100
031	3,118	2,964	567.7	184 / 100
036	3,610	2,807	568.4	186 / 153
043	4,300	2,807	570.0	99 / 72
047	4,721	2,807	571.1	134 / 200
056	5,572	2,807	571.9	220 / 235
059	5,865	2,807	572.0	35 / 35
059	5,936	2,807	573.8	35 / 35
066	6,560	2,807	574.8	90 / 128
073	7,287	2,539	575.3	125 / 280
078	7,794	2,539	575.5	52 / 311
087	8,703	2,539	576.5	90 / 230
093	9,318	2,539	577.4	310 / 139
096	9,648	2,539	577.9	275 / 51
102	10,242	2,539	580.1	49 / 174
105	10,546	2,539	581.0	106 / 94
113	11,345	2,539	582.7	200 / 142
117	11,690	2,028	583.4	43 / 135
124	12,361	2,028	584.9	60 / 129
129	12,880	2,028	585.3	110 / 236
135	13,513	2,028	585.7	137 / 102
141	14,100	2,028	587.6	22 / 166
145	14,489	2,028	588.4	185 / 80
146	14,571	2,028	593.0	185 / 80
155	15,502	2,028	593.2	130 / 130
158	15,797	2,028	593.5	92 / 52
163	16,305	2,028	594.5	143 / 138
170	16,996	2,028	596.2	138 / 49
174	17,380	1,403	598.8	121 / 34
180	17,982	1,403	600.5	89 / 146
185	18,481	1,403	602.1	15 / 137
191	19,062	1,403	605.6	46 / 37
193	19,317	1,403	608.1	22 / 48
198	19,778	1,069	610.9	59 / 20
202	20,195	1,069	613.4	50 / 11
206	20,644	1,069	618.7	8 / 34
209	20,934	1,069	624.2	28 / 19
215	21,521	1,069	629.2	81 / 3
221	22,145	1,069	633.6	24 / 23
225	22,504	1,069	636.4	42 / 56
230	23,030	1,069	638.7	66 / 29

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
235	23,484	1,069	642.2	46 / 15
243	24,271	1,069	647.0	54 / 55
Parks Creek				
004	431	1,046	611.5 ¹	98 / 54
012	1,198	1,046	611.5 ¹	17 / 33
016	1,585	1,046	611.5 ¹	10 / 21
022	2,239	1,046	613.6	15 / 8
025	2,460	1,046	616.6	20 / 25
028	2,822	1,046	619.2	20 / 15
029	2,884	1,046	621.2	20 / 15
032	3,159	1,046	622.6	27 / 25
035	3,500	1,046	625.3	120 / 46
039	3,946	1,046	626.8	37 / 16
046	4,622	1,046	632.9	29 / 21
050	5,000	1,046	635.0	48 / 39
055	5,455	1,046	636.6	24 / 19
057	5,733	1,046	638.9	29 / 20
064	6,384	763	642.8	11 / 22
Pine Branch				
002	238	1,070	452.1 ¹	17 / 11
004	444	1,070	452.1 ¹	27 / 9
007	742	1,070	452.1 ¹	24 / 13
Pine Hill Branch				
003	330	2,750	474.8 ¹	27 / 18
009	901	2,500	474.8 ¹	31 / 17
013	1,348	2,500	476.1	17 / 119
020	1,966	2,500	477.8	91 / 63
024	2,361	2,360	478.7	82 / 17
028	2,781	2,360	480.8	138 / 17
032	3,236	2,360	482.1	115 / 17
037	3,687	2,360	483.6	17 / 118
042	4,199	2,360	485.4	178 / 17
047	4,747	2,360	487.2	80 / 17
054	5,356	2,360	490.0	22 / 128
059	5,862	2,360	491.6	54 / 48
061	6,126	2,360	492.5	21 / 69
062	6,165	2,360	495.5	21 / 69
066	6,641	2,360	496.4	21 / 101
070	7,018	2,360	498.5	17 / 49
074	7,436	2,360	500.3	18 / 118
079	7,929	2,360	501.2	49 / 77
086	8,625	1,320	502.5	86 / 43
092	9,230	1,320	504.6	110 / 14
098	9,756	1,320	507.9	80 / 21
103	10,292	1,320	510.9	40 / 42
107	10,735	1,320	514.0	13 / 71

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
113	11,253	1,320	518.3	20 / 52
118	11,800	1,320	520.8	85 / 35
123	12,317	1,320	523.0	82 / 57
127	12,749	1,320	525.9	20 / 29
134	13,358	1,070	529.6	91 / 27
139	13,871	1,070	532.6	17 / 36
143	14,266	1,070	536.5	95 / 13
146	14,583	1,070	538.2	56 / 73
149	14,945	1,070	540.5	16 / 81
150	15,029	1,070	546.5	16 / 81
157	15,711	1,070	546.7	50 / 112
163	16,331	1,070	547.3	38 / 13
Pine Hill Branch Tributary				
004	358	1,510	501.9 ¹	69 / 21
007	708	1,510	502.6	33 / 59
013	1,254	913	504.7	14 / 54
017	1,728	913	506.7	17 / 14
021	2,094	913	510.3	15 / 16
025	2,526	913	513.3	57 / 26
027	2,734	888	513.9	18 / 30
030	3,029	888	516.3	15 / 17
031	3,099	888	521.8	15 / 17
033	3,344	888	522.3	16 / 15
Poppaw Creek				
004	388	3,140	542.5 ¹	21 / 68
007	719	3,140	542.5 ¹	112 / 31
011	1,055	3,140	540.2	99 / 37
015	1,456	3,140	542.5 ¹	55 / 129
019	1,886	3,140	542.5 ¹	31 / 74
023	2,271	3,140	542.9	42 / 112
030	2,962	3,140	544.4	87 / 67
034	3,409	3,140	545.3	49 / 172
039	3,927	3,140	545.8	174 / 105
044	4,375	3,140	545.7	33 / 37
048	4,766	3,050	547.7	23 / 123
051	5,140	3,050	548.2	23 / 61
058	5,783	3,050	549.0	24 / 22
061	6,121	3,050	551.0	92 / 25
067	6,719	3,050	552.0	41 / 42
073	7,299	3,050	553.4	39 / 35
074	7,445	3,050	555.8	39 / 35
077	7,714	3,050	555.9	48 / 30
080	8,034	3,050	559.7	60 / 64
081	8,111	3,050	562.3	62 / 21
081	8,146	3,050	566.0	49 / 27
083	8,251	3,050	568.5	33 / 58

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
089	8,866	3,050	570.2	131 / 71
093	9,291	3,050	570.6	57 / 43
101	10,062	3,050	572.5	185 / 39
108	10,806	3,050	573.2	19 / 204
111	11,127	3,050	573.4	23 / 176
118	11,798	3,050	573.8	61 / 57
123	12,314	3,050	574.8	121 / 85
128	12,753	3,050	575.2	144 / 63
136	13,611	2,820	575.3	24 / 153
138	13,840	2,820	577.2	70 / 61
139	13,886	2,820	577.5	70 / 61
143	14,335	2,820	577.7	88 / 25
148	14,808	2,820	579.2	26 / 164
156	15,565	2,820	580.1	32 / 165
160	16,034	2,820	581.0	146 / 59
165	16,506	2,820	581.8	126 / 26
171	17,128	2,820	582.6	18 / 252
178	17,829	2,820	583.6	19 / 192
183	18,272	2,820	584.6	65 / 41
188	18,807	2,820	586.3	102 / 97
194	19,415	2,820	586.9	135 / 106
198	19,762	2,820	586.9	25 / 57
203	20,342	2,820	588.3	18 / 24
211	21,052	2,820	591.6	33 / 39
212	21,222	2,820	598.7	57 / 72
213	21,277	2,820	598.8	46 / 79
218	21,822	2,820	599.1	122 / 156
223	22,266	2,610	599.3	142 / 80
230	23,013	2,610	598.6	46 / 72
237	23,706	2,610	600.1	38 / 185
243	24,311	2,610	601.2	39 / 293
249	24,949	2,610	602.1	29 / 255
263	26,348	2,610	606.4	119 / 51
271	27,054	2,610	609.3	39 / 172
274	27,440	2,610	610.1	18 / 113
278	27,804	2,610	611.3	51 / 72
281	28,125	1,160	612.6	84 / 60
286	28,619	727	613.6	31 / 18
291	29,118	727	618.4	13 / 18
295	29,453	727	623.0	12 / 22
299	29,857	727	627.7	17 / 20
304	30,420	727	633.2	49 / 13
309	30,947	727	636.8	15 / 13
314	31,410	727	641.2	16 / 13
321	32,051	727	646.6	14 / 45

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
323	32,327	727	649.2	13 / 26
Poppaw Creek Tributary 1				
002	182	1,840	611.9	80 / 17
002	243	1,840	612.4	70 / 30
003	303	1,840	616.1	70 / 30
004	445	1,840	616.2	75 / 38
009	881	1,840	617.3	57 / 24
012	1,177	1,840	618.7	44 / 15
013	1,326	1,840	619.4	75 / 26
014	1,411	1,840	625.2	75 / 26
017	1,734	1,840	625.4	70 / 70
024	2,350	1,840	625.7	90 / 90
030	2,962	1,840	626.2	80 / 88
032	3,233	1,840	626.7	23 / 29
038	3,803	1,840	628.5	19 / 101
044	4,369	1,840	630.3	57 / 49
048	4,804	1,840	631.5	78 / 38
051	5,115	1,840	631.9	65 / 80
053	5,338	1,840	632.0	33 / 110
054	5,420	1,840	632.4	33 / 110
057	5,738	1,630	632.7	58 / 50
061	6,090	1,630	632.9	20 / 31
066	6,634	1,630	634.1	15 / 25
074	7,390	1,260	636.4	18 / 18
076	7,599	1,260	639.0	20 / 50
077	7,658	1,260	643.5	20 / 50
078	7,770	1,260	646.6	25 / 25
Poppaw Creek Tributary 2				
001	135	776	613.2 ¹	9 / 101
004	423	776	615.2	9 / 37
010	999	776	621.3	15 / 14
015	1,537	776	626.4	12 / 20
021	2,096	776	632.9	17 / 10
027	2,652	776	640.6	29 / 6
032	3,171	776	647.1	20 / 13
037	3,745	776	653.4	25 / 13
045	4,503	776	659.8	19 / 17
Quaker Creek				
150	15,000	3,242	532.9 ¹	20 / 20
155	15,500	3,242	534.5	42 / 25
160	16,000	3,242	535.7	26 / 49
165	16,500	3,242	537.4	20 / 179
170	17,000	3,242	538.4	15 / 331
175	17,500	3,130	539.2	94 / 300
180	18,000	3,130	540.7	15 / 312
185	18,500	3,130	541.6	222 / 20

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
190	19,000	3,130	542.5	108 / 20
195	19,500	3,130	544.3	135 / 63
198	19,814	3,130	544.8	35 / 35
199	19,855	3,130	545.5	35 / 35
205	20,500	3,130	557.4	129 / 20
210	21,000	3,130	560.7	22 / 245
215	21,500	3,130	561.6	80 / 47
220	22,000	3,130	562.9	107 / 61
225	22,500	3,130	563.9	80 / 61
230	23,000	3,130	565.0	138 / 46
235	23,500	3,130	565.8	17 / 151
240	24,000	3,130	566.6	27 / 136
245	24,500	3,130	567.5	68 / 48
250	25,020	2,929	568.5	73 / 37
255	25,500	2,929	569.6	68 / 44
260	26,000	2,929	570.5	27 / 66
265	26,500	2,929	571.7	35 / 145
270	27,000	2,929	572.4	87 / 14
275	27,500	2,731	573.8	41 / 61
280	28,000	2,731	574.6	83 / 24
285	28,500	2,731	575.6	58 / 33
290	29,000	2,731	576.6	56 / 73
295	29,459	2,731	577.2	34 / 133
300	30,000	2,731	578.6	38 / 67
305	30,500	2,731	581.2	15 / 99
310	31,000	2,549	583.4	85 / 20
315	31,500	2,549	585.2	38 / 25
320	32,000	2,549	586.7	54 / 26
325	32,500	2,549	587.8	40 / 55
330	33,000	2,549	588.6	48 / 42
335	33,500	2,549	589.5	19 / 137
340	34,000	2,549	590.1	60 / 30
345	34,500	2,549	591.0	154 / 26
348	34,757	2,549	591.3	48 / 48
348	34,803	2,549	591.4	48 / 48
350	35,000	2,549	591.6	34 / 53
355	35,500	2,549	592.7	44 / 74
360	36,000	2,549	593.5	108 / 161
365	36,500	2,549	593.8	94 / 317
370	37,000	2,549	594.2	281 / 71
375	37,500	2,549	594.8	72 / 20
380	38,000	2,031	596.6	33 / 65
385	38,500	2,031	597.5	147 / 20
390	39,000	2,031	598.4	116 / 139
395	39,500	1,777	599.2	19 / 93

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
400	40,000	1,777	601.0	36 / 58
405	40,500	1,777	603.1	30 / 44
410	41,000	1,777	605.6	53 / 42
415	41,500	1,777	607.3	103 / 138
420	42,000	1,777	608.8	88 / 37
423	42,257	1,777	610.2	25 / 20
423	42,319	1,777	611.4	25 / 20
426	42,557	1,777	612.6	80 / 100
430	43,000	1,047	613.4	50 / 50
435	43,500	1,047	617.4	40 / 30
440	44,000	1,047	620.0	85 / 24
445	44,500	1,047	621.2	60 / 19
450	45,000	1,047	623.3	55 / 88
455	45,500	1,047	626.0	29 / 98
459	45,899	1,047	627.9	99 / 49
465	46,525	1,047	630.2	22 / 37
466	46,605	1,047	632.4	22 / 37
470	47,000	1,047	633.1	22 / 49
475	47,500	1,047	636.8	21 / 104
479	47,888	1,047	638.8	15 / 123
485	48,500	1,047	642.3	69 / 62
490	49,000	775	644.5	74 / 11
493	49,286	775	645.4	25 / 25
494	49,366	775	646.6	25 / 25
501	50,098	775	648.9	34 / 72
505	50,500	775	651.2	30 / 78
510	51,000	775	654.5	28 / 70
515	51,500	775	658.0	18 / 50
520	52,000	775	661.5	38 / 31
525	52,500	775	664.9	26 / 39
530	53,000	775	669.1	19 / 13
535	53,500	775	676.4	10 / 10
540	54,000	219	682.2	40 / 25
543	54,293	219	687.9	50 / 25
544	54,363	219	696.2	50 / 25
546	54,585	219	696.3	74 / 55
550	55,000	219	696.4	22 / 12
Quaker Creek Tributary 1				
005	500	928	594.4	60 / 25
010	1,000	928	597.9	125 / 27
015	1,500	928	600.0	52 / 56
020	2,000	928	602.4	94 / 14
025	2,500	928	606.1	45 / 19
028	2,785	928	610.5	10 / 17
030	3,000	831	612.9	12 / 49

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
035	3,500	831	615.4	15 / 76
040	4,000	831	620.6	25 / 60
044	4,367	831	623.9	23 / 45
050	5,000	831	628.1	19 / 25
055	5,500	831	632.9	20 / 40
060	6,000	831	638.2	34 / 77
065	6,500	831	640.9	99 / 30
069	6,865	831	644.0	50 / 51
069	6,925	831	644.6	50 / 51
075	7,500	278	650.4	15 / 15
080	8,000	278	653.2	13 / 8
085	8,500	278	659.7	9 / 13
088	8,816	278	663.8	13 / 7
090	9,000	278	666.6	9 / 13
095	9,500	278	676.2	5 / 5
Quaker Creek Tributary 2				
003	273	1,157	612.1 ¹	95 / 121
007	725	1,157	612.1 ¹	170 / 55
008	805	1,157	618.0	170 / 55
010	1,000	1,157	618.0	74 / 172
016	1,587	1,157	618.1	114 / 108
016	1,637	1,157	618.2	114 / 108
020	2,000	1,082	618.4	84 / 80
026	2,614	1,082	619.2	17 / 40
027	2,709	1,082	621.6	17 / 40
030	3,000	1,082	622.4	13 / 70
035	3,500	1,082	626.3	25 / 35
038	3,789	1,082	630.0	15 / 82
039	3,859	1,082	633.4	15 / 82
040	4,000	1,082	633.6	33 / 146
045	4,500	1,082	635.2	30 / 35
050	5,000	1,082	639.4	46 / 25
055	5,500	1,082	642.9	33 / 29
060	6,000	230	646.6	10 / 20
065	6,500	230	651.3	22 / 28
067	6,734	230	656.0	15 / 12
068	6,804	230	670.5	15 / 102
073	7,340	230	670.5	26 / 68
076	7,621	230	671.3	41 / 27
079	7,928	230	672.8	10 / 40
Reedy Branch				
002	167	1,860	509.3 ¹	8 / 65
005	533	1,860	509.3 ¹	7 / 84
009	873	1,860	509.3 ¹	100 / 17
015	1,505	1,700	509.4	12 / 40
019	1,904	1,700	513.8	50 / 23

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
019	1,944	1,700	514.8	50 / 23
022	2,211	1,700	516.9	65 / 10
025	2,460	1,700	519.8	50 / 70
028	2,780	1,700	520.6	51 / 34
031	3,101	1,700	522.3	54 / 45
037	3,699	1,700	526.2	26 / 28
043	4,253	1,700	529.7	46 / 36
045	4,466	1,700	530.2	16 / 16
045	4,550	1,700	532.9	16 / 16
051	5,094	1,700	536.7	4 / 70
057	5,694	1,700	540.9	72 / 40
061	6,140	1,700	542.2	55 / 34
066	6,604	1,700	543.6	40 / 39
070	6,997	1,700	544.6	14 / 60
075	7,531	1,700	546.4	43 / 27
082	8,172	1,350	549.9	20 / 27
085	8,494	1,350	553.4	34 / 37
091	9,058	1,350	556.9	20 / 33
096	9,597	1,350	560.1	50 / 40
099	9,949	1,350	562.5	23 / 33
104	10,395	1,350	568.7	39 / 27
109	10,878	1,350	571.5	36 / 41
114	11,423	1,350	574.4	36 / 36
119	11,851	1,350	576.9	45 / 12
119	11,891	1,350	578.2	45 / 12
124	12,356	1,350	579.8	49 / 59
127	12,736	1,350	581.2	53 / 26
131	13,120	1,350	582.6	58 / 31
138	13,778	1,350	584.6	42 / 28
142	14,249	1,350	586.2	73 / 67
148	14,775	1,350	588.1	72 / 16
152	15,206	1,350	589.9	90 / 42
157	15,665	1,350	591.2	82 / 37
162	16,152	1,350	593.0	56 / 25
165	16,518	1,350	594.9	41 / 34
168	16,818	1,350	596.2	36 / 70
173	17,320	1,350	597.8	20 / 56
179	17,887	1,350	598.9	180 / 75
183	18,316	1,350	599.4	170 / 75
187	18,689	1,350	600.3	20 / 15
187	18,728	1,350	602.0	24 / 25
193	19,330	1,350	603.0	84 / 75
198	19,812	944	604.2	33 / 77
202	20,234	944	605.0	121 / 82
208	20,764	944	606.2	30 / 60

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
Rock Creek				
248	24,786	3,720	531.3	40 / 60
250	24,970	3,720	531.9	34 / 36
250	25,024	3,720	532.6	34 / 31
254	25,392	3,720	534.0	23 / 130
259	25,873	3,720	534.7	109 / 39
265	26,538	3,720	535.7	50 / 68
269	26,923	3,720	536.5	27 / 114
273	27,286	3,720	537.1	109 / 180
277	27,735	3,720	537.3	242 / 25
284	28,352	3,720	537.9	248 / 38
288	28,806	3,720	538.4	200 / 20
293	29,296	3,500	539.6	62 / 99
298	29,765	3,500	541.3	20 / 22
304	30,406	3,500	547.5	20 / 45
310	30,963	3,500	550.6	28 / 20
315	31,536	3,500	554.5	15 / 20
321	32,139	3,500	560.2	28 / 20
325	32,500	2,630	563.0	25 / 18
330	32,992	2,630	568.4	28 / 43
337	33,668	2,630	573.5	41 / 18
344	34,352	2,630	578.2	23 / 103
345	34,526	2,630	578.6	35 / 34
346	34,565	2,630	580.2	35 / 34
349	34,862	2,630	581.4	19 / 70
353	35,319	2,630	582.4	30 / 113
362	36,177	2,630	583.6	205 / 18
367	36,720	2,630	584.4	18 / 100
373	37,300	2,630	585.8	58 / 127
378	37,770	2,630	586.3	102 / 30
387	38,657	2,550	588.3	96 / 17
391	39,052	2,550	589.2	69 / 17
396	39,565	2,550	590.7	84 / 79
399	39,875	2,550	591.2	50 / 23
399	39,916	2,550	592.4	50 / 23
401	40,143	2,550	593.0	111 / 48
406	40,595	2,550	593.5	83 / 67
411	41,098	2,550	594.2	76 / 148
418	41,836	2,260	595.0	169 / 96
427	42,653	2,260	596.0	165 / 45
429	42,932	2,260	596.5	72 / 69
430	42,970	2,260	598.6	72 / 69
431	43,138	2,260	598.8	105 / 114
436	43,580	2,260	599.1	44 / 147
437	43,672	2,260	599.3	135 / 75

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
437	43,705	2,260	599.9	135 / 75
439	43,919	2,260	600.1	214 / 27
444	44,444	2,260	600.5	215 / 126
450	45,023	2,260	601.0	152 / 234
455	45,500	2,260	601.4	140 / 20
460	45,977	2,130	603.5	97 / 17
465	46,530	2,130	605.9	44 / 56
466	46,602	2,130	606.1	30 / 70
467	46,652	2,130	606.6	30 / 70
469	46,894	2,130	607.6	146 / 49
470	47,034	2,130	607.8	100 / 70
471	47,074	2,130	610.1	100 / 70
473	47,260	2,130	610.2	116 / 80
478	47,801	2,130	610.6	127 / 129
480	48,000	2,130	610.8	79 / 133
485	48,542	2,130	611.5	59 / 144
486	48,644	2,130	611.6	18 / 110
487	48,685	2,130	611.6	18 / 110
494	49,378	2,130	615.4	34 / 40
498	49,849	2,130	618.8	73 / 62
505	50,476	1,290	620.5	140 / 13
510	50,966	1,290	622.0	36 / 127
513	51,309	1,290	623.9	20 / 20
513	51,342	1,290	625.8	20 / 20
516	51,616	1,290	627.2	76 / 25
521	52,096	1,290	628.8	55 / 45
526	52,614	1,290	630.1	107 / 86
534	53,450	1,290	632.0	82 / 62
540	53,974	1,290	634.3	81 / 101
546	54,618	1,290	637.0	13 / 69
Rock Creek Tributary				
001	114	1,810	561.3 ¹	100 / 10
006	567	1,810	564.2	43 / 33
009	902	1,810	566.9	39 / 14
012	1,188	1,810	569.0	21 / 17
016	1,609	1,810	572.6	56 / 26
021	2,066	1,810	574.4	69 / 15
025	2,486	1,810	576.5	40 / 27
025	2,532	1,810	577.2	50 / 14
026	2,626	1,810	582.8	50 / 14
030	2,995	1,810	582.9	23 / 80
034	3,399	1,810	583.0	120 / 67
039	3,908	1,810	583.2	132 / 139
044	4,441	1,640	583.4	100 / 155
048	4,838	1,640	583.6	86 / 200

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
054	5,384	1,640	583.8	47 / 220
059	5,864	1,640	584.3	71 / 151
065	6,549	1,640	585.9	53 / 98
072	7,213	1,640	588.1	90 / 90
077	7,674	1,640	589.6	65 / 21
083	8,322	1,270	591.9	156 / 13
089	8,874	1,270	592.8	166 / 43
095	9,499	1,270	594.1	100 / 14
Serub Creek				
005	500	1,453	533.0	17 / 18
010	1,000	1,453	538.6	36 / 37
015	1,500	1,453	542.0	32 / 41
020	2,000	1,453	545.6	53 / 8
025	2,500	1,453	549.6	19 / 58
030	3,000	1,453	551.7	94 / 40
035	3,500	1,453	553.5	23 / 25
040	4,000	1,453	556.0	90 / 19
045	4,500	1,453	557.5	17 / 35
050	5,000	1,453	559.8	82 / 20
055	5,500	1,453	561.4	72 / 64
060	6,000	1,188	563.2	20 / 74
065	6,500	1,188	565.5	32 / 26
070	7,000	1,188	567.5	172 / 60
075	7,500	1,188	569.6	34 / 8
080	7,968	1,188	573.7	63 / 76
085	8,500	1,188	576.4	30 / 28
090	9,000	1,188	579.6	63 / 47
095	9,500	1,188	580.4	158 / 25
100	9,962	1,188	581.1	27 / 27
100	10,039	1,188	582.9	30 / 30
105	10,500	1,188	583.9	144 / 23
110	11,000	1,188	586.7	25 / 61
115	11,500	1,188	590.3	22 / 57
120	12,000	1,188	594.5	39 / 42
Servis Creek				
267	26,748	1,150	611.7	90 / 45
278	27,840	933	619.7	6 / 6
284	28,352	933	623.2	40 / 20
284	28,416	933	627.7	24 / 20
289	28,911	933	628.3	23 / 28
292	29,247	933	630.1	14 / 13
297	29,690	933	633.9	10 / 10
304	30,375	933	641.8	10 / 10
305	30,455	933	642.4	22 / 22
309	30,876	933	647.2	25 / 30
310	31,048	933	648.8	13 / 12

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
311	31,118	933	653.7	40 / 40
316	31,583	933	654.2	50 / 30
321	32,105	933	658.2	25 / 40
322	32,169	933	662.0	25 / 40
326	32,583	933	665.4	20 / 30
South Fork				
005	527	5,390	454.4 ¹	35 / 25
012	1,177	5,390	454.4 ¹	29 / 63
019	1,895	5,390	454.4 ¹	168 / 26
028	2,773	5,380	454.4 ¹	79 / 22
034	3,384	5,380	454.4 ¹	134 / 118
039	3,890	5,380	454.4 ¹	355 / 25
050	4,977	5,380	454.6	84 / 282
055	5,471	5,380	454.8	30 / 68
060	6,043	5,380	457.3	171 / 26
065	6,463	5,380	458.7	71 / 24
069	6,890	5,380	460.0	29 / 53
074	7,372	5,380	460.8	84 / 26
078	7,837	5,380	462.1	33 / 123
086	8,647	5,380	464.2	30 / 76
092	9,244	5,380	465.3	53 / 72
093	9,292	5,380	465.6	53 / 72
099	9,870	5,230	466.2	38 / 300
104	10,398	5,230	466.6	274 / 32
109	10,892	5,050	467.0	72 / 110
114	11,423	5,050	467.9	291 / 24
119	11,923	5,050	469.0	190 / 34
125	12,487	5,050	470.2	59 / 39
130	12,988	5,050	471.3	28 / 28
134	13,401	5,050	472.2	37 / 38
144	14,388	5,050	474.0	89 / 28
150	15,001	3,710	474.8	40 / 80
156	15,553	3,710	476.7	80 / 40
160	15,974	3,710	478.4	137 / 40
168	16,827	3,710	480.0	23 / 38
173	17,311	3,710	485.2	44 / 20
178	17,801	3,710	488.2	50 / 35
186	18,605	3,710	491.6	24 / 47
193	19,343	3,710	493.2	41 / 52
196	19,638	3,710	493.6	28 / 52
202	20,172	3,650	494.7	27 / 116
208	20,823	3,650	496.3	31 / 25
212	21,225	3,260	497.9	39 / 21
220	22,044	3,260	502.8	28 / 85
227	22,654	3,260	504.7	36 / 22

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
234	23,408	3,260	507.4	44 / 24
240	23,965	3,260	508.9	105 / 21
245	24,490	3,260	509.6	38 / 96
249	24,918	3,260	510.3	24 / 49
257	25,702	3,260	512.0	139 / 24
263	26,252	3,260	512.8	24 / 152
269	26,907	3,260	513.7	70 / 30
277	27,711	3,260	515.5	115 / 45
285	28,539	3,260	516.2	49 / 49
286	28,588	3,260	517.7	49 / 49
293	29,280	3,140	518.4	80 / 24
300	29,954	3,140	521.2	35 / 65
305	30,469	3,140	523.3	85 / 23
310	31,019	3,140	525.5	142 / 23
Stagg Creek				
089	8,875	4,453	533.1	25 / 70
095	9,500	4,263	536.2	46 / 35
100	10,000	4,263	538.5	25 / 140
105	10,465	4,263	539.5	30 / 36
110	11,000	4,263	543.4	178 / 20
115	11,500	4,263	545.1	41 / 66
120	12,000	4,263	546.8	70 / 151
125	12,500	4,263	547.4	39 / 85
130	13,000	4,152	548.5	97 / 28
135	13,472	4,152	549.5	36 / 142
139	13,901	4,152	550.1	90 / 90
142	14,221	4,152	550.6	33 / 33
143	14,278	4,152	551.2	33 / 33
150	15,000	4,152	552.3	28 / 125
155	15,500	4,152	553.0	269 / 33
160	16,000	4,152	553.2	56 / 88
164	16,381	4,152	553.6	19 / 155
169	16,869	4,152	554.2	77 / 44
175	17,500	4,152	555.0	61 / 20
183	18,305	3,989	556.7	32 / 100
189	18,903	3,989	557.5	59 / 35
195	19,500	3,989	558.5	64 / 26
201	20,082	3,989	559.6	78 / 34
206	20,638	3,840	560.5	205 / 66
210	21,000	3,840	560.2	46 / 19
215	21,500	3,840	562.0	20 / 190
220	22,000	3,840	562.6	113 / 20
225	22,500	3,840	563.4	54 / 49
231	23,059	3,840	564.2	54 / 50
235	23,502	3,681	564.9	20 / 105

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
240	24,000	3,681	565.8	74 / 55
245	24,500	3,681	566.5	116 / 19
250	25,000	3,681	567.2	26 / 54
255	25,500	3,681	568.3	36 / 46
260	26,000	3,276	569.3	41 / 80
265	26,500	3,276	570.1	75 / 96
270	27,000	3,276	570.7	28 / 49
275	27,500	3,276	571.8	40 / 25
280	28,000	3,276	573.3	83 / 20
285	28,500	3,276	574.2	88 / 74
290	29,000	3,276	574.9	233 / 20
295	29,500	3,276	575.2	65 / 30
300	30,000	3,276	576.6	83 / 35
305	30,500	3,276	577.8	89 / 99
310	30,997	3,276	578.2	181 / 103
316	31,616	3,276	578.5	28 / 28
317	31,674	3,276	579.6	28 / 28
320	32,037	2,618	580.2	182 / 25
325	32,500	2,618	580.6	61 / 72
330	33,000	2,618	581.6	110 / 49
334	33,445	2,618	582.4	86 / 46
340	34,000	2,618	583.7	38 / 68
346	34,612	2,521	584.7	31 / 31
347	34,712	2,521	585.6	31 / 31
350	35,000	2,521	585.9	29 / 41
355	35,500	2,521	587.4	54 / 29
360	36,000	2,521	588.6	119 / 35
365	36,500	2,521	589.6	41 / 81
370	37,000	2,521	590.7	137 / 24
375	37,500	2,521	592.6	27 / 20
380	38,000	2,521	598.7	21 / 30
382	38,180	2,521	601.4	31 / 30
383	38,280	2,521	602.2	31 / 30
387	38,738	2,521	602.5	17 / 45
392	39,186	1,354	606.2	45 / 50
393	39,262	1,354	613.4	45 / 50
Stagg Creek Tributary 1				
005	500	1,344	579.9 ¹	18 / 49
010	1,000	1,344	585.5	9 / 25
015	1,500	1,344	592.0	8 / 110
020	2,000	1,344	595.5	14 / 119
024	2,446	1,344	597.3	203 / 12
030	3,000	1,344	602.0	31 / 78
035	3,500	1,344	607.2	8 / 72
040	4,000	1,344	610.5	77 / 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
045	4,500	1,151	616.1	26 / 27
051	5,073	1,151	619.8	56 / 42
056	5,566	1,151	621.5	25 / 20
056	5,648	1,151	625.0	25 / 20
060	6,000	1,151	625.4	65 / 14
065	6,500	1,151	627.9	85 / 50
070	6,975	1,151	630.9	17 / 81
075	7,500	1,151	632.8	46 / 61
080	8,000	1,151	634.7	53 / 26
085	8,500	1,151	637.6	74 / 12
090	9,000	1,151	639.8	127 / 13
095	9,500	1,151	641.5	124 / 25
100	10,000	1,151	644.4	20 / 99
105	10,500	1,151	648.8	107 / 24
110	11,000	1,151	651.7	107 / 25
115	11,500	751	654.1	22 / 93
120	12,000	751	656.2	34 / 72
125	12,500	751	658.7	80 / 41
130	13,000	751	660.7	59 / 47
135	13,500	751	662.7	120 / 18
140	14,000	751	664.6	65 / 39
145	14,500	751	666.6	17 / 115
150	15,000	751	670.4	48 / 31
155	15,500	751	676.3	40 / 21
160	16,000	751	680.8	31 / 33
165	16,500	751	684.4	60 / 14
170	17,000	209	687.8	10 / 5
175	17,500	209	693.6	5 / 4
180	18,000	209	706.7	8 / 7
185	18,500	209	716.9	21 / 10
188	18,829	209	720.6	15 / 15
189	18,897	209	724.8	15 / 15
194	19,374	209	733.5	7 / 18
Stagg Creek Tributary 2				
002	185	1,678	607.3	61 / 22
005	450	1,678	608.0	28 / 56
Staley Creek				
089	8,918	1,230	595.4	30 / 25
092	9,155	1,230	596.0	65 / 25
092	9,221	1,230	596.8	65 / 25
099	9,902	1,230	600.7	26 / 18
106	10,615	1,230	608.7	20 / 30
110	11,002	1,230	611.3	16 / 17
110	11,048	1,230	612.0	16 / 17
114	11,425	1,230	615.1	14 / 29
119	11,938	1,230	620.2	30 / 10

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
121	12,073	1,230	622.5	50 / 50
121	12,134	1,230	623.4	50 / 50
122	12,227	1,230	623.9	50 / 40
123	12,322	1,230	625.4	200 / 16
124	12,397	1,230	625.2	200 / 16
124	12,426	1,230	625.3	23 / 24
125	12,460	1,230	625.3	23 / 24
125	12,472	1,230	625.3	20 / 70
125	12,542	1,230	626.0	20 / 70
127	12,657	1,230	629.0	14 / 45
127	12,698	1,230	629.9	18 / 40
128	12,781	1,230	631.1	18 / 40
129	12,855	1,230	632.3	14 / 63
129	12,938	1,230	632.9	19 / 30
130	13,010	1,230	633.7	19 / 30
134	13,386	1,230	638.3	50 / 38
136	13,557	1,230	639.9	32 / 13
137	13,697	1,230	646.4	50 / 60
139	13,877	1,230	647.4	43 / 30
140	14,037	1,230	648.7	50 / 50
141	14,062	1,230	648.7	50 / 50
143	14,304	1,230	649.6	38 / 14
144	14,428	1,230	651.1	34 / 42
146	14,590	1,230	652.4	14 / 18
147	14,693	1,230	653.7	32 / 15
147	14,745	1,230	654.6	32 / 15
148	14,839	1,230	656.6	21 / 16
150	15,018	1,230	660.2	25 / 37
150	15,018	1,230	661.0	15 / 100
152	15,153	1,230	662.6	15 / 100
152	15,224	1,230	663.9	48 / 44
Stinking Quarter Creek				
064	6,384	11,700	496.0 ¹	133 / 88
067	6,673	11,700	496.0 ¹	61 / 92
071	7,149	11,700	496.0 ¹	43 / 82
076	7,563	11,700	496.1	87 / 61
080	7,966	11,700	496.4	191 / 89
092	9,178	11,700	496.6	98 / 151
100	9,959	11,700	496.9	136 / 221
104	10,375	11,700	497.0	187 / 144
106	10,586	11,700	496.9	50 / 53
106	10,631	11,700	497.2	50 / 53
113	11,334	11,700	497.8	131 / 49
119	11,912	11,700	498.0	77 / 43
124	12,351	11,700	498.2	121 / 35

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
129	12,893	11,700	498.5	58 / 119
133	13,278	11,700	498.8	49 / 256
143	14,301	11,700	499.1	43 / 95
151	15,144	11,700	499.6	101 / 100
158	15,794	11,700	499.9	96 / 71
161	16,138	11,700	500.2	104 / 86
168	16,761	11,700	500.5	115 / 48
173	17,323	11,700	500.9	43 / 86
182	18,192	11,700	501.5	34 / 109
187	18,748	11,700	502.0	83 / 47
193	19,258	11,700	502.3	43 / 146
201	20,066	11,700	502.8	93 / 43
210	20,956	11,700	503.5	82 / 98
216	21,565	11,700	503.9	92 / 42
225	22,490	11,700	504.5	140 / 43
230	23,032	11,700	504.8	134 / 43
234	23,366	11,700	504.8	58 / 56
234	23,411	11,700	505.0	58 / 56
243	24,252	11,700	506.4	132 / 43
249	24,917	11,700	507.0	206 / 103
254	25,362	11,700	507.2	39 / 197
258	25,842	11,700	507.3	43 / 119
259	25,890	11,700	507.2	47 / 48
259	25,935	11,700	507.6	47 / 48
263	26,297	11,700	508.2	84 / 43
275	27,452	8,070	509.4	42 / 188
280	27,961	8,070	509.8	34 / 192
287	28,678	8,070	510.4	264 / 34
290	29,048	8,070	510.8	271 / 34
296	29,580	8,070	511.1	108 / 55
300	30,019	8,070	511.7	53 / 34
304	30,436	8,070	512.5	78 / 37
309	30,904	8,070	513.4	43 / 116
314	31,443	8,070	514.0	68 / 277
319	31,949	8,070	514.3	29 / 334
325	32,456	8,070	514.6	183 / 66
329	32,926	8,070	514.9	92 / 34
334	33,360	8,070	515.8	248 / 34
340	34,017	8,070	516.2	34 / 329
346	34,580	8,070	516.5	100 / 154
350	35,047	8,070	517.0	349 / 34
358	35,823	7,940	517.5	118 / 299
364	36,374	7,940	517.8	222 / 138
369	36,926	7,770	518.2	264 / 35
373	37,316	7,770	518.6	102 / 133

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
378	37,835	7,770	519.1	33 / 79
384	38,434	7,770	520.3	42 / 101
389	38,948	7,770	521.2	121 / 33
393	39,324	7,770	521.7	62 / 53
397	39,740	7,770	522.4	55 / 50
402	40,182	7,770	523.0	30 / 52
402	40,230	7,770	524.0	30 / 52
407	40,694	7,770	524.8	45 / 100
410	40,968	7,770	525.1	105 / 97
416	41,590	7,690	525.5	89 / 26
422	42,233	7,690	526.1	33 / 94
427	42,747	7,690	526.5	49 / 41
432	43,232	7,690	527.0	33 / 75
439	43,875	7,690	527.8	75 / 33
443	44,282	7,690	528.1	58 / 33
448	44,828	7,690	528.8	36 / 88
454	45,397	7,690	529.4	79 / 33
458	45,848	7,690	529.9	56 / 33
464	46,449	7,550	531.0	54 / 63
468	46,848	7,550	531.5	35 / 61
473	47,291	7,550	532.1	33 / 76
478	47,789	7,550	532.8	115 / 33
483	48,277	7,550	533.1	41 / 34
488	48,848	7,550	534.3	49 / 68
494	49,400	7,550	535.1	70 / 33
500	49,986	7,550	536.1	121 / 33
503	50,348	7,550	536.4	69 / 33
508	50,848	7,550	537.1	92 / 49
514	51,404	7,550	537.7	68 / 73
519	51,917	7,550	538.2	32 / 98
526	52,602	7,550	539.0	173 / 33
530	53,033	7,550	539.2	85 / 41
534	53,398	7,550	539.6	58 / 62
534	53,439	7,550	540.0	58 / 62
539	53,861	7,550	540.8	72 / 129
544	54,362	7,550	541.0	167 / 33
547	54,709	7,550	541.3	114 / 261
551	55,114	7,550	541.5	41 / 587
558	55,848	7,550	541.6	302 / 290
564	56,368	6,640	541.7	217 / 741
573	57,267	6,640	541.8	30 / 503
587	58,731	6,640	542.3	372 / 124
596	59,611	5,270	542.6	76 / 92
600	59,973	5,270	543.0	68 / 90
610	61,006	5,270	544.2	117 / 25

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
618	61,767	5,270	545.3	310 / 34
632	63,234	5,270	546.8	85 / 177
640	63,988	5,270	547.7	209 / 28
648	64,791	5,270	548.7	101 / 163
648	64,836	5,270	549.7	101 / 163
659	65,930	5,270	550.6	113 / 25
669	66,870	5,160	551.8	43 / 107
679	67,945	5,160	553.0	25 / 228
689	68,886	5,160	554.0	52 / 164
696	69,638	5,160	554.9	244 / 25
703	70,331	5,160	555.8	263 / 25
Stony Creek				
275	27,454	8,233	549.7	34 / 70
277	27,668	8,233	578.6	314 / 461
289	28,946	8,233	578.7	403 / 491
320	31,952	8,185	578.7	735 / 464
506	50,587	6,265	579.3	311 / 141
517	51,692	6,265	579.2	106 / 64
525	52,470	6,265	579.2	38 / 49
528	52,798	6,265	579.3	70 / 60
533	53,319	5,897	579.9	30 / 140
538	53,824	5,897	580.5	88 / 39
544	54,406	5,897	581.3	54 / 46
557	55,671	5,897	583.5	39 / 155
563	56,271	5,897	584.2	30 / 47
568	56,781	5,897	585.4	30 / 37
574	57,444	5,897	586.9	40 / 40
581	58,079	5,897	588.7	30 / 30
586	58,598	5,748	590.7	30 / 30
590	58,994	5,748	591.9	30 / 36
595	59,510	5,748	593.1	29 / 51
600	60,034	5,748	593.8	37 / 30
607	60,697	5,507	594.9	61 / 46
616	61,585	5,507	596.3	29 / 39
Toms Creek				
005	500	3,685	579.0 ¹	430 / 180
013	1,267	3,685	579.0 ¹	267 / 293
018	1,792	3,685	579.0 ¹	96 / 96
018	1,839	3,613	579.0 ¹	96 / 96
022	2,205	3,613	579.0 ¹	530 / 250
039	3,923	3,613	579.0 ¹	307 / 233
057	5,682	3,613	579.0 ¹	246 / 334
073	7,329	3,613	579.0 ¹	119 / 301
096	9,624	3,247	579.0 ¹	181 / 179
121	12,143	3,247	579.0 ¹	110 / 81
135	13,511	3,076	579.0 ¹	55 / 70

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
137	13,692	3,076	579.0 ¹	44 / 44
137	13,739	3,076	579.0 ¹	44 / 44
145	14,470	3,076	579.0 ¹	86 / 64
150	15,032	3,076	579.0 ¹	140 / 160
155	15,451	3,076	579.0 ¹	110 / 49
160	16,006	2,539	581.2	49 / 36
163	16,333	2,539	584.4	75 / 65
167	16,687	2,539	585.6	52 / 33
169	16,869	2,539	586.2	35 / 30
169	16,949	2,539	588.2	35 / 30
173	17,283	2,539	588.4	63 / 60
177	17,697	2,539	588.7	102 / 80
183	18,347	2,539	589.0	105 / 43
190	19,009	2,539	589.6	183 / 12
197	19,738	2,539	590.1	173 / 81
202	20,224	2,539	590.5	66 / 57
209	20,949	2,539	592.9	101 / 27
218	21,763	2,539	595.0	51 / 72
223	22,298	2,539	596.1	134 / 82
225	22,460	2,539	596.2	99 / 23
241	24,126	2,539	600.2	33 / 118
Town Branch				
125	12,488	1,450	543.2	21 / 25
127	12,704	1,210	543.8	20 / 40
129	12,882	1,210	544.0	20 / 35
131	13,101	1,210	545.8	15 / 20
133	13,254	1,210	547.7	20 / 20
133	13,337	1,190	548.2	30 / 15
134	13,400	1,190	548.4	11 / 11
135	13,481	1,190	553.2	62 / 19
136	13,593	1,190	553.3	20 / 18
138	13,763	1,190	553.4	15 / 16
140	13,981	1,190	554.6	25 / 25
142	14,176	1,190	555.5	30 / 30
144	14,379	1,070	556.1	25 / 25
146	14,569	1,070	557.6	20 / 30
149	14,854	1,070	560.7	15 / 50
150	14,992	1,070	561.4	50 / 45
152	15,152	1,040	561.9	20 / 30
152	15,208	1,040	562.2	13 / 12
153	15,317	1,040	567.7	25 / 26
154	15,395	1,040	567.7	20 / 20
155	15,459	985	567.8	30 / 30
156	15,614	985	568.2	65 / 35
157	15,677	985	569.1	55 / 40

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
158	15,809	985	569.4	55 / 60
160	16,016	985	569.4	25 / 25
162	16,166	884	570.6	20 / 20
163	16,280	884	571.4	20 / 12
164	16,401	884	577.5	20 / 20
166	16,637	884	577.7	56 / 15
170	17,009	884	578.0	20 / 20
173	17,279	884	581.0	50 / 36
175	17,489	884	581.8	30 / 60
176	17,566	884	584.8	70 / 34
177	17,723	884	585.0	100 / 81
180	18,025	884	585.9	90 / 35
184	18,389	884	588.1	60 / 20
188	18,757	884	591.5	50 / 40
189	18,869	884	591.7	50 / 40
190	18,955	884	592.1	30 / 30
190	19,036	884	592.4	30 / 30
191	19,067	884	592.6	30 / 25
191	19,105	884	593.0	40 / 30
192	19,205	884	593.7	30 / 25
193	19,321	884	594.0	25 / 25
194	19,411	884	595.4	100 / 55
198	19,820	884	600.8	30 / 30
199	19,876	884	601.2	20 / 20
Travis Creek				
255	25,462	1,310	613.1	77 / 49
260	26,044	1,287	615.9	61 / 131
312	31,154	1,224	646.8	13 / 194
351	35,131	1,224	665.7	21 / 76
352	35,194	1,224	667.6	21 / 76
362	36,163	1,224	670.0	27 / 150
Travis Creek Tributary 2				
001	128	1,400	594.0 ¹	23 / 20
007	684	1,400	594.4	20 / 20
008	801	1,400	596.3	19 / 70
008	845	1,400	598.6	19 / 70
012	1,153	1,400	599.5	69 / 33
016	1,563	1,400	600.9	58 / 35
020	1,991	1,400	602.8	66 / 17
024	2,394	1,400	604.8	32 / 48
031	3,073	1,400	607.8	46 / 45
036	3,574	1,400	610.9	18 / 23
041	4,066	1,400	614.8	50 / 101
048	4,792	1,400	617.0	18 / 52
052	5,222	761	619.7	25 / 42
056	5,607	761	622.0	13 / 18

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
064	6,413	761	629.5	30 / 37
066	6,585	761	630.0	16 / 16
066	6,647	761	633.8	16 / 16
071	7,147	761	634.2	50 / 18
077	7,707	761	637.5	38 / 63
080	8,033	761	639.2	30 / 72
085	8,511	761	643.8	69 / 12
088	8,813	761	646.3	13 / 46
094	9,422	761	650.8	57 / 25
101	10,107	761	656.0	21 / 38
106	10,611	761	661.3	13 / 39
110	11,009	761	664.4	16 / 40
111	11,084	761	667.5	16 / 40
117	11,654	761	669.6	28 / 13
120	11,989	761	673.4	20 / 40
120	12,049	761	676.2	20 / 40
122	12,181	761	676.4	25 / 30
123	12,319	761	677.6	25 / 30
124	12,430	761	678.1	32 / 16
Tributary A to Haw Creek				
061	6,125	2,320	553.0	55 / 20
066	6,553	2,320	554.7	20 / 89
071	7,112	2,320	556.1	17 / 172
078	7,792	2,320	558.2	85 / 17
085	8,479	1,570	561.0	17 / 122
090	8,980	1,570	563.1	76 / 16
097	9,658	1,570	567.1	115 / 16
104	10,357	1,570	569.1	125 / 20
109	10,887	1,570	571.7	27 / 48
Tributary A to Travis Creek				
016	1,573	941	616.8	55 / 15
021	2,065	941	620.3	58 / 20
Tributary to Travis Creek				
059	5,868	1,260	626.8	40 / 50
061	6,138	1,260	628.4	22 / 22
062	6,213	1,260	632.3	40 / 100
068	6,824	1,260	634.5	16 / 27
074	7,356	1,260	639.6	70 / 70
076	7,556	1,260	640.3	14 / 50
080	7,981	1,260	643.2	85 / 70
086	8,571	1,260	645.7	24 / 75
091	9,071	1,260	649.9	13 / 75
096	9,571	1,260	659.8	29 / 13
Unnamed Tributary to Haw River at Glencoe				
029	2,902	1,305	578.1	46 / 38
035	3,500	914	578.5	18 / 27

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
042	4,154	914	580.4	15 / 14
046	4,595	914	584.8	15 / 14
053	5,314	914	588.6	22 / 40
058	5,811	914	590.2	20 / 30
065	6,478	914	595.5	30 / 30
066	6,558	914	599.3	30 / 30
070	7,000	914	599.5	30 / 24
076	7,634	914	600.3	10 / 18
080	8,000	914	603.6	18 / 18
086	8,633	914	605.8	19 / 20
090	9,000	914	607.4	18 / 18
094	9,405	914	611.0	51 / 17
094	9,443	914	611.9	51 / 17
102	10,176	914	614.8	20 / 20
107	10,653	914	616.5	19 / 14
110	11,000	914	618.7	18 / 14
115	11,500	914	622.9	20 / 20
119	11,904	914	624.3	20 / 20
123	12,277	413	627.4	13 / 13
127	12,721	413	631.3	12 / 13
134	13,361	413	637.2	12 / 13
140	14,000	413	644.5	23 / 13
147	14,683	413	655.1	12 / 33
151	15,140	413	665.4	34 / 13
Varnals Creek				
307	30,719	1,890	557.3	60 / 180
314	31,423	1,890	557.4	60 / 45
319	31,938	1,890	559.1	35 / 65
324	32,354	1,890	560.3	37 / 35
324	32,400	1,890	560.7	37 / 35
329	32,885	1,550	562.5	53 / 88
332	33,249	1,550	562.7	140 / 43
339	33,873	1,370	563.3	103 / 22
345	34,498	1,370	564.3	98 / 19
352	35,187	1,370	566.3	42 / 84
356	35,619	1,370	567.7	110 / 18
362	36,161	1,370	569.6	33 / 104
367	36,657	1,370	571.3	65 / 86
Varnals Creek Tributary				
001	94	1,430	484.3 ¹	16 / 40
004	405	1,430	485.1	12 / 22
007	732	1,430	495.2	26 / 30
008	767	1,430	497.8	26 / 30
014	1,351	1,430	503.8	22 / 20
018	1,845	1,430	507.7	65 / 48
026	2,616	1,430	512.2	40 / 82

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
030	2,950	1,430	515.2	54 / 42
034	3,357	1,430	518.1	35 / 22
037	3,729	1,430	522.1	62 / 31
041	4,082	1,430	523.4	55 / 46
046	4,593	1,430	524.9	112 / 16
052	5,155	1,430	526.9	65 / 14
056	5,587	1,430	531.0	15 / 79
061	6,141	1,430	535.3	30 / 24
068	6,834	1,080	540.8	56 / 26
074	7,416	1,080	542.4	57 / 56
081	8,125	1,080	546.0	25 / 59
087	8,684	1,080	550.0	72 / 36
094	9,393	1,080	552.7	41 / 75
Well Creek				
006	617	2,130	573.9	139 / 11
012	1,221	2,130	576.0	123 / 12
017	1,701	2,130	577.5	13 / 170
022	2,188	2,130	578.9	60 / 75
029	2,941	2,130	581.0	12 / 200
033	3,341	2,130	581.9	18 / 276
034	3,387	2,130	585.3	18 / 276
040	3,977	1,730	585.4	123 / 130
047	4,664	1,710	586.0	87 / 56
052	5,244	1,710	589.5	51 / 92
056	5,574	1,710	590.5	112 / 13
061	6,074	1,710	593.2	9 / 145
065	6,537	1,710	595.0	16 / 17
066	6,578	1,710	596.2	16 / 17
073	7,261	1,710	598.8	38 / 46
078	7,803	1,710	601.7	123 / 10
084	8,397	1,710	603.9	34 / 56
091	9,093	1,710	606.1	91 / 9
096	9,641	1,710	608.8	9 / 120
103	10,291	1,330	614.0	70 / 10
108	10,755	1,330	617.8	172 / 8
112	11,201	1,330	620.5	15 / 105
119	11,861	1,330	626.3	30 / 30
126	12,600	1,330	632.9	12 / 20
132	13,154	1,330	639.8	29 / 44
135	13,531	1,330	643.0	21 / 25
140	14,018	1,330	647.8	42 / 19
144	14,400	1,330	650.0	105 / 11
148	14,840	1,330	652.4	81 / 17
156	15,609	1,330	658.4	59 / 8
160	16,011	1,330	662.2	59 / 12
West Back Creek Tributary				

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
019	1,892	1,320	556.6	90 / 100
020	1,951	1,320	556.6	85 / 85
020	2,006	1,320	556.6	85 / 90
021	2,084	1,320	556.6	50 / 60
023	2,253	1,320	556.6	25 / 35
024	2,419	1,320	557.4	25 / 65
026	2,582	1,320	558.0	30 / 70
028	2,780	1,320	558.5	80 / 45
029	2,861	1,320	558.5	60 / 45
030	2,992	1,320	558.8	45 / 25
032	3,180	1,250	559.8	10 / 60
034	3,351	1,250	560.7	20 / 38
035	3,472	1,250	561.0	17 / 42
037	3,651	1,250	567.1	6 / 13
037	3,749	1,250	569.6	30 / 20
039	3,879	1,250	569.7	30 / 18
040	3,997	1,250	569.9	20 / 15
041	4,145	1,250	570.4	26 / 25
043	4,257	1,140	571.0	20 / 20
044	4,376	1,140	572.2	20 / 16
045	4,513	1,140	574.3	20 / 20
046	4,638	1,140	575.4	20 / 20
048	4,808	1,140	578.3	16 / 25
050	5,006	1,140	580.0	37 / 16
053	5,254	1,140	581.5	16 / 16
054	5,359	1,140	588.8	33 / 55
056	5,585	1,140	592.1	20 / 20
057	5,736	1,140	594.5	13 / 14
059	5,889	1,140	598.6	12 / 27
061	6,062	1,140	601.6	25 / 13
062	6,185	1,140	602.8	28 / 28
063	6,275	1,140	603.0	30 / 25
064	6,376	1,140	603.5	20 / 30
065	6,500	1,140	604.7	75 / 25
West Back Creek Tributary 2				
001	64	1,040	548.3 ¹	52 / 52
001	95	1,040	548.3 ¹	40 / 25
001	123	1,040	548.3 ¹	65 / 35
002	242	1,040	563.8	250 / 160
006	637	1,040	563.8	110 / 120
010	950	1,040	563.8	60 / 60
012	1,228	1,040	563.8	50 / 50
014	1,423	1,040	563.9	40 / 40
017	1,663	1,040	564.2	40 / 16
020	1,963	1,040	564.7	10 / 50

Table 17 - Limited Detailed Flood Hazard Data

Cross Section	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) Left/Right from Stream Centerline
021	2,131	1,040	565.1	20 / 20
023	2,320	1,040	566.3	15 / 15
026	2,568	958	569.6	12 / 12
028	2,776	958	573.6	12 / 12
030	2,963	958	576.3	12 / 12
Whittie Creek				
004	362	1,399	568.0 ¹	141 / 45
010	994	1,399	568.0 ¹	9 / 228
015	1,516	1,399	568.0 ¹	190 / 64
019	1,882	1,399	569.2	26 / 107
025	2,494	1,399	572.8	56 / 49
034	3,389	1,399	576.5	29 / 30
040	3,994	1,399	578.4	82 / 34
047	4,666	1,399	580.5	19 / 10
050	4,994	1,064	585.1	45 / 20
055	5,494	1,064	588.3	27 / 12
060	5,994	1,064	591.4	135 / 14
065	6,494	1,064	594.4	28 / 11
069	6,898	1,064	597.0	25 / 20
070	7,008	1,064	604.0	25 / 20
076	7,567	1,064	604.1	19 / 133
083	8,290	1,064	604.5	46 / 104
087	8,651	946	604.8	65 / 43
092	9,245	946	606.2	33 / 8
096	9,649	946	610.0	38 / 10
102	10,163	946	613.5	20 / 75
105	10,494	946	615.7	8 / 106
110	10,994	946	619.0	59 / 8
115	11,494	946	622.3	17 / 94
116	11,608	946	622.5	64 / 22
117	11,688	946	626.2	64 / 22
126	12,573	946	631.2	8 / 29
131	13,109	946	636.1	39 / 34
135	13,494	946	641.9	15 / 70
140	13,994	946	648.4	55 / 40
144	14,385	946	655.3	20 / 30

¹Elevation includes backwater effects

5.3 Coastal Analyses

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

6.0 Mapping Methods

6.1 Vertical and Horizontal Control

Vertical Datum

All FISs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. With the finalization of the North American Vertical Datum of 1988 (NAVD 88), all North Carolina FISs have been prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown on the FIRM for Alamance 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 Alamance County is # feet. The locations used to establish the conversion factor were USGS quadrangle corners that fell within the county, as well as those that were within 2.5 miles outside the county. The benchmarks are referenced to NAVD 88. Table 20, "Datum Conversion Locations and Values," is shown below.

Table 20, "Datum Conversion Locations and Values."

Table 20 - Datum Conversion Locations and Values

Latitude	Longitude	Conversion from NGVD29 to NAVD88 (feet)
36.13	-79.50	-0.83
36.13	-79.38	-0.84
36.00	-79.50	-0.83
36.00	-79.37	-0.82
35.87	-79.50	-0.74
35.87	-79.37	-0.76
35.88	-79.25	-0.81
Average conversion in Alamance County from NGVD 29 to NAVD 88 = -0.80 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 Alamance County that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS) as First or Second Order Vertical, with a vertical stability classification of A, B, or C, are shown and labeled on the FIRM with their 6-character NSRS Permanent Identifier (PID).

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

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

- Stability A: Monuments of the most reliable nature, expected to hold position/elevation well (e.g., mounted in bedrock)

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

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

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

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

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

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

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-32822
(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.

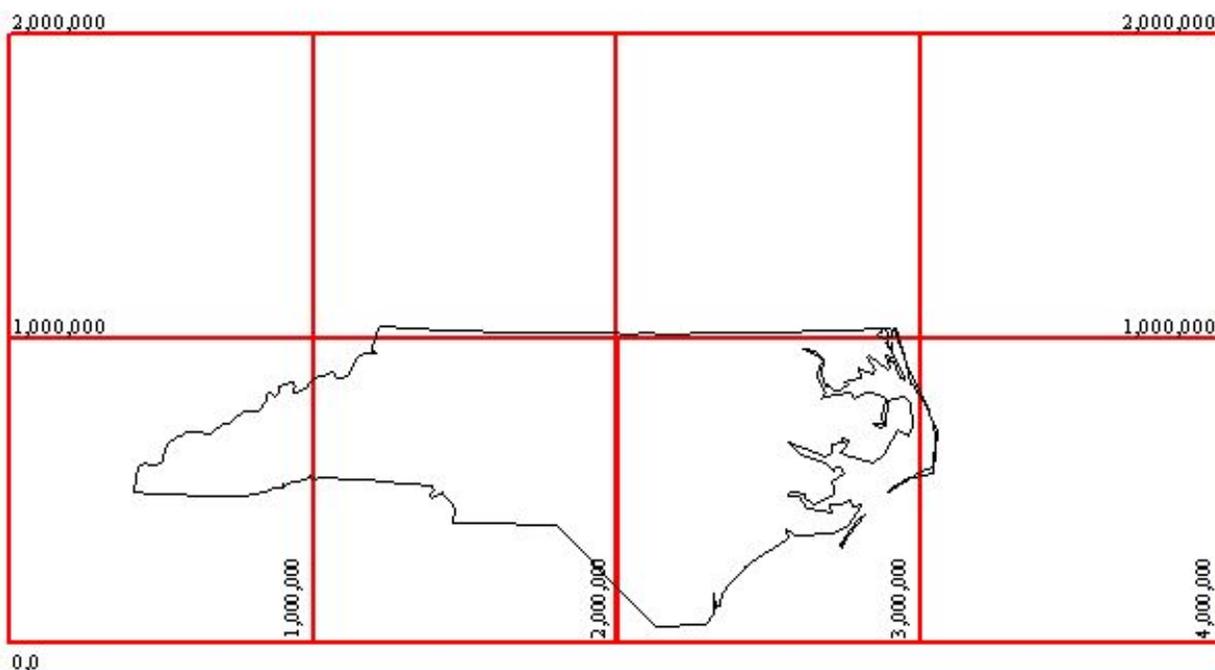


Figure 3 - North Carolina's State Plane Coordinate System

6.3 Floodplain and Floodway Delineation

Floodplain Delineation

For streams restudied by detailed and limited detailed methods, the 1% and 0.2% annual chance floodplains were delineated using flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic data acquired using airborne Light Detection and Ranging (LIDAR). This LIDAR data was acquired during the (insert date from basin plan and update for map maintenance, if necessary) flying season.

The topographic data satisfies a vertical root-mean-square error (RMSE) accuracy standard of 20 cm (1.3 feet accuracy at the 95% confidence limit) for the Outer Banks and 25 cm (1.6 feet accuracy at the 95% confidence limit) for those portions of the basin lying west of the Outer Banks. These data could be contoured at roughly a 2-foot vertical contour interval. All elevations were referenced to the NAVD 88 and reflect orthometric heights. Variably spaced, bare-earth digital topographic data in ASCII point file format were combined with imagery (either flown concurrently with the LIDAR data or using existing digital orthophotos) to establish a Triangulated Irregular Network (TIN) of digital elevation points, which include selected breaklines to be used for hydraulic modeling. Furthermore, a uniformly spaced sampling of the TIN resulted in uniformly spaced Digital Elevation Models (DEMs), with 20 ft x 20 ft post spacing, which was generated in multiple file formats.

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

Floodway Delineation

The floodways presented in this FIS were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (Table 21, "Floodway Data"). The computed floodway is shown on the FIRM. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown. In areas where the top of the bridge or road is higher than the 1.0-percent annual chance (100-year) flood, the FIRM will show the flood discharge as contained within the structure for emergency management purposes. It is important to note that FEMA and community floodway regulations still apply in and around those areas.

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
Back Creek								
058	5,779	90	655	2.4	601.4	601.4	601.6	0.2
061	6,135	75	417	3.7	602.0	602.0	602.3	0.4
067	6,712	135	330	4.7	607.3	607.3	607.4	0.0
071	7,065	171	407	3.8	612.5	612.5	612.6	0.1
077	7,718	75	471	3.3	616.2	616.2	616.2	0.0
082	8,227	60	285	5.1	616.8	616.8	617.1	0.4
086	8,634	33	195	7.4	617.2	617.2	618.2	0.9
092	9,172	43	210	6.9	620.6	620.6	620.6	0.0
099	9,850	45	236	6.1	623.1	623.1	623.4	0.4
106	10,606	45	297	4.9	624.9	624.9	625.5	0.6
112	11,192	80	270	5.4	626.4	626.4	627.3	0.9
116	11,593	135	607	2.4	629.2	629.2	630.0	0.8
128	12,804	65	335	3.3	633.4	633.4	634.4	1.0
132	13,200	65	313	3.5	634.4	634.4	635.3	1.0
138	13,796	40	219	5.0	636.1	636.1	637.1	1.0
146	14,648	100	560	2.0	643.9	643.9	644.9	1.0
Back Creek Tributary (Stream No. 90)								
000	30	95	671	2.1	598.0	598.0	598.6	0.6
013	1,320	130	461	3.1	607.8	607.8	608.5	0.7
036	3,611	100	415	3.4	622.6	622.6	623.2	0.6
044	4,400	85	340	3.6	628.0	628.0	628.6	0.6
062	6,150	120	449	2.3	638.4	638.4	639.0	0.6
Big Alamance Creek								
011	1,084	340	6,214	4.5	479.8	479.8	480.7	0.9
022	2,166	360	5,930	4.7	480.6	480.6	481.6	0.9
035	3,487	375	7,900	3.5	482.2	482.2	483.2	0.9
043	4,260	280	5,578	5.0	482.5	482.5	483.5	1.0
055	5,461	320	6,407	4.3	483.6	483.6	484.6	0.9
070	6,961	280	5,709	4.8	484.4	484.4	485.4	1.0
082	8,186	375	6,885	4.0	485.8	485.8	486.8	1.0
094	9,413	380	7,358	3.8	486.8	486.8	487.8	1.0
104	10,409	450	8,650	3.2	487.5	487.5	488.5	1.0
120	12,040	470	9,461	2.8	489.2	489.2	490.2	1.0
131	13,110	315	5,908	4.5	489.3	489.3	490.3	1.0
144	14,372	310	6,411	4.1	490.4	490.4	491.4	1.0
156	15,622	290	6,062	4.4	491.4	491.4	492.3	0.9
169	16,894	525	10,104	2.6	492.6	492.6	493.6	1.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
181	18,135	885	12,641	2.1	493.0	493.0	494.0	1.0
197	19,689	420	8,040	3.3	493.4	493.4	494.4	1.0
202	20,203	290	6,588	4.0	493.5	493.5	494.5	1.0
219	21,851	315	6,781	3.9	494.6	494.6	495.4	0.8
229	22,927	330	7,071	3.7	495.1	495.1	496.0	0.9
238	23,832	340	7,484	3.5	495.8	495.8	496.7	0.9
250	25,013	240	5,506	3.7	496.2	496.2	497.2	1.0
261	26,075	265	6,229	3.3	496.9	496.9	497.8	1.0
273	27,311	295	6,108	3.3	498.1	498.1	499.1	1.0
283	28,343	310	6,818	3.0	498.9	498.9	499.8	1.0
293	29,328	325	7,282	2.8	499.5	499.5	500.5	1.0
304	30,395	355	6,981	2.9	499.9	499.9	500.9	1.0
309	30,858	370	7,865	2.6	500.2	500.2	501.2	1.0
322	32,246	255	5,722	3.5	501.1	501.1	502.1	0.9
331	33,089	265	6,017	3.3	501.5	501.5	502.4	1.0
341	34,064	255	5,903	3.4	501.8	501.8	502.8	1.0
349	34,942	255	5,835	3.4	502.1	502.1	503.1	1.0
366	36,646	240	5,203	3.7	502.8	502.8	503.8	1.0
377	37,662	255	5,483	3.5	503.2	503.2	504.2	1.0
391	39,087	240	5,194	3.7	503.9	503.9	504.8	1.0
402	40,239	285	5,713	3.4	504.5	504.5	505.5	1.0
413	41,328	245	5,136	3.8	505.0	505.0	506.0	1.0
428	42,806	330	6,301	3.1	505.8	505.8	506.8	1.0
439	43,948	190	3,943	4.9	506.1	506.1	507.1	1.0
469	46,882	300	4,981	3.8	508.2	508.2	509.2	1.0
479	47,924	265	4,736	4.0	508.8	508.8	509.8	1.0
487	48,711	136	2,669	7.2	510.0	510.0	510.4	0.5
499	49,879	318	5,278	3.6	511.6	511.6	512.4	0.8
509	50,941	257	4,214	4.6	512.3	512.3	512.9	0.7
519	51,875	264	4,381	4.4	513.0	513.0	513.6	0.6
528	52,789	301	4,952	3.9	513.8	513.8	514.4	0.6
539	53,884	260	4,577	4.2	514.4	514.4	515.2	0.7
550	54,959	275	4,558	3.9	515.5	515.5	516.1	0.6
Boyd Branch								
004	404	29	267	8.7	515.7 ¹	512.1	512.6	0.5
007	724	29	265	8.8	515.7 ¹	513.6	514.2	0.5
012	1,228	30	303	7.7	516.6	516.6	517.0	0.4
016	1,615	66	479	4.8	519.2	519.2	519.8	0.6
019	1,900	43	423	5.5	520.3	520.3	520.8	0.5
021	2,145	310	681	3.4	521.7	521.7	521.7	0.0
030	2,965	90	386	6.0	525.6	525.6	526.4	0.8
038	3,822	120	567	3.7	528.9	528.9	529.6	0.7
046	4,580	70	376	5.6	531.2	531.2	531.9	0.7
055	5,485	90	509	4.1	537.2	537.2	538.2	1.0
060	5,999	45	287	7.3	539.9	539.9	540.4	0.5

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
065	6,547	70	445	4.3	543.2	543.2	544.2	1.0
071	7,093	42	532	3.6	550.8	550.8	551.0	0.2
073	7,333	110	857	2.2	551.0	551.0	551.3	0.2
Boyd's Creek								
004	399	91	594	4.3	508.1 ¹	496.4	497.2	0.8
028	2,750	70	738	3.4	508.1 ¹	502.4	503.1	0.7
035	3,529	100	718	3.3	508.1 ¹	503.8	504.4	0.7
044	4,401	160	1,032	2.3	508.1 ¹	505.1	506.0	0.8
052	5,191	230	1,295	1.8	508.1 ¹	506.0	507.0	1.0
064	6,407	170	926	2.5	508.2	508.2	509.2	1.0
073	7,280	55	478	4.1	509.6	509.6	510.4	0.8
084	8,361	45	389	5.0	511.7	511.7	512.3	0.6
092	9,226	45	303	6.3	513.4	513.4	514.0	0.6
101	10,086	50	466	4.1	517.8	517.8	518.6	0.8
111	11,076	54	426	4.1	519.3	519.3	520.3	1.0
122	12,162	60	332	5.2	522.0	522.0	522.5	0.4
130	13,046	40	199	8.7	525.0	525.0	525.2	0.2
140	13,954	45	275	5.7	530.0	530.0	530.4	0.5
149	14,862	49	240	6.5	537.3	537.3	538.0	0.7
157	15,732	32	201	7.8	545.8	545.8	546.7	0.9
162	16,179	48	334	4.7	557.0	557.0	557.9	0.9
170	16,973	50	256	5.6	560.7	560.7	561.4	0.7
176	17,600	35	213	5.9	564.6	564.6	565.1	0.5
180	18,017	64	458	2.8	571.2	571.2	571.2	0.0
183	18,339	150	557	2.3	572.1	572.1	572.2	0.0
Cane Creek (South)								
029	2,916	200	2,752	4.6	419.4 ¹	413.5	414.5	1.0
054	5,422	314	3,926	3.3	419.4 ¹	416.4	417.4	1.0
091	9,053	554	5,123	2.5	419.4 ¹	418.9	419.9	1.0
122	12,233	210	2,662	4.8	421.9	421.9	422.7	0.8
137	13,700	382	4,443	2.9	424.6	424.6	425.4	0.8
170	16,974	321	3,790	3.4	427.1	427.1	428.0	0.9
196	19,586	631	8,022	1.6	429.3	429.3	430.2	0.9
238	23,819	423	5,528	2.3	431.9	431.9	432.8	1.0
250	24,953	257	3,587	3.5	432.8	432.8	433.7	1.0
270	27,027	419	4,464	2.8	433.9	433.9	434.8	0.9
289	28,889	208	3,224	3.9	436.2	436.2	437.2	0.9
310	30,975	227	3,031	4.2	439.2	439.2	440.0	0.8
321	32,147	144	2,233	5.7	440.8	440.8	441.7	0.9
334	33,415	189	2,606	4.9	442.6	442.6	443.4	0.8
350	34,977	420	5,043	2.5	444.7	444.7	445.6	0.8
375	37,494	219	3,322	3.8	445.5	445.5	446.4	1.0
394	39,409	127	2,082	6.1	447.4	447.4	448.2	0.9
420	41,991	486	5,254	2.4	450.6	450.6	451.4	0.8
458	45,839	252	3,460	3.7	453.5	453.5	454.2	0.7

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
478	47,805	296	3,816	2.5	455.5	455.5	456.0	0.6
488	48,808	127	1,959	4.8	456.0	456.0	456.6	0.7
517	51,718	160	2,152	4.4	458.2	458.2	458.8	0.6
532	53,175	119	1,885	5.0	459.9	459.9	460.7	0.8
553	55,256	213	2,889	3.3	463.0	463.0	463.7	0.7
582	58,238	238	1,880	5.1	470.2	470.2	470.3	0.1
605	60,496	235	2,726	3.5	473.2	473.2	473.5	0.3
627	62,688	124	1,841	5.1	475.5	475.5	476.5	0.9
650	64,991	260	3,410	2.7	479.6	479.6	480.4	0.8
658	65,774	205	2,744	3.4	480.6	480.6	481.3	0.6
690	68,972	135	1,947	4.8	482.0	482.0	482.9	0.9
709	70,928	163	2,141	4.4	485.6	485.6	486.3	0.8
726	72,630	166	1,988	4.7	488.9	488.9	489.6	0.7
738	73,810	172	2,328	4.0	490.6	490.6	491.2	0.6
753	75,264	107	1,310	7.1	493.0	493.0	493.9	0.9
765	76,536	143	1,802	5.2	498.2	498.2	498.9	0.8
779	77,897	224	3,157	2.9	505.1	505.1	505.9	0.8
786	78,593	399	4,317	2.1	505.7	505.7	506.4	0.7
Coblebrook Creek								
000	2	165	1,179	1.1	605.8 ¹	604.2	605.2	1.0
005	533	70	395	3.3	605.8 ¹	604.8	605.8	1.0
013	1,272	70	554	2.4	613.8	613.8	614.4	0.6
017	1,679	90	636	1.9	614.0	614.0	614.9	0.8
Dry Creek								
006	596	60	393	6.3	579.0 ¹	563.5	563.8	0.3
021	2,086	150	712	3.3	579.0 ¹	568.5	569.0	0.5
035	3,494	70	473	5.0	579.0 ¹	573.3	573.7	0.4
046	4,565	50	378	6.0	579.0 ¹	576.4	577.1	0.6
051	5,068	52	452	5.0	579.4	579.4	579.4	0.0
057	5,694	125	686	3.3	580.6	580.6	580.8	0.2
068	6,799	65	478	4.8	584.2	584.2	585.2	1.0
076	7,626	60	481	4.7	588.4	588.4	589.1	0.7
083	8,294	65	459	4.9	590.2	590.2	591.0	0.8
090	9,003	57	426	5.3	593.5	593.5	593.9	0.4
101	10,066	63	371	6.1	597.4	597.4	598.2	0.7
104	10,435	47	615	3.7	605.8	605.8	606.3	0.5
111	11,063	223	2,033	1.1	606.0	606.0	607.0	1.0
119	11,918	128	964	2.4	606.4	606.4	607.3	1.0
128	12,760	61	367	3.6	607.3	607.3	608.2	1.0
135	13,493	60	239	5.6	609.1	609.1	610.0	0.9
144	14,436	107	519	2.6	614.8	614.8	615.8	1.0
149	14,899	80	696	1.8	621.0	621.0	621.8	0.9
156	15,573	93	578	2.2	621.4	621.4	622.4	1.0
162	16,248	55	345	3.3	622.7	622.7	623.7	1.0
167	16,739	61	519	2.2	630.0	630.0	630.9	0.9

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
171	17,149	141	771	1.5	630.2	630.2	631.2	1.0
173	17,289	200	878	1.3	630.4	630.4	631.3	0.9
East Back Creek								
007	731	100	1,194	14.2	490.3 ¹	482.0	482.1	0.1
014	1,416	100	1,469	11.6	490.3 ¹	486.9	487.1	0.2
024	2,420	205	2,492	6.8	491.8	491.8	492.0	0.2
030	3,047	246	3,084	5.5	493.2	493.2	493.4	0.2
036	3,630	135	2,291	7.3	494.0	494.0	494.0	0.0
042	4,244	199	3,124	5.4	495.1	495.1	495.5	0.4
054	5,377	165	2,687	6.2	496.3	496.3	496.7	0.3
062	6,191	180	3,035	5.5	498.5	498.5	498.6	0.0
070	6,978	165	2,947	5.7	499.1	499.1	499.3	0.2
076	7,649	150	2,526	6.6	499.4	499.4	499.7	0.3
085	8,500	240	3,894	4.3	500.8	500.8	501.4	0.5
091	9,081	280	4,834	3.5	502.5	502.5	503.0	0.5
100	9,989	410	6,147	2.7	503.1	503.1	503.7	0.6
109	10,893	290	4,957	3.4	503.7	503.7	504.3	0.6
118	11,842	205	3,409	4.9	504.2	504.2	504.7	0.5
130	12,972	242	4,129	4.1	505.0	505.0	505.8	0.7
141	14,117	239	4,432	3.8	505.9	505.9	506.6	0.7
152	15,205	243	4,632	3.6	506.6	506.6	507.1	0.5
158	15,810	270	4,596	3.7	506.8	506.8	507.5	0.8
164	16,351	335	5,211	3.2	507.2	507.2	507.9	0.6
178	17,826	168	3,508	4.8	510.3	510.3	510.3	0.1
187	18,717	135	2,992	5.6	510.7	510.7	510.9	0.2
193	19,273	214	4,081	4.1	511.5	511.5	512.3	0.8
219	21,852	430	8,201	2.0	512.6	512.6	513.4	0.8
235	23,500	415	8,206	2.0	513.1	513.1	514.0	0.8
247	24,728	250	4,684	3.6	513.4	513.4	514.2	0.9
259	25,918	430	7,953	2.1	514.1	514.1	515.0	0.9
268	26,790	560	9,493	1.8	514.3	514.3	515.2	0.9
286	28,566	235	4,391	2.0	514.6	514.6	515.5	0.9
309	30,875	412	7,006	1.3	515.1	515.1	516.0	0.8
320	32,041	485	7,619	1.2	515.3	515.3	516.1	0.8
353	35,258	324	5,143	3.3	517.6	517.6	518.4	0.8
359	35,893	418	4,196	3.9	518.1	518.1	518.9	0.8
366	36,558	310	4,391	3.7	519.1	519.1	519.8	0.7
373	37,301	290	5,195	3.2	520.1	520.1	520.6	0.5
382	38,192	295	4,791	3.4	520.4	520.4	521.2	0.8
391	39,086	210	4,142	4.0	521.3	521.3	522.2	0.9
East Back Creek Overflow								
006	638	350	5,277	1.5	514.5	514.5	515.4	0.9
021	2,074	553	7,073	1.1	515.1	515.1	516.0	0.9
Eastside Creek								
008	763	100	470	3.5	561.2	561.2	562.2	1.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
013	1,333	80	553	3.0	567.5	567.5	568.3	0.8
022	2,184	70	246	6.7	572.6	572.6	572.7	0.1
034	3,426	50	247	6.1	585.4	585.4	586.4	1.0
041	4,127	45	259	5.8	591.4	591.4	592.3	0.9
051	5,062	60	338	4.4	597.9	597.9	598.4	0.5
058	5,754	50	572	2.6	608.7	608.7	609.1	0.4
061	6,140	120	735	2.0	608.8	608.8	609.5	0.7
064	6,428	90	364	2.9	611.2	611.2	611.8	0.6
069	6,858	90	364	4.0	611.2	611.2	611.8	0.6
070	7,001	90	354	3.0	615.1	615.1	615.9	0.7
075	7,491	145	682	0.8	617.4	617.4	618.2	0.8
078	7,814	30	100	5.3	617.4	617.4	618.1	0.7
083	8,303	40	103	5.2	624.7	624.7	624.9	0.2
090	9,050	30	107	5.0	632.1	632.1	632.7	0.6
099	9,865	20	74	5.4	642.2	642.2	643.1	0.9
108	10,799	40	128	3.1	654.9	654.9	655.7	0.8
Gunn Creek								
014	1,354	92	649	6.5	502.6 ¹	487.9	488.0	0.0
031	3,069	147	791	5.3	502.6 ¹	492.7	493.2	0.5
045	4,539	177	873	4.8	504.3	504.3	504.5	0.2
055	5,500	137	743	5.6	509.1	509.1	509.5	0.4
065	6,520	177	929	4.5	514.7	514.7	514.7	0.0
079	7,861	86	740	5.5	524.2	524.2	524.3	0.1
084	8,379	48	424	9.6	527.2	527.2	527.3	0.1
100	9,960	72	504	7.8	533.4	533.4	533.8	0.3
107	10,683	127	939	4.2	539.4	539.4	539.7	0.3
115	11,526	108	648	4.8	541.4	541.4	542.4	1.0
126	12,600	156	955	3.2	548.0	548.0	548.9	0.9
141	14,091	167	1,066	2.9	560.3	560.3	560.3	0.0
151	15,086	119	661	4.7	565.6	565.6	565.6	0.1
162	16,238	169	1,308	2.3	570.9	570.9	571.8	0.9
170	16,967	140	996	3.0	573.0	573.0	573.4	0.4
180	17,992	175	1,213	2.5	575.6	575.6	576.6	1.0
190	18,975	161	1,004	3.0	578.7	578.7	579.3	0.6
200	20,021	130	851	3.3	581.9	581.9	582.6	0.7
205	20,532	89	726	3.8	583.4	583.4	584.1	0.7
214	21,412	110	574	4.8	589.3	589.3	590.0	0.7
224	22,408	150	942	3.0	595.7	595.7	596.5	0.8
237	23,664	148	988	2.8	599.5	599.5	600.4	0.8
250	24,957	290	1,257	2.1	601.6	601.6	602.3	0.7
259	25,861	133	1,309	2.0	609.0	609.0	609.0	0.0
266	26,645	80	796	2.9	610.4	610.4	610.4	0.0
273	27,338	106	699	3.4	611.5	611.5	611.6	0.1
284	28,424	157	1,027	2.2	613.4	613.4	613.8	0.4
288	28,768	124	982	2.3	613.9	613.9	614.4	0.5

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
302	30,182	170	869	2.6	617.3	617.3	617.7	0.4
307	30,707	185	814	2.3	618.9	618.9	619.5	0.7
314	31,350	106	1,187	1.6	626.8	626.8	627.5	0.6
322	32,165	165	1,283	1.5	627.1	627.1	627.9	0.8
327	32,657	96	567	2.1	627.3	627.3	628.3	1.0
335	33,460	102	725	1.7	633.3	633.3	633.8	0.5
341	34,067	80	411	2.6	634.0	634.0	634.9	0.9
Haw Creek								
013	1,278	162	1,390	4.2	467.7 ¹	461.3	461.9	0.5
031	3,084	232	1,945	3.0	467.7 ¹	464.2	464.8	0.6
046	4,643	191	1,779	3.3	467.7 ¹	465.7	466.3	0.6
064	6,409	151	1,603	3.6	471.0	471.0	471.0	0.0
090	9,022	214	2,505	2.3	472.7	472.7	473.3	0.6
106	10,580	242	2,561	2.2	473.6	473.6	474.3	0.7
129	12,926	260	2,437	2.3	475.4	475.4	476.0	0.7
143	14,329	124	1,530	3.7	476.7	476.7	477.4	0.7
163	16,330	129	1,501	3.8	478.7	478.7	479.4	0.7
181	18,086	140	1,522	3.7	480.4	480.4	481.3	0.9
214	21,371	146	1,250	4.4	486.3	486.3	486.6	0.3
231	23,100	99	1,108	4.9	488.8	488.8	489.5	0.7
249	24,884	133	1,457	3.7	491.2	491.2	491.6	0.4
267	26,726	150	1,521	3.6	492.7	492.7	493.4	0.7
285	28,485	153	1,626	3.3	494.5	494.5	495.2	0.6
300	30,022	128	1,257	4.3	496.1	496.1	496.9	0.8
318	31,820	114	1,189	3.8	498.4	498.4	499.1	0.7
335	33,533	66	720	6.2	501.1	501.1	501.5	0.4
355	35,474	100	693	6.3	506.0	506.0	506.3	0.3
369	36,921	200	1,481	2.9	510.0	510.0	510.9	0.9
397	39,719	1,000	4,337	1.0	513.4	513.4	514.1	0.7
425	42,458	109	1,006	4.3	519.9	519.9	520.7	0.8
441	44,105	106	1,094	4.0	522.2	522.2	523.0	0.8
456	45,624	103	917	4.5	525.4	525.4	525.7	0.4
473	47,268	135	1,224	3.4	528.3	528.3	528.8	0.5
496	49,580	143	1,091	3.1	530.7	530.7	531.3	0.6
510	50,972	178	1,205	2.8	533.0	533.0	533.8	0.8
518	51,828	117	980	3.5	536.4	536.4	536.7	0.3
536	53,598	141	1,024	3.3	539.2	539.2	540.0	0.8
553	55,260	101	786	4.3	543.7	543.7	544.2	0.4
560	56,033	74	672	5.1	546.3	546.3	546.8	0.5
579	57,927	72	648	5.2	549.1	549.1	549.9	0.8
593	59,344	92	810	4.0	552.8	552.8	553.3	0.6
603	60,318	129	1,060	3.1	554.8	554.8	555.2	0.5
625	62,473	119	875	3.5	557.6	557.6	558.5	0.9
637	63,698	213	1,190	2.6	560.0	560.0	561.0	1.0
650	64,966	222	1,123	2.7	562.6	562.6	563.5	0.9

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
662	66,210	144	819	3.7	566.8	566.8	567.7	0.9
673	67,288	116	830	3.7	569.6	569.6	570.2	0.6
680	67,990	59	391	7.8	570.9	570.9	571.6	0.7
687	68,651	52	325	9.2	575.9	575.9	576.0	0.1
692	69,200	60	514	5.6	579.6	579.6	580.4	0.8
700	70,034	153	1,196	1.6	582.2	582.2	583.1	1.0
707	70,685	159	1,052	1.8	582.6	582.6	583.5	1.0
711	71,058	99	717	2.6	585.8	585.8	586.3	0.5
720	72,020	135	777	2.4	588.3	588.3	588.9	0.6
730	73,031	105	507	3.6	591.2	591.2	592.1	0.9
739	73,895	82	422	4.2	595.5	595.5	596.1	0.6
749	74,860	59	291	6.1	598.7	598.7	599.5	0.8
758	75,848	49	522	3.2	605.2	605.2	606.0	0.7
763	76,346	109	727	2.3	605.8	605.8	606.7	0.9
777	77,719	90	417	4.0	615.6	615.6	616.3	0.7
Haw River								
1203	120,349	533	9,827	6.5	402.3	402.3	402.9	0.6
1237	123,667	569	9,876	6.5	407.6	407.6	408.3	0.7
1258	125,756	677	12,040	5.3	410.7	410.7	411.7	1.0
1286	128,579	886	15,307	4.2	414.1	414.1	414.7	0.7
1318	131,804	588	12,081	5.3	416.8	416.8	417.5	0.7
1365	136,539	763	13,122	4.6	420.2	420.2	421.1	0.8
1379	137,872	492	10,700	5.6	421.4	421.4	422.3	0.9
1388	138,837	569	12,335	4.8	422.9	422.9	423.7	0.8
1406	140,649	587	13,191	4.5	424.5	424.5	425.3	0.8
1428	142,798	767	16,455	3.6	426.2	426.2	427.0	0.8
1455	145,460	658	15,280	3.9	427.5	427.5	428.4	1.0
1480	148,039	613	14,572	3.9	428.9	428.9	429.8	0.9
1496	149,625	608	17,413	3.3	429.8	429.8	430.8	1.0
1512	151,207	576	15,261	3.8	430.3	430.3	431.3	1.0
1531	153,064	610	16,751	3.4	431.1	431.1	432.1	1.0
1548	154,842	495	15,466	3.7	431.7	431.7	432.7	1.0
1564	156,422	584	13,831	4.2	432.4	432.4	433.3	0.9
1587	158,677	523	12,476	4.5	433.7	433.7	434.6	0.9
1611	161,099	541	12,175	4.6	435.6	435.6	436.6	1.0
1630	162,991	524	12,936	4.4	437.0	437.0	438.0	1.0
1651	165,136	668	17,138	3.3	438.5	438.5	439.4	0.9
1671	167,093	670	14,957	3.7	439.3	439.3	440.2	0.8
1686	168,574	949	16,993	3.3	440.6	440.6	441.4	0.8
1698	169,778	1,010	15,092	3.7	456.0	456.0	456.0	0.0
1724	172,405	822	13,057	4.3	456.9	456.9	456.9	0.0
1744	174,400	645	11,478	4.9	457.4	457.4	457.4	0.0
1770	176,969	800	11,598	4.8	459.1	459.1	459.1	0.0
1796	179,567	689	11,643	4.8	461.1	461.1	461.1	0.0
1823	182,299	471	8,691	6.4	462.5	462.5	462.6	0.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
1843	184,269	591	13,575	4.1	463.9	463.9	464.2	0.4
1870	186,992	537	9,545	5.7	465.8	465.8	466.4	0.6
1898	189,782	870	14,313	3.7	468.4	468.4	469.3	0.9
1924	192,418	770	14,236	3.7	470.0	470.0	470.9	0.9
1951	195,055	714	9,615	5.5	472.2	472.2	473.1	0.9
1964	196,394	572	10,040	5.3	474.0	474.0	474.7	0.8
1989	198,900	575	8,971	4.5	476.9	476.9	477.9	1.0
2009	200,887	618	9,127	4.4	478.6	478.6	479.4	0.8
2022	202,238	595	8,064	5.0	480.6	480.6	481.2	0.6
2046	204,636	517	8,194	4.9	484.4	484.4	484.8	0.3
2070	206,978	438	6,686	6.0	487.5	487.5	487.6	0.2
2091	209,057	492	7,866	5.1	489.8	489.8	490.4	0.6
2109	210,920	352	5,837	6.5	492.2	492.2	492.4	0.2
2133	213,318	526	8,575	4.4	494.9	494.9	495.0	0.0
2159	215,866	523	8,951	4.2	496.7	496.7	497.0	0.2
2180	218,029	520	9,058	4.2	498.1	498.1	498.5	0.5
2193	219,348	467	9,355	4.1	500.3	500.3	500.9	0.6
2217	221,734	585	10,643	3.6	501.4	501.4	502.0	0.6
2241	224,099	502	10,423	3.6	502.4	502.4	503.0	0.7
2263	226,303	464	9,917	3.8	503.1	503.1	503.8	0.6
2274	227,450	362	8,584	4.4	504.8	504.8	504.8	0.1
2279	227,926	555	11,812	3.2	505.1	505.1	505.1	0.0
2300	230,017	399	8,059	4.7	505.8	505.8	506.0	0.2
2307	230,684	391	8,079	4.7	506.6	506.6	506.6	0.0
2328	232,806	465	9,167	4.2	507.5	507.5	507.7	0.2
2338	233,827	337	7,491	5.1	507.9	507.9	508.1	0.2
2366	236,562	585	9,120	4.2	509.6	509.6	510.1	0.5
2383	238,272	684	8,673	4.4	511.0	511.0	511.5	0.5
2394	239,430	571	8,279	4.5	512.0	512.0	512.6	0.5
2411	241,141	413	6,196	6.0	513.6	513.6	514.1	0.5
2425	242,545	431	7,029	5.3	516.1	516.1	516.7	0.6
2443	244,328	289	6,374	5.0	518.8	518.8	519.5	0.6
2460	245,965	255	4,018	7.9	526.7	526.7	526.9	0.2
2476	247,573	410	6,796	4.7	529.8	529.8	530.1	0.3
2491	249,075	418	7,008	4.6	531.1	531.1	531.4	0.3
2508	250,753	381	4,137	7.7	533.3	533.3	533.5	0.2
2522	252,223	295	4,910	6.5	537.7	537.7	537.9	0.2
2529	252,911	377	4,111	7.8	541.3	541.3	541.4	0.1
2546	254,592	423	5,493	5.8	545.7	545.7	545.8	0.1
2553	255,301	388	4,513	7.1	555.2	555.2	555.5	0.3
2569	256,909	483	6,011	5.3	557.7	557.7	558.5	0.8
2591	259,051	466	6,262	5.1	561.2	561.2	561.6	0.5
2606	260,647	347	4,767	6.7	563.4	563.4	563.5	0.2
2617	261,740	412	5,959	5.3	567.0	567.0	567.3	0.3

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
2636	263,615	400	5,022	6.3	569.7	569.7	570.0	0.3
2658	265,779	393	6,201	5.1	572.5	572.5	573.2	0.7
2676	267,649	415	6,106	5.2	574.7	574.7	575.2	0.5
2695	269,503	590	9,462	3.4	579.4	579.4	579.4	0.0
2715	271,486	360	6,760	4.7	580.5	580.5	580.5	0.0
2735	273,464	412	7,834	4.1	581.6	581.6	581.9	0.2
2760	276,026	450	8,808	3.6	583.2	583.2	583.7	0.5
2785	278,490	433	7,511	4.1	584.9	584.9	585.3	0.4
2806	280,629	355	7,003	4.4	586.3	586.3	586.6	0.3
2819	281,892	353	7,221	4.2	588.0	588.0	588.4	0.4
2843	284,296	380	7,804	3.9	589.5	589.5	590.2	0.7
2865	286,491	468	9,982	3.1	590.9	590.9	591.6	0.7
2883	288,258	398	6,966	4.4	591.8	591.8	592.4	0.6
2909	290,917	295	3,974	4.4	594.2	594.2	594.9	0.7
2926	292,580	351	4,890	3.6	596.7	596.7	597.4	0.6
2936	293,554	217	3,307	5.3	600.9	600.9	600.9	0.0
2946	294,613	288	4,466	3.9	602.3	602.3	602.5	0.2
2953	295,274	222	3,747	4.6	603.0	603.0	603.2	0.2
2965	296,513	223	2,606	6.7	609.7	609.7	610.7	1.0
2980	298,026	284	4,114	4.2	616.3	616.3	617.2	0.8
2995	299,469	286	4,403	4.0	618.3	618.3	618.9	0.6
3007	300,713	305	4,869	3.6	620.2	620.2	620.6	0.5
3028	302,836	374	5,439	3.2	621.6	621.6	622.4	0.8
3044	304,441	278	4,555	3.8	622.3	622.3	623.3	1.0
3058	305,751	243	4,140	4.2	623.3	623.3	624.1	0.8
3070	306,959	279	4,550	3.8	624.1	624.1	625.0	0.8
Lake Michael Tributary								
002	188	52	320	4.9	577.4 ¹	576.6	577.6	1.0
005	500	114	541	2.9	577.4 ¹	577.4	578.4	1.0
012	1,175	46	201	7.8	578.7	578.7	579.5	0.8
017	1,747	40	218	7.1	583.2	583.2	583.4	0.3
021	2,138	31	174	9.0	584.6	584.6	585.4	0.8
025	2,500	52	246	6.3	587.4	587.4	588.0	0.6
030	3,000	36	238	6.6	589.1	589.1	590.1	1.0
035	3,500	34	160	9.8	592.0	592.0	592.3	0.3
040	4,000	28	198	7.9	595.6	595.6	596.2	0.6
045	4,500	30	157	9.9	598.2	598.2	598.7	0.5
050	5,000	150	636	2.4	601.8	601.8	602.7	0.9
061	6,101	92	410	3.4	610.2	610.2	610.4	0.2
071	7,128	654	3,914	0.4	635.4	635.4	635.5	0.0
076	7,566	788	3,895	0.4	635.5	635.5	635.5	0.0
080	7,975	1,033	5,537	0.2	635.5	635.5	635.5	0.0
085	8,479	759	4,116	0.3	635.6	635.6	635.6	0.0
089	8,869	696	3,664	0.4	635.6	635.6	635.6	0.0
095	9,479	548	2,673	0.5	635.7	635.7	635.7	0.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
100	9,979	583	2,941	0.5	635.8	635.8	635.8	0.0
106	10,563	338	1,719	0.8	636.0	636.0	636.0	0.0
110	11,037	180	1,087	1.3	636.3	636.3	636.4	0.1
114	11,399	171	881	1.0	636.5	636.5	636.8	0.2
117	11,701	148	669	1.3	636.8	636.8	637.1	0.3
118	11,750	140	558	1.6	636.8	636.8	637.1	0.3
Little Alamance Creek								
015	1,456	340	4,281	1.4	488.8 ¹	483.2	484.2	1.0
036	3,607	170	2,373	2.4	488.8 ¹	483.7	484.7	1.0
041	4,144	180	1,974	2.9	488.8 ¹	483.9	484.9	1.0
057	5,729	80	1,116	5.0	488.8 ¹	484.8	485.8	1.0
069	6,855	80	1,073	5.2	488.8 ¹	486.1	487.1	1.0
082	8,177	150	1,225	4.6	488.8 ¹	488.4	489.3	0.9
089	8,884	75	769	7.3	489.4	489.4	490.4	1.0
095	9,531	70	676	8.3	491.8	491.8	492.8	0.9
107	10,694	75	894	6.3	495.0	495.0	495.7	0.6
113	11,294	80	907	6.2	495.8	495.8	496.6	0.8
136	13,590	60	926	6.0	503.3	503.3	504.3	1.0
149	14,895	65	930	6.0	506.2	506.2	507.2	1.0
163	16,265	85	1,114	5.0	508.9	508.9	509.9	1.0
171	17,145	205	2,335	2.4	511.0	511.0	511.9	0.9
184	18,431	330	2,681	2.1	511.8	511.8	512.8	1.0
195	19,542	140	1,346	3.6	513.9	513.9	514.7	0.8
205	20,518	135	1,277	3.8	516.1	516.1	516.4	0.3
219	21,864	128	1,385	3.5	518.8	518.8	519.8	1.0
233	23,290	125	1,433	3.4	520.9	520.9	521.9	1.0
246	24,568	210	2,058	2.3	523.0	523.0	524.0	0.9
258	25,846	225	2,286	2.1	524.2	524.2	525.2	1.0
270	26,978	115	1,120	4.3	526.2	526.2	527.2	1.0
282	28,212	220	1,948	2.4	529.4	529.4	530.3	0.9
294	29,412	250	2,097	2.2	532.0	532.0	532.9	0.8
304	30,415	90	838	5.6	534.0	534.0	534.8	0.8
329	32,874	82	871	5.2	540.1	540.1	541.1	1.0
335	33,469	165	1,406	3.2	542.3	542.3	543.3	1.0
352	35,196	65	657	6.9	550.1	550.1	550.7	0.5
363	36,279	60	659	6.9	553.3	553.3	553.9	0.6
374	37,370	140	1,182	3.8	557.0	557.0	558.0	1.0
378	37,800	170	1,311	3.3	558.3	558.3	559.2	0.9
385	38,502	135	1,225	3.5	559.7	559.7	560.6	0.9
396	39,647	55	650	6.6	562.0	562.0	562.8	0.8
407	40,692	230	2,369	1.7	565.8	565.8	566.8	1.0
410	40,983	260	2,769	1.4	566.2	566.2	567.2	1.0
415	41,547	105	1,144	3.5	566.9	566.9	567.9	1.0
420	42,030	175	1,815	2.3	568.5	568.5	569.3	0.8
420	42,030	175	1,828	2.2	568.5	568.5	569.3	0.8

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
426	42,564	180	1,731	2.4	568.9	568.9	569.7	0.8
436	43,550	128	1,149	3.6	569.5	569.5	570.4	0.9
443	44,252	88	856	4.8	572.2	572.2	572.2	0.0
447	44,672	203	1,585	2.6	573.6	573.6	574.4	0.8
450	44,984	203	1,874	2.2	574.0	574.0	574.6	0.7
465	46,477	115	632	5.0	575.8	575.8	576.4	0.6
470	46,981	101	898	3.5	578.7	578.7	579.0	0.3
479	47,925	85	728	4.2	580.0	580.0	580.7	0.7
485	48,504	114	1,174	2.6	582.1	582.1	582.5	0.4
494	49,406	178	1,459	2.1	582.6	582.6	583.5	0.9
500	49,987	171	1,077	2.8	583.3	583.3	584.1	0.8
508	50,813	174	1,242	2.5	584.4	584.4	584.9	0.6
513	51,259	46	588	5.2	586.3	586.3	587.2	0.9
520	51,970	116	970	2.9	587.7	587.7	588.4	0.7
526	52,614	113	1,247	2.2	590.6	590.6	591.2	0.6
537	53,696	99	572	4.8	591.2	591.2	592.0	0.7
543	54,334	442	3,508	0.8	602.8	602.8	602.8	0.0
550	55,027	275	1,352	1.4	602.8	602.8	602.8	0.0
561	56,078	165	909	2.1	604.8	604.8	605.4	0.6
568	56,831	162	1,053	1.8	607.2	607.2	607.6	0.4
573	57,252	140	893	2.0	607.7	607.7	608.5	0.8
580	58,005	184	1,167	1.4	608.8	608.8	609.6	0.8
586	58,594	135	483	3.4	609.5	609.5	610.4	0.9
592	59,185	88	283	4.5	612.0	612.0	612.2	0.2
596	59,553	88	520	2.4	617.2	617.2	617.4	0.2
604	60,380	79	255	4.9	618.9	618.9	619.2	0.3
McAdams Creek								
011	1,075	250	1,335	2.0	515.1 ¹	509.9	510.0	0.1
017	1,741	227	1,062	2.5	515.1 ¹	510.6	510.9	0.2
026	2,620	179	849	3.1	515.1 ¹	513.1	513.3	0.2
034	3,372	135	708	3.7	515.9	515.9	516.1	0.2
043	4,322	167	760	3.5	518.5	518.5	518.6	0.1
049	4,928	115	384	6.9	520.4	520.4	520.4	0.0
055	5,543	110	561	4.6	524.7	524.7	524.8	0.1
062	6,214	169	581	4.4	527.8	527.8	527.8	0.0
067	6,716	194	864	3.0	529.8	529.8	530.0	0.2
074	7,356	134	560	4.1	531.6	531.6	532.0	0.4
084	8,435	174	838	2.8	536.0	536.0	536.4	0.4
093	9,296	111	410	5.7	538.5	538.5	538.9	0.4
104	10,373	158	767	3.0	542.4	542.4	543.1	0.6
118	11,781	87	393	5.9	547.4	547.4	547.4	0.1
127	12,726	63	295	7.9	551.6	551.6	551.6	0.0
137	13,677	79	661	3.3	557.0	557.0	557.9	0.9
142	14,167	87	602	3.6	559.5	559.5	559.8	0.3
151	15,100	330	1,437	1.5	569.7	569.7	569.7	0.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
156	15,648	245	1,037	2.1	570.2	570.2	570.3	0.1
163	16,339	144	706	3.1	571.8	571.8	572.1	0.3
172	17,209	274	1,227	1.5	575.1	575.1	575.4	0.2
179	17,908	272	1,214	1.6	576.9	576.9	577.1	0.2
189	18,937	93	424	4.4	579.3	579.3	579.8	0.5
211	21,073	170	403	3.2	586.4	586.4	586.4	0.0
219	21,923	113	396	3.3	594.5	594.5	594.5	0.0
229	22,936	71	200	6.5	601.6	601.6	601.7	0.1
237	23,692	66	320	3.7	606.8	606.8	607.4	0.6
241	24,055	199	513	2.3	608.4	608.4	608.9	0.5
Meadow Creek								
009	945	97	735	3.3	461.7 ¹	455.8	456.3	0.4
021	2,077	69	769	3.2	462.8	462.8	463.6	0.8
031	3,084	79	427	5.7	465.6	465.6	466.0	0.5
041	4,123	60	318	7.6	472.1	472.1	472.7	0.6
049	4,871	76	384	6.3	479.4	479.4	480.0	0.6
055	5,515	78	371	6.6	486.0	486.0	486.2	0.2
061	6,080	76	472	5.2	492.7	492.7	493.6	0.8
070	7,000	135	709	3.4	498.8	498.8	499.4	0.5
077	7,652	69	427	5.7	501.8	501.8	502.5	0.7
083	8,287	79	469	5.2	507.4	507.4	508.1	0.6
090	8,969	106	599	4.1	511.4	511.4	511.8	0.4
103	10,333	170	794	3.1	516.0	516.0	516.7	0.7
113	11,330	179	1,024	1.8	520.4	520.4	521.3	0.9
122	12,248	168	711	2.5	521.8	521.8	522.8	1.0
128	12,776	101	503	3.6	524.5	524.5	525.5	1.0
137	13,692	70	352	4.2	528.5	528.5	529.4	0.9
152	15,233	101	335	4.4	534.3	534.3	534.7	0.4
158	15,805	73	316	4.7	536.4	536.4	537.3	0.9
165	16,487	74	400	3.7	541.8	541.8	542.7	0.9
174	17,441	64	271	5.5	547.2	547.2	548.1	0.9
186	18,582	64	267	5.6	553.8	553.8	554.2	0.4
192	19,207	68	455	3.3	560.1	560.1	560.2	0.1
201	20,097	113	407	3.7	561.4	561.4	562.0	0.6
210	20,962	102	489	3.0	565.3	565.3	566.2	0.9
218	21,769	86	360	4.1	567.8	567.8	568.4	0.5
227	22,662	136	580	2.6	571.3	571.3	571.8	0.5
236	23,630	165	510	2.9	576.0	576.0	576.8	0.8
247	24,741	69	493	3.0	582.4	582.4	583.0	0.6
251	25,085	161	967	1.5	582.6	582.6	583.4	0.9
Michaels Branch								
002	184	55	250	8.7	575.9 ¹	575.5	575.5	0.0
008	766	70	416	5.2	584.5	584.5	585.2	0.7
014	1,427	295	4,023	0.5	605.8	605.8	605.8	0.0
020	1,975	263	3,484	0.6	605.8	605.8	605.8	0.0

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
035	3,510	293	2,233	1.0	605.8	605.8	605.8	0.0
041	4,063	200	416	5.2	606.6	606.6	606.8	0.2
045	4,538	81	436	4.9	609.8	609.8	609.9	0.1
050	4,951	60	427	4.5	613.3	613.3	613.4	0.1
053	5,348	114	1,225	1.4	618.0	618.0	618.5	0.5
059	5,868	95	724	2.4	618.3	618.3	618.7	0.5
064	6,389	150	875	1.9	619.8	619.8	620.5	0.7
070	7,018	77	528	3.2	622.4	622.4	622.4	0.0
073	7,283	105	664	2.6	622.9	622.9	623.2	0.3
078	7,843	345	3,212	0.5	631.8	631.8	631.8	0.0
084	8,421	596	1,818	0.9	633.0	633.0	633.1	0.1
091	9,073	241	588	1.4	638.0	638.0	638.0	0.0
093	9,303	40	409	1.9	644.4	644.4	644.8	0.4
096	9,643	72	586	1.4	644.4	644.4	645.0	0.6
102	10,245	85	448	1.8	644.9	644.9	645.6	0.7
107	10,741	55	222	3.1	646.3	646.3	647.0	0.6
110	11,013	59	300	2.3	652.6	652.6	653.3	0.7
115	11,481	70	388	1.7	656.0	656.0	656.8	0.8
123	12,300	57	239	2.4	659.2	659.2	660.0	0.8
127	12,684	53	205	2.6	664.3	664.3	664.8	0.6
132	13,199	34	90	5.9	666.2	666.2	666.2	0.0
136	13,590	55	154	1.8	670.5	670.5	671.1	0.6
140	14,028	27	55	4.4	676.4	676.4	676.4	0.0
142	14,170	47	117	2.0	679.0	679.0	679.3	0.2
144	14,407	16	29	7.0	682.1	682.1	682.1	0.0
149	14,864	39	72	2.8	691.0	691.0	691.7	0.6
Michaels Branch Tributary								
002	186	165	905	1.9	633.0	633.0	633.1	0.1
007	664	97	583	1.5	635.2	635.2	635.2	0.0
010	981	80	263	3.3	635.7	635.7	635.7	0.0
014	1,403	55	238	3.5	638.1	638.1	639.0	0.9
020	2,049	55	179	4.2	645.5	645.5	646.2	0.7
027	2,726	92	270	2.6	649.7	649.7	650.7	1.0
030	3,024	63	171	4.1	652.5	652.5	653.1	0.7
034	3,354	41	137	4.4	655.2	655.2	655.6	0.4
035	3,512	55	286	2.1	658.8	658.8	659.0	0.3
039	3,946	38	246	2.3	662.4	662.4	663.3	0.9
043	4,310	45	243	2.3	662.8	662.8	663.7	0.9
Mill Creek								
000	9	245	1,008	3.9	533.0 ¹	532.4	532.6	0.1
005	486	175	917	4.3	533.5	533.5	533.6	0.1
011	1,110	87	630	6.2	535.6	535.6	535.6	0.0
020	1,957	101	822	4.8	537.8	537.8	537.9	0.2
024	2,380	133	985	4.0	538.8	538.8	539.2	0.4
031	3,148	205	1,201	3.2	540.1	540.1	540.8	0.7

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
038	3,824	125	1,071	3.5	542.6	542.6	543.3	0.6
052	5,196	113	754	4.9	552.1	552.1	552.5	0.3
059	5,916	119	933	4.0	553.8	553.8	554.6	0.7
070	7,022	144	1,131	3.3	555.9	555.9	556.6	0.7
082	8,182	115	934	4.0	556.9	556.9	557.6	0.8
090	9,026	150	1,316	2.8	559.0	559.0	559.5	0.5
104	10,448	165	1,174	3.2	560.2	560.2	560.9	0.7
110	10,952	142	763	3.8	560.9	560.9	561.4	0.5
113	11,347	112	975	3.0	562.9	562.9	563.4	0.6
123	12,263	372	1,794	1.6	563.8	563.8	564.8	1.0
131	13,122	50	364	8.0	566.1	566.1	566.6	0.4
138	13,803	142	505	5.3	571.2	571.2	571.3	0.2
144	14,411	101	524	5.1	572.8	572.8	573.1	0.3
153	15,259	108	616	4.3	574.6	574.6	574.9	0.3
161	16,149	350	1,458	1.8	576.4	576.4	577.2	0.8
172	17,179	124	740	3.6	577.5	577.5	578.4	0.9
176	17,561	105	553	4.8	578.4	578.4	579.0	0.6
220	22,000	105	553	4.0	578.4	578.4	579.0	0.6
240	24,000	27	273	8.2	587.1	587.1	588.1	1.0
263	26,261	51	386	5.8	595.8	595.8	596.8	1.0
Otter Creek								
001	67	50	235	5.2	533.0 ¹	532.7	533.1	0.4
005	520	44	159	7.6	535.8	535.8	536.1	0.3
011	1,064	47	244	5.0	540.4	540.4	540.6	0.2
020	1,952	52	273	3.5	546.6	546.6	546.9	0.3
030	3,000	53	222	4.3	550.9	550.9	551.1	0.2
040	4,000	41	165	5.8	561.2	561.2	561.4	0.2
051	5,052	39	162	5.6	570.5	570.5	571.2	0.7
060	6,034	40	154	5.9	582.5	582.5	582.8	0.2
070	6,957	52	224	3.6	587.7	587.7	588.3	0.6
075	7,524	45	242	3.0	591.3	591.3	592.2	0.9
080	8,003	75	336	2.2	593.2	593.2	594.0	0.8
085	8,495	59	226	2.8	594.0	594.0	594.9	1.0
092	9,222	123	636	1.0	599.5	599.5	600.5	1.0
100	10,028	80	143	4.0	602.7	602.7	603.0	0.3
109	10,871	40	102	5.4	609.2	609.2	609.6	0.4
116	11,602	43	151	3.6	615.4	615.4	615.8	0.4
120	11,987	55	393	1.0	623.2	623.2	623.4	0.1
Reedy Fork								
005	525	599	9,093	3.4	593.6	593.6	594.3	0.7
015	1,542	460	6,021	3.5	594.2	594.2	594.9	0.8
024	2,425	486	5,994	3.5	594.7	594.7	595.5	0.9
034	3,433	286	3,800	5.5	595.4	595.4	596.2	0.8
041	4,137	207	2,965	7.0	598.0	598.0	598.4	0.4
050	5,039	227	2,966	7.0	605.1	605.1	605.9	0.8

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
056	5,569	225	3,611	5.8	606.7	606.7	607.4	0.8
064	6,433	362	4,746	4.4	608.2	608.2	608.8	0.7
072	7,245	354	4,917	4.2	609.3	609.3	609.9	0.6
082	8,161	323	4,816	4.3	610.0	610.0	610.9	0.9
087	8,698	322	4,654	4.5	610.5	610.5	611.4	1.0
108	10,813	199	3,424	6.0	612.9	612.9	613.5	0.7
120	11,955	415	6,185	3.4	614.2	614.2	614.9	0.8
127	12,673	341	5,339	3.9	614.7	614.7	615.5	0.8
Rock Creek								
010	1,030	143	1,604	3.0	496.0 ¹	487.9	488.8	0.9
034	3,397	164	1,554	3.1	496.0 ¹	490.0	490.7	0.8
049	4,852	86	1,113	4.4	496.0 ¹	491.2	491.9	0.7
066	6,615	77	777	6.3	496.1	496.1	496.6	0.5
076	7,646	73	829	5.9	499.0	499.0	499.2	0.2
085	8,493	68	899	5.4	500.3	500.3	500.6	0.3
089	8,918	73	952	5.1	500.9	500.9	501.2	0.4
096	9,550	66	1,038	4.7	501.6	501.6	502.0	0.3
104	10,448	69	1,107	4.4	502.2	502.2	502.6	0.3
115	11,529	100	1,131	4.3	503.1	503.1	503.5	0.4
125	12,520	130	958	5.1	516.7	516.7	516.7	0.0
136	13,557	105	1,073	4.6	518.5	518.5	519.1	0.6
147	14,742	152	1,564	3.1	520.0	520.0	520.8	0.8
157	15,730	207	2,281	2.1	521.3	521.3	522.1	0.8
166	16,589	160	1,737	2.8	522.1	522.1	522.9	0.8
175	17,509	242	2,582	1.9	522.9	522.9	523.6	0.7
185	18,478	291	2,867	1.7	523.5	523.5	524.2	0.7
197	19,715	317	2,515	1.7	524.2	524.2	525.1	0.9
206	20,630	125	1,166	3.7	526.2	526.2	526.7	0.5
216	21,553	135	1,419	3.0	528.2	528.2	529.2	0.9
224	22,417	166	1,695	2.6	529.5	529.5	530.3	0.8
230	23,025	215	2,107	2.0	530.2	530.2	531.0	0.8
240	23,959	320	2,559	1.6	530.8	530.8	531.6	0.8
Servis Creek								
002	185	87	881	4.6	511.3 ¹	505.4	505.9	0.4
011	1,067	66	720	5.6	507.0	507.0	507.6	0.6
021	2,088	88	968	4.1	511.3 ¹	508.4	509.2	0.8
027	2,679	98	908	4.4	511.3 ¹	509.1	509.8	0.8
037	3,652	140	1,149	3.5	511.3 ¹	510.3	511.2	0.9
046	4,647	73	749	5.4	512.2	512.2	513.0	0.8
052	5,170	89	1,374	2.8	516.2	516.2	517.0	0.8
057	5,727	77	845	3.2	516.6	516.6	517.6	0.9
062	6,243	55	486	5.5	517.9	517.9	518.2	0.3
069	6,948	48	444	6.0	520.0	520.0	520.7	0.7
082	8,241	57	408	6.5	524.3	524.3	525.2	0.9
091	9,088	95	555	4.8	527.9	527.9	528.7	0.8

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
098	9,796	70	418	6.4	534.1	534.1	534.1	0.0
106	10,594	80	878	3.0	540.4	540.4	540.6	0.2
110	10,986	106	864	3.0	540.6	540.6	541.2	0.6
118	11,842	105	583	3.0	542.4	542.4	543.3	0.9
123	12,336	84	480	3.6	543.1	543.1	544.1	1.0
132	13,250	75	294	5.9	546.0	546.0	546.8	0.8
136	13,613	87	488	3.6	549.7	549.7	550.5	0.8
141	14,139	46	339	5.1	552.5	552.5	552.7	0.2
145	14,487	40	260	6.7	554.2	554.2	554.5	0.3
152	15,166	45	348	4.8	558.2	558.2	558.9	0.7
161	16,125	65	440	3.8	562.8	562.8	563.7	0.9
166	16,590	65	298	5.6	564.8	564.8	565.3	0.5
175	17,492	85	546	3.0	569.0	569.0	569.7	0.6
182	18,220	90	582	2.8	572.3	572.3	572.9	0.6
190	19,003	68	381	4.1	575.9	575.9	576.4	0.4
195	19,541	90	496	3.1	577.1	577.1	578.1	1.0
207	20,651	58	299	5.2	582.0	582.0	582.8	0.8
218	21,781	92	466	3.1	588.5	588.5	589.3	0.8
227	22,711	95	563	2.3	591.4	591.4	592.4	1.0
235	23,483	89	496	2.7	594.1	594.1	594.8	0.8
243	24,319	70	386	3.4	597.3	597.3	598.3	1.0
251	25,067	75	512	2.4	602.8	602.8	603.4	0.7
259	25,881	85	355	3.5	604.4	604.4	604.9	0.5
267	26,672	120	404	2.8	607.4	607.4	608.2	0.8
275	27,497	135	493	2.3	611.7	611.7	612.7	1.0
Servis Creek Tributary A								
004	443	45	294	8.0	516.2 ¹	511.3	511.4	0.1
012	1,229	43	244	9.6	521.3	521.3	521.6	0.3
019	1,934	48	257	9.2	530.7	530.7	530.7	0.0
027	2,686	38	298	7.8	540.7	540.7	541.3	0.6
030	3,004	91	552	4.1	543.9	543.9	544.4	0.5
037	3,679	60	219	10.4	546.4	546.4	546.4	0.0
041	4,092	45	323	7.0	551.2	551.2	551.3	0.1
046	4,592	60	456	4.3	560.0	560.0	560.6	0.6
056	5,589	95	672	2.9	561.5	561.5	562.3	0.8
062	6,180	180	906	2.1	563.7	563.7	564.6	0.9
Staley Creek								
009	857	61	346	4.8	543.4	543.4	544.2	0.8
016	1,606	50	259	6.4	548.0	548.0	548.7	0.7
024	2,417	52	265	6.3	553.0	553.0	553.2	0.3
033	3,275	61	231	7.2	558.2	558.2	558.4	0.2
045	4,497	42	382	4.1	569.2	569.2	569.8	0.6
051	5,115	72	442	3.4	570.8	570.8	571.4	0.6
054	5,370	83	521	2.9	571.5	571.5	572.3	0.8
061	6,081	130	611	2.5	573.6	573.6	574.0	0.4

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
070	7,011	52	275	5.0	578.1	578.1	578.1	0.1
078	7,808	32	109	11.2	584.7	584.7	584.7	0.0
088	8,843	80	483	2.5	594.8	594.8	595.6	0.7
092	9,186	55	287	4.2	595.4	595.4	596.0	0.6
Steelhouse Branch								
005	475	100	507	3.3	492.5	492.5	493.4	0.9
007	720	40	263	6.3	492.9	492.9	493.9	1.0
012	1,216	30	211	7.8	497.1	497.1	497.9	0.8
022	2,208	70	348	4.3	507.6	507.6	508.5	0.8
034	3,392	49	293	5.1	516.1	516.1	517.1	1.0
044	4,413	83	380	3.9	523.4	523.4	524.4	1.0
058	5,758	32	135	7.9	535.1	535.1	535.1	0.0
063	6,334	40	156	6.9	540.3	540.3	540.9	0.6
070	7,045	30	155	6.9	552.7	552.7	553.7	1.0
075	7,504	35	210	5.1	557.7	557.7	558.7	1.0
083	8,250	30	155	4.5	563.6	563.6	564.6	1.0
089	8,899	55	292	2.4	570.7	570.7	571.6	0.9
093	9,268	60	119	5.8	572.4	572.4	572.5	0.1
Stinking Quarter Creek								
003	290	137	1,982	7.5	496.0 ¹	484.8	485.4	0.6
012	1,231	160	2,357	6.3	496.0 ¹	486.8	487.4	0.6
041	4,110	192	2,912	5.0	496.0 ¹	491.0	491.8	0.8
046	4,614	207	3,541	4.1	496.0 ¹	494.6	494.6	0.0
057	5,723	239	4,130	3.5	496.0 ¹	495.5	495.6	0.1
Stony Creek								
006	588	152	2,104	5.8	517.2 ¹	514.1	514.7	0.6
017	1,724	148	2,438	5.0	519.1 ¹	517.6	518.3	0.7
024	2,401	250	2,658	4.6	519.1 ¹	518.5	519.2	0.7
035	3,511	227	3,077	4.0	520.0	520.0	520.5	0.5
049	4,943	621	11,317	1.1	541.0	541.0	541.0	0.0
060	6,009	479	8,012	1.5	541.1	541.1	541.1	0.0
067	6,710	323	6,172	2.0	541.1	541.1	541.1	0.0
080	7,952	429	5,309	2.3	541.3	541.3	541.3	0.0
099	9,884	301	4,609	2.7	541.5	541.5	541.5	0.0
108	10,824	337	4,213	2.9	541.7	541.7	541.7	0.0
116	11,589	329	4,014	2.9	542.0	542.0	542.0	0.0
129	12,894	234	3,266	3.5	542.4	542.4	542.4	0.0
139	13,946	291	3,509	3.3	543.0	543.0	543.0	0.0
144	14,450	222	2,713	4.2	543.5	543.5	543.5	0.0
153	15,313	200	2,584	4.4	544.2	544.2	544.2	0.0
161	16,089	165	2,152	5.4	544.8	544.8	545.0	0.2
175	17,516	124	1,885	6.1	546.3	546.3	546.6	0.3
185	18,462	130	1,989	5.8	547.3	547.3	547.7	0.4
194	19,447	150	2,413	4.6	548.2	548.2	548.8	0.6
203	20,289	180	2,720	4.1	548.9	548.9	549.5	0.6

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
215	21,459	204	2,981	3.8	549.8	549.8	550.5	0.7
227	22,700	166	2,329	3.9	550.6	550.6	551.5	0.9
240	24,031	210	2,749	3.3	551.6	551.6	552.6	1.0
255	25,526	249	3,100	2.5	552.7	552.7	553.6	0.9
264	26,381	183	2,785	2.7	553.6	553.6	554.6	1.0
276	27,558	278	3,898	2.0	554.8	554.8	555.7	0.9
Tickle Creek								
003	294	62	361	5.1	588.2 ¹	584.7	585.3	0.6
012	1,188	60	321	5.7	589.1	589.1	589.7	0.7
022	2,194	155	809	2.3	592.6	592.6	593.4	0.8
036	3,597	61	379	4.8	597.0	597.0	597.6	0.6
045	4,461	72	278	6.4	601.3	601.3	601.5	0.3
050	4,954	112	815	2.1	607.1	607.1	607.6	0.6
055	5,467	114	789	2.2	607.7	607.7	608.2	0.6
062	6,240	75	498	3.5	608.7	608.7	609.2	0.4
073	7,291	67	228	7.6	613.5	613.5	613.8	0.4
082	8,169	106	463	3.8	622.2	622.2	622.8	0.6
095	9,523	139	577	2.7	625.8	625.8	626.5	0.8
104	10,413	135	502	3.1	628.4	628.4	629.1	0.6
114	11,383	180	945	1.5	632.4	632.4	633.4	1.0
122	12,164	93	570	2.6	634.5	634.5	635.2	0.7
131	13,114	139	607	2.4	636.0	636.0	637.0	1.0
145	14,500	97	449	2.8	641.1	641.1	642.1	1.0
153	15,254	97	488	2.6	644.7	644.7	645.2	0.5
Town Branch								
004	401	38	364	7.7	491.1 ¹	476.9	477.6	0.6
014	1,432	144	778	3.6	491.1 ¹	481.3	481.6	0.3
023	2,252	53	399	7.0	491.1 ¹	483.5	483.8	0.4
028	2,785	60	378	7.4	491.1 ¹	486.2	486.5	0.3
036	3,631	55	379	5.2	491.1 ¹	489.4	490.4	1.0
041	4,072	138	1,105	1.8	494.3	494.3	495.2	1.0
048	4,844	137	733	2.7	495.1	495.1	496.0	0.9
055	5,512	45	269	7.3	499.4	499.4	499.9	0.4
065	6,475	103	505	3.9	505.0	505.0	505.9	0.9
073	7,270	53	360	5.5	507.7	507.7	508.6	0.9
080	7,967	65	503	3.7	515.2	515.2	515.9	0.6
084	8,414	208	1,393	1.3	517.0	517.0	517.9	1.0
090	9,009	160	802	2.3	518.4	518.4	519.0	0.6
095	9,452	65	348	5.1	519.7	519.7	520.1	0.4
098	9,850	105	658	2.7	525.3	525.3	525.8	0.5
105	10,456	87	378	4.7	530.5	530.5	530.6	0.0
112	11,205	62	210	7.9	533.1	533.1	533.3	0.2
116	11,605	52	509	3.3	539.0	539.0	539.2	0.1
121	12,062	108	792	1.8	542.8	542.8	542.8	0.0
Travis Creek								

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
002	245	62	750	5.3	583.2 ¹	569.4	569.6	0.2
011	1,055	109	918	4.4	583.2 ¹	571.7	571.8	0.1
020	1,998	166	968	4.1	583.2 ¹	573.6	573.9	0.3
050	4,987	200	1,619	2.5	583.2 ¹	578.2	578.8	0.5
062	6,165	109	1,176	3.3	583.2 ¹	581.0	581.6	0.6
070	7,033	129	941	4.2	583.2 ¹	581.9	582.8	1.0
080	7,999	131	1,151	3.4	584.4	584.4	584.9	0.6
090	9,029	85	1,037	3.6	587.0	587.0	587.4	0.4
098	9,770	174	1,854	2.0	587.5	587.5	588.2	0.7
111	11,063	198	2,125	1.7	588.2	588.2	589.0	0.8
123	12,280	162	1,460	2.1	589.1	589.1	589.9	0.8
132	13,220	142	1,287	2.4	589.9	589.9	590.6	0.7
140	14,007	141	978	3.1	590.7	590.7	591.2	0.5
160	16,044	105	998	2.4	594.8	594.8	595.3	0.4
168	16,844	94	865	2.8	595.5	595.5	595.9	0.4
175	17,492	108	856	2.8	596.1	596.1	596.5	0.4
187	18,661	194	1,699	1.4	597.6	597.6	598.4	0.8
196	19,630	170	907	2.6	598.8	598.8	599.5	0.7
208	20,777	143	920	2.6	601.4	601.4	602.0	0.6
218	21,760	172	1,073	1.8	603.0	603.0	603.6	0.6
225	22,499	125	788	2.4	603.5	603.5	604.0	0.6
233	23,293	50	430	4.2	606.7	606.7	607.2	0.6
238	23,771	180	1,137	1.6	607.4	607.4	608.0	0.6
251	25,099	155	820	2.2	608.8	608.8	609.6	0.8
267	26,672	90	490	2.7	611.9	611.9	612.5	0.6
271	27,069	129	450	2.9	613.1	613.1	613.5	0.4
Tributary A to Haw Creek								
005	465	60	357	7.4	530.0 ¹	526.7	527.6	0.9
012	1,246	46	342	7.7	532.2	532.2	532.5	0.3
020	1,994	89	610	4.3	535.4	535.4	536.2	0.9
029	2,880	44	361	7.3	539.1	539.1	539.6	0.5
040	3,981	125	733	3.6	544.4	544.4	545.3	0.9
047	4,698	80	790	3.1	550.9	550.9	551.4	0.5
056	5,554	125	776	3.2	551.4	551.4	552.2	0.7
061	6,106	74	521	4.7	553.0	553.0	553.8	0.9
Tributary A to Travis Creek								
004	404	80	264	3.7	610.0 ¹	610.0	610.6	0.6
010	990	50	240	4.1	612.9	612.9	613.9	1.0
013	1,320	40	215	4.6	614.6	614.6	615.3	0.7
017	1,661	70	284	3.5	616.8	616.8	617.2	0.4
Tributary to Travis Creek								
006	568	35	202	6.1	601.7 ¹	600.2	601.0	0.9
017	1,666	66	414	2.9	608.7	608.7	608.7	0.0
026	2,565	56	342	3.5	609.8	609.8	610.2	0.4
034	3,410	69	212	5.7	612.9	612.9	612.9	0.1

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
045	4,526	60	330	3.5	619.0	619.0	619.8	0.9
053	5,335	80	323	3.6	623.3	623.3	623.6	0.3
063	6,273	90	366	2.6	626.8	626.8	627.6	0.9
Unnamed Tributary to East Back Creek								
008	831	117	358	6.4	493.8 ¹	486.2	486.2	0.0
018	1,838	47	281	7.9	494.3	494.3	494.8	0.4
025	2,490	198	2,372	0.9	508.6	508.6	509.2	0.6
034	3,402	145	1,047	2.0	508.9	508.9	509.6	0.7
043	4,302	170	887	2.4	510.4	510.4	511.0	0.7
049	4,944	197	839	2.5	513.0	513.0	513.7	0.7
059	5,895	173	842	2.5	517.3	517.3	518.3	0.9
069	6,901	72	469	4.4	522.0	522.0	522.7	0.6
078	7,842	60	373	5.4	528.0	528.0	528.0	0.0
087	8,681	118	513	3.9	531.6	531.6	532.2	0.5
091	9,080	50	461	3.9	536.3	536.3	537.1	0.8
097	9,746	119	600	3.0	537.4	537.4	538.2	0.7
109	10,899	75	321	5.6	541.8	541.8	542.0	0.2
119	11,884	98	373	4.8	547.0	547.0	547.6	0.6
129	12,856	102	492	3.5	552.8	552.8	553.4	0.5
139	13,882	86	398	4.3	557.2	557.2	558.0	0.8
145	14,485	76	221	7.7	560.6	560.6	560.6	0.0
154	15,399	70	422	3.5	565.7	565.7	566.1	0.4
164	16,449	58	230	6.4	572.5	572.5	572.6	0.0
175	17,482	98	411	3.6	578.1	578.1	579.1	1.0
185	18,532	117	424	3.2	582.9	582.9	583.7	0.8
194	19,361	113	411	3.3	586.6	586.6	587.6	0.9
206	20,607	40	108	9.4	594.5	594.5	594.5	0.0
Unnamed Tributary to Gunn Creek								
006	643	54	297	6.6	540.4	540.4	541.2	0.8
016	1,600	80	438	4.5	547.4	547.4	548.4	1.0
025	2,513	55	324	5.5	557.5	557.5	558.4	0.9
033	3,264	70	316	3.7	563.7	563.7	564.6	0.9
036	3,609	70	231	5.0	565.7	565.7	566.4	0.8
047	4,706	45	543	2.0	582.1	582.1	582.5	0.4
054	5,386	85	592	1.9	582.2	582.2	582.9	0.6
060	6,022	41	208	5.2	586.7	586.7	587.1	0.4
068	6,818	40	221	4.6	594.3	594.3	595.3	1.0
073	7,277	56	207	4.7	597.8	597.8	598.2	0.5
083	8,255	33	174	5.2	608.8	608.8	608.9	0.1
087	8,691	44	278	3.2	612.8	612.8	613.0	0.2
092	9,198	42	279	3.2	616.7	616.7	617.2	0.4
096	9,554	55	655	1.1	623.0	623.0	623.3	0.3
097	9,678	120	1,069	0.7	623.1	623.1	623.4	0.3
Unnamed Tributary to Haw River at Glencoe								
002	182	36	218	6.1	570.7 ¹	558.1	558.3	0.2

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
008	825	60	369	3.6	570.7 ¹	562.5	563.1	0.6
012	1,226	42	311	4.2	570.7 ¹	564.8	565.3	0.4
016	1,650	32	190	7.0	570.7 ¹	566.2	566.5	0.4
023	2,336	39	512	2.4	577.8	577.8	578.2	0.4
027	2,667	38	468	2.7	577.8	577.8	578.3	0.5
029	2,944	83	782	1.6	577.9	577.9	578.5	0.6
Varnals Creek								
025	2,458	125	1,308	4.1	464.7 ¹	462.6	463.2	0.6
032	3,233	165	1,564	3.4	464.7 ¹	464.1	464.9	0.8
039	3,922	138	1,180	4.6	468.2	468.2	468.4	0.2
050	4,956	118	836	6.4	471.8	471.8	472.3	0.5
058	5,776	152	1,014	5.3	479.6	479.6	479.9	0.3
068	6,806	255	2,131	2.5	483.3	483.3	483.9	0.6
085	8,466	182	1,268	3.6	485.3	485.3	486.2	0.8
098	9,760	195	1,235	3.7	489.8	489.8	490.6	0.8
110	10,954	278	1,693	2.7	494.6	494.6	495.5	0.9
121	12,128	67	758	6.0	498.1	498.1	499.0	0.9
130	12,957	70	838	5.5	500.6	500.6	501.3	0.7
142	14,154	160	1,370	3.3	504.1	504.1	505.1	1.0
145	14,480	134	1,193	3.8	505.0	505.0	505.8	0.8
156	15,553	64	668	6.8	509.1	509.1	510.0	1.0
163	16,268	74	589	7.8	514.4	514.4	515.0	0.6
172	17,247	83	484	9.5	522.6	522.6	522.7	0.1
175	17,549	72	860	5.3	530.0	530.0	530.0	0.0
186	18,638	97	594	7.7	532.4	532.4	532.5	0.1
200	19,985	96	917	5.0	540.1	540.1	540.9	0.8
219	21,875	284	2,547	1.8	543.1	543.1	544.0	0.9
230	23,025	130	1,341	3.4	544.5	544.5	545.3	0.8
243	24,315	130	1,245	3.0	546.6	546.6	547.5	0.9
251	25,064	145	1,438	2.6	551.4	551.4	551.4	0.0
258	25,754	173	1,658	2.3	552.2	552.2	552.2	0.0
276	27,612	263	2,417	1.6	553.4	553.4	553.7	0.4
295	29,457	285	1,992	1.4	554.1	554.1	554.6	0.5
317	31,717	240	1,125	2.5	557.3	557.3	558.3	1.0
West Back Creek								
019	1,883	100	867	5.5	515.8 ¹	508.1	509.0	0.9
028	2,843	90	884	5.4	515.8 ¹	511.0	511.8	0.8
048	4,781	87	868	5.5	515.8 ¹	515.4	515.9	0.5
057	5,737	93	847	5.6	517.2	517.2	517.8	0.6
068	6,814	131	967	4.9	521.2	521.2	522.0	0.8
083	8,334	102	953	5.0	525.7	525.7	526.5	0.8
093	9,316	60	647	7.4	528.8	528.8	529.2	0.4
098	9,763	105	1,178	3.9	531.1	531.1	531.7	0.6
104	10,363	44	425	10.8	532.8	532.8	533.4	0.6
108	10,771	44	545	7.7	535.8	535.8	536.2	0.4

Table 21 - Floodway Data

Floodway Source		Floodway			Water Surface Elevation			
Cross Section	Distance (Feet Above Mouth)	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Regulatory	Without Floodway	With Floodway	Increase
112	11,249	70	796	5.2	537.0	537.0	537.6	0.7
125	12,538	91	919	4.6	539.7	539.7	540.2	0.5
138	13,784	81	771	5.4	542.3	542.3	542.9	0.5
150	14,965	129	1,215	3.4	544.4	544.4	545.4	1.0
173	17,302	115	998	3.9	547.6	547.6	548.4	0.8
180	18,021	88	817	4.8	549.0	549.0	549.9	1.0
184	18,428	83	823	4.7	549.9	549.9	550.8	0.9
199	19,946	147	1,354	2.9	553.3	553.3	553.9	0.6
213	21,329	186	1,532	2.5	556.2	556.2	556.8	0.5
224	22,361	169	1,153	3.4	558.0	558.0	558.6	0.6
232	23,209	100	878	4.4	560.3	560.3	561.3	1.0
243	24,347	60	614	6.3	563.4	563.4	564.2	0.8
253	25,303	95	859	4.3	566.0	566.0	567.0	1.0
261	26,070	89	1,095	3.4	571.3	571.3	571.3	0.0
271	27,140	44	641	5.8	572.4	572.4	572.5	0.1
282	28,200	50	688	5.4	573.8	573.8	574.2	0.4
292	29,248	50	706	5.2	575.2	575.2	575.7	0.4
West Back Creek Tributary								
005	462	95	926	1.5	556.5	556.5	556.7	0.2
007	691	120	1,695	0.8	556.6	556.6	556.8	0.2
008	828	270	3,257	0.4	556.6	556.6	556.8	0.2
012	1,151	148	1,795	0.7	556.6	556.6	556.9	0.3
014	1,419	127	1,640	0.8	556.6	556.6	556.9	0.3
017	1,723	164	1,787	0.7	556.6	556.6	556.9	0.3
Willowbrook Creek								
011	1,150	40	344	5.8	574.1 ¹	573.5	574.0	0.4
016	1,600	50	340	5.8	576.2	576.2	576.8	0.6
020	2,012	50	380	5.2	579.0	579.0	579.9	1.0
031	3,089	40	267	7.4	585.0	585.0	586.0	1.0
035	3,452	70	446	4.5	589.4	589.4	589.6	0.2
044	4,421	75	366	4.4	590.5	590.5	591.5	1.0

¹Elevation includes backwater effects

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 Alamance 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 9/6/2006 North Carolina Statewide FIRM, which includes Alamance County, are presented in Table 22, "Community Map History."

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

Table 22 - Map Revision History

Community	Initial Identification Date	Initial FIRM Effective Date	FIS Revision Date
ALAMANCE COUNTY	1/3/1975	12/1/1981	09/06/2006
CITY OF BURLINGTON	6/21/1974	4/1/1981	09/06/2006
CITY OF GRAHAM	7/11/1975	11/19/1980	09/06/2006
CITY OF MEBANE	11/5/1980	11/5/1980	09/06/2006
TOWN OF ELON	6/5/1989	6/5/1989	09/06/2006
TOWN OF GIBSONVILLE	6/10/1977	5/15/1980	09/06/2006
TOWN OF GREEN LEVEL	12/22/1998	12/22/1998	09/06/2006
TOWN OF HAW RIVER	7/18/1975	11/5/1980	09/06/2006
TOWN OF OSSIPEE	9/6/2006	9/6/2006	09/06/2006
TOWN OF SWEPSONVILLE	1/3/1975	12/1/1981	09/06/2006
VILLAGE OF ALAMANCE	1/3/1975	8/15/1990	09/06/2006

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 Alamance County and Incorporated Areas. Table 23, "Authority and Acknowledgments," includes information for the previous countywide FIS and for this revision. This table also includes information for the single-jurisdiction FISs published for each community included in this countywide FIS (if available) as compiled from their previously printed FIS Reports

Table 23 — Authority and Acknowledgments

Community	FIS Dated	Study Contracted By	Data Source	Contract or IAA Number	Work Completed In
ALAMANCE COUNTY	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
ALAMANCE COUNTY	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
CITY OF BURLINGTON	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
CITY OF BURLINGTON	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
CITY OF GRAHAM	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
CITY OF GRAHAM	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888

Table 23 — Authority and Acknowledgments

Community	FIS Dated	Study Contracted By	Data Source	Contract or IAA Number	Work Completed In
CITY OF MEBANE	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
CITY OF MEBANE	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
TOWN OF ELON	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
TOWN OF ELON	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
TOWN OF GIBSONVILLE	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
TOWN OF GIBSONVILLE	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
TOWN OF GREEN LEVEL	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
TOWN OF GREEN LEVEL	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
TOWN OF HAW RIVER	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
TOWN OF HAW RIVER	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
TOWN OF OSSIPEE	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
TOWN OF OSSIPEE	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
TOWN OF SWEPSONVILLE	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
TOWN OF SWEPSONVILLE	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888
VILLAGE OF ALAMANCE	9/6/2006	NCFMP	NCFMP	206-000-23	6/19/2013
VILLAGE OF ALAMANCE	9/6/2006	NCFMP	NCFMP	286-0000-23	8/8/8888

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 Alamance County were produced by NCFMP under contract with the State of North Carolina and issued on effective 8/30/2013. For this revision, the hydrologic and hydraulic analyses and the FIRM panels were produced by NCFMP, under contract with the State of North Carolina.

8.2 Consultation Coordination Officer's Meetings/Scoping Meetings

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

The dates of the initial and final CCO meetings held for Alamance County and Incorporated Areas were compiled from the previous countywide FIS Report and are shown in Table 24, "Consultation Coordination Officer's Meetings."

Table 24 — Consultation Coordination Officer's Meetings

Community	For FIS Dated	Initial CCO Date	Attended By	Final CCO Date	Attended By
ALAMANCE COUNTY	12/22/1998	8/24/1994	County, City and Town Officials, Hayes, Seay, Mattern and Mattern, Inc.	2/3/1998	FEMA, and local officials

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

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

The historical dates of the Initial and Final Scoping Meetings held during the first round of statewide mapping for Alamance County are shown in Table 25, "Scoping Meetings." Meetings held for the map maintenance revision are also included below for Alamance County.

Table 25 — Scoping Meetings

Community	Riverbasin	Initial Scoping Date	Attended By	Final Scoping Date	Attended By
ALAMANCE COUNTY	CAPE FEAR	11/29/2000	Representatives of Alamance County and Incorporated Communities, FEMA, NCDDEM, and Dewberry	3/6/2001	Representatives of Alamance County and Incorporated Communities, FEMA, NCDDEM, and Dewberry

Preliminary Meetings are held in each county to disseminate and review the FIS Report and FIRM panels. This meeting is required by FEMA. Public Participation Meetings are not required by FEMA, but provide an opportunity to review and discuss the FIS Report and FIRM panels for each jurisdiction in a public setting. The dates for the preliminary and public participation meetings are shown in Table 26, "Preliminary and Public Participation Meetings."

Table 26 — Preliminary and Public Participation Meetings

Community	For FIS Dated	Meeting Location	Preliminary Meeting Date	Attended By	Public Meeting Date	Attended By
ALAMANCE COUNTY	9/6/2006	Alamance County	7/22/2005	Representatives of Alamance County and Incorporated Communities and Watershed Concepts	10/26/2005	The Public

9.0 Guide to Additional Information

9.1 Additional Information

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

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

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

Table 27, "Additional Information" is not applicable in Alamance 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