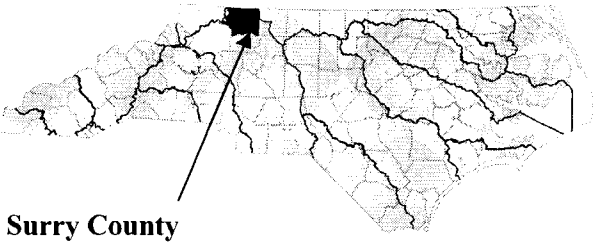
FLOOD INSURANCE STUDY

A Report of Flood Hazards in

SURRY COUNTY, NORTH CAROLINA



AND INCORPORATED AREAS

Community Name	Community Number	River Basin
Dobson, Town of	370603	Yadkin
Elkin, Town of	370225	Yadkin
Mount Airy, City of	370226	Yadkin
Pilot Mountain, Town of	370598	Yadkin
Surry County (Unincorporated Areas)	370364	Yadkin/Roanoke

NORTH CAROLINA Cooperating Technical State
FEMA'S COOPERATING TECHNICAL PARTNER

VOLUME 1 OF 2

August 18, 2009

Federal Emergency Management Agency
State of North Carolina

Flood Insurance Study Number
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www.fema.gov and www.ncfloodmaps.com

FOREWORD

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

NOTICE TO FLOOD INSURANCE STUDY USERS

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

Part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

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

August 18, 2009

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

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

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Section 1.0 - Introduction

1.1 The National Flood Insurance Program

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

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

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

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

1.2 Purpose of this Flood Insurance Study

Flood Insurance Studies (FISs) are one of the primary means by which the NFIP administers the National Flood Insurance Act of 1968, the Flood Disaster Protection Act of 1973, and the National Flood Insurance Reform Act of 1994. FISs develop flood risk data that are used to establish actuarial flood insurance rates. The information in this FIS Report will also be used by Surry County and the jurisdictions therein (hereinafter referred to collectively as Surry 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 Surry County, North Carolina, including the jurisdictions listed in Table 1.

Table 1—Jurisdictions in Surry County

Community	Included in this FIS	Not Included in this FIS	If Not Included, Location of Flood Hazard/Flood Insurance Rate Data
Dobson, Town of	X		
Elkin, Town of	X		
Mount Airy, City of	X		
Pilot Mountain, Town of	X		
Surry County (Unincorporated Areas)	X		

1.3 FIS Components

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

Flood Insurance Rate Map

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

Flood Insurance Study Report

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

Flood Profiles

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

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

2.1 Floodplains

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

2.2 Floodways

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

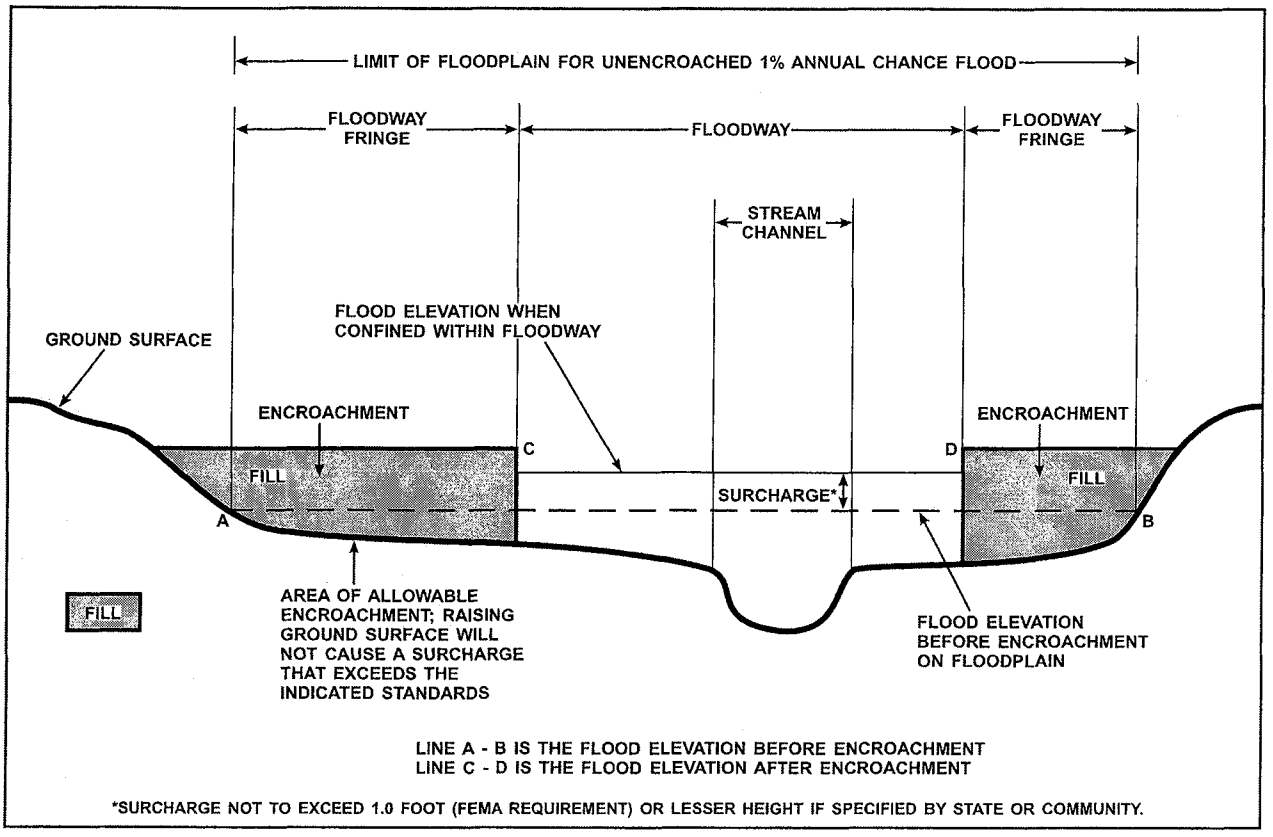

Figure 1—Floodway Schematic

2.3 Base Flood Elevations

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

2.4 Watershed Characteristics

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

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

Drainage Area

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

Soil Permeability and Infiltration

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

Soil Moisture Conditions

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

Channel and Floodplain Geometry

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

Channel and Floodplain Roughness

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

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

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

Data Validity and Reliability

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

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

Developmental and Topographic Changes Over Time

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

Erosion, Deposition, and Debris Flow

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

Meandering and Lateral Migration

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

Section 3.0 – Insurance Applications

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

Table 2—Flood Zone Designations

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

Table 2—Flood Zone Designations

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

4.1 Basin Characteristics

Yadkin River Basin

The Yadkin River Basin drains from the Virginia border to South Carolina, cutting a swath through west central North Carolina. With 7,400 square miles, or 15.6% of the land area, this is the second largest drainage basin in the state. It also has the second largest number of stream miles – 5,855. The basin originates on the eastern slopes of the Blue Ridge Mountains in Caldwell, Wilkes, and Surry Counties. A small portion of the Yadkin River headwaters originates in Virginia and flows northeasterly for about 100 miles, and then flows to the southeast until it joins the Uwharrie River to form the Pee Dee River. The Pee Dee River continues flowing southeasterly through South Carolina to the Atlantic Ocean. The North Carolina portion of the basin contains approximately 5,991 miles of freshwater streams and rivers.

Forest land covers approximately 50% of the basin and 95% of that forestry is privately owned. Agriculture (including cultivated and uncultivated cropland (15.6%) and pastureland (14.1%)) covers approximately 30% of the land area, while 13% of the land is developed. The urban and built-up category comprises roughly 11% and exhibited the most dramatic change between 1982 and 1992 (38% increase). Other categories that showed substantial changes during this period were pasturelands (19% increase) and the "Other" category, which includes rural transportation (26% increase).

Both cultivated and uncultivated cropland decreased by a total of 46% in the basin between 1982 and 1992. It is likely that some of this cropland was converted to pastureland and to urban and built-up areas. Major land use activities in the basin include agriculture (crops, swine, poultry and cattle operations) and construction activities related to growth. Iredell County has the largest dairy cattle population in the state.

There are 28 counties and over 93 municipalities in this large drainage area. The basin includes all or portions of the following counties: Alexander, Allegheny, Anson, Ashe, Cabarrus, Caldwell, Davidson, Davie, Forsyth, Guilford, Iredell, Mecklenburg, Montgomery, Randolph, Richmond, Rowan, Scotland, Stanly, Stokes, Surry, Union, Watauga, Wilkes, and Yadkin. This is the second most densely populated watershed, with 1,193,353 people or 17.51 % of the state's total population. Based on 1990 census data, the population of the basin was 1.2 million people.

The most populated areas are in and near Winston-Salem and Charlotte. The overall population density is 163 persons per square mile versus a statewide average of 123 persons per square mile. While much of the basin contains rural areas surrounding small towns, many of the small to large cities have high density areas. The percent population growth over the ten year period between 1980 and 1990 was 10 percent.

This region is characterized by rolling hills and geologic formations consisting of crystalline or sedimentary rocks. Because of the moderate topography, more streams drain a smaller amount of land, creating moderate drainage density.

The Yadkin Basin serves as a corridor for plants and animals migrating from the mountains to the Coastal Plain, and vice-versa. This basin contains a variety of habitat types, as well as many rare plants and animals. Sportfishes in the Yadkin River upstream of the Kerr Scott Reservoir include smallmouth bass, redbreast sunfish and bullhead catfishes. A considerable amount of white and striped bass fish exist below Idols Dam (west of Clemmons – in Forsyth County) in the spring when the fish migrate from downstream reservoirs to spawn. In addition to being important natural resources, these reservoir fisheries also help make the basin a popular place for recreation, significantly boosting the local economy.

Roanoke River Basin

The Roanoke River enters North Carolina through the Kerr Reservoir and flows into Lake Gaston and Roanoke Rapids before recapturing its riverine form. The upper Roanoke River drainage contains the Dan River in North Carolina, its tributaries and additional tributaries that drain into Kerr Reservoir. The lower Roanoke River Basin begins with Lake Gaston, which is located directly south of Kerr Reservoir along with many small tributaries. The Roanoke River Basin has two major reservoirs, Smith Mountain and Leesville Lakes to the north, and Kerr Reservoir and Lake Gaston at the junction of the Roanoke River (at the North Carolina State line), which empties into the Albemarle Sound.

The total distance of freshwater flooding sources sums up to equal approximately 2,212 miles of the North Carolina portion of the Roanoke River Basin. The upper Dan River is classified as trout waters and part of the area is also designated a State Water Trail. The lower portion of the basin contains the largest intact and least disturbed bottomland hardwood and cypress-tupelo ecosystems on the Atlantic Coast of North America. There are 11 large reservoirs in the North Carolina portion of the Roanoke River Basin.

The Roanoke River Basin is comprised of portions of 18 counties and over 42 municipalities. According to the 2000 Census data, the population is approximately 335,194, which is 4% of the total State population. The most rapidly growing regions in the basin are located northeast of the Triad (Greensboro/Winston-Salem/High Point) area and around the larger municipalities in the basin such as Roanoke Rapids, Eden, Williamston and Plymouth. While the entire Roanoke River Basin is approximately 9,776 square miles in size, the North Carolina portion is roughly 36% (3,503 square miles) of the entire watershed. The upper portion of the basin in North Carolina is located primarily in the Piedmont Region. This region is characterized by rolling hills and rocky terrain. The lower portion of the basin lies in the Coastal Plain Region and the land is relatively flat. The approximate land use in the basin is as follows: 60% forestland, 22% agriculture, and 6% urban and developed land. Tobacco, peanuts, cotton and soybeans are among the most common crops grown. Despite the large amount of cultivated cropland and the relatively small amount of urban area, the basin has seen a significant decrease in cultivated cropland and increase in built-up areas, according to 1999 USDA statistics.

The Roanoke River Basin is home to many natural resources including anadromous fish (striped bass), black bears, bobcats, wild turkeys, 14 species of waterfowl and 220 additional species of birds. On several occasions, a northeaster has driven water from the Albemarle Sound up into the Roanoke River, making the river saline and sometimes bringing dolphins as far up as Martin County. There has even been a manatee sited in Washington County.

While counties along the Roanoke River are among some of the most economically depressed in the state, the economy of the basin as a whole is largely supported by forestry, agriculture supported by rich soils and commercial fishing. Urban development, which accounts for a small percentage of area make-up, has been slow in this basin. Tourists take canoe or kayak day trips down the Roanoke River or its creeks to enjoy the wildlife and scenery.

Flooding in the Roanoke Basin occurs as a result of "spring freshets" caused by run-off from the mountains and upper regions' melting snow in the Piedmont portion of the basin. Controlled flooding occurs during summer months, which has caused excessive erosion in some areas and sediment deposits in others. When reservoirs are at dangerously high levels or when recreational

needs at the manmade lakes near the Kerr Reservoir require releases or retaining water, controlled flooding releases are performed.

Alamance, Beaufort, Bertie, Caswell, Forsyth, Granville, Guilford, Halifax, Martin, Northampton, Orange, Person, Rockingham, Stokes, Surry, Vance, Warren and Washington Counties are all located partially within the Roanoke River Basin.

4.2 Principal Flood Problems

In the Town of Elkin, low-lying areas along the Yadkin River and the lower reaches of the Elkin River are subject to periodic flooding caused by overflow of these two rivers. The most severe flooding has generally occurred as a result of heavy rainfall caused by tropical hurricanes in the late summer and early fall. Notable floods have occurred in Elkin in 1899, 1916, 1918, 1928, 1929, 1940, 1945, and 1963. The worst of these floods occurred in August 1940, as a result of a hurricane. The return frequency of the 1940 storm is estimated at more than 100 years. Several persons drowned and property damage was estimated to be in the millions of dollars as a result of that flood.

Although the major areas of flooding are located along the Elkin and Yadkin Rivers, other areas of the town of Elkin are subject to somewhat lesser flooding as a result of overflow from the smaller tributaries included in this study.

In the Town of Mount Airy, low-lying areas are subject to periodic flooding from the Ararat River, Lovills Creek, and its tributary, Tumbling Rock Branch. The September 1979 flood was the largest of record at the U.S. Geological Survey (USGS) stream gage at Ararat, North Carolina, about 7 miles downstream, and the largest within memory at Mount Airy. The flood had a peak discharge estimated at 20,000 cubic feet per second on the Ararat River at Mount Airy and approximated the 1% annual chance flood. The river crested at 1,006 feet NGVD at South Main Street, 1,009 feet NGVD at Hamburg Street, and 1,020 feet NGVD at Pine Street. Flood heights along Lovills Creek reached 997 feet NGVD at U.S. Route 601, 1,012 feet NGVD at Pine Street, and 1,042 feet NGVD at Lebanon Street. Damage estimates exceeded $7 million and Surry County was declared a major disaster area.

The second largest flood of memory in Mount Airy occurred in April 1980. That flood caused of $300,000 damage to commercial property and peaked about 5 feet lower at Pine Street than the September 1979 flood on the Ararat River.

4.3 Historic Flood Elevations

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

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

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

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

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

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

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.

Additional Storm Events:
On September 17, 1993, flash flooding from a slow-moving thunderstorm caused extensive damage to two homes and swept away a car and motorcycle. Considerable erosion was also reported near Pilot Mountain and Westfield in the eastern part of the county. Fifty thousand dollars in property damage was reported.

On June 28, 1995, thunderstorms in northeast and north-central North Carolina produced heavy rainfall which resulted in flash flooding. Up to eight inches of water flooded the Surry Community Nursing Center in Mount Airy. Heavy rains also flooded at least four roads in the western part of Surry County. Two of these roads were closed for a period of time.

On June 9, 1996, heavy rainfall during the evening hours resulted in flash flooding in several portions of Surry County. Flood waters from creeks and streams flooded numerous bridges in Dobson and damaged a water park. Flooding also caused the evacuation of a mobile home three miles south-southwest of Mount Airy. Ten thousand dollars in property damage was reported.

On August 12, 1996, heavy rain during the morning and afternoon hours resulted in flash flooding across northwest North Carolina. In Surry County, heavy rainfall flooded creeks and streams which resulted in road closing, 12 people being evacuated from a camp, and the flooding of a trailer. Five thousand dollars in property damage was reported.

On August 16, 1998, thunderstorms late in the evening of August 15 and early morning of August 16 produced flash flooding in Surry County. Route 21 near Cherry Lane was closed due to high waters. Flooding stranded campers in Stone Mountain State Park near Joynes. Many roads and bridges were washed out and closed for a few days. Route 89, one and one half miles northwest of Low Gap and Route 1333, seven miles southwest of Low Gap also flooded during these storms.

On January 14, 2005, a persistent southeast fetch of moisture laden air encountered the eastern slopes of the Blue Ridge. This scenario allowed for numerous showers and thunderstorms to produce copious amounts of rain in a very localized region of North Carolina. The run-off produced areas of flash flooding and subsequent flooding during the evening of January 13 and the early morning hours of January 14. Flash flooding occurred along Lovills Creek in the town of Mount Airy. Some streets had two to three feet of standing water. Some homes were flooded in Mount Airy due to the water flowing down the streets. Eight hundred thousand dollars in property damage was reported.

4.4 Flood Protection Measures

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

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

The Town of Elkin receives some degree of protection from Yadkin River floods as a result of W. Kerr Scott Dam, built during the period from 1960 to 1962 by the U.S. Army Corps of Engineers, Charleston District, for the purpose of flood control. The dam is located on the Yadkin River, approximately 6 miles upstream of North Wilkesboro, North Carolina, and approximately 30 miles west of Elkin.

City of Mount Airy Levee System

Some flood hazard information presented in prior FIRMs and in prior FIS reports for Surry County and its incorporated communities was based on flood protection provided by levees. Based on the information available and the mapping standards of the NFIP at the time that the prior FISs and FIRMs were prepared, FEMA accredited the levees as providing protection from

the flood that has a 1-percent annual chance of being equaled or exceeded in any given year. For FEMA to continue to accredit the identified levees with providing protection from the base flood, the levees must meet the criteria of the Code of Federal Regulations, Title 44, Chapter I, Section 65.10 (44 CFR 65.10), titled "Mapping of Areas Protected by Levee Systems."

On August 22, 2005, FEMA issued "Procedure Memorandum No. 34 – Interim Guidance for Studies Including Levees." The purpose of the memorandum was to help clarify the responsibility of community officials or other parties seeking recognition of a levee by providing information identified during a study/mapping project. Often, documentation regarding levee design, accreditation, and the impacts on flood hazard mapping is outdated or missing altogether. To remedy this, Procedure Memorandum No. 34 provides interim guidance on procedures to minimize delays in near-term studies/mapping projects, to help our mapping partners properly assess how to handle levee mapping issues.

While documentation related to 44 CFR 65.10 is being compiled, the release of a more up-to-date FIRM for other parts of a community or county may be delayed. To minimize the impact of the levee recognition and certification process, FEMA issued "Procedure Memorandum No. 43 – Guidelines for Identifying Provisionally Accredited Levees" on March 16, 2007. These guidelines allow issuance of the FIS and FIRM while levee owners or communities compile full documentation required to show compliance with 44 CFR 65.10. The guidelines also explain that a FIRM can be issued while providing the communities and levee owners with a specified timeframe to correct any maintenance deficiencies associated with a levee and to show compliance with 44 CFR 65.10.

FEMA understood that it may take time to acquire and/or assemble the documentation necessary to fully comply with 44 CFR 65.10. Therefore, FEMA put forth a process to provide the communities with additional time to submit all the necessary documentation. For a community to avail itself of the additional time, it had to sign an agreement with FEMA. Levees for which such agreements were signed are shown on the final effective FIRM as providing protection from the flood that has a 1-percent annual chance of being equaled or exceeded in any given year and labeled as a Provisionally Accredited Levee (PAL). Communities have two years from the date of FEMA's initial coordination to submit to FEMA final accreditation data for all PALs. Following receipt of final accreditation data, FEMA will revise the FIS and FIRM as warranted.

The North Carolina Floodplain Mapping Program (NCFMP) contacted the communities within Surry County to obtain data required under 44 CFR 65.10 to continue to show the levees as providing protection from the flood that has a 1-percent annual chance of being equaled or exceeded in any given year.

This levee system includes Quality Mills Levee No. 2, Center Levee No. 3, Linville Road Levee No. 4, and River Side Drive Levee No. 5. These four levees were incorporated into the Ararat River effective hydrology and hydraulic modeling completed for the City of Mount Airy in the effective Flood Insurance Study (FIS) Report, dated February 19, 1987. This detailed analysis has been redelineated for this revision of the Flood Insurance Rate Maps and FIS Report. The levee structures are shown on the FIRMs as protecting against a 1- percent annual chance flood event.

The analyses of "behind levee" flooding was conducted for the levee to indicate the extent of the "behind levee" floodplain. The mapping of the shaded Zone X area was determined by approximating the area of 1-percent annual chance flooding in the event of levee failure based on the topographic data. This topographic data was derived from the Light Detection and Ranging

(LIDAR) collected for Surry County. The topographic data satisfies a vertical root-mean-square error (RMSE) accuracy standard of 25 cm (1.6 feet accuracy at the 95% confidence limit) in Surry County. The accuracy of the topographic data derived from the LIDAR is approximately 3 meters.

4.5 Scope of Study

In order to determine the areas studied by detailed and limited detailed methods in this FIS, initial research and community coordination was necessary. Initial scoping meetings were held in Surry County to present the results of initial research to the county and communities within the county and to discuss their flood mapping needs. The county and communities were asked to provide input on proposed study priorities and analysis methods. Those meetings resulted in the identification of flooding sources having a flood mapping need. Draft basin plans were developed based on the results of the initial scoping meetings. Final scoping meetings were held by the State and FEMA to provide counties and communities an overview of the draft basin plans, including the proposed scope and schedule for the project, and to provide an opportunity for additional county and community input. After the final scoping meeting was held, the Final Basin Plans were produced.

This FIS covers the geographic area of Surry County, North Carolina, and all jurisdictions therein. The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction. Limits of detailed study are indicated on the Flood Profiles and/or the FIRM. Please see Table 3, "Flooding Sources Studied by Detailed Methods: Revised or Newly Studied," for a list of flooding sources that were revised or newly studied by detailed methods for this FIS.

Table 3—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communities
	From	To	
Ararat River Tributary 8	The confluence with Ararat River	Approximately 230 feet upstream of Hylton Street	City of Mount Airy
Elkin Creek	The confluence with Yadkin River	Just downstream of the Wilkes/Surry County boundary	Town of Elkin
Heatherly Creek	The confluence with Toms Creek	Approximately 980 feet upstream of Nelson Road	Town of Pilot Mountain, Surry County (Unincorporated Areas)
Lovills Creek	The confluence with Ararat River	Approximately 0.9 mile upstream of Greenhill Road	City of Mount Airy, Surry County (Unincorporated Areas)
Tributary E-1[1]	The confluence with Elkin Creek	NC Highway 268	Town of Elkin
Tumbling Rock Branch[2]	The confluence with Lovills Creek	Approximately 1,000 feet upstream of the confluence with Lovills Creek	City of Mount Airy

Table 3—Flooding Sources Studied by Detailed Methods: Revised or Newly Studied

Source	Riverine Sources		Affected Communities
	From	To	
Yadkin River	Approximately 920 feet upstream of Interstate 77	The Wilkes/Surry/Yadkin County boundary	Town of Elkin

[1]Revised to reflect backwater effects from a new detailed study
[2]Revised to reflect flooding controlled by effects from a new detailed study

Table 4, "Flooding Sources Studied by Detailed Methods: Redelineated," contains a list of flooding sources that were studied by detailed methods for previous FISs, but were only partially revised in the current study. Their effective analyses remain valid; however, their floodplain delineations have been revised on the current FIRM.

Table 4—Flooding Sources Studied by Detailed Methods: Redelineated

Source	Riverine Sources		Affected Communities
	From	To	
Ararat River	Approximately 60 feet downstream of the confluence of Stewarts Creek	Approximately 110 feet downstream of the confluence of Ararat River Tributary 9	City of Mount Airy, Surry County (Unincorporated Areas)
Dutchmans Creek	Approximately 0.6 mile upstream of the confluence with Yadkin River	Approximately 360 feet upstream of Claremont Drive	Town of Elkin
Pauls Creek	The confluence with Stewarts Creek	Approximately 1.6 miles upstream of Miller Road (SR 1625)	City of Mount Airy, Surry County (Unincorporated Areas)
Stewarts Creek	The confluence with Ararat River	Approximately 0.5 mile upstream of Interstate 77	City of Mount Airy, Surry County (Unincorporated Areas)
Tributary D-1	The confluence with Dutchmans Creek	Approximately 1,090 feet upstream of Dutchman Creek Road	Town of Elkin
Tributary E-1	NC Highway 268	Approximately 0.4 mile upstream of NC Highway 268	Town of Elkin
Tumbling Rock Branch	Approximately 1,000 feet upstream of the confluence with Lovills Creek	Approximately 1,000 feet upstream of Boggs Drive	City of Mount Airy

Table 5, "Flooding Sources Studied by Detailed Methods: Limited Detailed" contains a list of flooding sources that were studied by approximate methods in previous FISs but were revised using limited detailed methods for this FIS.

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Ararat River (downstream)	The confluence with the Yadkin River	Approximately 60 feet downstream of the confluence of Stewarts Creek	City of Mount Airy, Surry County (Unincorporated Areas)
Ararat River (upstream)	Approximately 110 feet downstream of the confluence of Ararat River Tributary 9	The North Carolina/Virginia State boundary	Surry County (Unincorporated Areas)
Ararat River Tributary 1	The confluence with Ararat River	Approximately 0.5 mile upstream of the confluence with Ararat River	Surry County (Unincorporated Areas)
Ararat River Tributary 2	The confluence with Ararat River	Approximately 0.4 mile upstream of John Scott Road (SR 2079)	Surry County (Unincorporated Areas)
Ararat River Tributary 3	The confluence with Ararat River	Approximately 0.6 mile upstream of Reeves Road (SR 2083)	Surry County (Unincorporated Areas)
Ararat River Tributary 4	The confluence with Ararat River	Approximately 1.2 miles upstream of Pilot Church Road (SR 2057)	Surry County (Unincorporated Areas)
Ararat River Tributary 5	The confluence with Ararat River	Approximately 0.6 mile upstream of the confluence with Ararat River	Surry County (Unincorporated Areas)
Ararat River Tributary 6	The confluence with Ararat River	Approximately 670 feet upstream of the confluence of Ararat River Tributary 6A	Surry County (Unincorporated Areas)
Ararat River Tributary 6A	The confluence with Ararat River Tributary 6	Approximately 530 feet upstream of the confluence with Ararat River Tributary 6	Surry County (Unincorporated Areas)
Ararat River Tributary 7	The confluence with Ararat River	Approximately 0.4 mile upstream of the confluence with Ararat River	Surry County (Unincorporated Areas)
Ararat River Tributary 8	Approximately 230 feet upstream of Hylton Street	Approximately 0.5 mile upstream of Aims Avenue	City of Mount Airy
Ararat River Tributary 9	The confluence with Ararat River	Approximately 0.9 mile upstream of the confluence with Ararat River	Surry County (Unincorporated Areas)
Bear Creek	The confluence with Fisher River	Approximately 1.5 miles upstream of the confluence with Fisher River	Surry County (Unincorporated Areas)
Beaver Creek	The confluence with Fisher River	Approximately 1.0 mile upstream of Simpson Mill Road (SR 2200)	Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Beaverdam Creek	The confluence with Little Fisher River	Approximately 1.2 miles upstream of Interstate 77	Surry County (Unincorporated Areas)
Benson Creek	The confluence with Stewarts Creek	Approximately 0.9 mile upstream of Sparger Road (SR 1621)	Surry County (Unincorporated Areas)
Brendle Branch	The confluence with Camp Creek	Approximately 0.9 mile upstream of Interstate 77	Surry County (Unincorporated Areas)
Brushy Fork	The confluence with Pauls Creek	Approximately 0.5 mile upstream of White Pines Country Club Road (SR 1627)	Surry County (Unincorporated Areas)
Brushy Fork Tributary 1	The confluence with Brushy Fork	Approximately 0.6 mile upstream of the confluence with Brushy Fork	Surry County (Unincorporated Areas)
Bull Creek	The confluence with Ararat River	Approximately 1.0 mile upstream of Ararat Road (SR 2019)	Surry County (Unincorporated Areas)
Butler Creek	The confluence with Mitchell River	Approximately 210 feet upstream of Luffman Road	Surry County (Unincorporated Areas)
Caddle Creek	The confluence with Ararat River	Approximately 0.6 mile upstream of Siloam Road (SR 1003)	Surry County (Unincorporated Areas)
Camp Branch	The confluence with Fisher River	Approximately 220 feet upstream of West Pine Street/NC Highway 89	Surry County (Unincorporated Areas)
Camp Creek	The confluence with Mitchell River	Approximately 0.9 mile upstream of Interstate 77	Town of Elkin, Surry County (Unincorporated Areas)
Candiff Creek	The confluence with Yadkin River	Approximately 1,700 feet upstream of the confluence of Candiff Creek Tributary 2	Surry County (Unincorporated Areas)
Candiff Creek Tributary 1	The confluence with Candiff Creek	Approximately 0.2 mile upstream of River Siloam Road (SR 2230)	Surry County (Unincorporated Areas)
Candiff Creek Tributary 2	The confluence with Candiff Creek	Approximately 0.7 mile upstream of the confluence of Candiff Creek	Surry County (Unincorporated Areas)
Champ Creek	The confluence with Ararat River	Approximately 700 feet upstream of McBride Road	City of Mount Airy
Chinquapin Creek	The confluence with Toms Creek	Approximately 0.8 mile upstream of Old Westfield Road (SR 1809)	Town of Pilot Mountain, Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Cody Creek	The confluence with Fisher River	Approximately 0.4 mile upstream of John Davis Road (SR 2223)	Surry County (Unincorporated Areas)
Cooks Creek	The confluence with Fisher River	Approximately 0.5 mile upstream of White Buffalo Road (SR 1353)	Surry County (Unincorporated Areas)
Davenport Creek	The confluence with Fisher River	Approximately 0.6 mile upstream of the confluence with Fisher River	Surry County (Unincorporated Areas)
Dunagan Creek	The confluence with Fisher River	Approximately 0.4 mile upstream of Buck Fork Road (SR 2233)	Surry County (Unincorporated Areas)
Dutchmans Creek	The confluence with Yadkin River	Approximately 0.6 mile upstream of the confluence with Yadkin River	Town of Elkin
East Double Creek	The confluence with Yadkin River	Approximately 0.7 mile upstream of Romie Snow Road (SR 2229)	Surry County (Unincorporated Areas)
East Double Creek Tributary 1	The confluence with East Double Creek	Approximately 0.6 mile upstream of the confluence with East Double Creek	Surry County (Unincorporated Areas)
Elkin Creek	Just downstream of the Wilkes\Surry County boundary	The Wilkes\Surry County boundary	Town of Elkin
Faulkner Creek	The confluence with Ararat River	Approximately 1.1 miles upstream of Quaker Road (SR 1742)	City of Mount Airy, Surry County (Unincorporated Areas)
Faulkner Creek Tributary 1	The confluence with Faulkner Creek	Approximately 0.5 mile upstream of the confluence with Faulkner Creek	Surry County (Unincorporated Areas)
Fisher River	The confluence with Yadkin River	Approximately 1.1 miles upstream of Lumber Plant Road	Town of Dobson, Surry County (Unincorporated Areas)
Fisher River Tributary 1	The confluence with Fisher River	Approximately 0.5 mile upstream of the confluence of Fisher River Tributary 1A	Surry County (Unincorporated Areas)
Fisher River Tributary 1A	The confluence with Fisher River Tributary 1	Approximately 0.8 mile upstream of the confluence with Fisher River Tributary 1	Surry County (Unincorporated Areas)
Fisher River Tributary 2	The confluence with Fisher River	Approximately 1.2 mile upstream of the confluence with Fisher River	Surry County (Unincorporated Areas)
Fisher River Tributary 3	The confluence with Fisher River	Approximately 0.8 mile upstream of the confluence with Fisher River	Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Fisher River Tributary 4	The confluence with Fisher River	Approximately 0.8 mile upstream of the confluence with Fisher River	Surry County (Unincorporated Areas)
Fisher River Tributary 5	The confluence with Fisher River	Approximately 820 feet upstream of Tobe Hudson Road (SR 1342)	Surry County (Unincorporated Areas)
Flat Branch	The confluence with South Fork Mitchell River	Approximately 0.7 mile upstream of the confluence with South Fork Mitchell River	Surry County (Unincorporated Areas)
Flat Shoal Creek	The confluence with Ararat River	Approximately 490 feet upstream of Simmons Road (SR 1827)	Surry County (Unincorporated Areas)
Flat Shoal Creek Tributary 1	The confluence with Flat Shoal Creek	Approximately 0.9 mile upstream of the confluence with Flat Shoal Creek	Surry County (Unincorporated Areas)
Grassy Creek	The confluence with Yadkin River	Approximately 1,350 feet upstream of Scenic Overlook Lane	Surry County (Unincorporated Areas)
Grassy Creek Tributary 1	The confluence with Grassy Creek	Approximately 0.5 mile upstream of the confluence with Grassy Creek	Surry County (Unincorporated Areas)
Grassy Creek Tributary 2	The confluence with Grassy Creek	Approximately 1.2 miles upstream of the confluence with Grassy Creek	Surry County (Unincorporated Areas)
Grassy Creek Tributary 3	The confluence with Grassy Creek	Approximately 1.0 mile upstream of the confluence with Grassy Creek	Surry County (Unincorporated Areas)
Grassy Creek Tributary 4	The confluence with Grassy Creek	Approximately 0.5 mile upstream of the confluence with Grassy Creek	Surry County (Unincorporated Areas)
Grassy Creek Tributary 5	The confluence with Grassy Creek	Approximately 0.9 mile upstream of Pinnacle Hotel Road (SR 2061)	Surry County (Unincorporated Areas)
Grassy Creek Tributary 5A	The confluence with Grassy Creek Tributary 5	Approximately 1.3 miles upstream of the confluence with Grassy Creek Tributary 5	Surry County (Unincorporated Areas)
Grassy Creek Tributary 5B	The confluence with Grassy Creek Tributary 5	Approximately 0.5 mile upstream of the confluence with Grassy Creek Tributary 5	Surry County (Unincorporated Areas)
Grassy Creek Tributary 6	The confluence with Grassy Creek	Approximately 380 feet upstream of Mt. Zion Road (SR 2064)	Surry County (Unincorporated Areas)
Grassy Creek Tributary 7	The confluence with Grassy Creek	Approximately 1.1 miles upstream of Sante Fe Trail	Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Grassy Creek Tributary 8	The confluence with Grassy Creek	The Surry/Stokes County boundary	Surry County (Unincorporated Areas)
Grassy Creek Tributary 9	The confluence with Grassy Creek	The Surry/Stokes County boundary	Surry County (Unincorporated Areas)
Grassy Creek West	The Wilkes/Surry County boundary	Approximately 1,400 feet upstream of the Wilkes/Surry County boundary	Town of Elkin
Hatchers Creek	The confluence with Beaverdam Creek	Approximately 230 feet upstream of Beulah Road (SR 1345)	Surry County (Unincorporated Areas)
Hogan Creek	The confluence with Yadkin River	Approximately 1.9 miles upstream of Miller Gap Road (SR 2088)	Surry County (Unincorporated Areas)
Hogan Creek Tributary 1	The confluence with Hogan Creek	Approximately 0.4 mile upstream of the confluence with Hogan Creek	Surry County (Unincorporated Areas)
Hogan Creek Tributary 2	The confluence with Hogan Creek	Approximately 0.6 mile upstream of the confluence with Hogan Creek	Surry County (Unincorporated Areas)
Hogan Creek Tributary 3	The confluence with Hogan Creek	Approximately 0.9 mile upstream of the confluence with Hogan Creek	Surry County (Unincorporated Areas)
Horne Creek	The confluence with Yadkin River	Approximately 1,780 feet upstream of the confluence of Horne Creek Tributary 1	Surry County (Unincorporated Areas)
Horne Creek Tributary 1	The confluence with Horne Creek	Approximately 0.4 mile upstream of the confluence of Horne Creek Tributary 1A	Surry County (Unincorporated Areas)
Horne Creek Tributary 1A	The confluence with Horne Creek Tributary 1	Approximately 1,400 feet upstream of the confluence with Horne Creek Tributary 1	Surry County (Unincorporated Areas)
Jackson Creek	The confluence with Cooks Creek	Approximately 1.1 miles upstream of the confluence with Cooks Creek	Surry County (Unincorporated Areas)
Jackson Creek Tributary 1	The confluence with Jackson Creek	Approximately 1,500 feet upstream of the confluence with Jackson Creek	Surry County (Unincorporated Areas)
Jackson Creek Tributary 2	The confluence with Jackson Creek	Approximately 0.6 mile upstream of the confluence with Jackson Creek	Surry County (Unincorporated Areas)
Johnson Creek	The confluence with Ararat River	Approximately 1.5 miles upstream of Riverside Drive	City of Mount Airy, Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
King Creek	The confluence with Cody Creek	Approximately 0.3 mile upstream of US-601	Surry County (Unincorporated Areas)
Little Beaver Creek	The confluence with Fisher River	Approximately 60 feet downstream of Copeland School Road (SR 2209)	Surry County (Unincorporated Areas)
Little Creek	The confluence with Snow Creek	Approximately 800 upstream of Melton Road (SR 1127)	Surry County (Unincorporated Areas)
Little Fisher River	The confluence with Fisher River	Approximately 2.4 miles upstream of Richards Road (SR 1614)	Surry County (Unincorporated Areas)
Little Fisher River Tributary 1	The confluence with Little Fisher River	Approximately 0.7 mile upstream of the confluence with Little Fisher River	Surry County (Unincorporated Areas)
Little Fisher River Tributary 2	The confluence with Little Fisher River	Approximately 0.9 mile upstream of the confluence with Little Fisher River	Surry County (Unincorporated Areas)
Little Fisher River Tributary 3	The confluence with Little Fisher River	Approximately 550 feet upstream of West Pine Street/NC Highway 89	Surry County (Unincorporated Areas)
Little Fisher River Tributary 3A	The confluence with Little Fisher River Tributary 3	Approximately 0.6 mile upstream of the confluence with Little Fisher River Tributary 3	Surry County (Unincorporated Areas)
Little Yadkin River	The confluence with Yadkin River	The Surry/Forsyth County boundary	Surry County (Unincorporated Areas)
Long Creek	The confluence with Mitchell River	Approximately 1.1 miles upstream of the confluence with Mitchell River	Surry County (Unincorporated Areas)
Lovills Creek	Approximately 0.9 mile upstream of Greenhill Road	The North Carolina/Virginia State boundary	Surry County (Unincorporated Areas)
Mill Creek	The confluence with Mitchell River	Approximately 640 feet upstream of Ed Nixon Road (SR 1321)	Surry County (Unincorporated Areas)
Mitchell River	The confluence with the Yadkin River	Approximately 1.1 miles upstream of the confluence of Long Creek	Surry County (Unincorporated Areas)
Moores Fork	The confluence with Stewarts Creek	Approximately 0.5 mile upstream of Race Track Road (SR 1620)	Surry County (Unincorporated Areas)
Moores Fork Tributary 1	The confluence with Moores Fork	Approximately 1,560 feet upstream of West Pine Street/ NC Highway 89	Surry County (Unincorporated Areas)
North Fork Mitchell River	The confluence with Mitchell River	Approximately 0.5 mile upstream of the confluence with Mitchell River	Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
North Prong South Fork Mitchell River	The confluence with South Fork Mitchell River	Approximately 0.4 mile upstream of Rams Ridge Trail	Surry County (Unincorporated Areas)
Pheasant Creek	The confluence with Fisher River	Approximately 0.5 mile upstream of Chandler Road (SR 2238)	Surry County (Unincorporated Areas)
Pilot Creek	The confluence with Ararat River	Approximately 750 feet upstream of Leonard Road	Town of Pilot Mountain, Surry County (Unincorporated Areas)
Pilot Creek Tributary 1	The confluence with Pilot Creek	Approximately 0.4 mile upstream of Jim McKinney Road (SR 2047)	Surry County (Unincorporated Areas)
Pilot Creek Tributary 2	The confluence with Pilot Creek	Approximately 0.5 mile upstream of the confluence with Pilot Creek	Surry County (Unincorporated Areas)
Pilot Creek Tributary 3	The confluence with Pilot Creek	Approximately 1,120 feet upstream of the confluence of Pilot Creek Tributary 3A	Town of Pilot Mountain, Surry County (Unincorporated Areas)
Pilot Creek Tributary 3A	The confluence with Pilot Creek Tributary 3	Approximately 1,240 feet upstream of the confluence with Pilot Creek Tributary 3	Town of Pilot Mountain
Pilot Creek Tributary 4	The confluence with Pilot Creek	Approximately 1,870 feet upstream of the confluence with Pilot Creek	Surry County (Unincorporated Areas)
Pine Branch	The confluence with Mitchell River	Approximately 1,920 feet upstream of Millstone Trail	Surry County (Unincorporated Areas)
Potters Creek	The confluence with Mitchell River	Approximately 0.9 mile upstream of the confluence with Mitchell River	Surry County (Unincorporated Areas)
Ring Creek	The confluence with Little Fisher River	Approximately 1.0 mile upstream of Richards Road (SR 1614)	Surry County (Unincorporated Areas)
Rutledge Creek	The confluence with Ararat River	Approximately 2.0 miles upstream of Reeves Mill Road (SR 1774)	Surry County (Unincorporated Areas)
Rutledge Creek Tributary 1	The confluence with Rutledge Creek	Approximately 1,200 feet upstream of Reeves Mill Road (SR 1774)	Surry County (Unincorporated Areas)
Seed Cane Creek	The confluence with Ararat River	Approximately 730 feet upstream of Kirkman Road	City of Mount Airy

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Skin Cabin Creek	The confluence with Ararat River	Approximately 0.7 mile upstream of Stanford Church Road (SR 2086)	Surry County (Unincorporated Areas)
Snow Creek	The confluence with Mitchell River	Approximately 0.9 mile upstream of Interstate 77	Surry County (Unincorporated Areas)
Snow Creek Tributary	The confluence with Snow Creek	Approximately 0.8 mile upstream of the confluence with Snow Creek	Surry County (Unincorporated Areas)
South Fork Mitchell River	The confluence with Mitchell River	Approximately 0.5 mile upstream of Silver Creek Way	Surry County (Unincorporated Areas)
South Fork Mitchell River Tributary 1	The confluence with South Fork Mitchell River	Approximately 70 feet downstream of Pat Nixon Road (SR 1306)	Surry County (Unincorporated Areas)
South Fork Mitchell River Tributary 2	The confluence with South Fork Mitchell River	Approximately 0.7 mile upstream of the confluence of South Fork Mitchell River Tributary 2B	Surry County (Unincorporated Areas)
South Fork Mitchell River Tributary 2A	The confluence with South Fork Mitchell River Tributary 2	Approximately 1,740 feet upstream of the confluence with South Fork Mitchell River Tributary 2	Surry County (Unincorporated Areas)
South Fork Mitchell River Tributary 2B	The confluence with South Fork Mitchell River Tributary 2	Approximately 0.5 mile upstream of Abe Mayes Road (SR 1319)	Surry County (Unincorporated Areas)
Stewarts Creek	Approximately 0.5 mile upstream of Interstate 77	At the North Carolina/Virginia State boundary	Surry County (Unincorporated Areas)
Stewarts Creek Tributary 1	The confluence with Stewarts Creek	Approximately 0.5 mile upstream of West Old McKinney Road (SR 1429)	City of Mount Airy, Surry County (Unincorporated Areas)
Stewarts Creek Tributary 2	The confluence with Stewarts Creek	Approximately 230 feet upstream of Oak Ridge Drive (SR 1504)	Surry County (Unincorporated Areas)
Stewarts Creek Tributary 2A	The confluence with Stewarts Creek Tributary 2	Approximately 710 feet upstream of Melrose Trail	Surry County (Unincorporated Areas)
Stoney Creek	The confluence with Ararat River	Approximately 170 feet upstream of Mills Road (SR 1818)	Surry County (Unincorporated Areas)
Toms Creek	The confluence with Ararat River	Approximately 0.5 mile upstream of Matthews Road (SR 1830)	Town of Pilot Mountain, Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Toms Creek Tributary 1	The confluence with Toms Creek	Approximately 0.8 mile upstream of the confluence of Toms Creek Tributary 1A	Surry County (Unincorporated Areas)
Toms Creek Tributary 1A	The confluence with Toms Creek Tributary 1	Approximately 1,430 feet upstream of the confluence with Toms Creek Tributary 1	Surry County (Unincorporated Areas)
Toms Creek Tributary 2	The confluence with Toms Creek	Approximately 210 feet upstream of Foothill Farm Lane	Town of Pilot Mountain
Turkey Creek	The confluence with Yadkin River	Approximately 0.6 mile upstream of NC Highway 268	Town of Elkin
West Double Creek	The confluence with East Double Creek	Approximately 1.5 miles upstream of Old Rockford Road (SR 2230)	Surry County (Unincorporated Areas)
West Double Creek Tributary 1	The confluence with West Double Creek	Approximately 0.4 mile upstream of the confluence of West Double Creek Tributary 1A	Surry County (Unincorporated Areas)
West Double Creek Tributary 1A	The confluence with West Double Creek Tributary 1	Approximately 0.5 mile upstream of the confluence with West Double Creek Tributary 1	Surry County (Unincorporated Areas)
Whittier Creek	The confluence with Bull Creek	Approximately 1.8 miles upstream of the confluence with Bull Creek	Surry County (Unincorporated Areas)
Wood Branch	The confluence with South Fork Mitchell River	Approximately 0.8 mile upstream of the confluence with South Fork Mitchell River	Surry County (Unincorporated Areas)
Yadkin River	The Forsyth/Yadkin/Surry County boundary	Approximately 920 feet upstream of Interstate 77	Town of Elkin, Surry County (Unincorporated Areas)
Yadkin River Tributary 12	The confluence with Yadkin River	Approximately 0.8 mile upstream of Railroad	Surry County (Unincorporated Areas)
Yadkin River Tributary 13	The confluence with Yadkin River	Approximately 1,250 feet upstream of NC Highway 268	Surry County (Unincorporated Areas)
Yadkin River Tributary 16	The confluence with Yadkin River	Approximately 0.5 mile upstream of Railroad	Surry County (Unincorporated Areas)
Yadkin River Tributary 18	The confluence with Yadkin River	Approximately 1.0 mile upstream of Railroad	Surry County (Unincorporated Areas)

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Yadkin River Tributary 37	The confluence with Yadkin River	Approximately 1,690 feet upstream of John Mickles Road (SR 2075)	Surry County (Unincorporated Areas)

Table 6, "Stream Name Changes" contains a list of flooding sources that have been renamed since the previous FIS was published.

Table 6—Stream Name Changes

Community	Old Name	New Name
Surry County (Unincorporated Areas)	Grassy Creek	Grassy Creek West

This FIS also incorporates the determinations of letters issued by FEMA resulting in map changes (Letters of Map Revision [LOMRs]), as shown in Table 7, "Letters of Map Revision."

Table 7—Letters of Map Revision

Case Number	Date Issued	Flooding Source(s) / Project Identifier	Community
04-04-177P[1]	August 2, 2004	Lovills Creek Channel Improvement	City of Mount Airy and Surry County (Unincorporated Areas)

[1]This LOMR partially superseded due to a revision along Lovills Creek. Only the hydrologic analysis from LOMR 04-04-177P was used in the new detailed study for Lovills Creek.

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

5.1 Hydrologic Analyses

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

Pre-Countywide Analyses

Each jurisdiction within Surry County, with the exceptions of the Town of Dobson and the Town of Pilot Mountain, had previously printed FIS Reports describing each community's hydrologic analyses. Those analyses have been compiled from the FIS Reports and are summarized below. These analyses remain valid for those flooding sources listed in Table 4, "Flooding Sources Studied by Detailed Methods: Redelineated."

In the Town of Elkin, hydrologic analyses were carried out to establish the peak discharge-frequency relationships for floods of the selected recurrence intervals for each stream studied in detail in the community. Gaging stations located on the Yadkin and Elkin Rivers at Elkin were the principal source for data for determining discharge-frequency relationships for the Yadkin and Elkin Rivers (U.S. Department of the Interior, 1975). The log-Pearson Type III method of analysis was the principal method used to establish peak discharges for all of the streams considered in the February 1978 study (U.S. Army Corps of Engineers, 1962; U.S. Water Resources Council, 1967). On the Elkin and Yadkin Rivers, the gage records mentioned above were used directly in this log-Pearson analysis. For the other streams considered in the February 1978 report, a U.S. Geological Survey publication was used in determining discharges (U.S. Department of the Interior, 1962). For all streams included in the February 1978 study, rainfall-runoff models were used to verify the results of the log-Pearson analysis (U.S. Army Corps of Engineers, 1959).

Hydrologic data used in the Unincorporated Areas of Surry County were obtained from the Flood Hazard Analyses Reports prepared by the Soil Conservation Service (U.S. Department of Agriculture, April 1979 and June 1979).

In the City of Mount Airy for the Ararat River study, the frequency-discharge drainage area data were developed using the log-Pearson Type III method in a regional frequency study of the following gages located in the Yadkin River Basin (Interagency Advisory Committee on Water Data, 1981; U.S. Geological Survey, 1932-1979):

Gage Location	Years of Record
Yadkin River at Patterson	40
Elk Creek at Elkville	14
South Fork Lewis Fork Creek near North Wilkesboro	16
Reddies River at North Wilkesboro	40
Roaring River near Roaring River	15
Mitchell River near State Road N.C.	15
Fisher River near Copeland	48
Fisher River near Bottom	17
Ararat River at Ararat	15
Ararat River at dam near Pilot Mountain	16

For Lovills Creek, Soil Conservation Service (SCS) discharges were used in developing the flood profiles. As a check, flood discharges were developed using the appropriate regression equations in the unpublished study, "Composite Hydrologic Study of Floods in the Coastal Plain and Piedmont Areas of North Carolina" (Thomas, 1978). These discharges were compared to 24-hour storm discharges developed by the SCS using computer program TR-20 for the Lovills Creek dam project (U.S. Department of Agriculture, 1965). The SCS discharge-frequency relationship was found to be within the 90 percent confidence limits of the U.S. Army Corps of Engineers computations.

Also in the City of Mount Airy, Tumbling Rock Branch discharges were developed using methods given in "Effect of Urban Development on Floods in the Piedmont Province of North Carolina," a USGS open-file report (U.S. Geological Survey, 1972). This method was used due to the impending development of an industrial park in the upper drainage basin.

Revised Analyses for Countywide FIS

The hydrologic analyses for the Yadkin and Roanoke River basins, except for flooding sources with stream gages, were performed using the urban and rural regression equations developed by the USGS. The urban equations were published in "Estimation of Flood-Frequency Characteristics of Small Urban Streams in North Carolina," Water Resources Investigations Report 96-4084 (U.S. Department of the Interior, 1996). The rural equations were published in "Estimating the Magnitude and Frequency of Floods in Rural Basins in North Carolina, - Revised," Water Resources Investigations Report 01-4207 (U.S. Department of the Interior, 2001). Regression equations are mathematical formulas that relate the flow in the stream to physical factors such as the area of the basin and the percentage of the surface that is impervious (paved). Regression equations are developed by fitting a line through the center of the points on a graph that compares flood flows to basin area. The results reflect the "statistical average" of the data. If a gage station is located on the stream being studied, data from that station can be used to adjust the regression results to more accurately estimate the flood flow. There are three separate regional regression equations that cover North Carolina. Surry County is located in the hydrologic region known as the Piedmont region. Analyses of historical high-water marks obtained from interviews of county residents were used to confirm the accuracy of the regression equation estimates.

A summary of the drainage area-peak discharge relationships for the flooding sources studied by detailed methods is shown in Table 8, "Summary of Discharges."

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Ararat River	At the confluence with the Yadkin River	313.4	*	*	31,980	*
	Approximately 180 feet upstream of the confluence of Ararat River Tributary 1	311.0	*	*	31,928	*
	Approximately 210 feet upstream of the confluence of Ararat River Tributary 2	309.8	*	*	31,902	*
	Approximately 380 feet upstream of the confluence of Ararat River Tributary 4	305.6	*	*	31,807	*
	Approximately 350 feet upstream of the confluence of Ararat River Tributary 5	303.9	*	*	31,767	*
	Approximately 300 feet upstream of the confluence of Skin Cabin Creek	300.1	*	*	31,675	*
	Approximately 170 feet upstream of the confluence of Ararat River Tributary 6	298.2	*	*	31,627	*
	Approximately 550 feet upstream of the confluence of Pilot Creek	288.5	*	*	31,373	*
	Approximately 800 feet upstream of the confluence of Ararat River Tributary 7	287.1	*	*	31,332	*
	Approximately 400 feet upstream of NC Highway 268	286.2	*	*	31,308	*
	Approximately 760 feet upstream of the confluence of Bull Creek	272.2	*	*	29,803	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Ararat River	Approximately 320 feet upstream of the confluence of Toms Creek	233.6	*	*	28,435	*
	Approximately 410 feet upstream of Ararat Road (SR 2019)	230.1	*	*	28,351	*
	Approximately 360 feet upstream of the confluence of Flat Shoal Creek	221.2	*	*	27,207	*
	Approximately 510 feet upstream of the confluence of Stoney Creek	209.9	*	*	25,772	*
	Approximately 350 feet upstream of the confluence of Caddle Creek	203.3	*	*	24,934	*
	Approximately 470 feet upstream of the confluence of Caddle Creek	192.5	*	*	23,596	*
	Just upstream above the confluence of Stewarts Creek	111.0	10,700	20,200	27,800**	50,700
	Just upstream above the confluence of Lovills Creek	75.0	8,000	16,000	21,300	39,100
	At Hamberg Street	66.0	7,200	14,800	19,200	35,200
	Approximately 0.8 mile upstream of Linville Road	59.0	6,600	13,000	17,400	32,000
	Approximately 560 feet upstream of the confluence of Ararat River Tributary 9	40.0	*	*	7,476	*
	Approximately 1,020 feet upstream of the confluence of Ararat River Tributary 9	35.9	*	*	6,986	*
Ararat River Tributary 1	At the confluence with Ararat River	1.1	*	*	768	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Ararat River Tributary 1	Approximately 1,500 feet upstream of the confluence with Ararat River	1.0	*	*	733	*
Ararat River Tributary 2	At the confluence with Ararat River	1.1	*	*	803	*
	Approximately 80 feet downstream of John Scott Road (SR 2079)	1.1	*	*	782	*
	Approximately 1,090 feet upstream of John Scott Road (SR 2079)	1.0	*	*	757	*
Ararat River Tributary 3	At the confluence with Ararat River	1.0	*	*	733	*
	Approximately 1,280 feet upstream of Reeves Road (SR 2083)	0.7	*	*	616	*
Ararat River Tributary 4	At the confluence with Ararat River	3.0	*	*	1,467	*
	Approximately 0.4 mile upstream of the confluence with Ararat River	2.8	*	*	1,421	*
	Approximately 70 feet downstream of Pilot Church Road (SR 2057)	2.7	*	*	1,376	*
	Approximately 1,140 feet upstream of Pilot Church Road (SR 2057)	2.0	*	*	1,160	*
	Approximately 0.6 mile upstream of Pilot Church Road (SR 2057)	1.9	*	*	1,098	*
	Approximately 1.0 mile upstream of Pilot Church Road (SR 2057)	1.8	*	*	1,063	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Ararat River Tributary 4	Approximately 1.1 miles upstream of Pilot Church Road (SR 2057)	1.7	*	*	1,026	*
Ararat River Tributary 5	At the confluence with Ararat River	1.1	*	*	795	*
	Approximately 1,130 feet upstream of the confluence with Ararat River	1.1	*	*	782	*
	Approximately 0.4 mile upstream of the confluence with Ararat River	1.0	*	*	727	*
Ararat River Tributary 6	At the confluence with Ararat River	1.4	*	*	928	*
	Approximately 670 feet upstream of the confluence of Ararat River Tributary 6A	0.7	*	*	612	*
Ararat River Tributary 6A	At the confluence with Ararat River Tributary 6	0.6	*	*	546	*
Ararat River Tributary 7	At the confluence with Ararat River	0.9	*	*	678	*
	Approximately 1,620 feet upstream of the confluence with Ararat River	0.8	*	*	654	*
Ararat River Tributary 8	At the confluence with Ararat River	0.8	635	1,027	1,138	1,441
	Approximately 300 feet upstream of Riverside Drive	0.7	598	974	1,081	1,374
	Approximately 200 feet upstream of Madison Avenue	0.6	542	890	990	1,263
	Approximately 1,300 feet upstream of Aims Avenue	0.3	*	*	629	*
Ararat River Tributary 9	At the confluence with Ararat River	2.1	*	*	1,194	*
Bear Creek	At the confluence with Fisher River	3.1	*	*	1,500	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Bear Creek	Approximately 0.7 mile upstream of the confluence with Fisher River	2.8	*	*	1,428	*
	Approximately 0.8 mile upstream of the confluence with Fisher River	2.3	*	*	1,259	*
	Approximately 1.2 miles upstream of the confluence with Fisher River	2.1	*	*	1,184	*
Beaver Creek	At the confluence with Fisher River	5.9	*	*	2,250	*
	Approximately 0.8 mile upstream of the confluence with Fisher River	5.4	*	*	2,136	*
	Approximately 0.5 mile downstream of Simpson Mill Road (SR 2200)	4.9	*	*	2,017	*
	Approximately 160 feet upstream of Simpson Mill Road (SR 2200)	4.5	*	*	1,904	*
	Approximately 0.4 mile upstream of Simpson Mill Road (SR 2200)	4.1	*	*	1,809	*
	Approximately 0.9 mile upstream of Simpson Mill Road (SR 2200)	3.5	*	*	1,617	*
Beaverdam Creek	At the confluence with Little Fisher River	10.6	*	*	3,263	*
	Approximately 0.6 mile upstream of Haystack Road (SR 1480)	10.5	*	*	3,232	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Beaverdam Creek	Approximately 10 feet upstream of the confluence of Hatchers Creek	8.0	*	*	2,726	*
	Approximately 0.2 mile upstream of Interstate 77	7.6	*	*	2,654	*
	Approximately 1.0 mile upstream of Interstate 77	4.9	*	*	2,020	*
Benson Creek	At the confluence with Stewarts Creek	2.2	*	*	1,232	*
	Approximately 750 feet upstream of Sparger Road (SR 1621)	2.2	*	*	1,216	*
	Approximately 0.5 mile upstream of Sparger Road (SR 1621)	1.9	*	*	1,114	*
Brendle Branch	At the confluence with Camp Creek	2.6	*	*	1,362	*
	Approximately 0.5 mile upstream of confluence with Camp Creek	1.6	*	*	1,015	*
	Approximately 0.7 mile upstream of confluence with Camp Creek	1.5	*	*	967	*
Brushy Fork	At the confluence with Pauls Creek	4.8	*	*	1,990	*
	Approximately 10 feet downstream of Brushy Fork Lane	3.4	*	*	1,605	*
	Approximately 0.5 mile upstream of Brushy Fork Lane	3.2	*	*	1,534	*
	Approximately 220 feet downstream of White Pines Country Club Road (SR 1627)	3.0	*	*	1,466	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Brushy Fork	Approximately 1,170 feet upstream of White Pines Country Club Road (SR 1627)	2.9	*	*	1,438	*
Brushy Fork Tributary 1	At the confluence with Brushy Fork	0.9	*	*	697	*
	Approximately 1,320 feet upstream of the confluence with Brushy Fork	0.9	*	*	684	*
Bull Creek	At the confluence with Ararat River	13.9	*	*	3,865	*
	Approximately 0.5 mile upstream of the confluence with Ararat River	13.7	*	*	3,826	*
	Approximately 1.1 miles upstream of the confluence with Ararat River	13.3	*	*	3,747	*
	Approximately 0.9 mile upstream of Bryant Mill Road (SR 2041)	11.7	*	*	3,467	*
	Approximately 160 feet downstream of Eldora Road (SR 2038)	11.5	*	*	3,433	*
	Approximately 70 feet upstream of the confluence of Whittier Creek	4.0	*	*	1,761	*
	Approximately 0.5 mile upstream of the confluence of Whittier Creek	3.7	*	*	1,699	*
	Approximately 0.6 mile upstream of the confluence of Whittier Creek	3.7	*	*	1,681	*
	Approximately 0.7 mile upstream of the confluence of Whittier Creek	3.5	*	*	1,648	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Bull Creek	Approximately 200 feet downstream of Ararat Road (SR 2019)	3.3	*	*	1,569	*
	Approximately 810 feet upstream of Ararat Road (SR 2019)	3.2	*	*	1,535	*
	Approximately 0.5 mile upstream of Ararat Road (SR 2019)	3.0	*	*	1,491	*
	Approximately 0.7 mile upstream of Ararat Road (SR 2019)	2.7	*	*	1,398	*
Butler Creek	At the confluence with Mitchell River	3.3	*	*	1,563	*
	Approximately 1,500 feet downstream of Meadow Sweet Lane	3.2	*	*	1,538	*
	Approximately 30 feet upstream of Luffman Road	2.9	*	*	1,439	*
Caddle Creek	At the confluence with Ararat River	3.9	*	*	1,736	*
	Approximately 730 feet downstream of Siloam Road (SR 1003)	3.0	*	*	1,485	*
	Approximately 1,590 feet upstream of Siloam Road (SR 1003)	2.8	*	*	1,423	*
Camp Branch	At the confluence with Fisher River	4.3	*	*	1,857	*
	Approximately 220 feet upstream of West Pine Street/ State Route 89	3.4	*	*	1,610	*
Camp Creek	At the confluence with Mitchell River	6.6	*	*	2,421	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Camp Creek	Approximately 0.6 mile upstream of confluence with Mitchell River	6.3	*	*	2,360	*
	Approximately 0.9 mile upstream of confluence with Mitchell River	5.8	*	*	2,243	*
	Approximately 10 feet upstream of confluence of Brendle Branch	2.9	*	*	1,451	*
	Approximately 200 feet downstream of Ebenezer Church Road (SR 1136)	2.9	*	*	1,435	*
	Approximately 0.5 mile upstream of Interstate 77	2.4	*	*	1,285	*
Candiff Creek	At the confluence with Yadkin River	3.4	*	*	1,603	*
	Approximately 120 feet upstream of the confluence of Candiff Creek Tributary 1	2.8	*	*	1,428	*
	Approximately 350 feet downstream of River Siloam Road (SR 2230)	2.4	*	*	1,274	*
	Approximately 0.6 mile upstream of River Siloam Road (SR 2230)	2.2	*	*	1,227	*
	Approximately 0.8 mile upstream of River Siloam Road (SR 2230)	2.0	*	*	1,160	*
	Approximately 280 feet upstream of the confluence of Candiff Creek Tributary 2	0.9	*	*	682	*
Candiff Creek Tributary 1	At the confluence with Candiff Creek	0.6	*	*	524	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Candiff Creek Tributary 1	Approximately 0.3 mile upstream of Railroad	0.5	*	*	471	*
	Approximately 240 feet upstream of River Siloam Road (SR 2230)	0.4	*	*	439	*
	Approximately 850 feet upstream of River Siloam Road (SR 2230)	0.4	*	*	409	*
Candiff Creek Tributary 2	At the confluence with Candiff Creek	1.1	*	*	778	*
	Approximately 0.3 mile upstream of the confluence with Candiff Creek	1.0	*	*	738	*
	Approximately 0.6 mile upstream of the confluence with Candiff Creek	0.7	*	*	591	*
Champ Creek	At the confluence with the Ararat River	3.0	*	*	1,470	*
	Approximately 0.4 mile upstream of Slate Road	2.7	*	*	1,385	*
	Approximately 410 feet downstream of McBride Road	2.2	*	*	1,236	*
Chinquapin Creek	At the confluence with Toms Creek	9.5	*	*	3,034	*
	Approximately 190 feet upstream of Old Westfield Road	4.5	*	*	1,908	*
	Approximately 0.4 mile upstream of Old Westfield Road	4.4	*	*	1,872	*
	Approximately 0.6 mile upstream of Old Westfield Road	4.3	*	*	1,862	*
Cody Creek	At the confluence with Fisher River	17.6	*	*	4,473	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Cody Creek	Approximately 0.2 mile upstream of the confluence with Fisher River	17.3	*	*	4,423	*
	Approximately 300 feet upstream of the confluence of King Creek	11.0	*	*	3,343	*
	Approximately 1,250 feet upstream of NC Highway 268	10.7	*	*	3,285	*
	Approximately 1.0 mile upstream of NC Highway 268	10.3	*	*	3,192	*
	Approximately 1.3 miles upstream of NC Highway 268	9.8	*	*	3,111	*
Cooks Creek	At the confluence with Fisher River	8.1	*	*	2,755	*
	Approximately 180 feet upstream of the confluence of Jackson Creek	3.9	*	*	1,748	*
	Approximately 0.9 mile upstream of the confluence of Jackson Creek	3.6	*	*	1,649	*
	Approximately 250 feet downstream of White Buffalo Road (SR 1353)	3.3	*	*	1,557	*
	Approximately 0.4 mile upstream of White Buffalo Road (SR 1353)	3.0	*	*	1,473	*
Davenport Creek	At the confluence with Fisher River	1.1	*	*	809	*
	Approximately 1,240 feet upstream of the confluence with Fisher River	1.1	*	*	779	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Davenport Creek	Approximately 0.5 mile upstream of the confluence with Fisher River	1.0	*	*	737	*
Dunagan Creek	At the confluence with Fisher River	1.2	*	*	811	*
	Approximately 760 feet upstream of the confluence with Fisher River	1.1	*	*	781	*
	Approximately 780 feet upstream of Buck Fork Road (SR 2233)	1.0	*	*	747	*
	Approximately 1,580 feet upstream of Buck Fork Road (SR 2233)	0.9	*	*	700	*
Dutchmans Creek	Approximately 110 feet downstream of East Main Street	1.4	*	*	1,460	*
	At the confluence of Tributary D-1	0.9	600	1,030	1,240	1,800
	At Grove Avenue	0.5	440	770	900	1,340
East Double Creek	At the confluence with Yadkin River	10.3	*	*	3,195	*
	Approximately 360 feet upstream of the confluence of West Double Creek	5.5	*	*	2,158	*
	Approximately 0.5 mile upstream of the confluence of West Double Creek	5.3	*	*	2,114	*
	Approximately 1.6 miles upstream of the confluence of West Double Creek	4.8	*	*	1,997	*
	Approximately 210 feet upstream of the confluence of East Double Creek Tributary 1	3.7	*	*	1,675	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
East Double Creek	Approximately 1,720 feet upstream of the confluence of East Double Creek Tributary 1	3.5	*	*	1,641	*
	Approximately 0.4 mile upstream of the confluence of East Double Creek Tributary 1	2.5	*	*	1,319	*
	Approximately 1,480 feet upstream of Romie Snow Road (SR 2229)	2.3	*	*	1,247	*
	Approximately 0.6 mile upstream of Romie Snow Road (SR 2229)	2.1	*	*	1,197	*
	Approximately 0.7 mile upstream of Romie Snow Road (SR 2229)	1.7	*	*	1,029	*
East Double Creek Tributary 1	At the confluence with East Double Creek	0.9	*	*	694	*
	Approximately 1,680 feet upstream of the confluence with East Double Creek	0.7	*	*	600	*
	Approximately 0.6 mile upstream of the confluence with East Double Creek	0.6	*	*	553	*
Elkin Creek	At the confluence with Yadkin River	36.3	6,659	9,600	11,057	15,006
	Approximately 1,300 feet upstream of West Market Street	35.8	6,650	9,560	11,001	14,908
	Approximately 240 feet upstream of NC Highway 268	35.5	6,644	9,536	10,968	14,849
	Approximately 0.5 mile upstream of NC Highway 268	34.6	6,438	9,295	10,712	14,554

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Elkin Creek	Approximately 1,100 feet upstream of CC Camp Road	34.2	6,347	9,188	10,597	14,422
	Approximately 0.6 mile upstream of CC Camp Road	33.2	6,138	8,942	10,334	14,117
Faulkner Creek	Approximately 0.5 mile upstream of the confluence with Ararat River	5.1	*	*	2,057	*
	Approximately 290 feet upstream of Lovers Lane	4.6	*	*	1,932	*
	Approximately 210 feet upstream of the confluence of Faulkner Creek Tributary 1	3.2	*	*	1,555	*
	Approximately 1,170 feet upstream of the confluence of Faulkner Creek Tributary 1	3.1	*	*	1,509	*
	Approximately 0.8 mile upstream of the confluence of Faulkner Creek Tributary 1	2.7	*	*	1,386	*
	Approximately 80 feet downstream of Quaker Road (SR 1742)	2.7	*	*	1,372	*
	Approximately 1,940 feet upstream of Quaker Road (SR 1742)	2.2	*	*	1,227	*
	Approximately 0.9 mile upstream of Quaker Road (SR 1742)	1.9	*	*	1,118	*
Faulkner Creek Tributary 1	At the confluence with Faulkner Creek	0.9	*	*	880	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Faulkner Creek Tributary 1	Approximately 1,290 feet upstream of the confluence with Faulkner Creek	0.9	*	*	875	*
	Approximately 0.4 mile upstream of the confluence with Faulkner Creek	0.7	*	*	778	*
Fisher River	At the confluence with Yadkin River	164.4	*	*	24,418	*
	Approximately 180 feet upstream of the confluence of Davenport Creek	163.1	*	*	24,389	*
	Approximately 200 feet upstream of the confluence of Pheasant Creek	159.6	*	*	24,306	*
	Approximately 410 feet upstream of the confluence of Dunagan Creek	157.8	*	*	24,258	*
	Approximately 260 feet upstream of the confluence of Bear Creek	153.4	*	*	24,132	*
	Approximately 310 feet upstream of the confluence of Cody Creek	134.8	*	*	23,428	*
	Approximately 150 feet upstream of the confluence of Fisher River Tributary 1	132.6	*	*	23,324	*
	Approximately 240 feet upstream of the confluence of Little Beaver Creek	128.2	*	*	23,106	*
	Approximately 220 feet upstream of Hamlin Ford Road (SR 2222)	126.8	*	*	23,033	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Fisher River	Approximately 30 feet upstream of the confluence of Beaver Creek	120.6	*	*	21,970	*
	Approximately 240 feet upstream of the confluence of Fisher River Tributary 2	118.4	*	*	21,587	*
	Approximately 140 feet upstream of the confluence of Fisher River Tributary 3	116.3	*	*	21,224	*
	Approximately 340 feet upstream of Turkey Ford Road (SR 1100)	115.0	*	*	20,997	*
	Approximately 3.1 miles upstream of Turkey Ford Road (SR 1100)	110.5	*	*	20,236	*
	Approximately 150 feet upstream of the confluence of Cooks Creek	100.6	*	*	18,556	*
	Approximately 220 feet upstream of the confluence of Fisher River Tributary 4	100.1	*	*	18,484	*
	Approximately 270 feet upstream of the confluence of Little Fisher River	61.6	*	*	12,167	*
	Approximately 2.0 miles upstream of Prison Camp Road	57.8	*	*	11,546	*
	Approximately 100 feet upstream of the confluence of Fisher River Tributary 5	53.3	*	*	10,821	*
	Approximately 300 feet upstream of White Dirt Road (SR 1341)	51.3	*	*	10,490	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Fisher River	Approximately 1,680 feet upstream of Interstate 77	48.3	*	*	10,008	*
	Approximately 2.0 miles upstream of Interstate 77	44.3	*	*	9,357	*
	Approximately 4.0 miles upstream of Interstate 77	40.9	*	*	8,799	*
	Approximately 5.0 miles upstream of Interstate 77	37.5	*	*	8,235	*
	Approximately 6.9 miles upstream of Interstate 77	35.3	*	*	7,875	*
	Approximately 7.7 miles upstream of Interstate 77	31.3	*	*	7,192	*
	Approximately 8.4 miles upstream of Interstate 77	28.8	*	*	6,768	*
	Approximately 300 feet upstream of the confluence of Camp Branch	22.2	*	*	5,621	*
	Approximately 0.5 mile upstream of the confluence of Camp Branch	9.0	*	*	3,044	*
	Approximately 870 feet downstream of Old Lowgap Road (SR 1602)	8.3	*	*	2,898	*
	Approximately 0.5 mile upstream of Old Lowgap Road (SR 1602)	6.6	*	*	2,481	*
	Approximately 50 feet downstream of North Wilson Road (SR 1601)	4.1	*	*	1,825	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Fisher River	Approximately 0.8 mile upstream of North Wilson Road (SR 1601)	3.2	*	*	1,559	*
	Approximately 1.3 miles upstream of North Wilson Road (SR 1601)	1.6	*	*	1,002	*
	Approximately 1.7 miles upstream of North Wilson Road (SR 1601)	1.5	*	*	981	*
	Approximately 1.9 miles upstream of North Wilson Road (SR 1601)	0.9	*	*	696	*
	Approximately 2.2 miles upstream of North Wilson Road (SR 1601)	0.8	*	*	671	*
Fisher River Tributary 1	At the confluence with Fisher River	1.8	*	*	1,078	*
	Approximately 70 feet downstream of Rockford Road (SR 2221)	1.6	*	*	1,013	*
	Approximately 110 feet upstream of the confluence of Fisher River Tributary 1A	1.1	*	*	807	*
Fisher River Tributary 1A	At the confluence with Fisher River Tributary 1	0.4	*	*	426	*
	Approximately 910 feet upstream of the confluence with Fisher River Tributary 1	0.4	*	*	408	*
Fisher River Tributary 2	At the confluence with Fisher River	1.5	*	*	952	*
	Approximately 0.7 mile upstream of the confluence with Fisher River	1.3	*	*	890	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Fisher River Tributary 2	Approximately 1.0 mile upstream of the confluence with Fisher River	1.2	*	*	833	*
	Approximately 1.1 miles upstream of the confluence with Fisher River	1.0	*	*	756	*
Fisher River Tributary 3	At the confluence with Fisher River	1.7	*	*	1,049	*
	Approximately 0.5 mile upstream of the confluence with Fisher River	1.3	*	*	873	*
	Approximately 0.8 mile upstream of the confluence with Fisher River	1.2	*	*	837	*
Fisher River Tributary 4	At the confluence with Fisher River	0.4	*	*	415	*
	Approximately 1,970 feet upstream of the confluence with Fisher River	0.3	*	*	382	*
Fisher River Tributary 5	At the confluence with Fisher River	3.3	*	*	1,565	*
	Approximately 810 feet upstream of Tobe Hudson Road (SR 1342)	1.3	*	*	879	*
Flat Branch	At the confluence with South Fork Mitchell River	1.1	*	*	798	*
	Approximately 1,800 feet upstream of the confluence with South Fork Mitchell River	1.0	*	*	729	*
	Approximately 0.5 mile upstream of the confluence with South Fork Mitchell River	0.9	*	*	692	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Flat Shoal Creek	At the confluence with Ararat River	8.9	*	*	2,915	*
	Approximately 1,210 feet upstream of Ararat Longhill Road (SR 2017)	8.8	*	*	2,907	*
	Approximately 1.3 miles upstream of Ararat Longhill Road (SR 2017)	7.8	*	*	2,696	*
	Approximately 2.1 miles upstream of Ararat Longhill Road (SR 2017)	7.4	*	*	2,593	*
	Approximately 140 feet upstream of the confluence of Flat Shoal Creek Tributary 1	4.3	*	*	1,858	*
	Approximately 0.8 mile upstream of the confluence of Flat Shoal Creek Tributary 1	4.0	*	*	1,767	*
	Approximately 310 feet upstream of Old US Highway 52 (SR 2012)	3.5	*	*	1,625	*
	Approximately 140 feet downstream of US Highway 52	3.0	*	*	1,488	*
	Approximately 1,260 feet upstream of Beck Lane	2.6	*	*	1,361	*
	Approximately 830 feet downstream of Simmons Road (SR 1827)	2.2	*	*	1,223	*
Flat Shoal Creek Tributary 1	At the confluence with Flat Shoal Creek	2.4	*	*	1,285	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Flat Shoal Creek Tributary 1	Approximately 0.4 mile upstream of the confluence with Flat Shoal Creek	2.4	*	*	1,272	*
	Approximately 0.7 mile upstream of the confluence with Flat Shoal Creek	2.1	*	*	1,179	*
Grassy Creek	At the confluence with Yadkin River	15.4	*	*	4,114	*
	Approximately 0.5 mile upstream of Railroad	15.0	*	*	4,043	*
	Approximately 230 feet upstream of Grassy Creek Tributary 1	13.8	*	*	3,840	*
	Approximately 170 feet upstream of Grassy Creek Tributary 2	13.2	*	*	3,735	*
	Approximately 310 feet upstream of Grassy Creek Tributary 3	12.3	*	*	3,567	*
	Approximately 110 feet downstream of Grassy Creek Road (SR 2067)	12.2	*	*	3,553	*
	Approximately 0.7 mile upstream of Grassy Creek Road (SR 2067)	11.7	*	*	3,461	*
	Approximately 1.0 mile upstream of Grassy Creek Road (SR 2067)	11.2	*	*	3,374	*
	Approximately 310 feet upstream of Grassy Creek Tributary 4	10.9	*	*	3,310	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Grassy Creek	Approximately 600 feet upstream of Grassy Creek Tributary 5	7.6	*	*	2,648	*
	Approximately 180 feet upstream of Grassy Creek Tributary 6	6.6	*	*	2,434	*
	Approximately 0.4 mile upstream of Grassy Creek Tributary 6	6.4	*	*	2,384	*
	Approximately 150 feet downstream of Mt. Zion Road (SR 2064)	5.9	*	*	2,267	*
	Approximately 420 feet upstream of Grassy Creek Tributary 7	5.5	*	*	2,154	*
	Approximately 360 feet upstream of Grassy Creek Tributary 8	3.8	*	*	1,707	*
	Approximately 0.5 mile upstream of Grassy Creek Tributary 8	3.6	*	*	1,653	*
	Approximately 980 feet upstream of Pinnacle Hotel Road (SR 2061)	2.6	*	*	1,359	*
	Approximately 310 feet downstream of US Highway 52	2.2	*	*	1,234	*
	Approximately 170 feet upstream of Grassy Creek Tributary 9	1.2	*	*	836	*
	Approximately 460 feet upstream of Scenic Overlook Lane	0.9	*	*	677	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Grassy Creek Tributary 1	At the confluence with Grassy Creek	0.7	*	*	616	*
	Approximately 0.4 mile upstream of the confluence with Grassy Creek	0.5	*	*	512	*
Grassy Creek Tributary 2	At the confluence with Grassy Creek	0.6	*	*	519	*
	Approximately 1,280 feet upstream of the confluence with Grassy Creek	0.5	*	*	496	*
	Approximately 1.2 miles upstream of the confluence with Grassy Creek	0.2	*	*	276	*
Grassy Creek Tributary 3	At the confluence with Grassy Creek	0.9	*	*	691	*
	Approximately 0.6 mile upstream of the confluence with Grassy Creek	0.6	*	*	556	*
	Approximately 0.9 mile upstream of the confluence with Grassy Creek	0.4	*	*	434	*
Grassy Creek Tributary 4	At the confluence with Grassy Creek	0.3	*	*	366	*
Grassy Creek Tributary 5	At the confluence with Grassy Creek	2.8	*	*	1,404	*
	Approximately 880 feet upstream of the confluence of Grassy Creek Tributary 5A	2.0	*	*	1,136	*
	Approximately 260 feet upstream of the confluence of Grassy Creek Tributary 5B	1.2	*	*	814	*
	Approximately 100 feet upstream of Dusty Ridge Lane	1.1	*	*	807	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Grassy Creek Tributary 5	Approximately 0.4 mile upstream of Pinnacle Hotel Road (SR 2061)	0.7	*	*	601	*
	Approximately 0.5 mile upstream of Pinnacle Hotel Road (SR 2061)	0.7	*	*	589	*
Grassy Creek Tributary 5A	At the confluence with Grassy Creek Tributary 5	0.7	*	*	604	*
	Approximately 0.5 mile upstream of the confluence with Grassy Creek Tributary 5	0.6	*	*	514	*
	Approximately 1.0 mile upstream of the confluence with Grassy Creek Tributary 5	0.4	*	*	425	*
Grassy Creek Tributary 5B	At the confluence with Grassy Creek Tributary 5	0.7	*	*	577	*
	Approximately 1,270 feet upstream of the confluence with Grassy Creek Tributary 5	0.6	*	*	538	*
Grassy Creek Tributary 6	At the confluence with Grassy Creek	0.8	*	*	654	*
	Approximately 0.4 mile upstream of the confluence with Grassy Creek	0.7	*	*	619	*
	Approximately 80 feet upstream of Mt. Zion Road (SR 2064)	0.6	*	*	566	*
Grassy Creek Tributary 7	At the confluence with Grassy Creek	0.4	*	*	446	*
	Approximately 1,620 feet upstream of Sante Fe Trail	0.3	*	*	374	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Grassy Creek Tributary 8	At the confluence with Grassy Creek	1.4	*	*	900	*
	Approximately 1,370 feet upstream of the confluence with Grassy Creek	1.3	*	*	862	*
Grassy Creek Tributary 9	At the confluence with Grassy Creek	0.6	*	*	511	*
	Approximately 1,230 feet upstream of the confluence with Grassy Creek	0.5	*	*	496	*
Grassy Creek West	At the confluence with Elkin Creek	4.1	*	*	1,800	*
	Approximately 0.4 mile upstream of the confluence with Elkin Creek	4.0	*	*	1,774	*
Hatchers Creek	At the confluence with Beaverdam Creek	2.1	*	*	1,190	*
	Approximately 820 feet downstream of Beulah Road (SR 1345)	1.9	*	*	1,120	*
Heatherly Creek	At the confluence with Toms Creek	2.5	609	1,071	1,314	2,009
	Approximately 140 feet downstream of Railroad	2.5	605	1,065	1,306	1,998
	Approximately 570 feet upstream of Railroad	2.2	562	992	1,218	1,867
	Approximately 1,840 feet upstream of Railroad	2.0	524	927	1,140	1,751
	Approximately 520 feet downstream of US Highway 52	1.6	453	806	993	1,533
	Approximately 1,470 feet upstream of US Highway 52	1.4	423	755	931	1,439

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Heatherly Creek	Approximately 50 feet downstream of South Key Street	1.0	326	589	729	1,136
	Approximately 470 feet downstream of Hope Valley Road	0.8	290	525	651	1,018
	Approximately 1,650 feet upstream of Hope Valley Road	0.5	215	395	493	777
	Approximately 530 feet upstream of Academy Street	0.3	153	286	358	570
Hogan Creek	At the confluence with Yadkin River	8.6	*	*	2,856	*
	Approximately 180 feet upstream of Atkinson Road (SR 2082)	8.1	*	*	2,753	*
	Approximately 1,490 feet upstream of Atkinson Road (SR 2082)	7.8	*	*	2,695	*
	Approximately 0.7 mile upstream of Atkinson Road (SR 2082)	7.2	*	*	2,568	*
	Approximately 50 feet upstream of the confluence of Hogan Creek Tributary 1	6.4	*	*	2,386	*
	Approximately 0.5 mile upstream of the confluence of Hogan Creek Tributary 1	6.2	*	*	2,339	*
	Approximately 0.8 mile upstream of the confluence of Hogan Creek Tributary 1	5.9	*	*	2,268	*
	Approximately 1.0 mile upstream of the confluence of Hogan Creek Tributary 1	5.5	*	*	2,152	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Hogan Creek	Approximately 1.2 miles upstream of the confluence of Hogan Creek Tributary 1	5.4	*	*	2,126	*
	Approximately 1.8 miles upstream of the confluence of Hogan Creek Tributary 1	5.2	*	*	2,088	*
	Approximately 30 feet upstream of Hogan Creek Tributary 2	4.0	*	*	1,776	*
	Approximately 1,400 feet upstream of Anderson Road (SR 2038)	3.4	*	*	1,615	*
	Approximately 80 feet upstream of the confluence of Hogan Creek Tributary 3	2.5	*	*	1,308	*
	Approximately 900 feet downstream of Miller Gap Road (SR 2088)	2.4	*	*	1,278	*
	Approximately 1,040 feet upstream of Miller Gap Road (SR 2088)	2.1	*	*	1,188	*
	Approximately 0.4 mile upstream of Miller Gap Road (SR 2088)	1.9	*	*	1,116	*
	Approximately 0.7 mile upstream of Miller Gap Road (SR 2088)	1.7	*	*	1,031	*
	Approximately 1.1 miles upstream of Miller Gap Road (SR 2088)	1.5	*	*	947	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Hogan Creek	Approximately 1.4 miles upstream of Miller Gap Road (SR 2088)	1.0	*	*	740	*
	Approximately 1.8 miles upstream of Miller Gap Road (SR 2088)	0.7	*	*	586	*
Hogan Creek Tributary 1	At the confluence with Hogan Creek	0.5	*	*	494	*
	Approximately 1,000 feet upstream of the confluence with Hogan Creek	0.5	*	*	483	*
	Approximately 0.4 mile upstream of the confluence with Hogan Creek	0.1	*	*	211	*
Hogan Creek Tributary 2	At the confluence with Hogan Creek	0.6	*	*	545	*
	Approximately 1,360 feet upstream of the confluence with Hogan Creek	0.5	*	*	484	*
	Approximately 0.4 mile upstream of the confluence with Hogan Creek	0.4	*	*	434	*
	Approximately 0.5 mile upstream of the confluence with Hogan Creek	0.4	*	*	410	*
Hogan Creek Tributary 3	At the confluence with Hogan Creek	0.9	*	*	687	*
	Approximately 1,990 feet upstream of the confluence with Hogan Creek	0.8	*	*	639	*
	Approximately 0.6 mile upstream of the confluence with Hogan Creek	0.7	*	*	593	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Hogan Creek Tributary 3	Approximately 0.9 mile upstream of the confluence with Hogan Creek	0.6	*	*	564	*
Horne Creek	At the confluence with Yadkin River	2.7	*	*	1,380	*
	Approximately 0.4 mile upstream of Railroad	2.3	*	*	1,257	*
	Approximately 160 feet upstream of the confluence of Horne Creek Tributary 1	1.3	*	*	864	*
	Approximately 1,090 feet upstream of the confluence of Horne Creek Tributary 1	1.2	*	*	851	*
Horne Creek Tributary 1	At the confluence with Horne Creek	0.7	*	*	615	*
	Approximately 150 feet upstream of the confluence of Horne Creek Tributary 1A	0.4	*	*	448	*
	Approximately 750 feet upstream of the confluence of Horne Creek Tributary 1A	0.4	*	*	431	*
Horne Creek Tributary 1A	At the confluence with Horne Creek Tributary 1	0.3	*	*	320	*
	Approximately 650 feet upstream of the confluence with Horne Creek Tributary 1	0.2	*	*	268	*
Jackson Creek	At the confluence with Cooks Creek	4.0	*	*	1,760	*
	Approximately 100 feet upstream of the confluence of Jackson Creek Tributary 1	3.4	*	*	1,604	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Jackson Creek	Approximately 140 feet upstream of the confluence of Jackson Creek Tributary 2	2.0	*	*	1,162	*
	Approximately 0.7 mile upstream of the confluence of Jackson Creek Tributary 2	1.9	*	*	1,106	*
Jackson Creek Tributary 1	At the confluence with Jackson Creek	0.5	*	*	505	*
	Approximately 780 feet upstream of the confluence with Jackson Creek	0.5	*	*	462	*
Jackson Creek Tributary 2	At the confluence with Jackson Creek	1.4	*	*	906	*
Johnson Creek	At the confluence with Ararat River	18.4	*	*	4,599	*
	Approximately 1,250 feet upstream of Riverside Drive	18.3	*	*	4,589	*
	Approximately 0.9 mile upstream of Riverside Drive	17.8	*	*	4,511	*
	Approximately 1.1 miles upstream of Riverside Drive	17.7	*	*	4,495	*
	Approximately 1.3 miles upstream of Riverside Drive	17.4	*	*	4,436	*
King Creek	At the confluence with Cody Creek	5.8	*	*	2,233	*
	Approximately 1,330 feet upstream of NC Highway 268	5.7	*	*	2,210	*
	Approximately 0.9 mile upstream of NC Highway 268	5.2	*	*	2,084	*
	Approximately 530 feet downstream of US Highway 601	1.5	*	*	973	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Little Beaver Creek	At the confluence with Fisher River	3.9	*	*	1,736	*
	Approximately 1.1 miles upstream of the confluence with Fisher River	3.4	*	*	1,614	*
	Approximately 400 feet downstream of Simpson Mill Road (SR 2200)	3.1	*	*	1,498	*
	Approximately 600 feet upstream of Simpson Mill Road (SR 2200)	2.5	*	*	1,311	*
	Approximately 1,190 feet upstream of Simpson Mill Road (SR 2200)	2.3	*	*	1,252	*
	Approximately 0.7 mile upstream of Simpson Mill Road (SR 2200)	1.9	*	*	1,104	*
Little Creek	At the confluence with Snow Creek	4.3	*	*	1,842	*
	Approximately 0.5 mile upstream of the confluence with Snow Creek	4.1	*	*	1,804	*
	Approximately 970 feet downstream of Interstate 77	3.6	*	*	1,664	*
	Approximately 150 feet upstream of Bessies Chapel Church Road (SR 1129)	3.2	*	*	1,555	*
	Approximately 600 feet upstream of Bessies Chapel Church Road (SR 1129)	3.2	*	*	1,536	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Little Creek	Approximately 0.4 mile upstream of Bessies Chapel Church Road (SR 1129)	2.7	*	*	1,382	*
	Approximately 0.7 mile upstream of Bessies Chapel Church Road (SR 1129)	2.5	*	*	1,319	*
	Approximately 0.9 mile upstream of Bessies Chapel Church Road (SR 1129)	2.3	*	*	1,245	*
	Approximately 1.3 miles upstream of Bessies Chapel Church Road (SR 1129)	2.2	*	*	1,213	*
	Approximately 1.5 miles upstream of Bessies Chapel Church Road (SR 1129)	1.9	*	*	1,128	*
	Approximately 1.6 miles upstream of Bessies Chapel Church Road (SR 1129)	1.7	*	*	1,049	*
	Approximately 1,980 feet downstream of Dobbins Mill Road (SR 1122)	1.5	*	*	964	*
	Approximately 880 feet downstream of Dobbins Mill Road (SR 1122)	1.4	*	*	935	*
	Approximately 310 feet upstream of Dobbins Mill Road (SR 1122)	1.2	*	*	853	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Little Creek	Approximately 1,900 feet upstream of Dobbins Mill Road (SR 1122)	1.2	*	*	817	*
	Approximately 1,150 feet downstream of Melton Road (SR 1127)	1.0	*	*	748	*
	Approximately 800 feet downstream of Melton Road (SR 1127)	0.7	*	*	591	*
	Approximately 800 feet upstream of Melton Road (SR 1127)	0.5	*	*	489	*
Little Fisher River	At the confluence with Fisher River	38.4	*	*	7,286	*
	Approximately 660 feet downstream of Red Brush Road (SR 1350)	38.2	*	*	7,255	*
	Approximately 110 feet upstream of Little Fisher River Tributary 1	36.8	*	*	7,089	*
	Approximately 0.5 mile upstream of Little Fisher River Tributary 1	36.6	*	*	7,071	*
	Approximately 1.2 miles upstream of Little Fisher River Tributary 1	36.1	*	*	7,007	*
	Approximately 1.8 miles upstream of Little Fisher River Tributary 1	34.5	*	*	6,809	*
	Approximately 2.4 miles upstream of Little Fisher River Tributary 1	33.8	*	*	6,729	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Little Fisher River	Approximately 3.0 miles upstream of Little Fisher River Tributary 1	33.0	*	*	6,630	*
	Approximately 3.4 miles upstream of Beaverdam Creek	32.3	*	*	6,532	*
	Approximately 230 feet upstream of the confluence of Beaverdam Creek	21.5	*	*	5,068	*
	Approximately 840 feet upstream of Haystack Road (SR 1480)	21.1	*	*	5,014	*
	Approximately 0.6 mile upstream of Haystack Road (SR 1480)	20.7	*	*	4,951	*
	Approximately 180 feet upstream Laurel Springs Church Road (SR 1397)	18.9	*	*	4,672	*
	Approximately 470 feet upstream of the confluence of Little Fisher River Tributary 3	16.5	*	*	4,302	*
	Approximately 390 feet upstream of the confluence of Ring Creek	11.6	*	*	3,451	*
	Approximately 1,500 feet upstream of Richards Road (SR 1614)	11.2	*	*	3,373	*
	Approximately 1.5 miles upstream of Richards Road (SR 1614)	10.3	*	*	3,196	*
	Approximately 2.4 miles upstream of Richards Road (SR 1614)	9.5	*	*	3,034	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Little Fisher River Tributary 1	At the confluence with Little Fisher River	0.9	*	*	698	*
	Approximately 0.4 mile upstream of the confluence with Little Fisher River	0.8	*	*	673	*
	Approximately 0.5 mile upstream of the confluence with Little Fisher River	0.7	*	*	576	*
Little Fisher River Tributary 2	At the confluence with Little Fisher River	1.5	*	*	953	*
	Approximately 1,640 feet upstream of the confluence with Little Fisher River	1.2	*	*	848	*
	Approximately 0.6 mile upstream of the confluence with Little Fisher River	1.2	*	*	818	*
	Approximately 0.8 mile upstream of the confluence with Little Fisher River	0.9	*	*	676	*
Little Fisher River Tributary 3	At the confluence with Little Fisher River	2.0	*	*	1,144	*
	Approximately 420 feet upstream of the confluence of Little Fisher River Tributary 3A	0.9	*	*	674	*
	Approximately 190 feet downstream of West Pine Street/NC Highway 89	0.8	*	*	644	*
Little Fisher River Tributary 3A	At the confluence with Little Fisher River Tributary 3	1.1	*	*	805	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Little Fisher River Tributary 3A	Approximately 1,630 feet upstream of the confluence with Little Fisher River Tributary 3	1.0	*	*	752	*
	Approximately 0.6 mile upstream of the confluence with Little Fisher River Tributary 3	0.7	*	*	608	*
Little Yadkin River	At the confluence with Yadkin River	61.3	*	*	15,636	*
Long Creek	At the confluence with Mitchell River	0.9	*	*	675	*
	Approximately 1,950 feet upstream of the confluence with Mitchell River	0.8	*	*	649	*
	Approximately 0.6 mile upstream of the confluence with Mitchell River	0.7	*	*	618	*
	Approximately 0.9 mile upstream of the confluence with Mitchell River	0.6	*	*	547	*
	Approximately 1.0 mile upstream of the confluence with Mitchell River	0.6	*	*	535	*
Lovills Creek	At the confluence with Ararat River	36.1	3,194	4,056	4,577	6,069
	Approximately 470 feet downstream of Worth Street	35.1	2,999	3,810	4,362	6,003
	Approximately 0.4 mile downstream of West Pine Street/ NC Highway 89	33.9	2,619	3,332	3,934	5,863
	Approximately 1,770 feet upstream of West Independence Boulevard	33.0	2,140	2,998	3,852	6,008

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Lovills Creek	Approximately 1,860 feet upstream of Greenhill Road	26.6	1,952	2,714	3,490	5,446
	Approximately 0.8 mile upstream of Greenhill Road	25.6	1,811	2,501	3,219	5,026
Mill Creek	At the confluence with Mitchell River	5.6	*	*	2,186	*
	Approximately 1,880 feet upstream of Devotion Road (SR 1322)	5.6	*	*	2,174	*
	Approximately 0.5 mile upstream of Devotion Road (SR 1322)	5.2	*	*	2,084	*
	Approximately 0.9 mile upstream of Devotion Road (SR 1322)	5.1	*	*	2,050	*
	Approximately 820 feet downstream of Ed Nixon Road (SR 1321)	4.7	*	*	1,960	*
	Approximately 320 feet upstream of Ed Nixon Road (SR 1321)	3.0	*	*	1,475	*
Mitchell River	At the confluence with Yadkin River	108.0	*	*	14,057	*
	Approximately 270 feet upstream of the confluence of Snow Creek	89.1	*	*	12,689	*
	Approximately 370 feet upstream of the confluence of Camp Creek	81.4	*	*	12,072	*
	Approximately 490 feet downstream of Interstate 77	79.8	*	*	11,944	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Mitchell River	Approximately 1.2 miles upstream of Poplar Springs Road (SR 1001)	76.7	*	*	11,621	*
	Approximately 10 feet upstream of the confluence of South Fork Mitchell River	50.1	*	*	8,684	*
	Approximately 0.8 mile upstream of the confluence of South Fork Mitchell River	48.9	*	*	8,542	*
	Approximately 1.8 miles downstream of Zephy Mountain Park Road (SR 1315)	47.4	*	*	8,370	*
	Approximately 0.6 mile downstream of Zephy Mountain Park Road (SR 1315)	46.4	*	*	8,248	*
	Approximately 0.8 mile upstream of Zephy Mountain Park Road (SR 1315)	44.3	*	*	8,000	*
	Approximately 10 feet upstream of the confluence of Mill Creek	37.8	*	*	7,208	*
	Approximately 10 feet upstream of the confluence of Pine Branch	35.2	*	*	6,903	*
	Approximately 1,580 feet upstream of Judsville School Road (SR 1334)	34.2	*	*	6,774	*
	Approximately 0.9 mile downstream of the confluence of Potters Creek	33.6	*	*	6,698	*
	Approximately 10 feet upstream of the confluence of Potters Creek	30.6	*	*	6,326	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Mitchell River	Approximately 0.8 mile downstream of River Road (SR 1330)	30.5	*	*	6,313	*
	Approximately 180 feet downstream of River Road (SR 1330)	30.1	*	*	6,252	*
	Approximately 0.8 mile downstream of the confluence of North Fork Mitchell River	29.7	*	*	6,203	*
	Approximately 10 feet upstream of the confluence of North Fork Mitchell River	23.5	*	*	5,352	*
	Approximately 10 feet upstream of the confluence of Butler Creek	20.0	*	*	4,845	*
	Approximately 0.6 mile upstream of the confluence of Butler Creek	19.7	*	*	4,795	*
	Approximately 1.4 miles upstream of the confluence of Butler Creek	19.2	*	*	4,721	*
	Approximately 0.9 mile downstream of Haystack Road (SR 1328)	18.7	*	*	4,644	*
	Approximately 0.6 mile downstream of Haystack Road (SR 1328)	12.7	*	*	3,641	*
	Approximately 50 feet downstream of Haystack Road (SR 1328)	11.8	*	*	3,479	*
	Approximately 450 feet upstream of Haystack Road (SR 1328)	11.2	*	*	3,375	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Mitchell River	Approximately 1,980 feet downstream of the confluence of Long Creek	8.6	*	*	2,852	*
	Approximately 10 feet upstream of the confluence of Long Creek	7.6	*	*	2,648	*
	Approximately 1,830 feet upstream of the confluence of Long Creek	6.4	*	*	2,371	*
	Approximately 0.7 mile upstream of the confluence of Long Creek	6.3	*	*	2,353	*
Moores Fork	At the confluence with Stewarts Creek	6.4	*	*	2,367	*
	Approximately 60 feet downstream of Race Track Road (SR 1620)	4.4	*	*	1,874	*
	Approximately 1,400 feet upstream of Race Track Road (SR 1620)	4.3	*	*	1,848	*
Moores Fork Tributary 1	At the confluence with Moores Fork	1.8	*	*	1,061	*
	Approximately 90 feet upstream of West Pine Street/NC Highway 89	1.7	*	*	1,048	*
	Approximately 900 feet upstream of West Pine Street/NC Highway 89	1.5	*	*	965	*
North Fork Mitchell River	At the confluence with Mitchell River	5.8	*	*	2,228	*
	Approximately 0.4 mile upstream of the confluence with Mitchell River	5.6	*	*	2,190	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
North Prong South Fork Mitchell River	At the confluence with South Fork Mitchell River	4.6	*	*	1,940	*
	Approximately 1,240 feet upstream of the confluence with South Fork Mitchell River	4.0	*	*	1,765	*
	Approximately 1,820 feet upstream of Possum Trot Valley Lane (SR 1514)	3.7	*	*	1,691	*
	Approximately 0.7 mile upstream of Possum Trot Valley Lane (SR 1514)	3.2	*	*	1,543	*
	Approximately 1.3 miles upstream of Possum Trot Valley Lane (SR 1514)	3.1	*	*	1,502	*
	Approximately 130 feet downstream of Haystack Road (SR 1328)	2.2	*	*	1,207	*
	Approximately 230 feet upstream of Haystack Road (SR 1328)	1.9	*	*	1,110	*
	Approximately 0.5 mile upstream of Haystack Road (SR 1328)	1.8	*	*	1,082	*
	Approximately 0.6 mile upstream of Haystack Road (SR 1328)	1.6	*	*	1,003	*
	Approximately 1,440 feet upstream of Rams Ridge Trail	1.4	*	*	912	*
	Approximately 1,990 feet upstream of Rams Ridge Trail	0.6	*	*	550	*
Pauls Creek	At the confluence with Stewarts Creek	28.9	5,600	8,700	11,500	19,850

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Pheasant Creek	At the confluence with Fisher River	3.0	*	*	1,478	*
	Approximately 180 feet upstream of Chandler Road (SR 2238)	2.8	*	*	1,433	*
	Approximately 1,460 feet upstream of Chandler Road (SR 2238)	2.5	*	*	1,320	*
Pilot Creek	At the confluence with Ararat River	7.2	*	*	2,560	*
	Approximately 1,040 feet upstream of the confluence with Ararat River	7.0	*	*	2,503	*
	Approximately 40 feet upstream of the confluence of Pilot Creek Tributary 1	5.8	*	*	2,235	*
	Approximately 340 feet upstream of the confluence of Pilot Creek Tributary 2	4.9	*	*	2,009	*
	Approximately 1,140 feet upstream of Shoals Road (SR 2048)	4.1	*	*	1,793	*
	Approximately 0.4 mile upstream of Shoals Road (SR 2048)	3.8	*	*	1,712	*
	Approximately 0.6 mile upstream of Shoals Road (SR 2048)	3.8	*	*	1,707	*
	Approximately 1.0 mile upstream of Shoals Road (SR 2048)	3.4	*	*	1,606	*
	Approximately 190 feet upstream of the confluence of Pilot Creek Tributary 3	2.9	*	*	1,453	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Pilot Creek	Approximately 1,710 feet upstream of the confluence of Pilot Creek Tributary 3	2.4	*	*	1,274	*
	Approximately 440 feet downstream of Black Mountain Road (SR 2097)	2.2	*	*	1,219	*
	Approximately 180 feet downstream of US Highway 52	1.6	*	*	1,018	*
	Approximately 490 feet upstream of US Highway 52	1.5	*	*	946	*
	Approximately 70 feet upstream of the confluence of Pilot Creek Tributary 4	0.8	*	*	638	*
	Approximately 1,230 feet upstream of the confluence of Pilot Creek Tributary 4	0.6	*	*	544	*
	Approximately 90 feet downstream of Seven Springs Lane	0.5	*	*	496	*
	Approximately 570 feet upstream of Seven Springs Lane	0.3	*	*	347	*
Pilot Creek Tributary 1	At the confluence with Pilot Creek	0.8	*	*	632	*
	Approximately 560 feet downstream of Jim McKinney Road (SR 2047)	0.7	*	*	600	*
	Approximately 1,330 feet downstream of Jim McKinney Road (SR 2047)	0.7	*	*	575	*
Pilot Creek Tributary 2	At the confluence with Pilot Creek	0.9	*	*	698	*
	Approximately 1,030 feet upstream of the confluence with Pilot Creek	0.8	*	*	654	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Pilot Creek Tributary 2	Approximately 1,800 feet upstream of the confluence with Pilot Creek	0.7	*	*	607	*
Pilot Creek Tributary 3	At the confluence with Pilot Creek	0.5	*	*	568	*
	Approximately 1,700 feet upstream of the confluence with Pilot Creek	0.4	*	*	490	*
	Approximately 240 feet upstream of the confluence of Pilot Creek Tributary 3A	0.2	*	*	380	*
	Approximately 620 feet upstream of the confluence of Pilot Creek Tributary 3A	0.2	*	*	352	*
Pilot Creek Tributary 3A	At the confluence with Pilot Creek Tributary 3	0.1	*	*	165	*
	Approximately 660 feet upstream of the confluence with Pilot Creek Tributary 3	0.1	*	*	153	*
Pilot Creek Tributary 4	At the confluence with Pilot Creek	0.2	*	*	299	*
	Approximately 820 feet upstream of the confluence with Pilot Creek	0.2	*	*	265	*
Pine Branch	At the confluence with Mitchell River	2.3	*	*	1,269	*
	Approximately 1,480 feet upstream of Millstone Trail	2.1	*	*	1,169	*
Potters Creek	At the confluence with Mitchell River	2.1	*	*	1,184	*
	Approximately 1,230 feet upstream of the confluence with Mitchell River	1.7	*	*	1,042	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Potters Creek	Approximately 0.6 mile upstream of the confluence with Mitchell River	1.4	*	*	922	*
Ring Creek	At the confluence with Little Fisher River	4.3	*	*	1,859	*
	Approximately 0.6 mile upstream of Richards Road (SR 1614)	4.0	*	*	1,762	*
Rutledge Creek	At the confluence with Ararat River	8.3	*	*	2,791	*
	Approximately 1.3 miles upstream of the confluence with Ararat River	7.9	*	*	2,706	*
	Approximately 160 feet downstream of US Highway 52	7.6	*	*	2,652	*
	Approximately 1,090 feet upstream of South Main Street	6.9	*	*	2,488	*
	Approximately 0.7 mile upstream of South Main Street	6.6	*	*	2,422	*
	Approximately 50 feet upstream of the confluence of Rutledge Creek Tributary 1	6.0	*	*	2,279	*
	Approximately 210 feet downstream of Reeves Mill Road (SR 1774)	5.9	*	*	2,259	*
	Approximately 0.4 mile upstream of Reeves Mill Road (SR 1774)	5.6	*	*	2,182	*
	Approximately 0.7 mile upstream of Reeves Mill Road (SR 1774)	5.3	*	*	2,111	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Rutledge Creek	Approximately 1.4 miles upstream of Reeves Mill Road (SR 1774)	5.1	*	*	2,071	*
	Approximately 1.8 miles upstream of Reeves Mill Road (SR 1774)	4.9	*	*	2,024	*
Rutledge Creek Tributary 1	At the confluence with Rutledge Creek	0.4	*	*	449	*
	Approximately 430 feet upstream of Reeves Mill Road (SR 1774)	0.4	*	*	443	*
	Approximately 940 feet upstream of Reeves Mill Road (SR 1774	0.4	*	*	408	*
Seed Cane Creek	At the confluence with Ararat River	2.2	*	*	1,431	*
	Approximately 690 feet upstream of US Highway 52	2.0	*	*	1,253	*
	Approximately 260 feet downstream of South Main Street	1.7	*	*	1,031	*
	Approximately 200 feet downstream of Wall Street	1.1	*	*	808	*
	Approximately 350 feet downstream of Kirkman Road	1.1	*	*	787	*
Skin Cabin Creek	At the confluence with Ararat River	2.8	*	*	1,433	*
	Approximately 0.6 mile upstream of the confluence with Ararat River	2.4	*	*	1,275	*
	Approximately 1.1 miles upstream of the confluence with Ararat River	1.9	*	*	1,113	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Skin Cabin Creek	Approximately 860 feet downstream of Stanford Church Road (SR 2086)	1.4	*	*	934	*
	Approximately 1,510 feet upstream of Stanford Church Road (SR 2086)	1.1	*	*	801	*
	Approximately 0.7 mile upstream of Stanford Church Road (SR 2086)	0.9	*	*	674	*
Snow Creek	At the confluence with Mitchell River	18.3	*	*	4,576	*
	Approximately 1,060 feet upstream of the confluence with Mitchell River	18.2	*	*	4,572	*
	Approximately 0.5 mile upstream of the confluence with Mitchell River	17.7	*	*	4,494	*
	Approximately 170 feet upstream of Joe Layne Mill Road (SR 1121)	16.4	*	*	4,275	*
	Approximately 180 feet upstream of the confluence of Snow Creek Tributary	14.5	*	*	3,971	*
	Approximately 0.4 mile upstream of the confluence of Snow Creek Tributary	14.3	*	*	3,925	*
	Approximately 1.0 mile upstream of the confluence of Snow Creek Tributary	13.2	*	*	3,734	*
	Approximately 1.2 miles upstream of the confluence of Snow Creek Tributary	12.8	*	*	3,666	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Snow Creek	Approximately 1.6 miles upstream of the confluence of Snow Creek Tributary	12.3	*	*	3,571	*
	Approximately 310 feet upstream of the confluence of Little Creek	8.0	*	*	2,730	*
	Approximately 150 feet downstream of Dobbins Mill Road (SR 1122)	6.9	*	*	2,486	*
	Approximately 0.8 mile upstream of Dobbins Mill Road (SR 1122)	6.1	*	*	2,316	*
	Approximately 1.5 miles upstream of Dobbins Mill Road (SR 1122)	4.5	*	*	1,899	*
	Approximately 2.0 miles upstream of Dobbins Mill Road (SR 1122)	4.1	*	*	1,808	*
	Approximately 120 feet downstream of Snow Hill Church Lane (SR 1123)	3.8	*	*	1,707	*
	Approximately 1,590 feet upstream of Snow Hill Church Lane (SR 1123)	3.5	*	*	1,643	*
	Approximately 0.7 mile upstream of Snow Hill Church Lane (SR 1123)	2.3	*	*	1,251	*
	Approximately 1.1 miles upstream of Snow Hill Church Lane (SR 1123)	2.1	*	*	1,173	*
	Approximately 1.5 miles upstream of Snow Hill Church Lane (SR 1123)	1.6	*	*	1,007	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Snow Creek	Approximately 1.8 miles upstream of Snow Hill Church Lane (SR 1123)	1.4	*	*	926	*
	Approximately 1,020 feet upstream of Interstate 77	1.2	*	*	819	*
	Approximately 1,640 feet upstream of Interstate 77	0.8	*	*	625	*
	Approximately 0.6 mile upstream of Interstate 77	0.7	*	*	570	*
	Approximately 0.9 mile upstream of Interstate 77	0.4	*	*	444	*
Snow Creek Tributary	At the confluence with Snow Creek	1.7	*	*	1,049	*
	Approximately 850 feet upstream of the confluence with Snow Creek	1.7	*	*	1,043	*
	Approximately 1,650 feet upstream of the confluence with Snow Creek	1.5	*	*	955	*
	Approximately 0.6 mile upstream of the confluence with Snow Creek	1.4	*	*	905	*
South Fork Mitchell River	At the confluence with Mitchell River	25.1	*	*	5,587	*
	Approximately 1.8 miles upstream of the confluence with Mitchell River	24.9	*	*	5,551	*
	Approximately 340 feet upstream of the confluence of South Fork Mitchell River Tributary 1	21.9	*	*	5,131	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
South Fork Mitchell River	Approximately 1,830 feet upstream of the confluence of South Fork Mitchell River Tributary 1	21.8	*	*	5,116	*
	Approximately 1.4 miles upstream of the confluence of South Fork Mitchell River Tributary 1	21.3	*	*	5,046	*
	Approximately 90 feet upstream of the confluence of Flat Branch	19.8	*	*	4,812	*
	Approximately 250 feet upstream of the confluence of Wood Branch	17.4	*	*	4,444	*
	Approximately 0.7 mile upstream of the confluence of Wood Branch	17.2	*	*	4,404	*
	Approximately 1.3 miles upstream of the confluence of Wood Branch	16.7	*	*	4,326	*
	Approximately 30 feet upstream of the confluence of South Fork Mitchell River Tributary 2	12.4	*	*	3,591	*
	Approximately 0.8 mile upstream of the confluence of South Fork Mitchell River Tributary 2	12.0	*	*	3,518	*
	Approximately 320 feet downstream of Zephyr Mountain Park Road (SR 1315)	10.9	*	*	3,312	*
	Approximately 1.0 mile upstream of Zephyr Mountain Park Road (SR 1315)	10.5	*	*	3,238	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
South Fork Mitchell River	Approximately 300 feet upstream of the confluence of North Prong South Fork Mitchell River	5.4	*	*	2,135	*
	Approximately 1.0 mile upstream of the confluence of North Prong South Fork Mitchell River	5.1	*	*	2,053	*
	Approximately 1.5 miles upstream of the confluence of North Prong South Fork Mitchell River	4.6	*	*	1,931	*
	Approximately 1.8 miles upstream of the confluence of North Prong South Fork Mitchell River	4.4	*	*	1,886	*
	Approximately 2.2 miles upstream of the confluence of North Prong South Fork Mitchell River	4.2	*	*	1,835	*
	Approximately 1,060 feet downstream of Haystack Road (SR 1328)	3.3	*	*	1,559	*
	Approximately 0.7 mile upstream of Haystack Road (SR 1328)	2.8	*	*	1,421	*
	Approximately 1.4 miles upstream of Haystack Road (SR 1328)	2.5	*	*	1,329	*
	Approximately 1.8 miles upstream of Haystack Road (SR 1328)	1.3	*	*	889	*
	Approximately 810 feet upstream of Silver Creek Way	1.1	*	*	777	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
South Fork Mitchell River	Approximately 0.4 mile upstream of Silver Creek Way	1.0	*	*	746	*
South Fork Mitchell River Tributary 1	At the confluence with South Fork Mitchell River	2.6	*	*	1,352	*
	Approximately 0.5 mile upstream of the confluence with South Fork Mitchell River	2.4	*	*	1,300	*
South Fork Mitchell River Tributary 2	At the confluence with South Fork Mitchell River	3.9	*	*	1,737	*
	Approximately 180 feet downstream of Zephyr Mountain Park Road (SR 1907)	3.7	*	*	1,701	*
	Approximately 60 feet upstream of the confluence of South Fork Mitchell River Tributary 2A	3.3	*	*	1,559	*
	Approximately 290 feet upstream of the confluence of South Fork Mitchell River Tributary 2B	2.3	*	*	1,237	*
	Approximately 1,430 feet upstream of the confluence of South Fork Mitchell River Tributary 2B	2.2	*	*	1,216	*
	Approximately 0.5 mile upstream of the confluence of South Fork Mitchell River Tributary 2B	2.1	*	*	1,187	*
South Fork Mitchell River Tributary 2A	At the confluence with South Fork Mitchell River Tributary 2	0.3	*	*	378	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
South Fork Mitchell River Tributary 2B	At the confluence with South Fork Mitchell River Tributary 2	1.0	*	*	743	*
	Approximately 1,530 feet upstream of Abe Mayes Road (SR 1319)	0.9	*	*	712	*
	Approximately 0.5 mile upstream of Abe Mayes Road (SR 1319)	0.8	*	*	653	*
Stewarts Creek	At the confluence with Ararat River	76.3	7,400	10,900	14,100	23,750
	Just upstream of the confluence of Pauls Creek	33.9	4,100	6,200	8,150	14,450
	Approximately 290 feet downstream of dam	14.9	*	*	707	*
	At dam	14.6	*	*	3,979***	*
	Approximately 1,610 feet upstream of dam	13.5	*	*	3,797***	*
	Approximately 0.8 mile upstream of dam	0.4	*	*	421	*
Stewarts Creek Tributary 1	At the confluence with Stewarts Creek	3.1	*	*	1,515	*
	Approximately 0.7 mile upstream of Mountain View Lane	2.6	*	*	1,361	*
	Approximately 270 feet downstream of West Old McKinney Road (SR 1429)	2.1	*	*	1,201	*
Stewarts Creek Tributary 2	At the confluence with Stewarts Creek	1.0	*	*	804	*
	Approximately 0.5 mile upstream of Sykes Dairy Road	0.9	*	*	755	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Stewarts Creek Tributary 2	Approximately 20 feet upstream of the confluence of Stewarts Creek Tributary 2A	0.4	*	*	536	*
	Approximately 0.5 mile upstream of the confluence of Stewarts Creek Tributary 2A	0.2	*	*	383	*
Stewarts Creek Tributary 2A	At the confluence with Stewarts Creek Tributary 2	0.3	*	*	417	*
	Approximately 830 feet upstream of Beehive Lane	0.3	*	*	376	*
	Approximately 1,550 feet upstream of Beehive Lane	0.1	*	*	230	*
Stoney Creek	At the confluence with Ararat River	6.5	*	*	2,391	*
	Approximately 0.4 mile upstream of Railroad	5.6	*	*	2,188	*
	Approximately 1,480 feet upstream of Interstate 74	5.2	*	*	2,086	*
	Approximately 0.7 mile upstream of Hiatt Road (SR 2015)	4.2	*	*	1,821	*
	Approximately 1.1 miles upstream of Hiatt Road (SR 2015)	4.1	*	*	1,789	*
	Approximately 80 feet upstream of Old US Highway 52 (SR 2012)	3.7	*	*	1,673	*
	Approximately 240 feet downstream of US Highway 52/ South Andy Griffith Parkway	3.5	*	*	1,630	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Stoney Creek	Approximately 1,560 feet downstream of US Highway 52/ South Andy Griffith Parkway	2.6	*	*	1,355	*
	Approximately 60 feet downstream of Reeves Mill Road (SR 1774)	2.4	*	*	1,282	*
	Approximately 1,930 feet upstream of Reeves Mill Road (SR 1774)	2.1	*	*	1,170	*
	Approximately 160 feet downstream of Mills Road (SR 1818)	1.7	*	*	1,040	*
Toms Creek	At the confluence with the Ararat River	38.4	*	*	7,287	*
	Approximately 0.5 mile upstream of the confluence with Ararat River	38.2	*	*	7,255	*
	Approximately 180 feet upstream of Toms Creek Road (SR 2024)	37.1	*	*	7,131	*
	Approximately 1,530 feet upstream of Toms Creek Road (SR 2024)	36.8	*	*	7,097	*
	Approximately 0.7 mile upstream of Toms Creek Road (SR 2024)	36.5	*	*	7,052	*
	Approximately 70 feet downstream of Cliff Side Trail	33.6	*	*	6,699	*
	Approximately 270 feet upstream of the confluence of Heatherly Creek	30.7	*	*	6,330	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Toms Creek	Approximately 0.4 mile upstream of the confluence of Heatherly Creek	30.6	*	*	6,320	*
	Approximately 280 feet upstream of the confluence of Toms Creek Tributary 2	29.7	*	*	6,209	*
	Approximately 50 feet downstream of West Main Street	29.5	*	*	6,175	*
	Approximately 1,970 feet upstream of West US Highway 52 Bypass	29.0	*	*	6,110	*
	Approximately 0.7 mile upstream of West US Highway 52 Bypass	28.0	*	*	5,972	*
	Approximately 330 feet upstream of the confluence of Chinquapin Creek	18.3	*	*	4,576	*
Toms Creek Tributary 1	At the confluence with Toms Creek	2.4	*	*	1,278	*
	Approximately 70 feet upstream of the confluence of Toms Creek Tributary 1A	1.7	*	*	1,046	*
	Approximately 780 feet upstream of the confluence of Toms Creek Tributary 1A	1.7	*	*	1,042	*
	Approximately 1,880 feet upstream of the confluence of Toms Creek Tributary 1A	1.7	*	*	1,027	*
	Approximately 0.6 mile upstream of the confluence of Toms Creek Tributary 1A	1.5	*	*	941	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area (*square miles*)	Discharges (*cfs*)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Toms Creek Tributary 1	Approximately 0.7 mile upstream of the confluence of Toms Creek Tributary 1A	1.4	*	*	934	*
Toms Creek Tributary 1A	At the confluence with Toms Creek Tributary 1	0.6	*	*	552	*
	Approximately 400 feet upstream of the confluence with Toms Creek Tributary 1	0.6	*	*	543	*
Toms Creek Tributary 2	At the confluence with Toms Creek	0.3	*	*	491	*
Tributary D-1	At the confluence with Dutchmans Creek	0.2	230	430	550	810
	At Dutchman Creek Road	0.1	170	320	410	600
Tributary E-1	At the confluence with Elkin Creek	0.4	300	560	690	1,040
Tumbling Rock Branch	At the confluence with Lovills Creek	1.8	760	1,310	1,560	2,370
	Just downstream of Galax Trail	1.4	640	1,125	1,355	2,055
	At Tumbling Rock Lake Dam	1.1	600	1,055	1,275	1,915
	Just upstream of Industrial Park Road	0.7	450	810	990	1,475
Turkey Creek	At the confluence with Yadkin River	1.8	*	*	1,072	*
	Approximately 1,040 feet upstream of NC Highway 268	1.6	*	*	1,012	*
West Double Creek	At the confluence with East Double Creek	4.7	*	*	1,972	*
	Approximately 170 feet upstream of the confluence of West Double Creek Tributary 1	2.4	*	*	1,301	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
West Double Creek	Approximately 1,600 feet upstream of the confluence of West Double Creek Tributary 1	2.3	*	*	1,257	*
	Approximately 0.6 mile upstream of the confluence of West Double Creek Tributary 1	2.0	*	*	1,154	*
	Approximately 0.8 mile upstream of the confluence of West Double Creek Tributary 1	2.0	*	*	1,135	*
	Approximately 1.0 mile upstream of the confluence of West Double Creek Tributary 1	1.7	*	*	1,023	*
	Approximately 1.1 miles upstream of the confluence of West Double Creek Tributary 1	1.6	*	*	1,001	*
	Approximately 1.2 miles upstream of the confluence of West Double Creek Tributary 1	1.4	*	*	902	*
West Double Creek Tributary 1	At the confluence with West Double Creek	2.1	*	*	1,188	*
	Approximately 1,070 feet downstream of Dobson Spring Trail	2.0	*	*	1,144	*
	Approximately 150 feet upstream of the confluence of West Double Creek Tributary 1A	1.1	*	*	807	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
West Double Creek Tributary 1	Approximately 1,890 feet upstream of the confluence of West Double Creek Tributary 1A	1.0	*	*	752	*
West Double Creek Tributary 1A	At the confluence with West Double Creek Tributary 1	0.7	*	*	614	*
	Approximately 0.5 mile upstream of the confluence with West Double Creek Tributary 1	0.6	*	*	536	*
Whittier Creek	At the confluence with Bull Creek	7.1	*	*	2,539	*
	Approximately 1,610 feet upstream of the confluence with Bull Creek	6.9	*	*	2,501	*
	Approximately 1.0 mile upstream of the confluence with Bull Creek	5.1	*	*	2,070	*
	Approximately 1.7 miles upstream of the confluence with Bull Creek	2.8	*	*	1,407	*
Wood Branch	At the confluence with South Fork Mitchell River	2.3	*	*	1,242	*
	Approximately 1,610 feet upstream of the confluence with South Fork Mitchell River	2.1	*	*	1,191	*
	Approximately 0.6 mile upstream of the confluence with South Fork Mitchell River	2.0	*	*	1,142	*
	Approximately 0.8 mile upstream of the confluence with South Fork Mitchell River	1.4	*	*	927	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Yadkin River	At the Forsyth/Yadkin/ Surry County boundary	1,693.3	*	*	77,050	*
	Approximately 0.4 mile upstream of the Forsyth/Yadkin/ Surry County boundary	1,585.5	*	*	75,500	*
	Approximately 220 feet upstream of the confluence of Grassy Creek	1,568.0	*	*	75,300	*
	Approximately 70 feet upstream of the confluence of Hall Creek	1,555.6	*	*	75,100	*
	Approximately 430 feet upstream of the confluence of Ararat River	1,233.5	*	*	70,000	*
	Approximately 170 feet downstream of Siloam Road (SR 1003)	1,224.2	*	*	69,900	*
	Approximately 350 feet upstream of the confluence of Yadkin River Tributary 17	1,199.0	*	*	69,500	*
	Approximately 480 feet upstream of the confluence of Fall Creek	1,188.0	*	*	69,300	*
	Approximately 1,570 feet upstream of the confluence of Tanyard Creek	1,179.6	*	*	69,100	*
	Approximately 510 feet upstream of the confluence of Fisher River	1,013.9	*	*	66,000	*
	Approximately 800 feet upstream of the confluence of Yadkin River Tributary 12	1,006.2	*	*	65,900	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Yadkin River	Approximately 280 feet upstream of the confluence of Mitchell River	895.5	*	*	63,600	*
	Approximately 480 feet upstream of the confluence of Turkey Creek	879.7	27,500	49,400	63,300	114,200
	Approximately 710 feet upstream of the confluence of Sandberry Creek	867.2	27,000	49,000	63,000	115,000
	Approximately 200 feet upstream of the confluence of Elkin Creek	829.8	26,600	48,300	62,100	113,700
Yadkin River Tributary 12	At the confluence with Yadkin River	1.6	*	*	1,008	*
	Approximately 560 feet upstream of Railroad	1.5	*	*	942	*
	Approximately 1,350 feet upstream of Railroad	1.3	*	*	870	*
	Approximately 0.7 mile upstream of Railroad	1.2	*	*	834	*
Yadkin River Tributary 13	At the confluence with Yadkin River	1.7	*	*	1,026	*
	Approximately 310 feet upstream of Railroad	1.5	*	*	959	*
	Approximately 330 feet upstream of NC Highway 268	1.4	*	*	917	*
Yadkin River Tributary 16	At the confluence with Yadkin River	0.5	*	*	458	*
	Approximately 1,420 feet upstream of Railroad	0.4	*	*	417	*
	Approximately 0.5 mile upstream of Railroad	0.3	*	*	363	*

Table 8—Summary of Discharges

Flooding Source	Location	Drainage Area *(square miles)*	Discharges *(cfs)*			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Yadkin River Tributary 18	At the confluence with Yadkin River	1.1	*	*	778	*
	Approximately 1,560 feet upstream of Railroad	1.0	*	*	748	*
	Approximately 0.7 mile upstream of Railroad	0.9	*	*	704	*
	Approximately 0.9 mile upstream of Railroad	0.7	*	*	606	*
Yadkin River Tributary 37	At the confluence with Yadkin River	1.0	*	*	758	*
	Approximately 1,130 feet upstream of Railroad	0.9	*	*	692	*
	Approximately 540 feet upstream of John Mickles Road (SR 2075)	0.7	*	*	570	*

*Data Not Available

** Discharges increase due to inconsistencies between new and previously effective studies. The higher discharge is a result of a newer study that is based on more accurate data.

***Increase in discharge due to storage

Table 9, "Gage Information," lists the stream gages located in Surry 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 9—Gage Information

Gage Number or Identifier	Flooding Source	Site Name	Drainage Area *(square miles)*	Period of Record	
				From	To
02112247	Elkin River	Elkin River at Elkin, NC	35.5	1971	1980
02112250	Yadkin River	Yadkin River near Elkin, NC	867.0	1916	1916
02112250	Yadkin River	Yadkin River near Elkin, NC	867.0	1940	1940

Table 9—Gage Information

Gage Number or Identifier	Flooding Source	Site Name	Drainage Area *(square miles)*	Period of Record	
				From	To
02112250	Yadkin River	Yadkin River near Elkin, NC	867.0	1965	present
02112360	Mitchell River	Mitchell River near State Road, NC	79.8	1965	present
02112410	Fisher River	Fisher River near Bottom, NC	51.3	1954	1971
02112500	Fisher River	Fisher River near Dobson, NC	115.0	1922	1933
02113000	Fisher River	Fisher River near Copeland, NC	126.8	1922	present
02113500	Yadkin River	Yadkin River near Siloam, NC	1,224.0	1977	1987
02113850	Ararat River	Ararat River at Ararat, NC	230.1	1965	present
02114010	Ararat River	Ararat River near Pilot Mountain, NC	286.1	1953	1968

5.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the flood elevations for the selected recurrence intervals. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which BFEs were computed, selected cross-section locations are also shown on the FIRM. Flood profiles were developed showing computed water-surface elevations for floods of the selected recurrence intervals.

Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS Report. For construction and/or floodplain management purposes, users are encouraged to use the flood elevation data presented in the FIS in conjunction with the data shown on the FIRM.

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

Pre-Countywide Analyses

Each jurisdiction within Surry County, with the exceptions of the Town of Dobson and the Town of Pilot Mountain, had previously printed FIS Reports describing each community's hydraulic analyses. Those analyses have been compiled and are summarized below. These analyses remain valid for those flooding sources listed in Table 4, "Flooding Sources Studied by Detailed Methods: Redelineated."

Hydraulic data used in the Unincorporated Areas of Surry County were obtained from the Flood Hazard Analyses Reports prepared by the Soil Conservation Service (U.S. Department of Agriculture, April 1979 and June 1979).

In the Town of Elkin study from February 1978, analyses of the hydraulic characteristics of streams were carried out to provide estimates of the elevations of floods of the selected recurrence intervals along each stream studied in the community. Water-surface elevations of floods of the selected recurrence intervals were computed through use of the U.S. Army Corps of Engineers HEC-2 step-backwater computer program (U.S. Army Corps of Engineers, 1973). Cross sections for the backwater analyses of all the studied streams were field surveyed and were located at close intervals above and below bridges and culverts in order to compute the significant backwater effects of these structures. Channel and overbank roughness factors (Manning's "n"), for these computations were assigned on the basis of field inspection of floodplain areas.

Also in the Town of Elkin, starting water surface elevations for the Yadkin River were computed by the slope-area method. Starting elevations for Elkin River and Dutchmans Creek were taken from the Yadkin River profile. Starting elevations for Tributaries E-1 and D-1 were taken from the Elkin River and Dutchmans Creek profiles, respectively.

In the City of Mount Airy, water-surface profiles were determined using the U.S. Army Corps of Engineers HEC-2 step-backwater computer program for the 10%, 2%, 1%, and 0.2% annual chance floods (U.S. Army Corps of Engineers, 1968). Flood profiles for the Ararat River included effects of the proposed U.S. Army Corps of Engineers project. Using high-water marks from the September 1979 flood, roughness coefficients (Manning's "n") were computed that would reproduce known water-surface elevations on Lovills Creek and Ararat River. Roughness coefficients for Tumbling Rock Branch were estimated during field inspections of streams. The slope-area method was used to calculate starting water-surface elevations for all streams studied in detail.

Revised Analyses for Countywide FIS

For the streams studied by detailed methods, water-surface elevations of floods of the selected recurrence intervals were computed through use of the Army Corps of Engineers' HEC-RAS step-backwater computer program version 3.1.2 (U.S. Army Corps of Engineers, 2004). The hydraulic analyses were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail. The computer models were calibrated using historic high water data collected during field investigations.

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 10, "Roughness Coefficients."

Table 10—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Ararat River	0.040 – 0.070	0.060 – 0.140
Ararat River Tributary 1	0.050	0.140 – 0.150
Ararat River Tributary 2	0.055	0.080 – 0.140
Ararat River Tributary 3	0.050	0.070 – 0.140
Ararat River Tributary 4	0.040 – 0.050	0.080 – 0.140
Ararat River Tributary 5	0.050	0.080 – 0.140
Ararat River Tributary 6	0.060	0.080 – 0.140
Ararat River Tributary 6A	0.060	0.100 – 0.140
Ararat River Tributary 7	0.055	0.080 – 0.140
Ararat River Tributary 8	0.050	0.070 – 0.140
Ararat River Tributary 9	0.050	0.025 – 0.150
Bear Creek	0.045	0.090 – 0.150
Beaver Creek	0.045 - 0.050	0.100 – 0.150
Beaverdam Creek	0.045 - 0.050	0.100 – 0.150
Benson Creek	0.042 - 0.052	0.060 – 0.130
Brendle Branch	0.050 – 0.052	0.070 – 0.130
Brushy Fork	0.046	0.080 – 0.140
Brushy Fork Tributary 1	0.046	0.080 – 0.140
Bull Creek	0.050	0.070 – 0.150
Butler Creek	0.048	0.080 – 0.150
Caddle Creek	0.046	0.070 – 0.140
Camp Branch	0.050	0.100 - 0.150
Camp Creek	0.045 – 0.050	0.035 – 0.150
Candiff Creek	0.050	0.100 - 0.150
Candiff Creek Tributary 1	0.050	0.100 - 0.150
Candiff Creek Tributary 2	0.050	0.100 - 0.150
Champ Creek	0.050	0.070 – 0.140
Chinquapin Creek	0.047	0.080 – 0.140
Cody Creek	0.045	0.100 - 0.150
Cooks Creek	0.045 - 0.050	0.100 - 0.150
Davenport Creek	0.050	0.100 - 0.150
Dunagan Creek	0.050	0.100 - 0.150
Dutchmans Creek	0.045	0.060 – 0.120
East Double Creek	0.050	0.100 - 0.150
East Double Creek Tributary 1	0.050	0.100 - 0.150
Elkin Creek	0.040 – 0.050	0.035 – 0.150
Faulkner Creek	0.046	0.080 – 0.140

Table 10—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Faulkner Creek Tributary 1	0.046	0.080 – 0.140
Fisher River	0.050	0.100 - 0.150
Fisher River Tributary 1	0.040 - 0.050	0.100 - 0.150
Fisher River Tributary 1A	0.050	0.100 - 0.150
Fisher River Tributary 2	0.050	0.100 - 0.150
Fisher River Tributary 3	0.040 - 0.050	0.100 - 0.150
Fisher River Tributary 4	0.050	0.100 - 0.150
Fisher River Tributary 5	0.050	0.100 - 0.150
Flat Branch	0.050	0.080 – 0.140
Flat Shoal Creek	0.045	0.035 – 0.140
Flat Shoal Creek Tributary 1	0.045	0.080 – 0.140
Grassy Creek	0.050 – 0.055	0.055 – 0.150
Grassy Creek Tributary 1	0.055	0.120 – 0.150
Grassy Creek Tributary 2	0.055	0.080 – 0.140
Grassy Creek Tributary 3	0.055	0.080 – 0.150
Grassy Creek Tributary 4	0.055	0.140
Grassy Creek Tributary 5	0.050 – 0.055	0.080 – 0.140
Grassy Creek Tributary 5A	0.050	0.080 – 0.140
Grassy Creek Tributary 5B	0.050	0.140
Grassy Creek Tributary 6	0.050	0.070 – 0.150
Grassy Creek Tributary 7	0.047	0.080 – 0.130
Grassy Creek Tributary 8	0.045	0.080 – 0.140
Grassy Creek Tributary 9	0.044 – 0.052	0.060 – 0.130
Grassy Creek West	0.050	0.080 – 0.140
Hatchers Creek	0.050	0.100 - 0.150
Heatherly Creek	0.042 – 0.048	0.035 – 0.150
Hogan Creek	0.050	0.080 - 0.140
Hogan Creek Tributary 1	0.050	0.110 - 0.150
Hogan Creek Tributary 2	0.050	0.100 - 0.150
Hogan Creek Tributary 3	0.050	0.100 - 0.150
Horne Creek	0.045	0.060 – 0.140
Horne Creek Tributary 1	0.050	0.050 – 0.140
Horne Creek Tributary 1A	0.050	0.140
Jackson Creek	0.050	0.100 - 0.150
Jackson Creek Tributary 1	0.050	0.100 - 0.150
Jackson Creek Tributary 2	0.050	0.100 - 0.150
Johnson Creek	0.050	0.070 – 0.140
King Creek	0.045	0.020 - 0.150

Table 10—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Little Beaver Creek	0.045	0.100 - 0.150
Little Creek	0.050 – 0.055	0.080 – 0.140
Little Fisher River	0.045	0.100 - 0.150
Little Fisher River Tributary 1	0.050	0.090 - 0.150
Little Fisher River Tributary 2	0.045	0.090 - 0.150
Little Fisher River Tributary 3	0.045	0.090 - 0.150
Little Fisher River Tributary 3A	0.050	0.100 – 0.150
Little Yadkin River	0.055	0.090
Long Creek	0.035 – 0.060	0.080 – 0.140
Lovills Creek	0.045 – 0.050	0.035 – 0.140
Mill Creek	0.050	0.070 – 0.150
Mitchell River	0.047	0.035 – 0.150
Moores Fork	0.050 – 0.055	0.070 – 0.140
Moores Fork Tributary 1	0.050	0.070 – 0.140
North Fork Mitchell River	0.048	0.060 – 0.150
North Prong South Fork Mitchell River	0.048 – 0.050	0.070 – 0.150
Pauls Creek	N/A	N/A
Pheasant Creek	0.045 - 0.050	0.100 - 0.150
Pilot Creek	0.055	0.070 – 0.150
Pilot Creek Tributary 1	0.055	0.070 – 0.150
Pilot Creek Tributary 2	0.055	0.070 – 0.150
Pilot Creek Tributary 3	0.055	0.070 – 0.150
Pilot Creek Tributary 3A	0.055	0.070 – 0.150
Pilot Creek Tributary 4	0.050 – 0.055	0.070 – 0.150
Pine Branch	0.047	0.070 – 0.150
Potters Creek	0.043 – 0.048	0.070 – 0.150
Ring Creek	0.050	0.090 - 0.150
Rutledge Creek	0.050 – 0.052	0.050 – 0.150
Rutledge Creek Tributary 1	0.050	0.050 – 0.130
Seed Cane Creek	0.050	0.050 – 0.150
Skin Cabin Creek	0.046	0.070 – 0.140
Snow Creek	0.045 – 0.048	0.060 – 0.150
Snow Creek Tributary	0.045	0.080 – 0.140
South Fork Mitchell River	0.050	0.080 – 0.150
South Fork Mitchell River Tributary 1	0.050	0.080 – 0.150
South Fork Mitchell River Tributary 2	0.050	0.080 – 0.150
South Fork Mitchell River Tributary 2A	0.050 – 0.055	0.080 – 0.150
South Fork Mitchell River Tributary 2B	0.050	0.080 – 0.150

Table 10—Roughness Coefficients

Stream	Channel "n"	Overbank "n"
Stewarts Creek	0.035 - 0.056	0.055 - 0.130
Stewarts Creek Tributary 1	0.050	0.070 - 0.150
Stewarts Creek Tributary 2	0.050	0.070 - 0.150
Stewarts Creek Tributary 2A	0.050	0.070 - 0.150
Stoney Creek	0.047	0.070 - 0.140
Toms Creek	0.047	0.080 - 0.140
Toms Creek Tributary 1	0.047	0.080 - 0.140
Toms Creek Tributary 1A	0.047	0.080 - 0.140
Toms Creek Tributary 2	0.047	0.080 - 0.140
Tributary D-1	0.045 - 0.100	0.045 - 0.100
Tributary E-1	0.045 - 0.100	0.045 - 0.100
Tumbling Rock Branch	0.040 - 0.060	0.060 - 0.120
Turkey Creek	0.045	0.060 - 0.140
West Double Creek	0.050	0.090 - 0.150
West Double Creek Tributary 1	0.050	0.090 - 0.150
West Double Creek Tributary 1A	0.050	0.090 - 0.130
Whittier Creek	0.040 - 0.060	0.060 - 0.120
Wood Branch	0.050	0.080 - 0.140
Yadkin River	0.035 - 0.047	0.035 - 0.200
Yadkin River Tributary 12	0.045 - 0.052	0.080 - 0.130
Yadkin River Tributary 13	0.035 - 0.047	0.035 - 0.150
Yadkin River Tributary 16	0.050	0.090 - 0.150
Yadkin River Tributary 18	0.045	0.090 - 0.140
Yadkin River Tributary 37	0.045 - 0.052	0.060 - 0.150

N/A = Not available

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 11, "Limited Detailed Flood Hazard Data"). Flood Profiles have not been developed for streams studied by limited detailed methods. In addition, floodways for streams studied by limited detailed methods are not delineated on the FIRM. However, the 1% annual chance water-surface elevations, flood discharges, and non-encroachment widths from the limited detailed studies for every modeled cross section are given in Table 11. The non-encroachment widths given at modeled cross sections can be used by communities to enforce floodplain management ordinances that meet the requirement defined in 44 CFR 60.3(c)(10).

Between cross sections for streams studied by limited detailed methods, 1% annual chance water-surface elevations should be calculated by mathematical interpolation using the distance along the stream centerline. Non-encroachment widths and, therefore, the location of a non-encroachment area boundary between cross sections should be determined based on either 1) mathematical interpolation, or 2) the non-encroachment width at the upstream or downstream cross section, whichever is larger. If the width determined by this second method is wider than the Special Flood Hazard Area (SFHA) or the 1% annual chance floodplain delineated on the FIRM for this location along the stream, the non-encroachment area shall be considered to be coincident with the SFHA. A full detailed study incorporating field survey data in the HEC-RAS hydraulic model may be submitted for a Letter of Map Revision (LOMR) request to map a regulatory floodway along a section of a stream in lieu of applying the non-encroachment widths listed in Table 11. FEMA's current (as of August 2001) map revision structure exempts submittal fees for map revision requests based solely on the submission of more detailed data.

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ARARAT RIVER				
000	21	31,980	803.2[4]	120 / 180
006	637	31,980	803.2[4]	104 / 76
016	1,557	31,980	803.2[4]	81 / 75
027	2,703	31,980	803.2[4]	78 / 137
036	3,584	31,980	804.3	95 / 230
049	4,853	31,980	805.6	115 / 145
060	6,006	31,980	807.1	140 / 80
069	6,933	31,980	808.5	81 / 205
079	7,850	31,928	810.0	210 / 100
091	9,058	31,928	811.7	90 / 180
097	9,690	31,902	813.0	300 / 160
106	10,641	31,902	815.9	480 / 110
110	11,032	31,902	817.3	500 / 160
120	11,967	31,807	818.5	260 / 180
129	12,861	31,807	819.4	120 / 210
139	13,876	31,807	820.8	180 / 110
153	15,273	31,807	822.6	100 / 95
159	15,927	31,807	823.3	100 / 110
164	16,363	31,807	823.4	150 / 75
174	17,416	31,807	824.3	73 / 110

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ARARAT RIVER				
185	18,483	31,767	825.3	61 / 95
197	19,710	31,767	827.6	76 / 120
210	21,007	31,767	828.4	56 / 100
220	22,018	31,767	830.0	60 / 110
230	22,971	31,767	831.5	60 / 60
238	23,816	31,767	833.5	60 / 65
247	24,681	31,675	835.5	90 / 70
260	26,029	31,675	836.9	82 / 70
276	27,556	31,675	838.6	72 / 68
290	29,039	31,675	840.1	65 / 64
304	30,357	31,627	841.7	72 / 70
313	31,304	31,627	842.5	72 / 80
325	32,465	31,627	843.5	65 / 70
337	33,718	31,627	844.8	90 / 66
349	34,876	31,627	845.8	80 / 78
361	36,134	31,627	846.6	66 / 85
375	37,479	31,627	848.0	70 / 64
386	38,551	31,627	849.5	85 / 70
397	39,723	31,627	850.5	70 / 62
411	41,141	31,627	853.2	65 / 64
423	42,326	31,627	854.7	68 / 110
440	44,042	31,627	856.1	72 / 70
455	45,510	31,627	857.3	70 / 64
469	46,910	31,373	858.9	64 / 68
483	48,313	31,373	861.1	100 / 62
497	49,721	31,373	863.0	70 / 70
511	51,113	31,373	864.5	70 / 70
528	52,765	31,373	866.8	50 / 90
537	53,713	31,332	868.2	60 / 110
548	54,771	31,332	870.1	50 / 120
556	55,607	31,332	872.2	55 / 107
564	56,440	31,332	872.8	70 / 85
575	57,452	31,308	874.8	70 / 72
585	58,528	29,803	877.0	90 / 90
594	59,364	29,803	877.8	75 / 80
601	60,097	29,803	878.8	80 / 82
615	61,462	28,435	880.2	100 / 68
630	63,027	28,435	881.8	95 / 70
649	64,901	28,435	883.7	80 / 58
660	66,038	28,435	885.6	80 / 70
677	67,748	28,435	887.9	70 / 70
688	68,762	28,435	889.6	70 / 68
697	69,726	28,435	891.0	100 / 68
710	71,011	28,435	892.9	100 / 68
723	72,298	28,435	894.9	125 / 62
730	73,033	28,435	896.3	115 / 62
740	74,035	28,351	900.0	90 / 130
751	75,147	27,207	901.5	120 / 94

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ARARAT RIVER				
761	76,088	27,207	901.9	90 / 70
771	77,077	27,207	903.4	95 / 85
782	78,215	27,207	904.9	80 / 65
794	79,376	27,207	907.5	95 / 75
807	80,685	27,207	909.4	70 / 75
820	81,988	27,207	912.0	70 / 70
830	83,041	27,207	913.9	65 / 90
840	84,004	27,207	915.7	95 / 66
850	84,952	25,772	917.7	70 / 75
863	86,259	25,772	919.9	80 / 62
876	87,642	25,772	922.8	100 / 62
891	89,078	25,772	925.4	80 / 65
897	89,749	25,772	926.8	85 / 64
913	91,255	25,772	930.7	70 / 75
924	92,358	25,772	933.0	80 / 62
934	93,425	25,772	935.0	66 / 60
948	94,771	25,772	939.1	65 / 115
963	96,307	24,934	941.2	64 / 115
970	97,037	24,934	942.0	100 / 54
980	97,997	24,934	943.5	250 / 100
998	99,754	24,934	948.1	320 / 120
1009	100,897	24,934	949.3	300 / 54
1024	102,405	24,934	951.4	80 / 58
1042	104,159	24,934	955.2	80 / 250
1054	105,406	24,934	956.0	220 / 120
1063	106,321	24,934	956.7	55 / 200
1075	107,528	24,934	958.7	70 / 100
1090	108,991	24,934	960.4	95 / 115
1099	109,866	24,934	960.6	75 / 62
1109	110,925	24,934	962.6	125 / 68
1122	112,210	24,934	964.8	60 / 75
1140	114,038	24,934	968.2	60 / 100
1154	115,382	24,934	970.9	72 / 120
1164	116,430	23,596	972.5	170 / 90
1177	117,719	23,596	973.8	80 / 120
1190	119,031	23,596	975.2	150 / 55
1205	120,479	23,596	977.6	90 / 65
1219	121,945	23,596	980.0	106 / 51
1231	123,116	23,596	982.5	210 / 75
1249	124,937	23,596	984.6	370 / 130
Cross sections shown on Floodway Data Table and Profile for this portion				
1747	174,730	17,400	1,087.5	29 / 570
1754	175,415	7,476	1,089.3	550 / 180
1764	176,411	6,986	1,091.5	130 / 60
1769	176,949	6,986	1,092.7	291 / 23

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ARARAT RIVER				
1776	177,553	6,986	1,093.5	250 / 60
ARARAT RIVER TRIBUTARY 1				
001	139	768	810.0[4]	10 / 16
003	255	768	810.0[4]	7 / 18
004	368	768	810.0[4]	20 / 12
005	507	768	810.0[4]	9 / 17
007	690	768	810.7	10 / 14
008	836	768	815.1	25 / 11
010	1,019	768	820.8	2 / 20
012	1,172	768	824.2	17 / 15
015	1,495	733	828.0	20 / 8
016	1,640	733	830.8	22 / 16
020	2,023	733	845.2	78 / 45
022	2,169	733	847.7	20 / 8
023	2,278	733	851.0	5 / 20
024	2,382	733	857.1	22 / 20
025	2,471	733	863.0	18 / 5
026	2,558	733	870.4	4 / 15
ARARAT RIVER TRIBUTARY 2				
002	196	803	812.5[4]	30 / 12
006	572	803	812.5[4]	10 / 67
011	1,058	803	812.5[4]	17 / 27
016	1,553	782	820.7	28 / 30
018	1,784	782	820.7	18 / 30
019	1,921	782	822.0	18 / 20
021	2,091	782	823.9	12 / 15
023	2,293	782	827.2	10 / 15
026	2,598	757	830.5	16 / 9
027	2,722	757	831.6	16 / 9
029	2,860	757	832.9	14 / 25
030	3,036	757	833.4	5 / 18
032	3,205	757	837.2	2 / 28
034	3,364	757	839.8	12 / 18
035	3,511	757	842.4	12 / 10
ARARAT RIVER TRIBUTARY 3				
001	81	733	817.6[4]	25 / 15
005	509	733	817.6[4]	25 / 30
009	872	733	817.6[4]	40 / 10
011	1,133	733	817.6[4]	15 / 12
015	1,493	733	817.7	35 / 28
018	1,782	733	819.4	19 / 36
021	2,113	733	824.2	110 / 22
023	2,314	733	824.3	85 / 7
027	2,672	616	828.7	22 / 28
031	3,132	616	834.3	18 / 14
036	3,563	616	842.1	21 / 12
039	3,863	616	845.2	22 / 8
042	4,212	616	851.1	18 / 16

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ARARAT RIVER TRIBUTARY 3				
046	4,598	616	856.1	50 / 12
ARARAT RIVER TRIBUTARY 4				
002	170	1,467	817.9[4]	25 / 40
006	551	1,467	817.9[4]	30 / 14
009	870	1,467	817.9[4]	40 / 14
013	1,304	1,467	817.9[4]	40 / 4
018	1,758	1,467	823.2	20 / 14
022	2,158	1,421	831.5	20 / 11
025	2,509	1,421	836.0	30 / 30
029	2,907	1,421	839.2	35 / 60
035	3,488	1,421	841.7	95 / 13
040	3,979	1,421	844.9	80 / 13
047	4,718	1,376	851.2	110 / 28
051	5,105	1,376	855.2	25 / 70
055	5,471	1,160	857.8	40 / 5
060	6,009	1,160	862.6	50 / 8
063	6,268	1,160	865.2	18 / 30
066	6,643	1,160	870.7	25 / 30
070	7,018	1,160	872.9	64 / 16
075	7,512	1,098	876.6	30 / 12
079	7,873	1,098	882.3	16 / 30
082	8,220	1,098	885.8	18 / 50
087	8,722	1,098	889.9	13 / 30
091	9,092	1,098	893.2	13 / 60
094	9,368	1,063	895.3	18 / 40
095	9,545	1,063	898.2	16 / 20
098	9,762	1,063	900.4	13 / 30
100	10,046	1,026	902.6	20 / 11
104	10,442	1,026	909.1	24 / 23
108	10,808	1,026	913.2	16 / 20
ARARAT RIVER TRIBUTARY 5				
001	107	795	824.6[4]	10 / 35
002	232	795	824.6[4]	11 / 26
004	373	795	825.7	11 / 12
006	572	795	831.5	12 / 25
007	701	795	836.7	16 / 20
009	878	795	842.0	5 / 18
011	1,128	782	849.3	12 / 12
014	1,374	782	854.8	10 / 18
016	1,593	782	857.7	12 / 16
018	1,820	782	862.3	12 / 20
021	2,126	782	867.7	20 / 25
023	2,319	727	873.7	16 / 55
024	2,446	727	876.0	40 / 12
026	2,583	727	877.3	28 / 10
027	2,669	727	879.1	20 / 8
029	2,879	727	883.1	20 / 8

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ARARAT RIVER TRIBUTARY 5				
031	3,057	727	886.8	15 / 12
032	3,158	727	888.4	12 / 12
033	3,266	727	899.9	8 / 15
ARARAT RIVER TRIBUTARY 6				
001	73	928	840.6[4]	9 / 35
003	284	928	840.6[4]	20 / 4
005	503	928	840.6[4]	6 / 25
007	731	928	840.6[4]	6 / 18
010	950	928	842.2	13 / 16
012	1,167	928	845.6	14 / 13
013	1,335	928	847.8	22 / 8
016	1,574	928	851.1	10 / 20
017	1,748	928	853.4	8 / 19
020	1,953	928	856.8	10 / 20
021	2,080	928	858.7	10 / 15
022	2,213	928	861.7	6 / 22
024	2,363	612	863.6	35 / 20
025	2,505	612	864.2	28 / 12
027	2,700	612	866.6	9 / 13
029	2,937	612	872.0	20 / 8
ARARAT RIVER TRIBUTARY 6A				
000	18	546	862.4[4]	20 / 10
001	139	546	862.6	4 / 16
003	260	546	865.1	10 / 13
004	394	546	867.6	9 / 18
005	528	546	869.3	12 / 12
ARARAT RIVER TRIBUTARY 7				
001	133	678	867.0[4]	17 / 6
003	320	678	867.0[4]	20 / 10
005	548	678	867.0[4]	14 / 8
007	729	678	867.0[4]	12 / 12
009	947	678	868.8	12 / 16
011	1,139	678	871.8	12 / 12
013	1,329	678	875.2	18 / 12
015	1,489	678	877.0	14 / 12
018	1,769	654	880.0	12 / 22
020	2,001	654	881.9	12 / 27
022	2,160	654	883.8	13 / 12
ARARAT RIVER TRIBUTARY 8				
042	4,218	990	1,061.4	18 / 16
043	4,321	990	1,065.7	11 / 30
047	4,670	990	1,069.2	40 / 15
049	4,920	990	1,072.3	20 / 11
051	5,087	990	1,073.6	11 / 11
052	5,167	990	1,074.4	11 / 11
052	5,247	990	1,075.0	7 / 8
054	5,365	629	1,078.3	17 / 9
056	5,583	629	1,081.6	25 / 4

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
ARARAT RIVER TRIBUTARY 8				
058	5,841	629	1,086.7	66 / 11
062	6,160	629	1,094.8	11 / 16
063	6,274	629	1,098.4	10 / 10
064	6,402	629	1,104.4	8 / 12
065	6,499	629	1,114.8	14 / 6
066	6,584	629	1,121.4	6 / 8
067	6,704	629	1,126.5	16 / 13
068	6,833	629	1,130.0	8 / 13
070	6,953	629	1,134.7	30 / 40
ARARAT RIVER TRIBUTARY 9				
009	892	1,194	1,089.3[4]	10 / 162
012	1,200	1,194	1,089.3[4]	10 / 117
015	1,524	1,194	1,091.8	9 / 86
018	1,759	1,194	1,094.0	9 / 48
021	2,106	1,194	1,098.8	23 / 13
024	2,378	1,194	1,101.4	12 / 22
026	2,580	1,194	1,103.6	13 / 19
030	2,997	1,194	1,107.9	17 / 12
034	3,427	1,194	1,112.0	18 / 14
035	3,543	1,194	1,116.4	8 / 15
037	3,701	1,194	1,121.6	23 / 26
040	3,977	1,194	1,123.7	8 / 34
043	4,326	1,194	1,128.4	32 / 35
045	4,541	1,194	1,130.5	31 / 8
048	4,751	1,194	1,133.1	28 / 8
049	4,936	1,194	1,134.7	31 / 13
BEAR CREEK				
003	257	1,500	885.9[4]	5 / 17
007	702	1,500	885.9[4]	6 / 20
011	1,120	1,500	885.9[4]	9 / 13
017	1,716	1,500	897.0	27 / 14
022	2,169	1,500	904.1	15 / 12
026	2,598	1,500	909.3	12 / 12
031	3,090	1,500	911.7	12 / 12
037	3,682	1,428	914.9	12 / 12
041	4,067	1,428	917.0	9 / 12
045	4,523	1,259	919.9	12 / 12
050	5,006	1,259	922.3	19 / 21
055	5,531	1,259	924.5	12 / 12
061	6,082	1,184	927.7	19 / 19
065	6,519	1,184	929.1	10 / 10
070	7,047	1,184	933.2	12 / 12
074	7,404	1,184	935.4	13 / 4
078	7,800	1,184	940.2	13 / 32
BEAVER CREEK				
005	532	2,250	955.3[4]	41 / 50
011	1,082	2,250	955.3[4]	37 / 211
014	1,415	2,250	955.3[4]	18 / 113

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BEAVER CREEK				
016	1,598	2,250	955.3[4]	13 / 111
021	2,095	2,250	955.3[4]	120 / 38
026	2,601	2,250	955.4	31 / 55
030	2,985	2,250	957.7	11 / 63
032	3,160	2,250	958.6	36 / 40
037	3,688	2,250	961.9	38 / 17
040	3,976	2,250	963.1	23 / 49
042	4,161	2,250	963.7	21 / 19
044	4,374	2,136	965.2	15 / 15
047	4,668	2,136	969.0	15 / 37
049	4,928	2,136	971.0	12 / 7
051	5,115	2,136	972.9	7 / 11
053	5,316	2,136	975.6	17 / 12
055	5,543	2,136	977.7	21 / 5
058	5,826	2,136	981.2	8 / 7
060	6,031	2,136	983.8	9 / 14
064	6,433	2,136	988.2	19 / 18
069	6,915	2,136	990.5	22 / 23
074	7,433	2,017	995.7	37 / 61
080	7,982	2,017	997.6	17 / 175
085	8,493	2,017	1,000.2	155 / 78
090	8,956	2,017	1,003.3	105 / 29
095	9,463	2,017	1,005.3	130 / 15
097	9,687	2,017	1,006.3	83 / 19
100	9,971	2,017	1,007.8	47 / 22
103	10,269	1,904	1,013.6	23 / 21
107	10,680	1,904	1,017.5	17 / 20
112	11,162	1,904	1,021.6	13 / 47
117	11,710	1,904	1,024.1	20 / 29
122	12,156	1,904	1,026.7	16 / 27
127	12,731	1,809	1,030.2	23 / 25
132	13,237	1,809	1,033.0	8 / 86
135	13,501	1,809	1,033.7	36 / 10
138	13,839	1,809	1,036.5	14 / 82
143	14,292	1,809	1,038.6	23 / 82
149	14,862	1,617	1,042.1	75 / 82
154	15,370	1,617	1,044.8	35 / 83
155	15,526	1,617	1,045.7	15 / 143
BEAVERDAM CREEK				
003	322	3,263	1,078.2[4]	30 / 20
006	573	3,263	1,079.8	27 / 34
010	958	3,263	1,081.7	18 / 22
013	1,312	3,263	1,084.2	31 / 58
016	1,562	3,263	1,084.7	85 / 25
018	1,815	3,263	1,085.7	40 / 24
023	2,270	3,263	1,087.3	25 / 38
028	2,791	3,263	1,088.7	207 / 23
033	3,288	3,263	1,090.0	99 / 18

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BEAVERDAM CREEK				
038	3,846	3,232	1,091.9	36 / 23
043	4,333	3,232	1,093.9	37 / 40
049	4,904	3,232	1,095.1	138 / 40
054	5,418	3,232	1,095.5	73 / 24
059	5,883	3,232	1,097.4	40 / 40
063	6,328	3,232	1,098.8	133 / 60
074	7,424	2,726	1,101.6	17 / 48
077	7,719	2,726	1,102.6	50 / 23
081	8,141	2,726	1,106.5	250 / 48
086	8,603	2,654	1,107.2	200 / 25
091	9,106	2,654	1,110.1	104 / 37
096	9,576	2,654	1,111.4	194 / 33
101	10,137	2,654	1,113.0	29 / 26
107	10,659	2,654	1,116.7	19 / 34
112	11,195	2,654	1,118.6	38 / 25
114	11,443	2,654	1,120.9	120 / 22
117	11,746	2,654	1,121.7	88 / 46
123	12,252	2,654	1,123.4	16 / 30
129	12,898	2,020	1,128.4	21 / 30
132	13,220	2,020	1,129.9	37 / 24
BENSON CREEK				
001	116	1,232	1,063.3[4]	153 / 13
004	417	1,232	1,063.3[4]	111 / 28
005	514	1,232	1,063.3[4]	92 / 13
006	607	1,232	1,063.6	100 / 12
007	655	1,232	1,064.2	128 / 14
008	843	1,232	1,067.9	22 / 48
010	1,011	1,232	1,067.9	13 / 32
015	1,507	1,216	1,072.3	49 / 33
020	2,006	1,216	1,076.8	21 / 14
025	2,506	1,216	1,080.2	20 / 32
029	2,890	1,216	1,084.7	13 / 69
035	3,506	1,114	1,089.5	21 / 28
040	4,028	1,114	1,093.3	13 / 37
047	4,661	1,114	1,097.8	16 / 14
048	4,813	1,114	1,100.4	17 / 19
050	5,045	1,114	1,102.4	14 / 15
055	5,501	1,114	1,109.3	13 / 24
BRENDLE BRANCH				
005	500	1,362	948.2	98 / 85
008	750	1,362	948.9	48 / 27
008	844	1,362	949.7	29 / 19
009	938	1,362	952.7	88 / 23
013	1,275	1,362	954.3	14 / 22
015	1,525	1,362	956.5	18 / 40
018	1,775	1,362	959.3	10 / 11
020	2,005	1,362	963.3	9 / 25
022	2,183	1,362	967.0	45 / 21

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BRENDLE BRANCH				
024	2,360	1,362	967.7	40 / 28
026	2,612	1,362	969.9	39 / 52
028	2,775	1,362	974.5	5 / 28
029	2,863	1,015	977.5	45 / 6
030	2,955	1,015	978.6	32 / 55
031	3,093	1,015	979.5	42 / 16
032	3,236	1,015	981.7	48 / 17
035	3,525	1,015	985.4	22 / 38
038	3,775	1,015	988.5	22 / 15
038	3,812	967	990.0	24 / 14
041	4,075	967	992.2	33 / 34
043	4,275	967	992.3	13 / 17
045	4,525	967	997.2	35 / 24
048	4,775	967	999.3	43 / 14
050	5,025	967	1,000.2	32 / 74
BRUSHY FORK				
005	488	1,990	1,117.8[4]	12 / 97
012	1,232	1,990	1,119.2	110 / 12
015	1,511	1,990	1,120.4	66 / 12
020	2,025	1,990	1,123.6	12 / 53
025	2,504	1,990	1,126.3	12 / 107
029	2,930	1,990	1,127.5	35 / 25
031	3,080	1,990	1,129.8	50 / 21
033	3,343	1,605	1,130.5	70 / 26
036	3,589	1,605	1,130.7	15 / 15
039	3,872	1,605	1,131.4	12 / 12
041	4,103	1,605	1,134.4	19 / 20
045	4,477	1,605	1,138.2	25 / 35
050	5,018	1,605	1,140.1	33 / 51
055	5,513	1,605	1,143.5	63 / 70
059	5,922	1,534	1,146.0	108 / 35
066	6,568	1,534	1,149.9	105 / 42
070	6,965	1,466	1,152.9	45 / 32
075	7,466	1,466	1,158.7	120 / 9
078	7,823	1,466	1,160.1	72 / 9
084	8,363	1,438	1,164.0	16 / 119
089	8,928	1,438	1,168.2	166 / 9
094	9,371	1,438	1,172.4	101 / 117
096	9,623	1,438	1,174.8	9 / 136
BRUSHY FORK TRIBUTARY 1				
001	140	697	1,130.4[4]	15 / 7
004	422	697	1,133.0	34 / 7
008	795	697	1,137.9	49 / 7
014	1,355	684	1,144.3	7 / 36
016	1,600	684	1,148.0	7 / 93
019	1,937	684	1,153.2	10 / 21
022	2,199	684	1,156.0	9 / 19
024	2,381	684	1,158.5	12 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BRUSHY FORK TRIBUTARY 1				
025	2,542	684	1,161.2	7 / 19
029	2,937	684	1,165.2	23 / 17
032	3,186	684	1,171.1	15 / 15
BULL CREEK				
002	164	3,865	875.0[4]	25 / 30
006	636	3,865	875.0[4]	40 / 34
010	1,019	3,865	875.0[4]	22 / 26
015	1,503	3,865	875.0[4]	24 / 26
018	1,804	3,865	875.0[4]	21 / 21
022	2,198	3,865	875.0[4]	35 / 37
027	2,727	3,826	876.5	40 / 25
031	3,059	3,826	877.7	38 / 26
034	3,408	3,826	879.1	45 / 21
037	3,743	3,826	880.0	21 / 20
040	4,048	3,826	881.3	32 / 65
046	4,630	3,826	882.5	24 / 27
054	5,421	3,826	886.2	21 / 21
056	5,573	3,826	886.7	27 / 26
058	5,823	3,747	887.3	21 / 21
062	6,158	3,747	889.1	21 / 21
065	6,509	3,747	891.0	22 / 22
068	6,764	3,747	892.3	22 / 22
070	7,000	3,747	893.4	27 / 26
073	7,300	3,747	894.7	36 / 14
075	7,498	3,747	894.7	19 / 21
080	8,047	3,747	897.6	25 / 42
082	8,200	3,747	897.6	19 / 34
085	8,485	3,747	899.0	21 / 28
088	8,783	3,747	904.0	32 / 25
090	9,022	3,747	905.7	35 / 32
092	9,199	3,747	907.1	39 / 28
095	9,472	3,747	909.6	32 / 35
097	9,713	3,747	911.9	80 / 25
099	9,923	3,747	912.7	150 / 20
103	10,250	3,747	913.3	22 / 65
106	10,614	3,747	913.9	22 / 34
110	10,959	3,747	914.6	34 / 30
112	11,243	3,747	915.0	22 / 38
115	11,521	3,747	915.5	50 / 22
118	11,815	3,467	916.1	24 / 113
120	12,001	3,467	916.3	21 / 113
124	12,360	3,467	916.9	212 / 18
128	12,766	3,467	917.4	204 / 18
132	13,238	3,467	917.8	243 / 18
136	13,599	3,467	918.2	160 / 18
139	13,913	3,433	918.5	50 / 75
145	14,535	3,433	921.8	65 / 55
148	14,849	3,433	922.6	65 / 117

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BULL CREEK				
153	15,285	3,433	923.2	20 / 360
159	15,917	3,433	923.2	45 / 85
163	16,288	3,433	925.1	35 / 45
167	16,651	3,433	926.7	28 / 28
170	17,028	3,433	928.1	20 / 18
172	17,247	3,433	929.8	23 / 20
176	17,641	1,761	933.3	35 / 35
180	18,049	1,761	937.7	85 / 15
184	18,441	1,761	945.0	32 / 14
186	18,562	1,761	950.3	35 / 11
187	18,662	1,761	952.8	36 / 13
188	18,828	1,761	955.8	44 / 22
191	19,091	1,761	957.1	65 / 70
193	19,317	1,761	957.3	20 / 90
197	19,653	1,761	958.3	25 / 30
199	19,928	1,699	960.7	16 / 35
202	20,246	1,699	963.8	50 / 42
207	20,709	1,681	966.6	15 / 175
211	21,129	1,648	968.9	15 / 96
215	21,470	1,648	971.6	15 / 91
218	21,789	1,648	973.9	21 / 54
221	22,132	1,648	976.0	20 / 30
226	22,609	1,648	979.1	33 / 60
232	23,150	1,569	985.0	17 / 28
233	23,299	1,569	988.2	49 / 43
235	23,501	1,569	990.0	29 / 68
238	23,784	1,535	991.5	14 / 153
243	24,312	1,535	993.0	14 / 79
249	24,861	1,535	996.3	93 / 14
255	25,523	1,535	999.6	13 / 130
261	26,082	1,491	1,002.9	107 / 13
267	26,718	1,398	1,007.8	8 / 70
273	27,278	1,398	1,012.9	85 / 13
280	28,036	1,398	1,020.0	54 / 32
283	28,288	1,398	1,023.3	35 / 25
284	28,350	1,398	1,024.4	62 / 13
BUTLER CREEK				
001	75	1,563	1,247.7[4]	24 / 16
001	119	1,563	1,247.7[4]	10 / 9
004	353	1,563	1,249.9	34 / 97
005	450	1,563	1,251.0	46 / 50
008	802	1,563	1,253.6	20 / 101
013	1,333	1,538	1,257.9	20 / 61
019	1,885	1,538	1,265.1	22 / 21
022	2,205	1,538	1,269.6	53 / 19
023	2,272	1,538	1,270.2	93 / 8
024	2,386	1,538	1,270.3	76 / 20
025	2,504	1,538	1,270.5	95 / 21

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
BUTLER CREEK				
026	2,594	1,538	1,270.5	67 / 20
027	2,678	1,538	1,273.0	55 / 31
029	2,864	1,439	1,278.3	65 / 19
030	2,958	1,439	1,279.0	53 / 10
CADDLE CREEK				
004	432	1,736	939.5[4]	40 / 26
006	616	1,736	939.5[4]	25 / 22
009	897	1,736	939.5[4]	15 / 72
013	1,304	1,736	940.0	71 / 10
016	1,635	1,736	941.5	54 / 10
020	2,000	1,736	944.4	56 / 10
024	2,360	1,736	946.9	71 / 10
028	2,845	1,736	951.3	124 / 10
031	3,108	1,736	952.6	140 / 13
035	3,460	1,736	956.6	10 / 67
036	3,633	1,736	957.9	20 / 42
039	3,868	1,736	962.3	12 / 56
041	4,137	1,736	965.1	10 / 27
044	4,435	1,736	969.3	10 / 12
048	4,800	1,736	972.6	10 / 10
052	5,208	1,736	977.8	58 / 10
057	5,656	1,485	980.5	24 / 16
061	6,145	1,485	984.4	64 / 9
066	6,592	1,485	987.4	10 / 93
068	6,800	1,485	989.5	49 / 43
071	7,123	1,485	994.4	67 / 9
073	7,346	1,485	996.7	48 / 9
075	7,540	1,485	999.7	93 / 9
080	7,970	1,423	1,002.0	66 / 20
084	8,358	1,423	1,005.3	76 / 19
086	8,618	1,423	1,007.1	73 / 9
091	9,139	1,423	1,011.8	73 / 6
094	9,426	1,423	1,015.1	36 / 70
096	9,615	1,423	1,017.5	40 / 55
CAMP BRANCH				
001	127	1,857	1,250.5[4]	100 / 51
003	259	1,857	1,251.3	59 / 167
005	469	1,857	1,252.6	26 / 161
013	1,273	1,857	1,259.0	13 / 170
016	1,594	1,857	1,260.2	20 / 100
018	1,813	1,857	1,262.5	10 / 60
020	1,981	1,857	1,264.1	10 / 42
023	2,286	1,857	1,264.9	57 / 10
027	2,743	1,857	1,270.5	80 / 13
033	3,293	1,610	1,274.3	110 / 29
CAMP CREEK				
010	1,000	2,421	914.6[5]	120 / 26
013	1,250	2,421	914.6[5]	18 / 109

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CAMP CREEK				
015	1,500	2,421	914.6[5]	36 / 30
018	1,750	2,421	914.7	45 / 18
020	2,000	2,421	915.7	100 / 18
023	2,250	2,421	916.4	189 / 18
025	2,500	2,421	916.8	163 / 20
028	2,750	2,421	917.3	157 / 18
030	3,000	2,421	917.7	115 / 18
033	3,250	2,360	919.1	80 / 18
035	3,500	2,360	920.7	47 / 38
038	3,750	2,360	922.4	41 / 37
040	4,000	2,360	923.4	135 / 18
042	4,194	2,360	923.5	172 / 18
043	4,250	2,360	923.6	186 / 18
045	4,483	2,360	924.7	253 / 12
047	4,733	2,243	925.7	276 / 10
050	4,981	2,243	927.6	303 / 13
055	5,481	2,243	930.1	213 / 17
057	5,731	2,243	931.6	205 / 18
060	5,981	2,243	933.3	93 / 18
062	6,231	2,243	934.7	19 / 52
065	6,481	2,243	938.1	40 / 40
068	6,840	2,243	939.0	28 / 94
072	7,231	2,243	939.5	41 / 68
075	7,499	2,243	940.2	48 / 18
077	7,683	2,243	940.4	18 / 18
080	7,981	2,243	941.8	18 / 22
081	8,130	2,243	942.2	18 / 18
082	8,216	2,243	943.2	18 / 18
086	8,551	1,451	945.5	54 / 14
087	8,731	1,451	946.1	119 / 16
090	8,981	1,451	946.6	143 / 19
092	9,231	1,451	947.2	41 / 29
106	10,643	1,435	958.4	49 / 49
110	10,981	1,435	958.4	31 / 29
113	11,303	1,435	958.4	29 / 29
115	11,481	1,435	958.8	12 / 29
117	11,731	1,435	960.1	15 / 14
120	11,951	1,435	963.8	17 / 41
122	12,231	1,435	964.8	19 / 15
125	12,481	1,435	966.9	37 / 23
127	12,731	1,285	968.6	20 / 26
129	12,864	1,285	969.5	65 / 7
130	12,981	1,285	969.9	16 / 47
132	13,231	1,285	971.1	42 / 33
135	13,481	1,285	972.1	34 / 25
137	13,731	1,285	973.6	57 / 13
140	13,981	1,285	974.9	14 / 27
142	14,231	1,285	976.4	38 / 13

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CAMP CREEK				
145	14,481	1,285	978.0	19 / 13
CANDIFF CREEK				
005	528	1,603	810.8[6]	22 / 18
010	1,020	1,428	811.0[6]	23 / 20
020	1,982	1,428	811.1[4]	22 / 105
025	2,510	1,428	811.1[4]	11 / 119
031	3,057	1,428	811.1[4]	36 / 32
035	3,531	1,428	811.1[4]	85 / 34
040	4,024	1,428	813.9	19 / 24
045	4,471	1,428	817.0	33 / 71
050	4,965	1,428	819.7	73 / 35
055	5,476	1,428	823.2	93 / 34
059	5,891	1,274	825.9	33 / 33
067	6,730	1,274	833.8	6 / 33
073	7,277	1,274	840.8	21 / 28
078	7,812	1,274	844.9	58 / 13
083	8,298	1,274	848.2	33 / 7
087	8,739	1,274	852.4	31 / 18
092	9,228	1,274	855.8	26 / 40
097	9,720	1,227	859.9	34 / 18
101	10,145	1,227	862.9	90 / 35
107	10,693	1,160	864.8	33 / 134
112	11,162	1,160	867.2	40 / 50
116	11,636	1,160	871.5	50 / 20
121	12,142	682	878.2	10 / 50
126	12,635	682	883.8	50 / 22
132	13,157	682	890.3	26 / 20
135	13,524	682	894.3	32 / 6
CANDIFF CREEK TRIBUTARY 1				
001	91	524	810.8[4]	16 / 8
008	829	524	810.8[4]	62 / 9
012	1,184	524	810.8[4]	32 / 36
017	1,657	524	814.7	5 / 43
021	2,104	524	820.2	24 / 22
026	2,576	471	825.0	8 / 8
035	3,473	439	838.7	40 / -5
039	3,906	409	845.9	8 / 12
042	4,188	409	856.5	32 / 10
CANDIFF CREEK TRIBUTARY 2				
001	137	778	874.6[4]	11 / 11
003	304	778	876.2	22 / 30
008	809	778	882.2	13 / 24
014	1,368	778	891.1	32 / 14
018	1,848	778	900.0	9 / 18
024	2,351	738	905.4	42 / 11
028	2,834	738	910.6	13 / 11
034	3,391	738	921.1	22 / 24
037	3,666	591	923.3	34 / 30

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CHAMP CREEK				
004	437	1,470	1,040.0[4]	13 / 68
007	684	1,470	1,040.0[4]	70 / 18
013	1,314	1,470	1,040.0[4]	13 / 165
016	1,557	1,470	1,040.0[4]	13 / 121
018	1,777	1,470	1,040.6	20 / 71
021	2,068	1,470	1,042.5	147 / 12
024	2,382	1,470	1,044.3	28 / 102
027	2,718	1,470	1,048.1	11 / 79
030	2,975	1,470	1,049.3	80 / 100
034	3,430	1,385	1,051.1	10 / 90
038	3,784	1,385	1,054.7	10 / 100
041	4,095	1,236	1,057.1	9 / 110
044	4,389	1,236	1,058.9	60 / 9
048	4,758	1,236	1,062.1	65 / 10
049	4,935	1,236	1,063.5	10 / 67
052	5,206	1,236	1,065.0	12 / 45
CHINQUAPIN CREEK				
004	379	3,034	957.2[4]	20 / 17
008	811	3,034	958.1	50 / 15
015	1,526	3,034	961.5	15 / 79
020	2,000	3,034	962.7	80 / 60
026	2,564	1,908	963.9	100 / 23
029	2,935	1,908	964.3	33 / 41
034	3,361	1,908	965.6	30 / 14
038	3,846	1,908	968.4	20 / 10
044	4,430	1,872	972.1	35 / 13
049	4,895	1,872	975.0	60 / 32
053	5,255	1,862	977.0	11 / 63
058	5,818	1,862	980.2	11 / 120
064	6,387	1,862	982.3	60 / 24
CODY CREEK				
002	197	4,473	903.9[4]	67 / -12
006	555	4,473	903.9[4]	20 / 38
011	1,052	4,473	903.9[4]	29 / 26
016	1,568	4,423	903.9[4]	18 / 32
021	2,066	4,423	904.8	27 / 25
026	2,553	4,423	907.2	24 / 30
031	3,094	4,423	910.9	45 / 35
037	3,726	4,423	918.6	16 / 55
042	4,228	4,423	924.8	28 / 24
047	4,727	3,343	930.1	41 / 161
052	5,229	3,343	931.0	38 / 54
057	5,723	3,343	933.5	70 / 120
062	6,168	3,343	935.4	41 / 183
068	6,777	3,343	937.6	81 / 243
080	8,040	3,343	943.1	23 / 31
086	8,629	3,343	946.4	21 / 34
092	9,174	3,285	948.3	11 / 27

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
CODY CREEK				
097	9,673	3,285	953.5	20 / 70
102	10,168	3,285	956.1	22 / 75
107	10,709	3,285	965.7	23 / 21
112	11,214	3,285	971.9	30 / 11
117	11,721	3,285	973.7	61 / 28
122	12,215	3,285	977.7	41 / 91
127	12,711	3,192	978.8	35 / 18
131	13,093	3,192	983.4	80 / 24
136	13,566	3,192	985.3	29 / 40
141	14,116	3,111	996.3	12 / 40
146	14,639	3,111	1,001.6	10 / 17
152	15,183	3,111	1,006.3	4 / 19
157	15,680	3,111	1,013.6	25 / 33
164	16,355	3,111	1,021.1	45 / 138
COOKS CREEK				
005	491	2,755	1,025.4[4]	19 / 24
010	975	2,755	1,025.4[4]	41 / 159
012	1,229	2,755	1,025.4[4]	36 / 27
015	1,463	2,755	1,025.4[4]	19 / 16
020	1,981	2,755	1,025.4[4]	39 / 52
025	2,500	2,755	1,025.4[4]	33 / 45
030	2,956	1,748	1,025.4[4]	70 / 176
035	3,470	1,748	1,026.1	36 / 138
040	4,017	1,748	1,028.4	94 / 29
045	4,510	1,748	1,031.9	31 / 41
050	5,036	1,748	1,035.1	35 / 110
054	5,381	1,748	1,036.5	131 / 36
060	5,994	1,748	1,039.9	36 / 36
065	6,532	1,748	1,043.4	36 / 125
071	7,083	1,748	1,045.8	36 / 36
076	7,584	1,748	1,048.9	36 / 154
081	8,111	1,649	1,051.6	35 / 35
085	8,547	1,649	1,054.3	190 / 26
088	8,760	1,649	1,055.7	58 / 100
093	9,291	1,649	1,058.6	35 / 159
098	9,802	1,649	1,060.4	22 / 197
103	10,330	1,649	1,064.0	30 / 57
112	11,239	1,557	1,071.5	40 / 46
115	11,544	1,557	1,074.2	4 / 112
120	11,965	1,557	1,075.7	115 / 20
122	12,162	1,557	1,076.6	98 / 30
125	12,489	1,557	1,078.0	66 / 17
130	12,959	1,557	1,081.8	15 / 92
133	13,337	1,473	1,083.6	74 / 135
DAVENPORT CREEK				
002	198	809	850.4[4]	10 / 15
005	487	809	850.4[4]	17 / 13
007	713	809	857.4	13 / 7

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
DAVENPORT CREEK				
009	932	809	864.1	27 / 24
014	1,372	779	869.3	14 / 40
019	1,903	779	873.2	32 / 32
024	2,405	779	879.1	25 / 42
026	2,620	779	882.5	10 / 35
028	2,802	779	886.3	6 / 34
033	3,278	737	892.1	29 / 14
034	3,428	737	897.5	27 / 7
DUNAGAN CREEK				
005	499	811	872.8[4]	35 / 31
009	936	781	872.8[4]	40 / 32
013	1,290	781	873.9	35 / 29
018	1,791	781	881.3	113 / 105
021	2,126	747	882.5	28 / 24
025	2,509	747	886.2	12 / 62
028	2,763	747	887.9	12 / 50
030	2,988	747	892.4	12 / 32
035	3,532	700	898.7	32 / 32
037	3,670	700	900.7	70 / 22
DUTCHMANS CREEK				
011	1,114	1,460	895.8[4]	22 / 21
015	1,520	1,460	895.8[4]	130 / 6
017	1,719	1,460	895.8[4]	146 / 5
019	1,928	1,460	895.8[4]	89 / 15
021	2,063	1,460	895.8[4]	4 / 48
022	2,195	1,460	895.8[4]	7 / 60
024	2,424	1,460	895.8[4]	4 / 74
026	2,648	1,460	895.8[4]	50 / 16
028	2,839	1,460	895.8[4]	25 / 75
031	3,077	1,460	897.9	101 / 23
EAST DOUBLE CREEK				
001	140	3,195	822.3[4]	20 / 32
008	785	2,158	822.3[4]	142 / 157
013	1,320	2,158	822.3[4]	32 / 15
018	1,830	2,158	822.3[4]	37 / 37
023	2,316	2,158	822.3[4]	22 / 35
028	2,809	2,158	822.3[4]	37 / 19
033	3,325	2,114	823.7	37 / 92
038	3,818	2,114	825.1	32 / 42
043	4,330	2,114	829.2	8 / 21
048	4,841	2,114	833.9	33 / 13
053	5,342	2,114	837.3	29 / 14
058	5,818	2,114	841.6	24 / 27
063	6,259	2,114	844.0	37 / 18
068	6,773	2,114	846.6	37 / 11
073	7,278	2,114	849.4	12 / 37
078	7,767	2,114	853.5	37 / 75
083	8,264	2,114	855.2	32 / 136

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
EAST DOUBLE CREEK				
088	8,759	1,997	856.6	25 / 9
092	9,198	1,997	861.4	26 / 89
097	9,709	1,997	862.9	10 / 16
102	10,237	1,997	868.2	37 / 37
107	10,732	1,997	871.2	30 / 55
117	11,659	1,675	875.7	81 / 64
122	12,196	1,675	879.5	35 / 35
127	12,686	1,675	881.9	30 / 23
132	13,215	1,641	886.3	18 / 13
137	13,717	1,319	890.7	21 / 34
143	14,289	1,319	895.8	104 / 79
148	14,817	1,319	899.8	48 / 55
153	15,285	1,319	904.5	5 / 39
158	15,822	1,319	909.0	22 / 4
161	16,127	1,319	914.2	34 / 40
166	16,626	1,319	918.0	15 / 13
171	17,121	1,247	923.9	15 / 26
176	17,608	1,247	926.9	39 / 73
181	18,148	1,247	929.8	33 / 23
186	18,623	1,247	933.8	29 / 21
191	19,066	1,197	937.5	57 / 21
193	19,274	1,029	940.5	5 / 7
EAST DOUBLE CREEK TRIBUTARY 1				
001	97	694	874.1[4]	14 / 16
004	414	694	877.7	13 / 18
005	509	694	881.1	35 / 14
010	971	694	887.7	9 / 8
015	1,486	694	897.7	14 / 20
020	1,968	600	908.0	3 / 33
025	2,476	600	918.2	15 / 10
030	2,986	553	928.3	0 / 17
035	3,465	553	938.9	21 / 17
ELKIN CREEK				
139	13,928	10,316	948.5	43 /45
FAULKNER CREEK				
029	2,890	2,057	1,006.7[4]	16 / 14
030	3,022	2,057	1,008.2	60 / 18
035	3,497	2,057	1,011.2	120 / 21
039	3,878	2,057	1,012.8	102 / 12
044	4,431	2,057	1,016.5	19 / 102
047	4,733	2,057	1,018.2	12 / 142
052	5,151	2,057	1,020.7	94 / 27
054	5,429	2,057	1,022.8	65 / 40
059	5,892	1,932	1,026.4	167 / 104
063	6,266	1,932	1,027.8	130 / 11
065	6,533	1,932	1,030.4	77 / 57
069	6,855	1,932	1,032.8	20 / 10
074	7,378	1,555	1,039.5	50 / 88

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FAULKNER CREEK				
077	7,714	1,555	1,042.2	84 / 10
080	7,962	1,555	1,045.8	66 / 10
084	8,407	1,555	1,051.7	53 / 57
089	8,898	1,509	1,057.5	29 / 78
094	9,395	1,509	1,062.3	9 / 155
099	9,887	1,509	1,068.6	13 / 19
101	10,109	1,509	1,072.9	44 / 20
108	10,812	1,509	1,079.6	100 / 36
112	11,226	1,509	1,085.1	217 / 14
115	11,500	1,509	1,088.5	41 / 76
120	12,009	1,386	1,095.1	9 / 151
123	12,312	1,386	1,098.7	14 / 80
126	12,640	1,386	1,103.3	14 / 171
130	13,032	1,372	1,110.9	40 / 90
134	13,414	1,372	1,114.1	10 / 15
137	13,720	1,372	1,120.1	24 / 57
140	13,959	1,372	1,123.3	5 / 98
143	14,327	1,372	1,127.9	30 / 50
146	14,620	1,372	1,132.4	70 / 13
151	15,074	1,227	1,137.8	80 / 5
154	15,434	1,227	1,142.9	38 / 6
157	15,671	1,227	1,146.5	16 / 36
159	15,909	1,227	1,150.2	17 / 36
161	16,095	1,227	1,155.1	10 / 74
165	16,487	1,227	1,160.1	26 / 11
168	16,752	1,227	1,164.5	50 / 8
171	17,079	1,227	1,169.4	50 / 73
174	17,428	1,227	1,173.0	6 / 64
179	17,937	1,118	1,179.2	12 / 19
183	18,313	1,118	1,185.3	43 / 13
186	18,584	1,118	1,188.1	25 / 14
188	18,843	1,118	1,194.3	65 / 10
FAULKNER CREEK TRIBUTARY 1				
001	64	880	1,034.8[4]	25 / 8
002	220	880	1,037.3	25 / 15
007	722	880	1,043.4	15 / 23
010	1,034	880	1,046.2	50 / 8
013	1,290	875	1,047.6	20 / 15
015	1,484	875	1,050.4	12 / 24
019	1,856	875	1,054.9	9 / 37
022	2,197	778	1,057.7	60 / 8
025	2,457	778	1,058.7	71 / 20
FISHER RIVER				
003	254	24,418	847.4[4]	410 / 471
010	1,003	24,418	848.0	72 / 72
015	1,513	24,418	848.3	68 / 68
020	1,995	24,418	848.8	63 / 63
025	2,500	24,418	849.6	63 / 63

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
027	2,704	24,418	850.1	70 / 63
030	2,989	24,418	850.4	69 / 61
032	3,248	24,389	850.6	64 / 63
035	3,498	24,389	850.9	63 / 63
040	4,001	24,389	851.5	63 / 63
045	4,499	24,389	852.1	63 / 63
048	4,763	24,389	852.3	62 / 54
050	5,000	24,389	852.4	72 / 52
055	5,457	24,389	854.1	67 / 67
058	5,771	24,389	854.5	67 / 56
060	6,049	24,389	854.9	72 / 72
066	6,557	24,389	855.9	72 / 72
070	7,016	24,389	856.4	76 / 55
075	7,508	24,389	856.9	63 / 63
080	7,998	24,389	857.6	63 / 63
083	8,250	24,389	857.6	75 / 65
085	8,518	24,389	858.1	69 / 72
088	8,760	24,389	858.8	72 / 63
090	9,005	24,389	859.0	72 / 66
092	9,194	24,306	859.6	67 / 66
095	9,493	24,306	860.3	71 / 71
097	9,726	24,306	860.8	62 / 81
100	9,995	24,306	860.8	59 / 82
103	10,342	24,306	861.8	71 / 152
105	10,527	24,306	862.9	81 / 76
110	11,044	24,306	863.1	71 / 71
115	11,499	24,306	863.7	71 / 71
120	11,988	24,306	864.2	53 / 81
125	12,511	24,306	865.1	55 / 82
130	13,009	24,306	866.0	64 / 73
135	13,500	24,306	867.5	32 / 121
140	14,005	24,306	867.7	71 / 60
147	14,669	24,306	868.5	130 / 80
150	15,003	24,306	869.0	105 / 65
155	15,505	24,306	870.4	80 / 47
160	16,005	24,306	871.2	64 / 76
165	16,484	24,258	872.7	53 / 180
170	17,004	24,258	873.2	69 / 69
175	17,494	24,258	875.2	73 / 56
178	17,755	24,258	876.4	150 / 57
185	18,515	24,258	880.2	69 / 170
190	18,989	24,258	880.7	76 / 110
195	19,492	24,258	881.1	55 / 140
200	20,010	24,258	881.9	100 / 75
205	20,507	24,258	882.6	76 / 75
210	20,995	24,258	883.1	56 / 90
215	21,505	24,258	884.1	60 / 73
220	22,015	24,258	884.7	110 / 84

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
225	22,503	24,258	885.6	85 / 75
230	23,011	24,258	885.8	80 / 67
235	23,500	24,132	886.0	59 / 77
240	24,007	24,132	887.5	62 / 81
245	24,500	24,132	889.5	64 / 73
250	25,012	24,132	890.4	120 / 60
255	25,505	24,132	891.2	70 / 58
260	26,001	24,132	892.5	64 / 150
265	26,500	24,132	893.5	71 / 61
270	27,010	24,132	895.1	100 / 80
275	27,496	24,132	895.7	52 / 65
280	27,998	24,132	896.6	62 / 79
284	28,437	24,132	897.4	92 / 66
289	28,929	24,132	899.0	98 / 82
294	29,435	24,132	899.2	70 / 64
300	30,014	24,132	899.9	102 / 83
305	30,477	24,132	900.2	65 / 115
310	31,003	24,132	901.3	68 / 90
315	31,498	24,132	902.6	64 / 69
320	31,993	24,132	903.5	73 / 72
325	32,508	23,428	904.2	67 / 79
330	33,000	23,428	906.3	72 / 68
335	33,494	23,428	908.6	155 / 64
340	33,989	23,428	909.2	66 / 88
345	34,508	23,428	910.1	60 / 71
350	35,010	23,428	910.6	75 / 66
355	35,515	23,428	912.2	80 / 65
360	36,008	23,428	912.9	69 / 80
365	36,468	23,428	913.8	289 / 253
370	37,020	23,428	913.8	109 / 60
375	37,508	23,324	915.2	50 / 58
380	38,002	23,324	916.4	53 / 110
385	38,516	23,324	916.6	70 / 76
390	38,993	23,324	918.3	55 / 74
395	39,497	23,324	918.9	95 / 79
400	39,989	23,324	919.4	55 / 95
406	40,581	23,324	921.6	66 / 130
410	41,001	23,324	921.6	48 / 79
415	41,499	23,324	923.1	80 / 130
425	42,499	23,324	924.9	180 / 58
435	43,500	23,106	927.5	158 / 75
440	44,010	23,106	928.6	70 / 100
445	44,500	23,106	929.2	200 / 110
450	45,005	23,106	929.9	278 / 35
455	45,475	23,106	933.6	200 / 130
460	45,996	23,106	934.4	80 / 200
465	46,500	23,106	935.3	53 / 99
470	46,998	23,106	936.4	50 / 150

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
475	47,500	23,106	938.1	112 / 128
480	48,000	23,106	938.3	67 / 99
485	48,503	23,106	939.2	88 / 71
490	48,993	23,106	940.7	80 / 74
500	49,999	23,106	941.4	49 / 95
505	50,497	23,106	942.7	68 / 68
513	51,267	23,033	948.7	65 / 58
516	51,634	23,033	949.6	85 / 59
520	52,020	23,033	949.9	57 / 57
525	52,508	23,033	950.4	59 / 54
530	52,997	23,033	951.8	80 / 75
535	53,497	23,033	953.0	52 / 61
540	54,002	23,033	953.8	41 / 75
545	54,500	21,970	955.3	150 / 63
550	55,005	21,970	955.3	56 / 56
555	55,501	21,970	956.2	56 / 56
560	55,998	21,970	957.3	63 / 52
565	56,494	21,970	958.0	56 / 56
570	56,999	21,970	959.1	50 / 56
575	57,503	21,970	960.2	46 / 72
580	57,996	21,970	962.1	50 / 80
585	58,502	21,970	962.6	46 / 90
590	58,997	21,970	963.5	56 / 50
595	59,504	21,587	964.8	217 / 36
600	60,001	21,587	965.5	59 / 138
605	60,501	21,587	966.3	82 / 56
610	61,004	21,587	968.1	68 / 56
615	61,496	21,587	968.3	56 / 56
620	61,998	21,587	969.0	56 / 56
624	62,439	21,587	969.6	56 / 48
630	63,012	21,587	970.1	55 / 55
635	63,488	21,587	971.7	59 / 58
640	63,983	21,587	972.2	62 / 50
645	64,500	21,587	972.6	56 / 56
650	64,996	21,587	973.6	45 / 56
655	65,503	21,587	975.7	56 / 45
660	65,998	21,587	976.8	50 / 41
662	66,210	21,587	977.8	56 / 56
665	66,503	21,224	978.7	77 / 68
670	67,014	21,224	979.9	58 / 47
674	67,370	21,224	980.2	55 / 50
677	67,721	21,224	981.2	182 / 38
681	68,093	21,224	981.5	66 / 303
685	68,503	21,224	981.7	70 / 67
690	69,002	21,224	981.7	44 / 55
695	69,503	21,224	981.9	42 / 54
700	70,002	21,224	984.7	55 / 43
705	70,486	21,224	984.9	48 / 53

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
710	70,993	21,224	986.3	53 / 49
714	71,414	21,224	986.7	50 / 80
725	72,509	20,997	990.1	75 / 165
730	72,998	20,997	990.4	72 / 168
735	73,504	20,997	991.1	200 / 75
740	74,012	20,997	991.3	235 / 52
745	74,505	20,997	991.5	200 / 53
750	74,998	20,997	992.0	192 / 52
755	75,504	20,997	992.0	200 / 38
760	76,012	20,997	993.2	145 / 55
765	76,500	20,997	993.4	143 / 78
770	76,986	20,997	994.6	150 / 65
775	77,506	20,997	995.3	100 / 85
780	78,002	20,997	995.4	100 / 90
785	78,495	20,997	996.6	113 / 74
790	78,998	20,997	996.8	100 / 54
795	79,494	20,997	997.1	100 / 80
800	79,998	20,997	997.5	80 / 75
805	80,500	20,997	997.9	49 / 75
810	81,000	20,997	998.1	70 / 100
815	81,503	20,997	999.5	110 / 65
820	82,005	20,997	1,000.8	110 / 70
825	82,502	20,997	1,001.7	80 / 80
830	83,012	20,997	1,001.9	60 / 60
835	83,463	20,997	1,002.2	60 / 58
840	84,013	20,997	1,004.8	189 / 52
845	84,501	20,997	1,004.9	100 / 69
850	85,003	20,997	1,005.9	73 / 95
855	85,496	20,997	1,006.8	60 / 121
860	85,991	20,997	1,007.5	60 / 86
865	86,496	20,997	1,008.2	58 / 101
870	87,000	20,997	1,008.4	75 / 77
875	87,502	20,997	1,009.6	110 / 73
880	87,996	20,997	1,009.6	100 / 55
885	88,505	20,236	1,010.3	65 / 54
890	88,998	20,236	1,011.4	61 / 124
895	89,503	20,236	1,012.0	59 / 119
900	90,005	20,236	1,012.4	59 / 70
905	90,501	20,236	1,012.9	59 / 64
910	91,007	20,236	1,014.2	59 / 159
915	91,499	20,236	1,015.1	61 / 90
920	92,000	20,236	1,015.8	68 / 91
925	92,475	20,236	1,015.9	44 / 167
931	93,145	20,236	1,018.9	78 / 132
935	93,517	20,236	1,020.6	53 / 333
940	93,986	20,236	1,020.6	300 / 108
952	95,164	20,236	1,021.8	90 / 54
955	95,549	20,236	1,022.0	89 / 75

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
960	96,003	20,236	1,022.3	108 / 54
965	96,491	20,236	1,022.7	93 / 54
970	96,997	20,236	1,023.0	40 / 80
975	97,508	20,236	1,023.6	54 / 54
980	98,044	20,236	1,024.4	41 / 187
985	98,467	20,236	1,025.4	353 / 54
990	98,952	18,556	1,025.4	102 / 53
995	99,496	18,484	1,025.6	92 / 53
1000	99,997	18,484	1,026.1	63 / 53
1005	100,459	12,167	1,027.3	72 / 45
1010	100,978	12,167	1,027.3	38 / 53
1015	101,503	12,167	1,027.4	35 / 47
1020	102,002	12,167	1,028.8	47 / 47
1025	102,460	12,167	1,029.1	47 / 32
1029	102,897	12,167	1,030.4	47 / 37
1035	103,500	12,167	1,031.6	47 / 47
1040	104,001	12,167	1,032.8	47 / 47
1045	104,496	12,167	1,033.6	53 / 51
1050	104,991	12,167	1,034.2	58 / 52
1055	105,493	12,167	1,034.8	67 / 53
1060	106,015	12,167	1,035.2	58 / 73
1065	106,486	12,167	1,035.2	37 / 47
1070	107,000	12,167	1,036.8	47 / 60
1073	107,285	12,167	1,037.0	47 / 117
1080	107,995	12,167	1,038.5	47 / 47
1090	108,997	12,167	1,042.1	46 / 56
1095	109,478	12,167	1,043.2	47 / 40
1100	110,003	12,167	1,045.0	53 / 92
1105	110,495	12,167	1,045.5	47 / 73
1110	110,999	12,167	1,046.4	42 / 47
1115	111,501	12,167	1,048.5	139 / 47
1120	111,997	12,167	1,049.4	56 / 52
1125	112,499	12,167	1,051.0	202 / 134
1130	112,988	12,167	1,051.6	48 / 45
1135	113,497	12,167	1,053.2	379 / 37
1140	114,013	12,167	1,054.7	254 / 162
1145	114,501	12,167	1,055.1	75 / 47
1150	114,999	12,167	1,055.8	54 / 47
1155	115,502	12,167	1,057.0	227 / 325
1160	115,999	12,167	1,057.0	51 / 60
1165	116,501	12,167	1,057.4	54 / 47
1170	117,005	12,167	1,058.0	53 / 49
1175	117,483	12,167	1,058.4	47 / 38
1180	118,011	12,167	1,059.4	44 / 46
1185	118,502	12,167	1,060.1	43 / 47
1190	119,005	11,546	1,060.7	46 / 46
1195	119,492	11,546	1,062.7	80 / 53
1200	120,023	11,546	1,062.7	46 / 118

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
1205	120,498	11,546	1,063.5	46 / 46
1210	121,000	11,546	1,064.7	46 / 46
1215	121,480	11,546	1,065.4	40 / 59
1220	122,000	11,546	1,067.8	180 / 30
1225	122,496	11,546	1,068.1	38 / 60
1230	123,009	11,546	1,069.4	30 / 256
1235	123,499	11,546	1,070.4	38 / 335
1240	123,996	11,546	1,071.0	99 / 231
1245	124,495	11,546	1,071.9	323 / 122
1250	125,004	11,546	1,072.5	564 / 46
1255	125,514	11,546	1,073.0	517 / 46
1260	126,022	11,546	1,073.4	49 / 271
1265	126,498	10,821	1,074.2	116 / 46
1270	127,031	10,821	1,075.0	118 / 36
1275	127,497	10,821	1,075.8	73 / 67
1280	128,008	10,821	1,077.6	51 / 52
1285	128,504	10,821	1,078.4	51 / 49
1290	128,988	10,821	1,079.5	96 / 53
1295	129,501	10,821	1,080.1	67 / 46
1300	129,987	10,821	1,080.7	46 / 55
1305	130,498	10,821	1,081.3	55 / 45
1310	130,987	10,821	1,082.0	46 / 43
1315	131,494	10,821	1,083.0	47 / 46
1320	132,001	10,821	1,083.9	46 / 50
1325	132,484	10,821	1,084.1	29 / 51
1330	132,997	10,821	1,085.6	44 / 46
1335	133,491	10,821	1,086.0	46 / 30
1340	133,994	10,821	1,087.6	59 / 46
1345	134,500	10,821	1,088.1	46 / 60
1350	134,995	10,821	1,088.6	48 / 38
1356	135,566	10,821	1,089.7	64 / 53
1360	136,005	10,821	1,090.3	56 / 46
1365	136,496	10,821	1,090.8	46 / 46
1370	137,002	10,821	1,092.3	37 / 37
1375	137,507	10,821	1,093.7	19 / 158
1385	138,500	10,490	1,096.3	45 / 68
1390	138,999	10,490	1,098.1	38 / 306
1395	139,498	10,490	1,098.6	263 / 221
1400	140,012	10,490	1,099.1	605 / 45
1405	140,498	10,490	1,099.2	55 / 50
1410	141,001	10,490	1,100.0	52 / 52
1425	142,496	10,490	1,105.7	45 / 255
1430	143,004	10,490	1,106.6	57 / 301
1435	143,519	10,008	1,106.6	58 / 18
1440	144,003	10,008	1,108.5	44 / 49
1445	144,505	10,008	1,109.2	44 / 47
1450	145,000	10,008	1,110.2	44 / 44
1455	145,501	10,008	1,111.1	54 / 44

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
1460	146,014	10,008	1,111.7	48 / 42
1465	146,524	10,008	1,112.6	44 / 44
1470	146,994	10,008	1,114.7	44 / 52
1475	147,502	10,008	1,115.9	44 / 48
1480	148,012	10,008	1,117.3	36 / 47
1485	148,497	10,008	1,118.6	44 / 60
1490	148,998	10,008	1,120.0	44 / 66
1495	149,486	10,008	1,120.1	44 / 44
1500	150,002	10,008	1,121.3	48 / 50
1505	150,505	10,008	1,121.6	48 / 44
1510	150,999	10,008	1,122.8	47 / 44
1515	151,504	10,008	1,124.0	51 / 41
1520	151,998	10,008	1,124.5	54 / 43
1525	152,507	9,357	1,124.8	50 / 43
1530	153,012	9,357	1,125.5	43 / 53
1535	153,502	9,357	1,126.4	36 / 52
1540	154,004	9,357	1,127.4	61 / 58
1545	154,500	9,357	1,127.5	48 / 43
1550	155,001	9,357	1,128.8	65 / 33
1555	155,493	9,357	1,129.6	40 / 183
1559	155,886	9,357	1,129.8	43 / 43
1562	156,181	9,357	1,131.4	385 / 79
1566	156,613	9,357	1,131.7	100 / 124
1570	157,003	9,357	1,132.0	56 / 55
1575	157,494	9,357	1,133.0	43 / 43
1580	157,994	9,357	1,134.3	43 / 47
1585	158,509	9,357	1,135.3	43 / 41
1590	158,998	9,357	1,135.9	43 / 41
1595	159,503	9,357	1,136.9	43 / 31
1600	159,999	9,357	1,138.3	48 / 45
1605	160,504	9,357	1,138.8	43 / 43
1610	160,988	9,357	1,140.1	49 / 43
1615	161,450	9,357	1,140.9	43 / 43
1620	162,012	9,357	1,142.2	53 / 48
1625	162,499	9,357	1,142.6	43 / 78
1630	162,992	8,799	1,143.6	277 / 34
1635	163,486	8,799	1,144.6	66 / 166
1640	164,013	8,799	1,145.6	172 / 41
1645	164,496	8,799	1,146.2	200 / 44
1650	164,993	8,799	1,146.8	158 / 53
1655	165,504	8,799	1,147.3	132 / 40
1660	166,012	8,799	1,147.9	52 / 35
1665	166,484	8,799	1,150.0	78 / 73
1670	167,002	8,799	1,151.0	41 / 63
1675	167,514	8,799	1,152.5	60 / 41
1680	168,000	8,799	1,154.5	41 / 49
1685	168,495	8,235	1,155.6	40 / 40
1690	169,002	8,235	1,157.2	40 / 50

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
1695	169,490	8,235	1,158.0	43 / 40
1700	170,019	8,235	1,159.7	16 / 82
1705	170,506	8,235	1,160.6	346 / 40
1710	170,997	8,235	1,161.5	108 / 46
1715	171,506	8,235	1,162.9	288 / 70
1720	171,951	8,235	1,163.6	88 / 150
1731	173,052	8,235	1,166.4	60 / 117
1735	173,534	8,235	1,169.0	60 / 250
1740	173,990	8,235	1,170.8	40 / 137
1745	174,507	8,235	1,171.4	48 / 38
1750	175,000	8,235	1,172.6	50 / 37
1755	175,501	8,235	1,173.5	36 / 43
1760	175,999	8,235	1,174.9	45 / 44
1766	176,565	8,235	1,177.1	40 / 90
1770	176,993	8,235	1,177.1	48 / 40
1775	177,511	8,235	1,178.4	46 / 39
1780	178,010	8,235	1,179.9	49 / 40
1785	178,495	7,875	1,181.4	34 / 135
1790	178,998	7,875	1,182.5	34 / 40
1795	179,496	7,875	1,184.6	34 / 29
1800	180,008	7,875	1,188.3	39 / 43
1808	180,771	7,875	1,190.5	52 / 33
1815	181,514	7,875	1,196.8	39 / 330
1820	181,983	7,875	1,197.1	100 / 300
1825	182,497	7,192	1,197.1	90 / 37
1830	183,006	7,192	1,197.9	300 / 37
1832	183,188	7,192	1,198.2	335 / 37
1836	183,607	7,192	1,199.1	27 / 63
1840	183,991	7,192	1,199.2	384 / 37
1845	184,486	7,192	1,201.3	260 / 42
1850	184,977	7,192	1,201.8	38 / 40
1855	185,477	7,192	1,203.0	26 / 52
1860	186,000	6,768	1,204.4	46 / 58
1865	186,506	6,768	1,207.2	137 / 22
1870	186,997	6,768	1,207.2	32 / 73
1875	187,511	6,768	1,207.6	36 / 33
1886	188,580	6,768	1,211.5	88 / 63
1890	188,993	6,768	1,211.6	48 / 38
1895	189,507	6,768	1,212.5	43 / 32
1899	189,933	6,768	1,213.6	30 / 36
1905	190,514	6,768	1,215.7	36 / 30
1910	191,000	6,768	1,217.1	39 / 38
1920	191,985	6,768	1,220.5	45 / 36
1925	192,492	6,768	1,222.2	45 / 31
1930	193,004	6,768	1,223.8	34 / 28
1935	193,496	6,768	1,225.3	36 / 24
1940	193,996	6,768	1,227.3	36 / 46
1945	194,496	6,768	1,228.2	26 / 35

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
1949	194,867	6,768	1,229.4	27 / 27
1951	195,072	6,768	1,230.2	23 / 41
1958	195,766	6,768	1,233.6	45 / 26
1961	196,130	6,768	1,234.4	50 / 27
1965	196,454	6,768	1,236.7	28 / 42
1970	196,982	6,768	1,242.4	167 / 64
1975	197,483	6,768	1,245.1	35 / 200
1980	198,000	6,768	1,246.3	129 / 37
1984	198,429	6,768	1,248.0	94 / 23
1990	198,994	6,768	1,249.9	164 / 23
1994	199,412	5,621	1,251.8	33 / 96
2000	199,995	5,621	1,255.3	112 / 326
2005	200,491	5,621	1,256.1	188 / 285
2010	200,989	5,621	1,257.0	46 / 45
2015	201,510	5,621	1,258.6	30 / 46
2025	202,498	3,044	1,270.6	42 / 119
2030	203,003	3,044	1,271.2	85 / 35
2039	203,929	3,044	1,276.3	117 / 43
2050	204,994	3,044	1,283.4	23 / 21
2055	205,500	3,044	1,290.2	50 / 40
2060	206,003	3,044	1,294.4	25 / 190
2065	206,493	3,044	1,299.9	12 / 328
2070	207,000	3,044	1,302.2	30 / 13
2075	207,493	3,044	1,307.8	34 / 55
2080	208,008	3,044	1,312.6	42 / 34
2085	208,504	3,044	1,316.9	18 / 157
2090	209,009	3,044	1,320.4	120 / 40
2095	209,505	2,898	1,323.1	41 / 28
2100	210,000	2,898	1,327.7	200 / 24
2110	210,987	2,898	1,335.6	77 / 309
2115	211,487	2,898	1,340.4	27 / 236
2120	212,016	2,898	1,343.6	46 / 140
2125	212,517	2,898	1,348.0	68 / 35
2130	212,999	2,481	1,351.4	90 / 53
2136	213,590	2,481	1,355.1	15 / 144
2140	214,015	2,481	1,359.2	20 / 31
2148	214,841	1,825	1,371.4	26 / 132
2154	215,419	1,825	1,378.3	75 / 17
2159	215,891	1,825	1,384.6	92 / 65
2166	216,617	1,825	1,394.4	55 / 26
2170	217,010	1,825	1,401.1	27 / 16
2175	217,503	1,825	1,408.2	32 / 36
2179	217,923	1,825	1,414.5	125 / 6
2187	218,720	1,559	1,423.9	60 / 24
2192	219,159	1,559	1,431.6	21 / 78
2195	219,498	1,559	1,436.2	38 / 16
2200	219,999	1,559	1,447.7	43 / 32
2205	220,497	1,559	1,458.9	94 / 20

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER				
2209	220,938	1,559	1,468.2	16 / 18
2215	221,540	1,002	1,490.9	50 / 17
2220	222,000	1,002	1,506.2	20 / 12
2225	222,498	1,002	1,522.5	17 / 12
2230	222,999	1,002	1,584.4	14 / 18
2235	223,501	981	1,726.6	19 / 8
2240	224,003	981	1,804.7	16 / 13
2245	224,501	696	1,842.5	7 / 9
2250	224,998	696	1,872.0	14 / 17
2255	225,489	696	1,902.7	15 / 20
2260	225,998	671	1,938.9	12 / 17
2265	226,494	671	1,972.1	9 / 17
2270	227,005	671	2,008.7	13 / 9
FISHER RIVER TRIBUTARY 1				
001	108	1,078	914.5[4]	16 / 13
002	219	1,078	914.5[4]	13 / 14
003	318	1,078	914.5[4]	14 / 8
004	385	1,078	914.5[4]	9 / 8
005	517	1,078	915.4	8 / 8
007	722	1,078	921.5	7 / 22
010	1,007	1,078	926.1	14 / 12
016	1,631	1,013	933.3	16 / 36
019	1,872	807	936.6	16 / 13
021	2,120	807	940.7	7 / 30
025	2,491	807	950.3	27 / 7
028	2,816	807	956.4	10 / 11
031	3,140	807	960.0	106 / 7
033	3,342	807	961.4	76 / 7
036	3,564	807	964.7	7 / 14
038	3,823	807	969.7	8 / 7
041	4,097	807	973.2	42 / 23
043	4,292	807	973.8	36 / 36
044	4,397	807	974.1	67 / 16
FISHER RIVER TRIBUTARY 1A				
000	12	426	939.9[4]	10 / 2
000	36	426	939.9[4]	2 / 3
001	82	426	943.5	4 / 7
001	118	426	947.4	3 / 4
002	160	426	951.5	16 / 9
002	185	426	952.3	13 / 5
002	224	426	953.9	14 / 11
004	400	426	963.6	15 / 38
005	509	426	965.5	22 / 40
007	657	426	970.2	25 / 66
007	728	426	971.4	19 / 36
008	837	426	972.4	13 / 17
011	1,055	408	980.6	20 / 40
013	1,294	408	991.5	14 / 35

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER TRIBUTARY 1A				
016	1,563	408	1,003.8	48 / 20
018	1,815	408	1,014.1	10 / 10
020	2,034	408	1,021.8	12 / 17
023	2,291	408	1,028.2	7 / 24
025	2,494	408	1,035.5	13 / 20
028	2,764	408	1,043.5	26 / 15
029	2,851	408	1,050.9	36 / 23
030	3,012	408	1,054.7	30 / 26
032	3,223	408	1,062.9	27 / 21
036	3,587	408	1,083.4	48 / 59
038	3,786	408	1,086.8	5 / 13
041	4,053	408	1,097.7	5 / 14
FISHER RIVER TRIBUTARY 2				
005	503	952	964.2[4]	26 / 14
010	1,028	952	964.2[4]	16 / 2
015	1,539	952	970.7	4 / 14
020	2,049	952	976.1	23 / 32
026	2,588	952	983.2	9 / 38
031	3,107	952	989.9	29 / 47
036	3,617	890	994.0	23 / 21
042	4,150	890	1,000.9	11 / 38
047	4,658	890	1,006.7	11 / 32
051	5,135	833	1,011.8	32 / 40
056	5,590	833	1,017.0	10 / 16
060	6,005	756	1,023.8	22 / 14
063	6,330	756	1,027.8	11 / 15
FISHER RIVER TRIBUTARY 3				
005	524	1,049	978.0[4]	66 / 17
010	1,007	1,049	978.0[4]	13 / 12
016	1,560	1,049	981.6	31 / 14
021	2,074	1,049	985.8	32 / 14
025	2,483	1,049	990.2	95 / 5
029	2,932	873	994.7	12 / 18
034	3,429	873	1,001.6	16 / 23
040	3,988	837	1,006.4	22 / 34
043	4,292	837	1,010.4	12 / 35
FISHER RIVER TRIBUTARY 4				
005	519	415	1,025.6[4]	6 / 10
010	976	415	1,029.4	8 / 7
015	1,458	415	1,040.0	11 / 13
020	1,965	382	1,049.9	16 / 14
025	2,459	382	1,061.0	10 / 16
030	3,034	382	1,075.0	15 / 11
035	3,545	382	1,087.8	9 / 7
040	4,039	382	1,107.7	54 / 51
041	4,141	382	1,107.7	32 / 25
042	4,243	382	1,108.9	18 / 4

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FISHER RIVER TRIBUTARY 5				
005	494	1,565	1,074.0[4]	40 / 30
010	1,033	1,565	1,074.6	32 / 109
015	1,467	1,565	1,076.2	25 / 35
020	1,983	1,565	1,081.1	69 / 38
027	2,693	1,565	1,084.0	116 / 16
031	3,055	879	1,085.5	91 / 34
FLAT BRANCH				
001	60	798	1,107.7[4]	20 / 8
003	280	798	1,109.2	16 / 18
005	478	798	1,111.5	28 / 45
006	640	798	1,113.2	24 / 30
008	807	798	1,114.3	18 / 14
010	968	798	1,118.2	29 / 12
012	1,201	798	1,120.3	28 / 23
014	1,421	798	1,122.4	16 / 16
016	1,555	798	1,125.7	24 / 15
018	1,756	798	1,128.3	40 / 14
019	1,886	729	1,128.6	20 / 14
022	2,162	729	1,134.0	12 / 20
023	2,309	729	1,137.8	20 / 13
025	2,489	729	1,141.7	12 / 13
027	2,683	692	1,143.8	12 / 19
028	2,822	692	1,145.0	12 / 18
029	2,929	692	1,147.4	16 / 16
031	3,058	692	1,149.6	22 / 20
032	3,196	692	1,150.3	18 / 21
035	3,521	692	1,155.5	18 / 20
FLAT SHOAL CREEK				
001	121	2,915	900.2[4]	22 / 22
002	182	2,915	900.2[4]	23 / 25
006	598	2,915	900.2[4]	80 / 19
010	958	2,915	900.2[4]	25 / 12
015	1,485	2,907	900.2[4]	30 / 38
022	2,228	2,907	900.3	27 / 28
026	2,615	2,907	902.0	19 / 66
031	3,057	2,907	904.5	38 / 103
035	3,534	2,907	906.7	31 / 74
042	4,154	2,907	910.5	42 / 24
046	4,575	2,907	912.7	57 / 41
050	5,000	2,907	914.0	23 / 108
055	5,475	2,907	919.2	37 / 95
059	5,904	2,907	921.0	23 / 16
062	6,182	2,907	924.5	28 / 17
064	6,400	2,907	928.7	50 / 24
070	7,000	2,696	932.2	29 / 30
072	7,241	2,696	934.4	25 / 13
075	7,512	2,696	938.7	36 / 22
080	8,000	2,696	941.9	20 / 84

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FLAT SHOAL CREEK				
085	8,500	2,696	943.5	18 / 32
090	9,000	2,696	945.4	27 / 28
093	9,291	2,696	946.7	68 / 129
097	9,676	2,696	947.7	100 / 47
101	10,145	2,696	949.2	156 / 125
106	10,595	2,696	950.5	15 / 22
111	11,128	2,593	954.3	26 / 45
116	11,591	2,593	958.6	18 / 23
117	11,747	2,593	960.8	26 / 29
119	11,935	2,593	964.4	23 / 25
121	12,067	2,593	967.6	58 / 34
125	12,500	2,593	972.0	34 / 30
129	12,935	2,593	978.0	26 / 14
134	13,427	2,593	984.4	44 / 29
138	13,764	2,593	986.4	45 / 20
144	14,399	2,593	989.6	143 / 138
146	14,632	2,593	990.3	184 / 139
152	15,214	1,858	992.0	26 / 35
155	15,480	1,858	993.6	22 / 192
160	15,981	1,858	995.3	184 / 132
165	16,500	1,858	995.6	20 / 36
171	17,079	1,858	1,000.2	69 / 64
176	17,571	1,858	1,002.3	77 / 14
178	17,798	1,858	1,002.8	23 / 16
180	18,011	1,858	1,003.9	14 / 14
185	18,463	1,858	1,007.3	46 / 112
189	18,942	1,767	1,009.4	78 / 22
194	19,433	1,767	1,011.5	212 / 19
196	19,637	1,767	1,011.7	52 / 20
203	20,277	1,625	1,015.5	14 / 72
206	20,646	1,625	1,017.5	14 / 50
210	21,006	1,625	1,020.1	18 / 17
215	21,500	1,625	1,024.4	14 / 14
219	21,946	1,625	1,029.1	14 / 14
222	22,240	1,625	1,032.0	39 / 34
225	22,500	1,625	1,032.3	14 / 14
229	22,864	1,625	1,036.4	25 / 39
234	23,398	1,488	1,043.1	40 / 25
237	23,734	1,488	1,046.4	148 / 113
241	24,075	1,488	1,046.5	90 / 14
246	24,588	1,488	1,048.0	69 / 57
250	24,980	1,361	1,049.5	14 / 14
254	25,440	1,361	1,053.8	14 / 14
258	25,795	1,361	1,056.6	15 / 14
262	26,168	1,223	1,058.6	14 / 14
264	26,438	1,223	1,060.2	14 / 12
267	26,708	1,223	1,063.1	14 / 35
272	27,203	1,223	1,068.9	18 / 13

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
FLAT SHOAL CREEK				
275	27,484	1,223	1,070.6	13 / 10
FLAT SHOAL CREEK TRIBUTARY 1				
004	437	1,285	990.3[4]	16 / 12
008	800	1,285	992.5	12 / 9
012	1,239	1,285	995.8	74 / 86
017	1,657	1,285	996.3	12 / 10
020	2,000	1,285	1,000.0	16 / 10
022	2,223	1,272	1,002.7	14 / 10
025	2,451	1,272	1,007.1	25 / 8
029	2,913	1,272	1,012.6	12 / 12
032	3,200	1,272	1,015.1	12 / 84
036	3,600	1,272	1,016.1	12 / 12
040	4,000	1,179	1,020.8	8 / 40
042	4,184	1,179	1,022.0	8 / 10
044	4,446	1,179	1,025.7	20 / 60
049	4,940	1,179	1,032.6	22 / 7
GRASSY CREEK				
021	2,052	4,114	762.3[4]	31 / 31
024	2,433	4,114	762.3[4]	30 / 35
026	2,593	4,114	762.3[4]	35 / 9
028	2,801	4,114	762.8	22 / 22
030	3,005	4,114	764.2	21 / 21
033	3,254	4,114	766.1	21 / 21
036	3,555	4,114	767.5	21 / 21
038	3,831	4,114	768.8	27 / 27
041	4,081	4,114	769.7	30 / 52
046	4,566	4,043	771.4	65 / 90
050	5,017	4,043	771.9	40 / 70
056	5,572	4,043	775.0	95 / 26
061	6,059	4,043	776.8	21 / 40
064	6,388	4,043	778.6	30 / 21
068	6,791	4,043	780.6	21 / 24
071	7,057	4,043	781.7	55 / 21
075	7,518	4,043	784.0	121 / 21
079	7,935	4,043	785.2	90 / 21
084	8,433	4,043	787.1	50 / 21
092	9,156	4,043	791.5	21 / 35
097	9,667	3,840	793.0	20 / 28
099	9,921	3,840	793.7	35 / 30
104	10,355	3,840	796.0	87 / 28
108	10,828	3,735	797.7	83 / 19
112	11,206	3,735	799.4	40 / 19
117	11,701	3,735	802.3	21 / 19
121	12,098	3,735	803.8	32 / 20
126	12,573	3,567	806.1	40 / 58
134	13,381	3,567	809.4	80 / 97
137	13,681	3,567	809.6	33 / 53
141	14,118	3,553	812.0	19 / 29

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GRASSY CREEK				
144	14,444	3,553	813.5	30 / 21
149	14,881	3,553	815.4	50 / 30
154	15,371	3,553	817.5	43 / 110
159	15,861	3,553	818.6	62 / 29
163	16,251	3,553	820.1	70 / 47
166	16,647	3,553	821.8	55 / 73
172	17,185	3,553	824.0	37 / 94
175	17,479	3,553	825.2	18 / 210
181	18,084	3,461	827.3	18 / 102
186	18,589	3,461	829.7	85 / 35
194	19,418	3,374	833.0	180 / 75
204	20,390	3,310	835.4	281 / 18
209	20,911	3,310	837.4	310 / 17
215	21,452	3,310	838.4	140 / 25
224	22,445	3,310	843.5	151 / 18
234	23,362	2,648	847.4	100 / 15
243	24,323	2,648	851.6	18 / 120
248	24,811	2,648	854.1	16 / 70
251	25,145	2,648	856.7	68 / 15
256	25,558	2,434	858.7	37 / 40
262	26,211	2,434	862.0	15 / 180
267	26,719	2,434	863.0	50 / 95
273	27,303	2,434	866.4	181 / 93
281	28,129	2,384	868.1	15 / 132
283	28,274	2,384	870.3	90 / 40
286	28,630	2,384	873.3	155 / 15
291	29,078	2,384	875.5	45 / 120
295	29,515	2,384	877.5	50 / 145
307	30,704	2,267	883.7	76 / 26
312	31,235	2,154	887.5	45 / 39
316	31,649	2,154	890.3	22 / 43
320	32,023	2,154	893.9	33 / 40
325	32,453	2,154	895.9	32 / 45
329	32,934	2,154	898.2	14 / 140
333	33,271	2,154	899.1	14 / 147
335	33,521	2,154	900.2	66 / 75
341	34,104	2,154	902.6	53 / 20
343	34,308	2,154	903.4	38 / 104
346	34,581	2,154	905.1	120 / 60
349	34,887	1,707	907.0	12 / 110
357	35,709	1,707	910.6	42 / 21
363	36,293	1,707	915.5	12 / 130
368	36,832	1,653	917.0	17 / 70
375	37,517	1,653	920.7	141 / 12
378	37,754	1,653	921.6	50 / 64
380	38,006	1,653	923.0	42 / 23
387	38,661	1,653	927.7	44 / 12
394	39,351	1,653	931.0	100 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GRASSY CREEK				
396	39,565	1,653	931.7	79 / 12
402	40,238	1,653	935.8	90 / 23
406	40,640	1,653	939.6	86 / 25
409	40,897	1,359	940.6	16 / 80
413	41,268	1,359	942.7	36 / 135
416	41,613	1,359	943.9	35 / 60
419	41,879	1,359	946.5	10 / 21
420	42,010	1,359	948.4	20 / 12
422	42,229	1,359	952.1	20 / 14
424	42,413	1,359	953.7	27 / 20
427	42,662	1,234	956.2	25 / 22
428	42,755	1,234	956.5	8 / 6
433	43,341	1,234	963.1	100 / 9
436	43,597	1,234	963.1	68 / 23
440	44,036	1,234	963.3	23 / 33
443	44,275	1,234	964.5	9 / 39
447	44,726	1,234	966.8	84 / 10
450	44,989	1,234	967.4	100 / 16
452	45,226	1,234	968.0	123 / 9
455	45,466	1,234	968.6	158 / 9
458	45,787	1,234	969.6	176 / 9
464	46,405	836	976.5	123 / 9
467	46,719	836	977.0	70 / 9
470	47,002	836	980.4	60 / 9
472	47,187	836	982.0	22 / 9
473	47,314	836	983.5	43 / 28
477	47,662	836	985.8	57 / 9
480	47,955	836	990.4	24 / 9
482	48,183	836	996.5	24 / 33
483	48,307	836	999.8	5 / 90
484	48,364	836	1,005.2	7 / 100
487	48,704	836	1,020.1	135 / 181
490	49,027	677	1,020.1	110 / 105
494	49,416	677	1,020.1	69 / 57
496	49,615	677	1,023.0	24 / 16
498	49,766	677	1,027.4	18 / 14
GRASSY CREEK TRIBUTARY 1				
002	172	616	792.0[4]	40 / 18
006	617	616	792.0[4]	17 / 16
011	1,051	616	797.4	32 / 6
016	1,610	616	805.2	12 / 28
021	2,143	512	814.2	12 / 14
025	2,484	512	823.8	20 / 10
GRASSY CREEK TRIBUTARY 2				
003	267	519	797.7[4]	20 / 5
005	474	519	798.4	20 / 7
007	723	519	802.4	14 / 16
009	937	519	805.2	20 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GRASSY CREEK TRIBUTARY 2				
013	1,276	496	810.4	8 / 16
016	1,553	496	818.6	19 / 14
018	1,793	496	826.6	22 / 10
020	1,981	496	832.6	12 / 14
021	2,135	496	837.3	10 / 16
026	2,595	496	843.0	13 / 15
031	3,075	496	847.9	12 / 18
037	3,661	496	854.9	30 / 16
040	3,973	496	858.6	26 / 5
042	4,245	496	863.2	24 / 14
044	4,399	496	864.9	16 / 16
045	4,527	496	867.0	18 / 12
048	4,798	496	873.4	12 / 12
051	5,082	496	881.3	9 / 18
053	5,297	496	886.2	14 / 10
055	5,535	496	890.6	6 / 22
058	5,779	496	894.9	12 / 16
061	6,124	496	901.4	12 / 15
064	6,430	276	905.3	10 / 16
GRASSY CREEK TRIBUTARY 3				
001	69	691	803.8[4]	28 / 15
003	322	691	803.9	22 / 14
004	412	691	805.3	30 / 18
008	790	691	809.5	30 / 20
011	1,067	691	814.3	28 / 16
013	1,250	691	816.7	13 / 18
014	1,449	691	821.7	10 / 18
017	1,720	691	825.4	20 / 10
020	2,020	691	828.9	15 / 12
022	2,232	691	832.3	14 / 8
024	2,440	691	836.5	10 / 19
027	2,749	691	840.0	10 / 24
030	2,994	691	845.7	24 / 12
035	3,475	556	855.3	32 / 21
040	4,020	556	863.4	18 / 14
043	4,322	556	870.1	12 / 15
046	4,616	556	874.6	18 / 16
050	4,996	434	882.9	20 / 7
054	5,381	434	892.2	10 / 11
GRASSY CREEK TRIBUTARY 4				
004	434	366	834.3[7]	9 / 10
007	747	366	839.8	7 / 16
010	995	366	846.2	10 / 18
014	1,354	366	853.1	6 / 15
016	1,635	366	857.6	4 / 24
019	1,940	366	863.2	8 / 15
023	2,260	366	869.3	13 / 5
025	2,457	366	873.2	6 / 16

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GRASSY CREEK TRIBUTARY 4				
027	2,708	366	878.8	16 / 8
GRASSY CREEK TRIBUTARY 5				
001	133	1,404	844.6[4]	36 / 13
006	575	1,404	847.6	35 / 35
012	1,159	1,404	851.7	35 / 14
015	1,474	1,404	855.8	42 / 25
019	1,880	1,404	857.7	90 / 22
024	2,444	1,136	861.7	18 / 65
030	2,957	1,136	866.0	30 / 32
032	3,212	1,136	870.0	45 / 3
034	3,384	1,136	871.3	73 / 12
038	3,753	1,136	872.8	48 / 82
044	4,383	1,136	877.9	73 / 20
048	4,759	1,136	882.5	13 / 45
051	5,147	1,136	885.9	35 / 28
053	5,278	1,136	888.8	2 / 105
055	5,498	814	897.4	38 / 17
057	5,706	814	901.5	35 / 12
059	5,927	814	906.2	11 / 22
064	6,385	807	919.6	30 / 55
067	6,716	807	919.7	30 / 12
071	7,135	807	928.0	24 / 44
077	7,694	807	935.4	2 / 26
079	7,939	807	939.1	18 / 30
084	8,443	807	946.4	12 / 18
087	8,744	807	952.9	14 / 28
091	9,075	807	956.7	20 / 50
095	9,534	807	962.1	22 / 32
098	9,795	807	965.1	70 / 12
102	10,210	807	968.8	79 / 12
104	10,440	601	970.7	52 / 5
110	11,005	589	979.5	71 / 6
115	11,487	589	987.2	56 / 20
119	11,938	589	992.5	43 / 20
123	12,259	589	999.1	22 / 10
125	12,480	589	1,005.2	12 / 16
127	12,708	589	1,007.6	30 / 12
GRASSY CREEK TRIBUTARY 5A				
003	301	604	859.7[7]	18 / 16
005	460	604	860.5	30 / 30
008	783	604	866.3	18 / 38
010	1,034	604	870.3	12 / 20
012	1,249	604	873.8	14 / 30
014	1,392	604	874.7	6 / 27
016	1,570	604	879.7	10 / 17
017	1,708	604	883.9	6 / 20
019	1,892	604	889.9	18 / 2
020	2,026	604	893.8	12 / 7

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GRASSY CREEK TRIBUTARY 5A				
023	2,250	604	899.2	12 / 14
027	2,679	514	905.8	8 / 18
029	2,859	514	912.0	12 / 8
030	2,968	514	915.6	15 / 15
031	3,135	514	919.1	10 / 6
033	3,340	514	922.3	18 / 12
037	3,674	514	927.4	25 / 8
039	3,866	514	929.9	12 / 10
041	4,080	514	934.2	11 / 10
043	4,265	514	939.1	12 / 16
045	4,502	514	945.1	15 / 12
048	4,751	514	949.0	5 / 14
051	5,078	514	953.8	16 / 6
054	5,394	425	959.5	4 / 20
058	5,791	425	963.7	13 / 5
059	5,924	425	967.5	16 / 8
061	6,051	425	969.5	14 / 7
062	6,205	425	971.6	10 / 8
064	6,356	425	974.6	20 / 9
066	6,627	425	978.9	25 / 18
068	6,773	425	981.1	12 / 10
071	7,051	425	985.5	10 / 12
GRASSY CREEK TRIBUTARY 5B				
002	212	577	888.8[11]	22 / 7
006	553	577	894.7	7 / 10
008	849	577	901.5	18 / 7
011	1,139	577	906.2	7 / 14
013	1,323	538	911.3	14 / 8
014	1,438	538	915.0	15 / 2
015	1,511	538	916.9	12 / 12
017	1,653	538	917.7	6 / 20
018	1,799	538	920.0	14 / 6
021	2,090	538	925.6	30 / 5
025	2,455	538	933.8	30 / 12
GRASSY CREEK TRIBUTARY 6				
000	36	654	857.8[4]	9 / 9
001	137	654	857.8[4]	8 / 8
003	315	654	861.5	23 / 8
006	630	654	866.4	8 / 20
009	861	654	871.1	14 / 8
010	1,024	654	875.5	26 / 10
014	1,380	654	882.5	19 / 7
017	1,675	654	887.9	16 / 8
018	1,810	654	890.9	13 / 8
021	2,062	654	896.2	22 / 8
023	2,335	619	900.6	12 / 35
028	2,789	619	904.8	7 / 75
031	3,134	619	909.3	7 / 63

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
GRASSY CREEK TRIBUTARY 6				
034	3,424	619	914.7	7 / 54
039	3,879	566	922.1	24 / 4
040	3,967	566	927.6	30 / 7
041	4,121	566	930.8	7 / 45
GRASSY CREEK TRIBUTARY 7				
001	109	446	884.0[4]	5 / 11
005	451	446	889.0	12 / 12
010	970	446	895.3	12 / 12
020	1,954	446	915.3	17 / 14
024	2,429	446	923.5	12 / 12
029	2,873	446	927.7	26 / 12
033	3,343	374	936.3	63 / 12
036	3,573	374	938.0	3 / 7
038	3,841	374	943.9	9 / 7
044	4,359	374	952.3	16 / 7
048	4,785	374	960.6	9 / 4
049	4,866	374	962.5	12 / 3
050	4,968	374	967.6	12 / 3
051	5,071	374	973.3	12 / 26
052	5,198	374	977.0	12 / 12
053	5,310	374	979.8	12 / 18
058	5,818	374	991.0	12 / 11
063	6,311	374	1,006.8	12 / 12
068	6,832	374	1,024.4	12 / 12
073	7,268	374	1,042.2	12 / 7
GRASSY CREEK TRIBUTARY 8				
008	848	900	905.2[4]	8 / 9
011	1,137	900	913.9	25 / 19
015	1,500	862	914.1	12 / 12
020	2,001	862	916.3	11 / 7
GRASSY CREEK TRIBUTARY 9				
001	143	511	976.5[4]	12 / 12
005	514	511	976.9	9 / 12
007	725	511	980.4	8 / 10
009	948	511	984.5	12 / 6
011	1,074	511	986.6	12 / 12
012	1,225	496	988.4	6 / 10
014	1,446	496	993.1	10 / 9
017	1,653	496	996.5	6 / 12
GRASSY CREEK WEST				
003	293	1,800	980.3[4]	12 / 28
007	709	1,800	983.3	35 / 18
014	1,396	1,800	991.5	25 / 25
020	1,958	1,800	997.4	30 / 15
023	2,306	1,774	1,002.1	30 / 19
HATCHERS CREEK				
001	83	1,190	1,101.1[4]	4 / 3
003	302	1,190	1,107.6	47 / 18

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
HATCHERS CREEK				
007	736	1,190	1,108.5	67 / 82
018	1,758	1,120	1,112.5	13 / 56
022	2,201	1,120	1,117.4	33 / 76
028	2,809	1,120	1,121.7	11 / 69
HOGAN CREEK				
005	503	2,856	806.6[4]	20 / 40
012	1,219	2,856	806.6[4]	28 / 29
015	1,500	2,856	806.6[4]	50 / 24
020	2,004	2,856	806.6[4]	112 / 24
025	2,498	2,856	806.6[4]	128 / 24
030	2,999	2,856	806.6[4]	24 / 28
035	3,500	2,856	807.7	24 / 171
040	4,003	2,856	809.1	113 / 52
050	4,951	2,753	814.2	24 / 26
055	5,466	2,753	817.1	50 / 40
060	6,012	2,695	819.8	18 / 28
063	6,300	2,695	821.5	24 / 24
067	6,669	2,695	823.2	167 / 24
070	7,003	2,695	823.5	60 / 76
075	7,503	2,695	826.3	40 / 39
080	8,000	2,568	828.4	24 / 7
085	8,500	2,568	834.1	20 / 20
087	8,731	2,568	835.4	32 / 31
090	8,992	2,568	836.9	20 / 10
093	9,277	2,568	842.8	25 / 50
095	9,494	2,568	844.1	35 / 60
098	9,789	2,568	846.2	13 / 60
100	10,029	2,568	849.9	13 / 13
103	10,322	2,386	854.3	18 / 16
105	10,510	2,386	856.7	29 / 21
110	11,004	2,386	864.2	17 / 25
112	11,223	2,386	865.9	90 / 31
115	11,478	2,386	867.1	32 / 36
118	11,796	2,386	867.8	119 / 30
121	12,131	2,386	869.7	163 / 27
126	12,554	2,386	872.2	200 / 38
130	13,006	2,339	873.9	16 / 60
135	13,488	2,339	877.6	28 / 38
140	14,002	2,268	881.2	38 / 74
145	14,508	2,268	883.1	38 / 38
149	14,947	2,268	885.7	38 / 38
155	15,498	2,152	889.6	84 / 93
160	16,007	2,152	891.1	28 / 36
164	16,440	2,126	894.1	27 / 38
169	16,888	2,126	896.3	12 / 37
173	17,339	2,126	898.6	26 / 42
176	17,613	2,126	900.2	37 / 89
180	18,001	2,126	901.6	9 / 34

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
HOGAN CREEK				
185	18,503	2,126	905.6	37 / 24
189	18,941	2,126	908.9	37 / 37
195	19,467	2,088	912.2	57 / 168
200	19,997	2,088	913.0	37 / 43
210	20,960	2,088	918.3	27 / 222
215	21,505	2,088	920.4	101 / 18
220	21,985	2,088	923.3	53 / 39
223	22,287	2,088	925.5	50 / 36
226	22,595	2,088	926.7	98 / 93
230	22,987	2,088	928.5	81 / 25
233	23,261	2,088	930.3	81 / 58
235	23,548	2,088	931.5	23 / 77
240	23,962	2,088	935.8	29 / 76
244	24,447	2,088	937.9	47 / 29
247	24,707	1,776	939.4	142 / 39
251	25,080	1,776	940.7	39 / 28
256	25,558	1,776	943.6	19 / 204
260	25,990	1,776	945.7	36 / 36
265	26,506	1,776	947.7	114 / 75
270	26,984	1,776	949.4	36 / 179
275	27,501	1,776	953.0	71 / 32
280	27,966	1,776	956.1	46 / 27
285	28,505	1,776	959.2	36 / 36
291	29,066	1,776	962.4	175 / 41
294	29,363	1,615	963.4	177 / 47
297	29,695	1,615	964.8	100 / 35
301	30,052	1,615	967.0	59 / 67
304	30,449	1,615	969.1	78 / 27
312	31,214	1,308	971.5	19 / 18
315	31,517	1,308	975.1	140 / 72
320	31,998	1,308	978.7	16 / 103
325	32,525	1,308	981.4	194 / 22
330	33,010	1,278	984.0	83 / 40
334	33,421	1,278	986.5	33 / 143
343	34,287	1,278	992.2	100 / 26
348	34,763	1,188	996.9	141 / 31
351	35,061	1,188	998.5	109 / 20
355	35,522	1,188	1,001.8	68 / 74
360	36,007	1,116	1,005.4	33 / 103
365	36,501	1,116	1,009.6	31 / 35
370	36,959	1,116	1,013.5	64 / 41
375	37,490	1,031	1,016.9	184 / 32
380	37,992	1,031	1,021.6	126 / 22
385	38,497	1,031	1,025.9	127 / 31
390	38,978	1,031	1,029.5	63 / 32
395	39,466	1,031	1,033.3	19 / 86
397	39,723	947	1,035.5	32 / 40
400	40,000	947	1,037.4	147 / 13

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
HOGAN CREEK				
405	40,511	947	1,040.5	123 / 32
409	40,947	740	1,043.7	101 / 33
415	41,474	740	1,049.2	32 / 33
421	42,077	740	1,055.0	26 / 72
425	42,510	740	1,059.2	35 / 28
430	42,995	586	1,064.5	60 / 39
435	43,500	586	1,067.7	32 / 18
HOGAN CREEK TRIBUTARY 1				
001	70	494	848.2	9 / 6
001	142	494	850.6	10 / 17
003	254	494	852.7	30 / 16
005	512	494	857.5	20 / 7
007	741	494	861.2	14 / 8
010	999	483	864.9	22 / 23
011	1,117	483	866.1	7 / 14
013	1,283	483	869.2	7 / 7
014	1,375	483	872.2	7 / 7
015	1,465	483	877.7	7 / 8
016	1,595	483	880.6	16 / 9
018	1,780	483	883.7	57 / 43
019	1,887	483	886.5	32 / 60
020	1,993	211	889.1	7 / 8
022	2,152	211	891.3	7 / 6
HOGAN CREEK TRIBUTARY 2				
001	79	545	939.4[4]	10 / 13
006	585	545	942.6	13 / 8
010	962	545	947.4	27 / 9
016	1,574	484	953.7	6 / 12
020	2,025	434	961.7	55 / 8
025	2,507	410	968.0	11 / 9
029	2,913	410	973.1	5 / 8
HOGAN CREEK TRIBUTARY 3				
000	38	687	972.2	8 / 66
005	474	687	977.3	13 / 8
009	929	687	982.4	64 / 7
015	1,512	687	988.8	10 / 47
020	1,988	639	993.8	18 / 14
025	2,466	639	999.2	7 / 26
029	2,910	593	1,004.3	47 / 9
034	3,417	593	1,009.5	14 / 62
039	3,850	593	1,014.0	38 / 7
042	4,232	593	1,018.2	76 / 7
046	4,633	564	1,024.0	12 / 13
HORNE CREEK				
003	257	1,380	763.9[6]	25 / 54
010	1,015	1,380	764.1	15 / 25
013	1,260	1,380	766.2	23 / 20
016	1,557	1,380	767.8	12 / 20

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
HORNE CREEK				
018	1,771	1,380	770.4	9 / 20
021	2,097	1,380	775.3	9 / 20
024	2,351	1,380	777.8	9 / 54
027	2,695	1,380	780.6	82 / 53
029	2,904	1,257	781.6	23 / 40
032	3,217	1,257	784.3	17 / 76
034	3,412	1,257	786.1	53 / 53
037	3,687	1,257	788.2	8 / 53
039	3,935	1,257	790.6	15 / 40
042	4,207	1,257	792.1	23 / 25
046	4,627	1,257	794.9	17 / 30
050	5,038	1,257	798.5	25 / 34
053	5,318	1,257	801.4	25 / 53
055	5,511	1,257	802.9	9 / 53
058	5,783	1,257	805.5	8 / 30
062	6,155	1,257	808.9	33 / 40
066	6,563	1,257	811.9	19 / 45
067	6,712	1,257	813.2	19 / 45
069	6,927	1,257	814.8	10 / 30
071	7,094	1,257	816.3	67 / 20
073	7,325	1,257	818.3	32 / 86
077	7,662	864	820.7	60 / 10
081	8,080	864	823.8	80 / 52
085	8,464	851	827.1	8 / 52
089	8,890	851	831.2	7 / 76
091	9,121	851	832.8	25 / 25
HORNE CREEK TRIBUTARY 1				
001	80	615	818.3[4]	17 / 4
005	503	615	823.9	28 / 36
009	854	615	825.9	48 / 3
012	1,152	615	828.8	79 / 9
015	1,452	448	830.9	112 / 3
016	1,576	431	833.1	62 / 3
019	1,850	431	836.4	56 / 3
022	2,176	431	839.6	5 / 28
024	2,356	431	841.7	6 / 53
026	2,603	431	844.1	3 / 10
029	2,866	431	847.3	35 / 3
031	3,116	431	850.1	11 / 5
033	3,293	431	854.2	4 / 7
035	3,535	431	860.5	8 / 8
HORNE CREEK TRIBUTARY 1A				
001	144	320	830.9[4]	6 / 6
003	271	320	832.4	4 / 4
004	380	320	835.3	7 / 10
005	476	320	836.5	5 / 5
006	556	320	838.4	10 / 4
006	648	268	839.8	4 / 4

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
HORNE CREEK TRIBUTARY 1A				
008	765	268	842.6	8 / 2
008	832	268	843.5	16 / 4
009	932	268	844.3	12 / 4
010	986	268	845.3	7 / 4
011	1,056	268	847.5	10 / 4
011	1,136	268	849.2	4 / 4
013	1,278	268	852.8	8 / 4
014	1,402	268	854.7	13 / 4
JACKSON CREEK				
001	53	1,760	1,025.4[4]	25 / 25
005	466	1,760	1,025.8	9 / 76
010	972	1,604	1,029.1	19 / 77
015	1,485	1,162	1,031.7	10 / 144
020	2,017	1,162	1,034.4	5 / 153
025	2,506	1,162	1,037.7	6 / 84
030	2,999	1,162	1,040.9	30 / 8
035	3,505	1,162	1,044.0	56 / 10
040	3,950	1,162	1,046.7	16 / 28
045	4,480	1,162	1,049.7	22 / 12
050	4,988	1,106	1,054.3	16 / 10
055	5,475	1,106	1,058.4	15 / 10
059	5,935	1,106	1,061.6	10 / 79
JACKSON CREEK TRIBUTARY 1				
001	83	505	1,028.4	10 / 11
006	626	505	1,034.4	8 / 13
011	1,064	462	1,040.5	20 / 7
015	1,484	462	1,054.9	3 / 6
JACKSON CREEK TRIBUTARY 2				
001	87	906	1,030.0[4]	44 / 10
006	587	906	1,035.5	9 / 13
011	1,050	906	1,041.2	25 / 7
017	1,672	906	1,048.8	89 / 8
021	2,075	906	1,055.6	24 / 9
026	2,567	906	1,063.6	43 / 7
029	2,877	906	1,066.6	39 / 7
JOHNSON CREEK				
001	53	4,599	1,061.7[4]	35 / 35
003	261	4,599	1,061.7[4]	42 / 18
005	498	4,599	1,061.7[4]	50 / 65
009	891	4,599	1,063.4	33 / 27
012	1,186	4,599	1,065.3	25 / 35
014	1,414	4,589	1,066.2	30 / 30
018	1,790	4,589	1,067.9	70 / 38
024	2,439	4,589	1,070.5	76 / 115
030	3,007	4,589	1,072.1	176 / 117
035	3,491	4,589	1,073.9	25 / 134
040	3,995	4,589	1,077.0	119 / 23
042	4,221	4,589	1,077.9	96 / 23

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
JOHNSON CREEK				
046	4,566	4,589	1,079.8	70 / 32
048	4,800	4,511	1,081.6	23 / 169
055	5,479	4,511	1,084.0	104 / 131
059	5,881	4,511	1,085.8	108 / 23
062	6,156	4,495	1,087.1	128 / 23
067	6,660	4,495	1,089.1	91 / 23
072	7,152	4,436	1,092.1	48 / 47
076	7,618	4,436	1,095.0	30 / 23
078	7,830	4,436	1,097.2	23 / 23
KING CREEK				
002	163	2,233	926.1[4]	13 / 18
003	346	2,233	927.3	13 / 13
011	1,132	2,233	932.7	20 / 14
016	1,576	2,233	936.8	15 / 15
021	2,096	2,210	940.8	18 / 33
026	2,646	2,210	943.2	99 / 14
032	3,170	2,210	945.2	99 / 15
036	3,595	2,210	946.2	176 / 17
042	4,160	2,210	947.2	12 / 12
046	4,580	2,210	951.4	9 / 111
051	5,061	2,210	953.6	33 / 18
055	5,508	2,210	955.9	12 / 89
060	5,970	2,084	957.4	94 / 12
065	6,517	2,084	960.8	14 / 134
070	7,039	2,084	962.2	50 / 6
075	7,465	2,084	964.7	15 / 100
081	8,070	2,084	967.6	140 / 12
084	8,406	2,084	968.3	88 / 20
088	8,778	2,084	969.7	8 / 16
093	9,277	2,084	974.4	18 / 12
099	9,850	973	978.6	34 / 12
108	10,776	973	984.2	61 / 11
112	11,248	973	989.5	94 / 4
116	11,633	973	993.6	29 / 7
121	12,099	973	1,002.0	29 / 11
LITTLE BEAVER CREEK				
001	77	1,736	925.4[4]	20 / 10
005	496	1,736	925.4[4]	10 / 10
010	1,033	1,736	929.2	25 / 10
015	1,501	1,736	935.6	14 / 18
020	2,035	1,736	939.1	26 / 10
025	2,466	1,736	942.3	10 / 70
030	3,016	1,736	947.7	24 / 21
035	3,499	1,736	953.9	21 / 42
040	3,997	1,736	962.5	12 / 10
045	4,496	1,736	970.9	38 / 54
050	4,988	1,736	976.7	16 / 28
054	5,447	1,736	981.9	25 / 50

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LITTLE BEAVER CREEK				
059	5,933	1,614	985.5	10 / 34
065	6,489	1,614	989.1	12 / 39
070	6,953	1,614	990.4	15 / 14
078	7,822	1,614	994.7	10 / 262
082	8,238	1,614	998.1	17 / 14
087	8,729	1,614	1,005.1	17 / 12
092	9,157	1,614	1,010.2	9 / 19
096	9,647	1,614	1,016.3	20 / 20
101	10,069	1,614	1,021.5	19 / 63
105	10,497	1,498	1,023.2	58 / 82
113	11,256	1,498	1,028.2	65 / 220
121	12,085	1,252	1,028.7	8 / 90
128	12,777	1,252	1,030.7	8 / 99
132	13,177	1,252	1,032.1	8 / 139
138	13,797	1,252	1,033.8	5 / 207
144	14,367	1,252	1,036.1	44 / 106
148	14,751	1,104	1,038.4	67 / 7
152	15,184	1,104	1,045.9	8 / 45
LITTLE CREEK				
000	14	1,842	972.9[4]	40 / 18
001	56	1,842	975.8	22 / 20
002	154	1,842	980.6	24 / 8
003	329	1,842	987.3	16 / 8
005	492	1,842	992.3	16 / 12
007	696	1,842	994.7	12 / 22
008	800	1,842	994.8	12 / 16
010	971	1,842	1,001.1	24 / 11
011	1,108	1,842	1,006.1	13 / 18
012	1,243	1,842	1,011.8	24 / 13
014	1,393	1,842	1,017.5	31 / 12
016	1,616	1,842	1,022.2	16 / 15
018	1,817	1,842	1,027.0	19 / 23
021	2,071	1,842	1,040.1	24 / 12
024	2,354	1,842	1,046.0	30 / 13
026	2,579	1,842	1,049.5	28 / 5
028	2,757	1,804	1,054.7	29 / 12
029	2,901	1,804	1,061.2	18 / 12
032	3,155	1,804	1,069.7	13 / 22
034	3,352	1,804	1,074.7	10 / 38
037	3,718	1,804	1,076.3	50 / 80
039	3,895	1,804	1,076.8	26 / 50
043	4,328	1,804	1,079.9	35 / 11
048	4,801	1,804	1,088.6	16 / 36
053	5,278	1,804	1,092.6	40 / 20
058	5,837	1,804	1,097.1	22 / 78
064	6,374	1,664	1,099.7	50 / 44
068	6,791	1,664	1,102.7	60 / 25
078	7,843	1,664	1,119.4	110 / 80

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LITTLE CREEK				
086	8,649	1,555	1,119.5	150 / 80
096	9,580	1,536	1,119.6	80 / 80
107	10,699	1,382	1,124.1	65 / 34
113	11,343	1,382	1,128.8	19 / 93
120	11,956	1,319	1,131.6	145 / 15
126	12,620	1,319	1,136.4	125 / 22
132	13,159	1,245	1,141.5	210 / 13
138	13,790	1,245	1,146.0	150 / 13
143	14,345	1,245	1,149.8	157 / 5
151	15,070	1,213	1,154.9	100 / 18
156	15,587	1,213	1,158.6	113 / 13
161	16,097	1,128	1,162.5	55 / 28
165	16,506	1,128	1,166.8	65 / 40
171	17,074	1,049	1,172.4	45 / 40
176	17,574	1,049	1,176.6	110 / 22
181	18,117	1,049	1,179.6	70 / 25
185	18,529	964	1,184.5	95 / 8
191	19,101	964	1,189.1	40 / 40
196	19,634	935	1,194.4	13 / 50
202	20,187	935	1,198.8	70 / 15
208	20,818	853	1,206.1	35 / 65
216	21,634	817	1,214.5	80 / 22
224	22,353	748	1,221.1	90 / 15
227	22,742	591	1,224.8	85 / 14
230	22,989	591	1,228.0	72 / 18
232	23,190	591	1,230.0	50 / 40
238	23,770	591	1,240.1	30 / 40
243	24,307	489	1,244.2	20 / 50
LITTLE FISHER RIVER				
005	522	7,286	1,027.3[4]	29 / 31
009	920	7,286	1,027.3[4]	63 / 34
014	1,387	7,286	1,027.3[4]	31 / 32
018	1,836	7,286	1,027.3[4]	25 / 48
024	2,412	7,286	1,027.3[4]	52 / 46
029	2,940	7,286	1,027.3[4]	43 / 43
035	3,452	7,286	1,027.9	43 / 40
040	3,972	7,286	1,029.5	129 / 175
045	4,493	7,255	1,031.2	58 / 58
050	5,032	7,255	1,033.0	63 / 57
059	5,891	7,255	1,036.1	63 / 52
065	6,450	7,255	1,036.6	87 / 55
070	6,979	7,255	1,037.4	32 / 60
074	7,441	7,255	1,037.8	30 / 55
079	7,948	7,255	1,039.6	47 / 29
085	8,484	7,255	1,040.3	29 / 42
090	8,954	7,255	1,040.7	27 / 43
096	9,574	7,089	1,041.5	41 / 29
101	10,138	7,089	1,042.0	54 / 30

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LITTLE FISHER RIVER				
107	10,661	7,089	1,043.4	54 / 26
111	11,132	7,089	1,044.3	26 / 32
116	11,640	7,089	1,045.6	49 / 27
122	12,168	7,071	1,046.2	30 / 44
127	12,680	7,071	1,047.4	54 / 30
132	13,193	7,071	1,048.7	30 / 30
137	13,712	7,071	1,049.8	28 / 23
142	14,243	7,071	1,051.6	18 / 27
147	14,737	7,071	1,055.5	32 / 48
153	15,279	7,071	1,056.1	37 / 42
158	15,784	7,007	1,056.6	34 / 24
163	16,297	7,007	1,057.1	15 / 25
168	16,788	7,007	1,058.3	29 / 22
172	17,224	7,007	1,059.6	49 / 39
177	17,727	7,007	1,060.2	25 / 60
182	18,232	7,007	1,060.7	49 / 21
187	18,732	7,007	1,062.3	33 / 60
193	19,269	6,809	1,063.0	67 / 45
198	19,816	6,809	1,063.9	28 / 53
204	20,360	6,809	1,065.0	53 / 53
208	20,793	6,809	1,065.9	60 / 31
212	21,223	6,809	1,066.2	58 / 24
217	21,719	6,809	1,067.3	57 / 35
222	22,245	6,729	1,068.2	49 / 40
227	22,670	6,729	1,068.8	54 / 57
232	23,195	6,729	1,069.6	68 / 24
237	23,731	6,729	1,070.2	30 / 130
243	24,267	6,729	1,071.0	55 / 90
247	24,747	6,729	1,071.5	56 / 28
253	25,290	6,630	1,072.7	51 / 55
258	25,785	6,630	1,073.1	46 / 35
263	26,332	6,630	1,074.5	48 / 25
268	26,812	6,630	1,076.0	57 / 47
273	27,270	6,532	1,076.5	37 / 328
278	27,810	6,532	1,076.8	39 / 806
284	28,423	6,532	1,077.1	50 / 460
291	29,052	6,532	1,077.9	47 / 281
296	29,576	5,068	1,079.0	386 / 80
301	30,138	5,068	1,080.4	243 / 133
313	31,342	5,068	1,084.7	163 / 70
318	31,807	5,014	1,087.6	276 / 60
323	32,273	5,014	1,088.6	213 / 47
328	32,808	5,014	1,090.1	99 / 96
333	33,349	5,014	1,092.5	211 / 47
338	33,792	4,951	1,093.6	47 / 293
343	34,285	4,951	1,094.6	24 / 187
347	34,695	4,951	1,097.1	41 / 247
352	35,199	4,951	1,098.0	47 / 223

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LITTLE FISHER RIVER				
357	35,715	4,951	1,098.9	47 / 61
362	36,215	4,951	1,101.1	21 / 324
375	37,459	4,672	1,105.1	356 / 90
380	37,983	4,672	1,105.8	312 / 20
384	38,448	4,672	1,106.9	245 / 21
390	38,960	4,672	1,109.5	423 / 34
395	39,483	4,672	1,111.6	56 / 46
401	40,092	4,302	1,114.6	181 / 232
406	40,623	4,302	1,115.5	198 / 129
411	41,131	4,302	1,117.0	73 / 124
417	41,717	4,302	1,119.4	34 / 106
422	42,172	4,302	1,122.3	44 / 287
426	42,590	4,302	1,123.5	130 / 154
448	44,837	3,451	1,132.4	84 / 14
454	45,389	3,451	1,135.9	138 / 139
460	46,015	3,451	1,137.6	113 / 193
464	46,410	3,451	1,138.7	214 / 143
468	46,840	3,451	1,141.0	269 / 109
473	47,336	3,451	1,143.5	11 / 427
485	48,549	3,451	1,148.7	41 / 175
490	49,028	3,451	1,151.5	131 / 41
495	49,548	3,373	1,152.6	41 / 41
501	50,069	3,373	1,155.0	19 / 17
506	50,558	3,373	1,158.3	34 / 94
512	51,184	3,373	1,161.9	41 / 22
517	51,696	3,373	1,165.3	219 / 19
523	52,341	3,373	1,169.5	128 / 18
529	52,864	3,373	1,171.4	36 / 19
534	53,375	3,373	1,175.1	18 / 23
539	53,931	3,373	1,178.1	39 / 43
544	54,429	3,373	1,180.1	37 / 22
550	54,952	3,373	1,183.7	12 / 31
554	55,421	3,373	1,188.8	25 / 31
560	55,996	3,196	1,191.1	33 / 47
565	56,459	3,196	1,193.2	30 / 34
569	56,922	3,196	1,195.3	116 / 85
574	57,435	3,196	1,195.7	320 / 275
580	58,000	3,196	1,195.9	378 / 192
585	58,502	3,196	1,197.0	329 / 132
591	59,050	3,196	1,200.2	320 / 18
596	59,575	3,196	1,202.7	124 / 15
600	60,017	3,196	1,206.4	314 / 189
604	60,369	3,034	1,208.6	219 / 204
LITTLE FISHER RIVER TRIBUTARY 1				
005	493	698	1,041.3[4]	7 / 40
010	1,005	698	1,045.1	141 / 7
015	1,497	698	1,049.4	7 / 42
021	2,093	673	1,057.9	65 / 7

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LITTLE FISHER RIVER TRIBUTARY 1				
025	2,549	673	1,062.4	2 / 54
030	3,011	576	1,069.5	69 / 7
035	3,525	576	1,077.1	30 / 16
LITTLE FISHER RIVER TRIBUTARY 2				
002	206	953	1,102.6[4]	85 / 100
006	575	953	1,103.2	50 / 24
010	997	953	1,106.8	20 / 26
015	1,498	953	1,111.3	19 / 6
020	1,994	848	1,119.2	15 / 6
026	2,589	848	1,126.3	77 / 30
031	3,082	818	1,132.3	16 / 34
035	3,540	818	1,138.8	5 / 25
040	3,998	818	1,143.9	7 / 68
047	4,657	676	1,150.5	7 / 20
LITTLE FISHER RIVER TRIBUTARY 3				
001	149	1,144	1,112.0[12]	80 / 80
006	590	674	1,114.6[12]	113 / 8
011	1,132	674	1,116.2	8 / 145
015	1,537	674	1,120.4	11 / 10
020	2,000	674	1,126.8	20 / 40
025	2,517	674	1,131.2	9 / 15
039	3,902	644	1,143.0	1 / 20
LITTLE FISHER RIVER TRIBUTARY 3A				
001	75	805	1,112.5[8]	50 / 80
003	301	805	1,114.6[8]	67 / 118
006	576	805	1,114.6[8]	8 / 30
010	1,038	805	1,118.6	11 / 50
016	1,626	752	1,123.9	6 / 91
020	2,041	752	1,125.4	11 / 5
025	2,517	752	1,132.0	11 / 105
030	2,981	608	1,135.3	19 / 9
LITTLE YADKIN RIVER				
007	655	15,636	759.7	109 / 191
008	816	15,636	759.7	134 / 86
009	901	15,636	760.3	108 / 112
012	1,164	15,636	760.6	121 / 84
016	1,588	15,636	761.2	169 / 64
019	1,869	15,636	761.4	110 / 90
022	2,245	15,636	761.8	90 / 58
027	2,732	15,636	762.4	85 / 56
031	3,074	15,636	763.1	110 / 62
033	3,324	15,636	763.1	43 / 84
037	3,739	15,636	764.4	70 / 89
042	4,207	15,636	765.1	75 / 104
050	4,959	15,636	766.3	53 / 75
053	5,313	15,636	766.8	50 / 93
LONG CREEK				
000	39	675	1,402.2[4]	15 / 14

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
LONG CREEK				
002	153	675	1,404.6	14 / 10
003	254	675	1,407.5	13 / 10
004	428	675	1,414.2	20 / 8
007	689	675	1,419.1	12 / 20
009	896	675	1,425.2	7 / 18
011	1,096	675	1,429.8	12 / 12
013	1,271	675	1,435.2	10 / 12
020	1,954	649	1,468.4	130 / 130
024	2,401	649	1,468.4	78 / 42
026	2,603	649	1,468.5	3 / 10
028	2,821	649	1,476.8	19 / 17
030	3,007	618	1,484.3	25 / 5
032	3,240	618	1,488.3	20 / 10
034	3,382	618	1,490.7	18 / 10
035	3,543	618	1,496.5	12 / 12
038	3,786	618	1,503.5	20 / 6
040	4,017	618	1,511.6	16 / 12
042	4,240	618	1,520.6	20 / 12
045	4,454	618	1,533.1	18 / 8
046	4,580	618	1,537.4	25 / 2
048	4,750	618	1,543.7	19 / 2
050	5,008	547	1,551.0	16 / 14
053	5,258	547	1,559.4	15 / 14
054	5,443	535	1,569.9	12 / 6
057	5,669	535	1,575.3	13 / 10
LOVILLS CREEK				
358	35,752	3,219	1,094.1	34 / 40
362	36,198	3,219	1,094.7	39 / 38
365	36,516	3,219	1,095.4	37 / 37
367	36,727	3,219	1,096.0	31 / 33
371	37,081	3,219	1,097.5	34 / 24
373	37,333	3,219	1,099.7	40 / 30
376	37,574	3,219	1,100.3	33 / 34
380	37,955	3,219	1,101.4	60 / 36
382	38,195	3,219	1,101.7	33 / 29
384	38,414	3,219	1,102.9	33 / 33
388	38,782	3,219	1,104.8	35 / 31
391	39,138	3,219	1,106.0	29 / 70
MILL CREEK				
001	85	2,186	1,099.2[4]	12 / 12
002	195	2,186	1,099.2[4]	18 / 26
006	573	2,186	1,099.3	35 / 18
009	889	2,186	1,104.0	12 / 17
010	1,047	2,186	1,106.3	24 / 26
013	1,295	2,186	1,107.6	30 / 20
015	1,499	2,186	1,108.5	18 / 28
017	1,725	2,186	1,111.0	19 / 58
020	1,965	2,186	1,111.7	35 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MILL CREEK				
022	2,240	2,174	1,113.6	62 / 19
024	2,388	2,174	1,114.2	38 / 18
026	2,630	2,174	1,116.3	20 / 23
028	2,777	2,174	1,119.3	45 / 35
031	3,063	2,174	1,120.5	70 / 80
032	3,233	2,084	1,120.6	53 / 66
036	3,564	2,084	1,121.8	52 / 25
038	3,829	2,084	1,122.9	25 / 15
040	4,009	2,084	1,124.5	25 / 25
042	4,215	2,084	1,125.2	20 / 12
046	4,618	2,084	1,128.7	31 / 12
049	4,859	2,050	1,129.4	35 / 12
051	5,149	2,050	1,132.3	50 / 35
056	5,615	2,050	1,133.2	24 / 17
058	5,810	2,050	1,135.7	33 / 10
060	5,992	2,050	1,137.1	30 / 12
061	6,111	2,050	1,137.9	20 / 12
064	6,375	2,050	1,141.2	95 / 12
066	6,617	2,050	1,143.9	143 / 12
070	7,012	1,960	1,144.9	90 / 12
076	7,574	1,960	1,149.1	39 / 84
081	8,132	1,960	1,153.0	61 / 42
085	8,458	1,475	1,157.6	60 / 9
MITCHELL RIVER				
002	189	14,057	874.5[4]	73 / 73
006	569	14,057	874.5[4]	68 / 59
008	803	14,057	874.5[4]	63 / 52
012	1,184	14,057	874.5[4]	70 / 57
017	1,668	14,057	874.5[4]	73 / 57
021	2,112	14,057	874.5[4]	67 / 49
025	2,515	14,057	874.5[4]	70 / 49
031	3,096	14,057	875.0	60 / 43
036	3,628	14,057	876.2	58 / 51
042	4,205	14,057	877.3	54 / 49
048	4,751	14,057	878.3	57 / 35
052	5,160	14,057	880.0	70 / 45
056	5,626	12,689	880.7	35 / 51
061	6,093	12,689	882.2	49 / 51
068	6,806	12,689	884.4	37 / 55
074	7,440	12,689	887.0	60 / 46
079	7,867	12,689	887.7	65 / 42
086	8,550	12,689	889.9	59 / 51
092	9,238	12,689	893.1	56 / 59
098	9,829	12,689	894.7	45 / 70
105	10,480	12,689	896.3	56 / 59
112	11,163	12,689	897.6	50 / 55
118	11,754	12,689	899.0	50 / 50
124	12,359	12,689	900.8	62 / 55

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MITCHELL RIVER				
125	12,504	12,689	901.0	66 / 53
132	13,228	12,689	902.2	52 / 48
138	13,806	12,689	904.2	50 / 48
146	14,556	12,689	907.7	47 / 60
153	15,335	12,689	909.4	100 / 30
164	16,373	12,689	913.1	57 / 46
166	16,643	12,689	913.8	46 / 58
171	17,119	12,072	914.6	54 / 120
183	18,270	12,072	917.0	50 / 62
192	19,193	12,072	919.3	65 / 50
200	19,998	12,072	921.6	58 / 49
204	20,407	12,072	922.6	50 / 56
207	20,678	12,072	922.8	49 / 45
217	21,699	12,072	926.7	63 / 47
222	22,198	12,072	929.1	66 / 55
228	22,800	12,072	930.6	81 / 68
239	23,878	12,072	934.4	59 / 53
247	24,708	11,944	936.6	54 / 58
256	25,633	11,944	939.5	56 / 38
261	26,130	11,944	941.2	48 / 47
267	26,690	11,944	943.0	48 / 48
272	27,221	11,944	944.6	57 / 45
278	27,798	11,944	946.6	59 / 45
284	28,427	11,944	949.2	45 / 45
289	28,926	11,944	951.7	45 / 45
294	29,371	11,944	953.3	45 / 45
297	29,718	11,944	954.8	52 / 45
303	30,305	11,944	957.5	57 / 45
309	30,877	11,944	960.0	45 / 44
316	31,559	11,944	963.1	48 / 65
322	32,192	11,621	964.5	55 / 60
327	32,721	11,621	965.5	51 / 51
333	33,270	11,621	966.9	52 / 45
338	33,813	11,621	969.5	44 / 39
343	34,264	11,621	972.1	37 / 46
348	34,829	11,621	974.1	68 / 44
353	35,330	11,621	974.7	64 / 42
357	35,709	11,621	975.3	51 / 44
362	36,220	11,621	977.1	52 / 55
368	36,797	11,621	978.3	59 / 55
373	37,287	11,621	979.2	44 / 61
378	37,830	11,621	981.3	48 / 69
380	38,038	11,621	981.4	41 / 54
384	38,363	11,621	983.0	49 / 59
389	38,928	11,621	984.3	40 / 111
395	39,511	8,684	985.3	45 / 50
400	39,962	8,684	986.7	46 / 48
405	40,458	8,684	990.3	54 / 38

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MITCHELL RIVER				
409	40,949	8,684	994.8	71 / 60
414	41,416	8,684	995.9	90 / 40
419	41,901	8,684	996.9	70 / 60
423	42,331	8,684	997.4	58 / 57
428	42,754	8,542	998.2	65 / 51
433	43,276	8,542	999.8	50 / 40
437	43,743	8,542	1,001.2	40 / 40
442	44,154	8,542	1,002.2	40 / 40
444	44,419	8,542	1,002.7	30 / 51
449	44,890	8,542	1,003.7	55 / 40
452	45,247	8,542	1,004.5	51 / 40
456	45,639	8,542	1,007.0	53 / 45
461	46,076	8,542	1,008.9	65 / 64
466	46,560	8,542	1,011.6	78 / 66
470	46,952	8,542	1,013.5	61 / 57
474	47,447	8,542	1,017.1	44 / 53
479	47,862	8,542	1,018.5	60 / 50
482	48,172	8,542	1,019.0	101 / 49
485	48,455	8,542	1,019.2	43 / 50
487	48,685	8,542	1,020.4	52 / 65
488	48,806	8,542	1,022.5	62 / 87
490	48,954	8,542	1,024.5	33 / 86
494	49,350	8,542	1,027.5	40 / 97
497	49,683	8,542	1,029.2	42 / 95
500	49,994	8,542	1,030.7	42 / 123
503	50,273	8,542	1,031.3	99 / 50
505	50,472	8,542	1,032.2	137 / 72
509	50,875	8,542	1,032.6	100 / 63
513	51,256	8,542	1,033.3	79 / 57
514	51,433	8,542	1,033.7	78 / 49
518	51,772	8,542	1,036.4	115 / 33
521	52,136	8,370	1,038.4	63 / 86
526	52,617	8,370	1,039.9	63 / 87
530	53,049	8,370	1,041.3	53 / 87
535	53,531	8,370	1,042.5	69 / 65
541	54,055	8,370	1,043.5	96 / 44
545	54,505	8,370	1,045.1	95 / 80
548	54,842	8,370	1,045.7	54 / 51
551	55,140	8,370	1,047.0	102 / 48
555	55,536	8,370	1,048.2	149 / 70
559	55,925	8,370	1,049.8	112 / 49
565	56,488	8,370	1,051.8	77 / 29
570	56,989	8,370	1,053.8	92 / 35
574	57,438	8,370	1,055.3	60 / 46
579	57,895	8,370	1,056.3	28 / 66
583	58,323	8,248	1,057.7	37 / 55
586	58,614	8,248	1,058.8	43 / 80
591	59,109	8,248	1,060.4	49 / 65

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MITCHELL RIVER				
594	59,366	8,248	1,061.0	49 / 72
595	59,512	8,248	1,061.5	25 / 42
597	59,667	8,248	1,061.9	33 / 25
598	59,754	8,248	1,063.5	31 / 27
601	60,084	8,248	1,065.8	39 / 70
603	60,276	8,248	1,066.6	36 / 68
605	60,467	8,248	1,066.8	41 / 80
608	60,814	8,248	1,068.1	79 / 55
612	61,197	8,248	1,069.0	65 / 61
616	61,601	8,248	1,069.8	82 / 85
620	61,987	8,248	1,071.6	39 / 39
625	62,524	8,248	1,073.5	39 / 39
632	63,234	8,248	1,076.2	33 / 39
637	63,695	8,248	1,078.4	30 / 39
644	64,366	8,248	1,082.0	39 / 39
648	64,780	8,248	1,083.1	39 / 39
654	65,416	8,248	1,084.7	39 / 39
661	66,056	8,000	1,086.6	38 / 38
666	66,573	8,000	1,088.5	38 / 38
673	67,252	8,000	1,090.5	33 / 38
681	68,069	8,000	1,093.6	45 / 46
687	68,730	8,000	1,095.7	46 / 38
697	69,678	8,000	1,098.7	56 / 41
707	70,650	7,208	1,100.5	40 / 40
714	71,405	7,208	1,101.8	40 / 40
722	72,244	7,208	1,104.6	40 / 40
726	72,647	7,208	1,106.4	29 / 46
732	73,195	7,208	1,108.3	40 / 40
735	73,547	7,208	1,109.0	40 / 40
739	73,937	6,903	1,110.1	36 / 42
745	74,460	6,903	1,115.5	77 / 42
751	75,137	6,903	1,116.6	53 / 36
760	75,998	6,903	1,119.1	271 / 43
770	76,975	6,903	1,121.2	146 / 39
775	77,504	6,903	1,123.0	100 / 39
785	78,533	6,903	1,128.1	73 / 38
795	79,483	6,774	1,133.5	137 / 38
802	80,225	6,774	1,136.1	147 / 38
809	80,890	6,774	1,138.6	38 / 273
816	81,643	6,774	1,141.1	38 / 171
821	82,096	6,774	1,143.5	38 / 255
824	82,438	6,774	1,144.8	38 / 250
834	83,418	6,698	1,148.9	64 / 397
839	83,864	6,698	1,150.6	38 / 250
843	84,291	6,698	1,152.4	80 / 100
848	84,835	6,698	1,154.8	38 / 80
852	85,187	6,698	1,157.4	38 / 168
861	86,062	6,698	1,160.5	38 / 80

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MITCHELL RIVER				
866	86,562	6,698	1,162.1	38 / 38
873	87,258	6,698	1,164.3	38 / 38
880	88,023	6,326	1,168.1	50 / 31
886	88,612	6,326	1,170.8	36 / 100
895	89,462	6,313	1,173.6	36 / 36
901	90,107	6,313	1,177.1	36 / 36
906	90,574	6,313	1,179.3	35 / 34
909	90,944	6,313	1,182.6	48 / 56
912	91,248	6,313	1,183.6	46 / 80
917	91,686	6,313	1,185.6	129 / 53
922	92,228	6,313	1,189.0	61 / 61
926	92,585	6,313	1,190.8	53 / 26
933	93,294	6,252	1,194.8	36 / 36
941	94,082	6,252	1,199.7	40 / 120
951	95,094	6,252	1,203.5	36 / 36
954	95,445	6,252	1,205.0	36 / 46
961	96,085	6,252	1,208.4	36 / 138
966	96,641	6,252	1,210.0	36 / 36
971	97,051	6,203	1,211.9	36 / 36
974	97,412	6,203	1,213.0	36 / 36
982	98,183	6,203	1,215.5	55 / 45
988	98,763	6,203	1,219.7	205 / 30
996	99,582	6,203	1,224.6	117 / 36
999	99,861	6,203	1,225.5	65 / 100
1007	100,724	6,203	1,230.1	45 / 150
1015	101,469	5,352	1,233.2	36 / 36
1024	102,445	5,352	1,238.4	36 / 36
1031	103,067	5,352	1,241.0	36 / 31
1038	103,774	5,352	1,245.6	31 / 31
1045	104,457	4,845	1,250.0	36 / 36
1051	105,068	4,845	1,253.3	36 / 36
1055	105,487	4,845	1,256.3	34 / 34
1061	106,127	4,845	1,259.5	38 / 37
1066	106,606	4,845	1,262.7	34 / 90
1072	107,162	4,845	1,265.7	33 / 33
1076	107,550	4,795	1,269.0	90 / 31
1080	107,995	4,795	1,272.5	28 / 135
1086	108,565	4,795	1,275.1	34 / 26
1091	109,067	4,795	1,280.9	45 / 40
1097	109,663	4,795	1,286.4	31 / 72
1103	110,320	4,795	1,288.7	31 / 31
1117	111,743	4,721	1,296.1	60 / 30
1131	113,065	4,721	1,303.9	30 / 140
1135	113,494	4,721	1,305.9	30 / 80
1139	113,920	4,721	1,309.1	30 / 30
1145	114,469	4,644	1,313.6	47 / 53
1154	115,389	4,644	1,318.7	26 / 40
1161	116,114	3,641	1,325.0	28 / 28

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MITCHELL RIVER				
1165	116,462	3,641	1,327.2	30 / 21
1170	117,006	3,641	1,333.0	58 / 18
1177	117,703	3,641	1,337.4	28 / 28
1184	118,399	3,641	1,342.6	27 / 70
1188	118,797	3,641	1,345.3	75 / 59
1197	119,720	3,375	1,354.4	90 / 23
1200	119,995	3,375	1,356.4	60 / 18
1204	120,353	3,375	1,359.0	19 / 27
1206	120,618	3,375	1,363.7	43 / 60
1208	120,847	3,375	1,366.8	25 / 118
1213	121,347	3,375	1,371.0	120 / 100
1219	121,910	3,375	1,376.7	100 / 14
1224	122,430	2,852	1,381.4	35 / 27
1228	122,835	2,852	1,390.6	37 / 31
1233	123,308	2,852	1,392.5	23 / 45
1242	124,168	2,852	1,400.7	40 / 24
1244	124,399	2,852	1,402.2	30 / 50
1248	124,766	2,648	1,404.7	12 / 32
1251	125,072	2,648	1,408.4	60 / 22
1254	125,445	2,648	1,411.0	22 / 22
1257	125,699	2,648	1,414.0	34 / 37
1262	126,239	2,648	1,421.3	69 / 11
1266	126,630	2,371	1,426.2	44 / 11
1268	126,804	2,371	1,428.4	35 / 12
1271	127,119	2,371	1,433.2	25 / 51
1273	127,304	2,371	1,435.9	12 / 39
1275	127,518	2,371	1,439.8	60 / 50
1279	127,949	2,353	1,442.3	18 / 40
1283	128,294	2,353	1,445.9	18 / 18
1287	128,679	2,353	1,450.8	30 / 50
1290	128,989	2,353	1,453.1	20 / 14
1293	129,295	2,353	1,459.2	60 / 50
1295	129,546	2,353	1,462.2	60 / 28
1298	129,818	2,353	1,467.8	40 / 72
1301	130,093	2,353	1,471.5	19 / 91
1303	130,275	2,353	1,473.5	15 / 52
1305	130,528	2,353	1,477.3	80 / 40
1308	130,823	2,353	1,480.3	70 / 23
MOORES FORK				
009	930	2,367	1,076.5[4]	128 / 17
013	1,292	2,367	1,076.9	86 / 17
016	1,623	2,367	1,078.7	55 / 17
019	1,857	2,367	1,079.6	48 / 17
021	2,100	2,367	1,080.9	37 / 17
024	2,370	2,367	1,081.5	80 / 17
027	2,717	2,367	1,084.8	140 / 18
039	3,881	1,874	1,089.5	130 / 15
043	4,273	1,874	1,090.4	111 / 14

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
MOORES FORK				
046	4,577	1,848	1,092.0	105 / 14
049	4,859	1,848	1,092.9	36 / 22
052	5,193	1,848	1,096.2	14 / 61
054	5,443	1,848	1,096.9	14 / 64
057	5,658	1,848	1,098.2	14 / 107
059	5,869	1,848	1,099.0	14 / 121
MOORES FORK TRIBUTARY 1				
000	37	1,061	1,084.9[9]	22 / 13
003	257	1,061	1,086.0	21 / 18
004	403	1,061	1,087.5	8 / 13
006	620	1,061	1,089.8	18 / 13
009	890	1,061	1,092.0	16 / 16
010	1,016	1,061	1,092.3	13 / 13
014	1,364	1,048	1,096.6	28 / 34
015	1,502	1,048	1,098.1	105 / 15
018	1,809	1,048	1,101.3	60 / 15
021	2,098	965	1,103.6	19 / 11
023	2,303	965	1,105.3	15 / 10
026	2,551	965	1,107.6	20 / 9
028	2,757	965	1,110.2	16 / 24
NORTH FORK MITCHELL RIVER				
004	357	2,228	1,231.7[4]	17 / 84
007	730	2,228	1,233.5	16 / 160
010	1,037	2,228	1,236.0	16 / 100
012	1,169	2,228	1,237.5	16 / 140
013	1,295	2,228	1,238.5	16 / 78
015	1,490	2,228	1,239.2	23 / 25
016	1,601	2,228	1,241.5	16 / 52
020	1,958	2,228	1,242.8	20 / 16
022	2,202	2,190	1,245.9	15 / 34
024	2,428	2,190	1,246.8	15 / 15
026	2,615	2,190	1,248.0	15 / 15
NORTH PRONG SOUTH FORK MITCHELL RIVER				
001	143	1,940	1,211.7	110 / 30
007	686	1,940	1,215.5	240 / 20
012	1,239	1,765	1,217.9	210 / 30
013	1,349	1,765	1,218.3	60 / 50
019	1,931	1,765	1,221.3	43 / 146
022	2,249	1,765	1,222.4	85 / 115
025	2,514	1,765	1,225.0	60 / 90
031	3,142	1,765	1,230.6	171 / 15
037	3,671	1,765	1,232.6	264 / 76
038	3,813	1,765	1,233.7	160 / 20
041	4,125	1,765	1,236.4	40 / 50
044	4,372	1,765	1,238.8	75 / 12
047	4,688	1,691	1,241.5	35 / 17
049	4,871	1,691	1,244.1	12 / 45
053	5,252	1,691	1,246.6	67 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
NORTH PRONG SOUTH FORK MITCHELL RIVER				
055	5,496	1,691	1,248.2	20 / 25
058	5,766	1,691	1,250.6	13 / 12
059	5,907	1,691	1,252.1	12 / 14
061	6,071	1,691	1,254.5	18 / 31
063	6,256	1,543	1,256.4	14 / 82
065	6,458	1,543	1,258.5	11 / 87
069	6,894	1,543	1,261.8	11 / 40
074	7,368	1,543	1,265.3	11 / 49
077	7,731	1,543	1,267.0	15 / 69
081	8,060	1,543	1,268.9	51 / 70
084	8,362	1,543	1,270.3	11 / 49
089	8,886	1,543	1,273.4	90 / 11
093	9,349	1,543	1,276.6	84 / 55
099	9,918	1,502	1,281.9	11 / 76
105	10,458	1,502	1,284.8	142 / 15
107	10,741	1,502	1,287.5	23 / 67
109	10,937	1,502	1,290.3	38 / 38
113	11,293	1,502	1,292.9	48 / 11
115	11,533	1,502	1,296.2	15 / 53
117	11,688	1,502	1,298.7	16 / 60
120	11,993	1,207	1,302.7	16 / 46
122	12,197	1,207	1,306.0	61 / 11
124	12,437	1,110	1,308.4	65 / 10
126	12,569	1,110	1,310.4	49 / 10
130	12,984	1,110	1,314.9	59 / 6
132	13,221	1,110	1,318.1	60 / 10
133	13,317	1,110	1,321.9	81 / 10
137	13,664	1,110	1,324.9	51 / 115
142	14,155	1,110	1,328.7	84 / 8
145	14,534	1,110	1,333.1	36 / 106
150	14,988	1,082	1,339.2	114 / 10
154	15,429	1,003	1,344.8	84 / 10
157	15,705	1,003	1,348.6	60 / 20
160	16,026	1,003	1,352.3	65 / 35
162	16,224	1,003	1,355.5	85 / 10
163	16,262	1,003	1,356.4	110 / 13
165	16,480	1,003	1,360.0	105 / 7
167	16,735	1,003	1,365.0	49 / 20
168	16,810	1,003	1,366.4	47 / 7
174	17,409	1,003	1,374.7	17 / 20
177	17,679	912	1,377.6	7 / 7
178	17,787	912	1,382.7	40 / 10
180	18,025	550	1,387.8	10 / 7
182	18,232	550	1,393.5	12 / 11
184	18,379	550	1,399.6	7 / 7
185	18,516	550	1,404.7	7 / 9
186	18,575	550	1,406.6	25 / 7

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
PHEASANT CREEK				
002	232	1,478	859.9[4]	9 / 9
005	512	1,478	859.9[4]	20 / 40
010	956	1,478	863.8	9 / 111
015	1,479	1,478	866.5	15 / 70
020	1,987	1,478	869.8	9 / 131
025	2,532	1,478	872.7	9 / 108
030	2,997	1,478	876.3	9 / 81
038	3,794	1,433	882.5	9 / 143
043	4,328	1,433	887.4	13 / 9
049	4,907	1,320	896.8	12 / 100
054	5,425	1,320	909.9	20 / 8
PILOT CREEK				
001	117	2,560	858.0[4]	27 / 262
003	344	2,560	858.0[4]	22 / 160
008	777	2,560	858.0[4]	32 / 78
011	1,130	2,503	858.0[4]	30 / 27
013	1,323	2,503	858.0[4]	17 / 17
015	1,517	2,503	858.0[4]	17 / 17
018	1,775	2,503	858.0[4]	17 / 17
022	2,151	2,503	858.4	17 / 23
025	2,534	2,503	859.5	17 / 17
030	2,970	2,503	861.7	20 / 21
034	3,411	2,503	863.4	18 / 23
039	3,851	2,503	865.1	17 / 25
042	4,225	2,503	866.9	32 / 17
044	4,376	2,503	867.6	17 / 41
047	4,744	2,503	870.1	17 / 17
050	4,988	2,503	871.2	17 / 17
056	5,600	2,503	874.5	20 / 40
062	6,160	2,235	877.0	16 / 16
063	6,339	2,235	878.5	35 / 16
067	6,730	2,009	881.2	15 / 15
069	6,929	2,009	883.0	15 / 15
073	7,282	2,009	887.3	15 / 35
075	7,538	2,009	889.5	25 / 18
078	7,754	2,009	892.4	25 / 15
081	8,110	2,009	897.7	15 / 15
085	8,511	1,793	901.5	16 / 14
087	8,704	1,793	903.3	14 / 14
089	8,916	1,793	907.9	14 / 14
092	9,230	1,793	911.5	14 / 17
094	9,358	1,712	912.5	13 / 13
096	9,561	1,712	914.7	13 / 23
097	9,747	1,712	915.9	13 / 11
102	10,181	1,707	921.4	13 / 13
105	10,504	1,707	923.3	13 / 13
108	10,763	1,707	925.0	24 / 19
110	11,044	1,707	926.7	65 / 15

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
PILOT CREEK				
114	11,437	1,707	928.0	13 / 79
117	11,697	1,707	928.8	13 / 80
120	11,988	1,707	929.2	30 / 18
123	12,312	1,707	932.0	22 / 22
127	12,679	1,606	933.4	63 / 12
129	12,894	1,606	933.8	67 / 12
135	13,487	1,453	936.2	55 / 40
138	13,773	1,453	936.2	20 / 30
140	14,002	1,453	938.9	25 / 20
144	14,384	1,453	942.2	25 / 21
148	14,822	1,453	946.7	27 / 40
152	15,150	1,274	948.7	13 / 25
156	15,569	1,274	953.2	49 / 13
160	15,998	1,274	956.5	26 / 13
162	16,235	1,219	959.3	11 / 20
165	16,473	1,219	962.1	27 / 13
168	16,830	1,219	964.7	11 / 40
172	17,158	1,219	966.4	57 / 13
175	17,490	1,219	968.5	59 / 13
179	17,872	1,219	971.2	21 / 16
185	18,528	1,018	976.5	10 / 31
187	18,698	946	978.6	58 / 13
189	18,888	946	979.7	40 / 9
197	19,739	946	988.0	40 / 9
201	20,098	946	994.3	57 / 9
205	20,479	946	999.1	9 / 65
208	20,816	946	1,002.0	9 / 70
210	20,997	946	1,004.0	9 / 70
214	21,355	638	1,006.4	20 / 9
218	21,801	638	1,012.3	33 / 11
220	22,038	638	1,015.7	10 / 12
223	22,288	544	1,020.2	30 / 9
224	22,402	544	1,020.8	14 / 17
227	22,691	544	1,026.0	35 / 9
228	22,819	544	1,027.7	9 / 14
230	23,042	544	1,030.7	24 / 10
234	23,400	544	1,034.6	9 / 9
238	23,833	544	1,042.4	9 / 45
241	24,143	544	1,044.8	12 / 60
243	24,250	496	1,046.3	12 / 30
245	24,467	496	1,050.8	9 / 24
247	24,705	496	1,053.1	21 / 9
250	24,985	347	1,057.6	32 / 9
251	25,098	347	1,059.3	12 / 15
252	25,225	347	1,061.2	9 / 9
254	25,399	347	1,063.3	9 / 6
255	25,503	347	1,065.6	9 / 9
257	25,666	347	1,066.6	9 / 9

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
PILOT CREEK				
259	25,909	347	1,078.3	63 / 20
261	26,080	347	1,078.3	20 / 22
263	26,284	347	1,078.6	16 / 18
264	26,421	347	1,080.1	7 / 11
266	26,550	347	1,083.0	9 / 9
PILOT CREEK TRIBUTARY 1				
001	83	632	875.1[4]	11 / 11
002	152	632	875.1[4]	10 / 10
004	416	632	879.3	16 / 32
005	517	632	879.5	21 / 10
007	706	632	880.8	20 / 12
008	833	600	881.6	10 / 10
009	941	600	883.5	15 / 17
010	1,045	600	887.0	9 / 9
013	1,256	600	890.8	22 / 12
014	1,375	600	891.7	9 / 17
015	1,489	600	892.5	17 / 9
017	1,688	600	894.6	9 / 9
019	1,868	575	898.0	14 / 9
021	2,051	575	901.0	9 / 20
022	2,228	575	905.8	24 / 30
024	2,392	575	908.9	8 / 31
025	2,500	575	910.0	8 / 60
026	2,571	575	913.6	8 / 60
PILOT CREEK TRIBUTARY 2				
001	58	698	879.9[4]	46 / 9
002	215	698	879.9[4]	56 / 9
004	415	698	881.1	51 / 9
007	728	698	884.8	22 / 9
011	1,097	654	888.2	32 / 18
012	1,234	654	888.4	13 / 18
014	1,375	654	891.9	40 / 10
015	1,534	654	892.2	11 / 7
017	1,697	654	896.7	15 / 10
019	1,855	607	897.7	7 / 15
021	2,109	607	902.1	8 / 33
023	2,319	607	904.3	23 / 7
025	2,483	607	907.0	17 / 7
026	2,631	607	910.8	35 / 12
027	2,742	607	912.1	65 / 10
PILOT CREEK TRIBUTARY 3				
002	178	568	935.8[4]	22 / 18
002	223	568	936.2	26 / 18
004	410	568	939.1	43 / 35
006	602	568	940.0	40 / 7
007	699	568	943.0	19 / 8
009	852	568	944.3	21 / 22
010	1,006	568	945.4	7 / 43

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
PILOT CREEK TRIBUTARY 3				
012	1,150	568	948.1	31 / 25
013	1,253	568	949.2	58 / 7
015	1,475	568	951.2	41 / 7
017	1,696	490	955.1	46 / 7
019	1,898	490	958.4	43 / 7
021	2,071	490	961.8	15 / 13
022	2,167	490	965.8	16 / 9
022	2,247	490	967.8	24 / 19
024	2,383	490	969.1	7 / 43
026	2,605	490	971.0	7 / 71
028	2,783	490	973.5	7 / 48
029	2,891	490	978.1	12 / 36
030	3,041	490	979.7	66 / 8
034	3,381	380	986.7	14 / 28
036	3,601	352	989.5	7 / 24
037	3,699	352	991.5	11 / 14
038	3,780	352	993.4	12 / 7
039	3,865	352	995.7	7 / 15
040	3,950	352	998.2	7 / 7
040	4,019	352	999.2	20 / 7
PILOT CREEK TRIBUTARY 3A				
002	166	165	979.7[4]	7 / 13
002	244	165	981.0	5 / 5
003	295	165	982.7	9 / 16
003	345	165	984.3	10 / 12
004	411	165	986.4	7 / 10
005	500	165	988.0	7 / 7
006	579	165	990.4	7 / 7
007	660	153	991.9	16 / 7
007	727	153	993.9	30 / 14
008	813	153	996.4	7 / 7
009	911	153	1,000.0	7 / 7
010	1,006	153	1,002.7	5 / 5
011	1,095	153	1,006.0	8 / 11
012	1,182	153	1,009.5	19 / 6
012	1,242	153	1,010.8	7 / 7
PILOT CREEK TRIBUTARY 4				
000	10	299	1,004.6[10]	6 / 6
001	136	299	1,007.4	10 / 50
003	255	299	1,009.7	7 / 25
007	686	299	1,033.7	105 / 74
009	894	265	1,033.7	37 / 53
010	1,003	265	1,033.7	7 / 35
011	1,120	265	1,034.1	18 / 22
012	1,223	265	1,038.0	30 / 14
014	1,359	265	1,041.3	18 / 7
015	1,508	265	1,045.0	8 / 40
016	1,646	265	1,048.9	18 / 15

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
PILOT CREEK TRIBUTARY 4				
017	1,733	265	1,050.9	7 / 11
018	1,808	265	1,052.8	14 / 7
019	1,872	265	1,055.7	7 / 17
PINE BRANCH				
006	572	1,269	1,109.8[4]	10 / 9
008	838	1,269	1,111.0	10 / 15
014	1,361	1,269	1,115.7	18 / 12
016	1,600	1,269	1,121.3	15 / 44
019	1,886	1,269	1,125.0	4 / 37
024	2,423	1,269	1,128.4	41 / 8
028	2,800	1,169	1,132.8	23 / 35
031	3,082	1,169	1,133.8	9 / 33
POTTERS CREEK				
001	146	1,184	1,166.1[4]	11 / 65
003	310	1,184	1,166.3	20 / 35
005	515	1,184	1,167.7	14 / 58
007	653	1,184	1,167.8	30 / 11
008	846	1,184	1,169.2	17 / 32
010	983	1,184	1,169.9	30 / 45
012	1,228	1,042	1,170.6	140 / 10
017	1,697	1,042	1,173.4	10 / 70
019	1,884	1,042	1,177.2	12 / 55
020	2,027	1,042	1,179.1	10 / 58
021	2,140	1,042	1,180.4	23 / 50
023	2,305	1,042	1,183.1	10 / 72
025	2,478	1,042	1,186.5	10 / 53
027	2,681	1,042	1,190.9	43 / 10
028	2,753	1,042	1,192.3	10 / 45
030	2,992	1,042	1,195.2	48 / 19
031	3,123	1,042	1,197.9	15 / 40
033	3,316	922	1,201.7	9 / 44
035	3,493	922	1,204.0	9 / 56
036	3,636	922	1,206.1	46 / 17
040	4,009	922	1,210.1	60 / 45
042	4,210	922	1,211.8	74 / 9
044	4,393	922	1,215.0	97 / 9
046	4,576	922	1,217.4	9 / 63
047	4,722	922	1,219.5	77 / 11
RING CREEK				
006	570	1,859	1,134.7	270 / 22
010	999	1,859	1,137.0	117 / 12
015	1,531	1,859	1,139.6	22 / 11
020	2,032	1,859	1,143.0	69 / 34
025	2,509	1,859	1,145.2	15 / 11
030	2,982	1,859	1,149.8	14 / 123
035	3,523	1,762	1,153.1	12 / 12
040	4,014	1,762	1,157.3	99 / 89
045	4,474	1,762	1,159.7	90 / 10

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
RING CREEK				
050	4,969	1,762	1,163.5	155 / 11
054	5,443	1,762	1,165.7	39 / 137
RUTLEDGE CREEK				
019	1,922	2,791	971.9[4]	32 / 19
022	2,202	2,791	971.9[4]	84 / 16
025	2,474	2,791	971.9[4]	24 / 26
027	2,724	2,791	973.8	20 / 22
030	2,974	2,791	977.9	24 / 24
032	3,224	2,791	979.5	30 / 13
035	3,458	2,791	982.4	26 / 21
037	3,724	2,791	985.5	40 / 11
040	3,974	2,791	988.5	28 / 21
042	4,224	2,791	991.7	25 / 26
045	4,474	2,791	992.8	16 / 45
046	4,615	2,791	993.3	29 / 21
050	4,974	2,791	996.5	30 / 30
053	5,252	2,791	998.7	30 / 30
055	5,474	2,791	999.2	30 / 20
057	5,724	2,791	1,000.7	46 / 26
058	5,825	2,791	1,001.4	17 / 14
060	5,974	2,791	1,005.8	60 / 9
063	6,291	2,791	1,006.7	32 / 29
065	6,474	2,791	1,008.0	44 / 33
067	6,724	2,791	1,010.5	67 / 44
070	6,976	2,706	1,012.0	60 / 26
072	7,226	2,706	1,012.7	47 / 19
075	7,476	2,706	1,015.1	60 / 16
077	7,726	2,706	1,015.7	80 / 11
080	7,976	2,706	1,017.4	110 / 14
082	8,203	2,706	1,018.4	90 / 12
085	8,476	2,706	1,020.5	54 / 12
087	8,749	2,706	1,023.3	32 / 15
090	8,986	2,706	1,024.5	40 / 9
092	9,236	2,706	1,027.4	20 / 26
095	9,493	2,706	1,028.5	30 / 50
103	10,304	2,652	1,033.6	38 / 82
105	10,534	2,652	1,034.5	80 / 40
108	10,793	2,652	1,036.0	63 / 21
109	10,948	2,652	1,037.9	36 / 72
112	11,187	2,488	1,039.6	90 / 25
115	11,540	2,488	1,041.6	12 / 47
118	11,770	2,488	1,046.1	22 / 66
120	12,020	2,488	1,048.8	9 / 91
123	12,315	2,488	1,051.3	40 / 70
125	12,520	2,488	1,051.9	8 / 79
128	12,768	2,488	1,054.1	30 / 20
130	13,018	2,488	1,057.4	35 / 21
133	13,268	2,488	1,059.3	26 / 21

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
RUTLEDGE CREEK				
135	13,518	2,488	1,062.0	40 / 48
138	13,768	2,422	1,062.1	26 / 67
140	14,018	2,422	1,065.0	46 / 110
143	14,277	2,422	1,065.7	80 / 50
145	14,527	2,422	1,068.0	27 / 38
148	14,781	2,422	1,070.7	29 / 47
150	15,033	2,422	1,072.2	31 / 48
153	15,283	2,422	1,074.8	30 / 70
155	15,533	2,422	1,076.0	9 / 100
158	15,791	2,279	1,076.9	30 / 20
160	16,041	2,279	1,079.8	26 / 50
163	16,291	2,279	1,081.4	10 / 49
165	16,544	2,279	1,084.7	70 / 14
168	16,790	2,279	1,085.2	70 / 24
170	17,033	2,279	1,087.4	70 / 20
173	17,285	2,279	1,088.1	50 / 14
175	17,535	2,259	1,090.9	70 / 20
180	18,011	2,259	1,096.4	40 / 25
182	18,177	2,259	1,097.5	35 / 12
185	18,522	2,259	1,101.2	10 / 15
187	18,684	2,259	1,105.5	33 / 37
190	19,035	2,259	1,106.4	25 / 41
193	19,335	2,259	1,106.8	28 / 9
195	19,535	2,259	1,111.0	8 / 100
198	19,788	2,182	1,112.4	9 / 126
199	19,866	2,182	1,113.3	43 / 113
200	20,028	2,182	1,114.8	26 / 74
203	20,332	2,182	1,118.2	56 / 56
205	20,515	2,182	1,118.3	16 / 20
208	20,765	2,182	1,120.4	12 / 15
209	20,892	2,182	1,131.5	13 / 9
210	21,015	2,182	1,134.9	11 / 8
213	21,282	2,182	1,137.5	17 / 7
215	21,499	2,111	1,138.1	8 / 7
217	21,699	2,111	1,140.0	14 / 18
220	21,973	2,111	1,142.4	37 / 17
222	22,247	2,111	1,146.0	49 / 40
225	22,524	2,111	1,149.0	8 / 27
228	22,774	2,111	1,151.7	34 / 46
230	23,031	2,111	1,152.3	24 / 26
233	23,322	2,111	1,154.5	10 / 13
235	23,539	2,111	1,157.1	15 / 9
238	23,809	2,111	1,161.8	26 / 21
241	24,057	2,111	1,163.1	21 / 13
243	24,336	2,111	1,164.6	20 / 13
246	24,559	2,111	1,168.1	26 / 25
248	24,825	2,111	1,171.1	7 / 15
253	25,319	2,071	1,178.7	8 / 34

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
RUTLEDGE CREEK				
254	25,406	2,071	1,180.2	22 / 40
256	25,561	2,071	1,180.3	10 / 40
258	25,813	2,071	1,183.6	29 / 31
260	25,958	2,071	1,184.3	37 / 33
261	26,063	2,071	1,185.0	49 / 62
263	26,313	2,071	1,186.4	62 / 16
266	26,563	2,071	1,188.3	37 / 38
268	26,813	2,071	1,190.7	23 / 25
273	27,315	2,024	1,198.6	8 / 14
276	27,565	2,024	1,203.6	14 / 28
278	27,815	2,024	1,204.7	27 / 25
281	28,065	2,024	1,209.3	18 / 26
283	28,315	2,024	1,213.5	23 / 22
286	28,566	2,024	1,217.9	49 / 17
RUTLEDGE CREEK TRIBUTARY 1				
002	153	449	1,077.4[4]	8 / 12
005	500	449	1,086.8	13 / 49
008	750	443	1,090.3	16 / 16
010	1,000	443	1,096.0	18 / 13
012	1,249	408	1,100.9	11 / 13
015	1,499	408	1,106.9	10 / 6
SEED CANE CREEK				
001	67	1,431	993.9[4]	12 / 79
003	254	1,431	993.9[4]	20 / 43
005	482	1,431	993.9[4]	18 / 13
007	721	1,431	993.9[4]	17 / 10
010	958	1,431	993.9[4]	20 / 15
018	1,763	1,431	993.9[4]	75 / 15
020	2,013	1,253	994.5	30 / 18
024	2,384	1,253	996.3	14 / 38
027	2,697	1,253	997.2	28 / 33
031	3,125	1,253	1,000.3	9 / 100
034	3,381	1,253	1,000.7	9 / 98
036	3,604	1,253	1,001.3	9 / 71
039	3,879	1,253	1,003.0	11 / 120
043	4,266	1,253	1,005.5	14 / 50
045	4,500	1,253	1,007.6	14 / 78
049	4,880	1,031	1,011.6	56 / 4
055	5,508	1,031	1,016.5	15 / 40
058	5,828	1,031	1,020.0	36 / 26
061	6,147	1,031	1,021.4	75 / 9
064	6,441	1,031	1,023.9	65 / 9
068	6,777	1,031	1,027.5	103 / 9
072	7,224	1,031	1,031.2	158 / 9
075	7,532	1,031	1,033.8	87 / 9
078	7,829	808	1,036.5	58 / 8
082	8,238	808	1,039.9	40 / 8
085	8,512	808	1,044.1	38 / 18

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SEED CANE CREEK				
089	8,856	787	1,046.8	8 / 95
094	9,360	787	1,051.8	8 / 44
096	9,624	787	1,055.8	49 / 28
098	9,763	787	1,057.4	22 / 20
099	9,863	787	1,059.7	17 / 33
SKIN CABIN CREEK				
003	261	1,433	833.9[4]	9 / 14
007	741	1,433	833.9[4]	13 / 13
011	1,059	1,433	833.9[4]	9 / 20
015	1,535	1,433	836.1	18 / 40
021	2,119	1,433	838.8	15 / 32
026	2,557	1,433	842.9	10 / 80
032	3,177	1,275	847.0	32 / 46
037	3,683	1,275	850.3	131 / 8
040	4,029	1,275	852.6	70 / 8
046	4,595	1,275	857.4	8 / 128
051	5,135	1,275	862.4	8 / 60
056	5,585	1,113	866.9	12 / 50
061	6,069	1,113	872.0	63 / 19
064	6,426	1,113	875.5	29 / 48
069	6,902	1,113	878.3	26 / 34
074	7,402	1,113	885.0	8 / 40
080	8,033	1,113	890.7	45 / 45
083	8,275	934	893.6	50 / 11
085	8,492	934	895.6	18 / 15
088	8,793	934	902.5	8 / 11
094	9,381	934	917.5	110 / 50
100	10,000	934	917.7	17 / 20
103	10,330	934	921.8	20 / 34
106	10,649	801	924.6	54 / 13
112	11,165	801	928.7	18 / 16
114	11,443	801	932.7	13 / 20
119	11,930	801	937.6	42 / 6
122	12,203	674	940.9	8 / 40
125	12,500	674	943.3	8 / 19
127	12,693	674	946.7	8 / 8
130	12,982	674	950.2	12 / 17
SNOW CREEK				
001	89	4,576	880.0[4]	18 / 24
003	347	4,576	880.0[4]	22 / 16
006	645	4,576	880.0[4]	16 / 23
009	898	4,576	881.6	27 / 16
012	1,164	4,572	883.3	37 / 27
014	1,370	4,572	883.6	27 / 16
015	1,489	4,572	884.2	22 / 16
016	1,636	4,572	885.9	19 / 16
020	2,038	4,572	890.3	32 / 18
025	2,541	4,572	893.8	16 / 16

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SNOW CREEK				
028	2,799	4,494	896.7	28 / 22
031	3,079	4,494	898.2	21 / 25
035	3,458	4,494	900.6	30 / 28
038	3,762	4,494	901.8	45 / 82
040	4,038	4,494	902.2	41 / 17
046	4,561	4,494	903.5	55 / 140
052	5,181	4,494	904.2	25 / 77
060	6,025	4,494	906.1	31 / 17
065	6,497	4,494	907.6	16 / 25
069	6,901	4,494	909.0	19 / 36
074	7,375	4,494	910.1	19 / 36
078	7,758	4,494	911.3	23 / 35
082	8,209	4,275	912.8	33 / 30
085	8,512	4,275	913.5	36 / 39
089	8,873	4,275	914.2	33 / 32
093	9,280	4,275	915.4	28 / 31
096	9,613	4,275	916.2	32 / 23
101	10,082	4,275	917.7	50 / 30
104	10,412	4,275	918.6	30 / 47
107	10,678	3,971	919.5	26 / 46
114	11,366	3,971	921.0	140 / 67
118	11,802	3,971	921.7	357 / 14
124	12,410	3,971	922.3	306 / 14
131	13,143	3,971	923.6	295 / 50
139	13,851	3,925	925.5	14 / 25
143	14,335	3,925	928.0	23 / 33
148	14,811	3,925	929.6	17 / 20
153	15,255	3,925	932.0	25 / 14
155	15,465	3,925	933.2	151 / 13
163	16,313	3,734	939.0	13 / 37
171	17,136	3,666	945.3	23 / 21
175	17,523	3,666	948.0	38 / 31
178	17,758	3,666	948.9	24 / 21
179	17,930	3,666	951.1	19 / 19
183	18,329	3,666	956.9	13 / 26
187	18,723	3,666	961.5	26 / 18
191	19,139	3,571	966.3	16 / 60
195	19,525	3,571	969.4	19 / 42
198	19,751	3,571	972.0	16 / 30
201	20,108	2,730	978.0	42 / 17
203	20,336	2,730	980.0	47 / 17
207	20,670	2,730	983.1	31 / 12
210	20,979	2,730	985.9	18 / 17
215	21,486	2,730	990.7	16 / 47
219	21,947	2,730	993.8	63 / 40
223	22,281	2,730	995.2	29 / 13
224	22,433	2,730	997.5	36 / 64
227	22,705	2,730	1,001.4	49 / 65

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SNOW CREEK				
230	23,024	2,730	1,003.8	29 / 31
234	23,405	2,730	1,005.4	26 / 23
237	23,709	2,730	1,006.7	28 / 21
241	24,100	2,730	1,009.2	35 / 12
247	24,657	2,486	1,015.7	21 / 30
248	24,766	2,486	1,018.5	23 / 35
249	24,892	2,486	1,020.1	25 / 31
251	25,073	2,486	1,023.5	42 / 24
255	25,473	2,486	1,028.4	68 / 24
256	25,601	2,486	1,029.3	38 / 20
258	25,827	2,486	1,031.6	21 / 43
262	26,193	2,486	1,036.4	62 / 37
266	26,607	2,486	1,038.7	108 / 24
271	27,058	2,486	1,041.8	58 / 25
273	27,274	2,486	1,043.1	31 / 37
276	27,604	2,486	1,047.6	37 / 43
279	27,888	2,486	1,050.0	45 / 24
280	28,000	2,486	1,051.0	43 / 25
283	28,337	2,486	1,055.0	45 / 35
286	28,597	2,316	1,058.0	25 / 20
288	28,779	2,316	1,061.7	30 / 15
291	29,132	2,316	1,065.3	38 / 18
293	29,273	2,316	1,065.8	9 / 11
295	29,473	2,316	1,068.9	6 / 28
297	29,671	2,316	1,072.7	22 / 15
300	30,006	2,316	1,074.1	16 / 12
303	30,271	2,316	1,075.3	9 / 9
305	30,544	2,316	1,077.2	9 / 9
308	30,782	2,316	1,079.3	22 / 9
311	31,128	2,316	1,081.1	16 / 9
316	31,576	2,316	1,084.0	33 / 9
319	31,901	2,316	1,085.2	23 / 20
323	32,300	1,899	1,086.8	32 / 6
327	32,695	1,899	1,088.8	56 / 20
332	33,211	1,899	1,091.6	65 / 42
334	33,439	1,899	1,092.4	7 / 50
338	33,823	1,899	1,095.1	14 / 11
342	34,242	1,899	1,099.3	26 / 42
345	34,455	1,899	1,100.3	31 / 7
348	34,773	1,808	1,103.1	75 / 17
350	35,022	1,808	1,104.4	79 / 14
354	35,377	1,808	1,105.9	74 / 12
357	35,737	1,808	1,108.0	150 / 35
369	36,944	1,707	1,115.3	7 / 78
374	37,371	1,707	1,118.2	17 / 16
376	37,587	1,707	1,120.4	14 / 23
379	37,903	1,643	1,123.0	7 / 44
381	38,149	1,643	1,124.6	62 / 10

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SNOW CREEK				
385	38,471	1,643	1,126.2	38 / 6
390	39,015	1,643	1,129.6	30 / 6
396	39,593	1,643	1,135.9	26 / 4
400	39,992	1,251	1,140.3	80 / 9
405	40,530	1,251	1,144.7	28 / 13
408	40,792	1,251	1,146.6	11 / 29
416	41,633	1,251	1,167.6	270 / 134
419	41,912	1,173	1,167.6	262 / 66
424	42,351	1,173	1,167.6	33 / 107
428	42,752	1,173	1,167.7	50 / 11
431	43,074	1,173	1,167.9	50 / 34
433	43,336	1,173	1,168.8	50 / 22
436	43,589	1,173	1,171.3	38 / 19
437	43,721	1,173	1,173.0	65 / 7
439	43,876	1,007	1,174.3	4 / 22
440	44,010	1,007	1,176.1	14 / 19
443	44,345	1,007	1,180.7	20 / 15
446	44,637	1,007	1,183.0	31 / 16
450	44,969	1,007	1,186.5	15 / 3
453	45,263	1,007	1,190.6	3 / 36
456	45,605	926	1,191.8	15 / 34
458	45,840	926	1,192.9	15 / 13
461	46,077	926	1,195.9	22 / 22
471	47,074	926	1,207.4	37 / 15
473	47,278	926	1,208.0	15 / 34
476	47,589	819	1,209.6	3 / 130
479	47,924	819	1,211.3	13 / 17
483	48,286	625	1,214.6	6 / 15
486	48,647	625	1,220.0	3 / 21
489	48,861	625	1,223.3	9 / 19
492	49,202	625	1,228.1	22 / 11
493	49,346	625	1,230.5	3 / 16
495	49,487	625	1,232.7	25 / 5
496	49,589	625	1,233.9	8 / 8
499	49,886	570	1,238.6	14 / 21
501	50,134	570	1,241.4	21 / 6
504	50,399	570	1,246.4	10 / 11
507	50,705	570	1,251.2	12 / 11
510	51,041	570	1,255.3	29 / 5
514	51,360	444	1,259.7	47 / 3
SNOW CREEK TRIBUTARY				
001	95	1,049	918.6[4]	10 / 83
004	448	1,049	920.6	16 / 17
007	695	1,049	922.6	16 / 12
009	851	1,043	924.7	16 / 25
013	1,318	1,043	927.5	24 / 62
016	1,648	955	929.8	46 / 17
019	1,891	955	932.0	20 / 11

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SNOW CREEK TRIBUTARY				
021	2,146	955	936.4	16 / 3
024	2,419	955	940.1	70 / 18
027	2,676	955	941.5	11 / 14
030	2,997	955	945.1	8 / 39
032	3,191	955	946.9	24 / 13
035	3,457	905	948.1	33 / 2
037	3,692	905	950.2	21 / 8
039	3,941	905	952.6	13 / 21
SOUTH FORK MITCHELL RIVER				
006	643	5,587	984.8[4]	28 / 28
009	907	5,587	984.8[4]	26 / 26
012	1,190	5,587	985.3	26 / 26
015	1,473	5,587	985.5	27 / 22
018	1,789	5,587	990.6	30 / 32
021	2,070	5,587	992.2	40 / 36
024	2,372	5,587	993.4	24 / 26
027	2,691	5,587	996.6	35 / 33
030	2,987	5,587	997.7	36 / 32
034	3,375	5,587	998.5	37 / 26
036	3,645	5,587	999.8	30 / 30
039	3,893	5,587	1,004.1	34 / 24
042	4,218	5,587	1,005.6	28 / 28
045	4,491	5,587	1,006.6	35 / 26
049	4,873	5,587	1,008.1	24 / 27
051	5,100	5,587	1,009.4	28 / 25
054	5,400	5,587	1,010.9	30 / 27
057	5,680	5,587	1,014.3	45 / 24
060	5,964	5,587	1,019.0	28 / 28
063	6,265	5,587	1,020.2	28 / 28
066	6,600	5,587	1,021.6	26 / 26
069	6,882	5,587	1,022.8	30 / 25
072	7,200	5,587	1,027.7	28 / 28
075	7,500	5,587	1,029.2	35 / 28
082	8,200	5,587	1,032.9	28 / 28
088	8,821	5,587	1,037.3	45 / 21
090	9,040	5,587	1,039.4	34 / 34
095	9,456	5,587	1,041.1	26 / 41
097	9,722	5,551	1,044.2	29 / 41
101	10,138	5,551	1,045.8	36 / 33
107	10,655	5,551	1,047.9	42 / 50
112	11,196	5,551	1,048.7	42 / 48
117	11,732	5,551	1,051.8	67 / 64
123	12,340	5,551	1,053.3	100 / 76
130	13,018	5,551	1,055.1	215 / 32
137	13,651	5,551	1,056.3	234 / 38
142	14,151	5,551	1,057.7	115 / 64
149	14,934	5,551	1,061.0	33 / 130
157	15,653	5,551	1,062.9	75 / 100

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SOUTH FORK MITCHELL RIVER				
163	16,262	5,551	1,064.0	100 / 50
178	17,764	5,131	1,069.8	45 / 45
183	18,321	5,131	1,071.4	35 / 35
188	18,807	5,131	1,072.2	28 / 35
194	19,371	5,116	1,073.9	33 / 24
200	20,022	5,116	1,075.9	35 / 25
206	20,571	5,116	1,076.7	25 / 22
207	20,732	5,116	1,078.2	28 / 40
211	21,143	5,116	1,078.8	34 / 40
216	21,637	5,116	1,079.5	31 / 31
221	22,109	5,116	1,080.9	26 / 32
228	22,800	5,116	1,083.9	31 / 22
232	23,234	5,116	1,085.9	24 / 34
239	23,931	5,116	1,088.2	29 / 22
243	24,342	5,116	1,089.9	26 / 26
249	24,900	5,046	1,092.0	28 / 40
253	25,303	5,046	1,092.5	31 / 32
258	25,759	5,046	1,093.7	31 / 47
261	26,082	5,046	1,094.6	29 / 33
265	26,495	5,046	1,095.9	26 / 40
270	26,954	5,046	1,096.9	28 / 29
275	27,548	5,046	1,098.9	29 / 29
280	28,011	5,046	1,100.7	27 / 23
285	28,490	5,046	1,103.0	23 / 50
294	29,420	5,046	1,106.2	31 / 29
301	30,058	4,812	1,107.9	32 / 32
308	30,826	4,812	1,109.7	40 / 24
313	31,320	4,812	1,111.6	34 / 36
317	31,716	4,812	1,112.5	28 / 33
323	32,280	4,812	1,113.6	40 / 25
327	32,682	4,812	1,115.9	60 / 29
331	33,147	4,812	1,116.8	60 / 40
337	33,699	4,444	1,117.4	60 / 40
341	34,073	4,444	1,117.5	60 / 35
345	34,482	4,444	1,121.2	53 / 27
349	34,938	4,444	1,122.1	33 / 31
353	35,301	4,444	1,122.5	33 / 33
357	35,665	4,444	1,123.1	34 / 34
363	36,271	4,444	1,124.2	27 / 27
374	37,419	4,404	1,128.2	28 / 28
378	37,800	4,404	1,129.2	20 / 31
383	38,343	4,404	1,131.8	31 / 31
388	38,776	4,404	1,132.4	45 / 34
393	39,325	4,404	1,134.8	50 / 27
396	39,600	4,404	1,135.1	46 / 40
400	39,960	4,404	1,136.0	30 / 37
404	40,370	4,326	1,138.5	30 / 24
409	40,927	4,326	1,141.0	33 / 26

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SOUTH FORK MITCHELL RIVER				
412	41,180	4,326	1,141.5	41 / 28
414	41,400	4,326	1,143.2	43 / 150
416	41,635	4,326	1,143.5	71 / 100
419	41,887	4,326	1,143.9	22 / 50
422	42,219	4,326	1,144.9	29 / 29
429	42,900	4,326	1,147.9	26 / 26
435	43,452	4,326	1,150.1	31 / 31
440	43,974	4,326	1,151.6	35 / 35
449	44,904	4,326	1,158.3	44 / 25
454	45,409	3,591	1,159.0	30 / 34
458	45,837	3,591	1,159.3	26 / 34
465	46,500	3,591	1,161.8	35 / 35
471	47,075	3,591	1,163.4	30 / 30
477	47,652	3,591	1,165.5	60 / 41
482	48,172	3,591	1,167.8	40 / 50
488	48,812	3,591	1,170.6	150 / 50
498	49,800	3,591	1,174.9	191 / 27
504	50,352	3,518	1,176.2	49 / 164
507	50,739	3,518	1,178.3	106 / 40
512	51,177	3,518	1,179.8	60 / 39
521	52,070	3,312	1,185.5	210 / 60
524	52,424	3,312	1,185.7	150 / 40
528	52,812	3,312	1,187.2	70 / 50
532	53,163	3,312	1,188.6	100 / 26
535	53,526	3,312	1,190.0	80 / 64
540	53,983	3,312	1,191.6	74 / 64
544	54,428	3,312	1,192.2	200 / 64
549	54,940	3,312	1,192.6	200 / 64
559	55,860	3,312	1,197.0	197 / 29
561	56,131	3,312	1,197.8	190 / 28
564	56,439	3,312	1,198.5	149 / 21
569	56,889	3,238	1,200.6	118 / 70
572	57,171	3,238	1,201.1	91 / 84
576	57,596	3,238	1,201.2	34 / 98
583	58,264	3,238	1,205.1	150 / 21
587	58,739	3,238	1,205.9	203 / 20
590	59,045	3,238	1,206.6	211 / 25
597	59,726	3,238	1,210.4	180 / 21
602	60,160	3,238	1,212.0	180 / 25
606	60,591	2,135	1,213.9	50 / 20
609	60,913	2,135	1,216.9	44 / 26
613	61,255	2,135	1,220.1	50 / 84
617	61,729	2,135	1,224.3	203 / 24
621	62,112	2,135	1,226.9	144 / 37
625	62,470	2,135	1,228.5	150 / 31
628	62,841	2,135	1,232.2	84 / 30
633	63,323	2,135	1,234.4	170 / 16
635	63,547	2,135	1,235.0	167 / 40

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SOUTH FORK MITCHELL RIVER				
640	63,958	2,135	1,237.1	129 / 38
642	64,192	2,135	1,238.7	15 / 169
646	64,607	2,135	1,241.8	17 / 200
648	64,820	2,135	1,242.9	42 / 200
651	65,085	2,135	1,244.2	50 / 167
654	65,420	2,053	1,247.2	23 / 160
664	66,364	2,053	1,255.0	84 / 142
666	66,593	2,053	1,255.7	33 / 145
668	66,798	2,053	1,257.0	96 / 59
671	67,146	2,053	1,259.4	200 / 14
675	67,529	2,053	1,265.0	150 / 13
678	67,785	2,053	1,266.8	143 / 20
681	68,083	1,931	1,268.3	118 / 12
684	68,362	1,931	1,270.7	20 / 187
687	68,682	1,931	1,273.6	14 / 176
690	68,976	1,931	1,276.3	166 / 46
694	69,368	1,931	1,278.1	177 / 7
696	69,629	1,886	1,279.1	74 / 50
699	69,895	1,886	1,281.5	55 / 11
702	70,174	1,886	1,284.4	20 / 30
703	70,337	1,886	1,285.0	14 / 16
705	70,493	1,886	1,289.2	41 / 44
707	70,681	1,886	1,290.4	25 / 114
710	71,007	1,886	1,291.6	59 / 29
714	71,398	1,886	1,295.7	33 / 50
717	71,745	1,835	1,299.0	43 / 75
720	72,037	1,835	1,300.9	23 / 23
723	72,295	1,835	1,304.4	33 / 26
726	72,614	1,835	1,307.5	55 / 26
729	72,894	1,835	1,310.6	115 / 13
732	73,175	1,835	1,312.9	120 / 20
735	73,483	1,835	1,315.6	138 / 18
739	73,870	1,559	1,321.0	125 / 81
741	74,137	1,559	1,323.3	100 / 61
744	74,391	1,559	1,326.2	12 / 41
750	75,037	1,559	1,334.6	18 / 50
753	75,337	1,559	1,338.1	50 / 11
756	75,606	1,559	1,340.8	21 / 36
759	75,896	1,559	1,346.1	89 / 10
761	76,113	1,559	1,348.6	59 / 21
765	76,518	1,559	1,352.6	17 / 15
768	76,835	1,559	1,358.3	43 / 14
771	77,135	1,559	1,362.2	40 / 11
774	77,416	1,559	1,365.5	20 / 10
777	77,739	1,559	1,373.3	60 / 15
781	78,071	1,559	1,376.0	70 / 23
784	78,351	1,421	1,378.4	80 / 90
787	78,651	1,421	1,381.9	60 / 50

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SOUTH FORK MITCHELL RIVER				
790	78,962	1,421	1,385.0	22 / 20
792	79,240	1,421	1,389.0	60 / 14
795	79,548	1,421	1,394.0	60 / 14
802	80,194	1,421	1,405.7	14 / 18
807	80,745	1,421	1,412.3	13 / 24
810	80,994	1,421	1,417.1	92 / 25
812	81,234	1,421	1,418.9	43 / 12
815	81,534	1,421	1,424.3	60 / 30
818	81,769	1,329	1,427.1	18 / 125
821	82,065	1,329	1,428.6	21 / 202
826	82,618	1,329	1,433.8	41 / 69
829	82,885	1,329	1,437.9	31 / 41
832	83,203	1,329	1,441.5	11 / 60
836	83,640	1,329	1,449.7	16 / 20
840	84,017	1,329	1,459.0	50 / 14
844	84,377	889	1,470.1	144 / 87
847	84,694	889	1,478.0	100 / 90
849	84,946	889	1,486.5	90 / 80
852	85,241	889	1,495.7	57 / 71
856	85,552	889	1,503.9	64 / 77
859	85,870	889	1,511.2	17 / 157
862	86,154	889	1,520.1	29 / 80
865	86,498	889	1,532.2	98 / 47
868	86,784	889	1,539.4	48 / 28
871	87,114	777	1,553.8	66 / 28
874	87,389	777	1,560.8	29 / 20
877	87,679	777	1,571.7	9 / 48
880	87,974	777	1,581.9	46 / 16
883	88,259	777	1,591.5	26 / 20
886	88,552	746	1,603.3	26 / 55
887	88,716	746	1,610.7	29 / 46
890	89,008	746	1,622.5	38 / 25
SOUTH FORK MITCHELL RIVER TRIBUTARY 1				
002	197	1,352	1,068.2[4]	7 / 120
006	640	1,352	1,069.3	12 / 75
009	868	1,352	1,071.8	15 / 63
012	1,221	1,352	1,074.2	20 / 24
014	1,398	1,352	1,076.4	14 / 30
019	1,908	1,352	1,081.4	16 / 30
022	2,192	1,352	1,083.6	19 / 45
024	2,440	1,300	1,086.3	60 / 34
027	2,666	1,300	1,087.5	60 / 22
030	3,000	1,300	1,090.8	56 / 22
SOUTH FORK MITCHELL RIVER TRIBUTARY 2				
003	306	1,737	1,159.0[4]	39 / 10
006	568	1,737	1,159.9	16 / 50
008	791	1,737	1,160.6	11 / 55
011	1,144	1,737	1,162.3	11 / 70

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
SOUTH FORK MITCHELL RIVER TRIBUTARY 2				
014	1,433	1,701	1,163.8	10 / 40
019	1,871	1,701	1,169.9	23 / 30
021	2,083	1,701	1,170.1	22 / 50
023	2,273	1,701	1,170.8	10 / 106
026	2,635	1,701	1,171.6	10 / 66
029	2,873	1,701	1,171.9	19 / 30
034	3,386	1,559	1,177.2	77 / 48
037	3,707	1,237	1,179.9	45 / 60
039	3,929	1,237	1,181.7	82 / 15
045	4,523	1,237	1,186.8	100 / 9
048	4,848	1,216	1,188.0	39 / 20
051	5,074	1,216	1,192.0	90 / 24
054	5,399	1,216	1,193.7	100 / 81
058	5,805	1,216	1,196.2	126 / 23
061	6,060	1,187	1,198.1	100 / 40
063	6,293	1,187	1,200.0	100 / 13
066	6,609	1,187	1,202.2	59 / 13
069	6,882	1,187	1,204.7	104 / 8
SOUTH FORK MITCHELL RIVER TRIBUTARY 2A				
001	106	378	1,172.6[4]	20 / 20
003	254	378	1,174.0	8 / 5
003	320	378	1,177.1	17 / 25
006	600	378	1,181.5	15 / 25
008	845	378	1,185.4	10 / 5
012	1,227	378	1,193.4	12 / 14
013	1,349	378	1,198.6	12 / 27
014	1,416	378	1,201.5	11 / 28
015	1,525	378	1,203.0	9 / 4
017	1,736	378	1,206.1	24 / 18
SOUTH FORK MITCHELL RIVER TRIBUTARY 2B				
001	90	743	1,177.9[4]	6 / 49
006	609	743	1,182.2	7 / 50
009	860	743	1,185.4	4 / 50
013	1,279	743	1,190.0	40 / 13
016	1,643	743	1,193.6	40 / 11
018	1,840	712	1,195.8	40 / 10
021	2,053	712	1,197.7	40 / 10
024	2,379	712	1,201.5	39 / 10
027	2,723	712	1,206.1	40 / 10
030	3,023	653	1,209.9	60 / 10
STEWARTS CREEK				
810	81,017	707	1,226.1	23 / 13
821	82,132	3,979	1,308.5	293 / 204
829	82,918	3,797	1,308.5	238 / 352
838	83,773	3,797	1,308.5	92 / 84
846	84,622	3,797	1,308.5	122 / 154
856	85,574	421	1,308.5	46 / 70
857	85,746	421	1,308.5	57 / 28

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
STEWARTS CREEK				
860	85,981	421	1,308.5	67 / 59
STEWARTS CREEK TRIBUTARY 1				
015	1,541	1,515	1,011.2	20 / 14
018	1,794	1,515	1,011.3	25 / 50
020	2,000	1,515	1,012.2	39 / 10
021	2,106	1,515	1,013.2	15 / 14
028	2,750	1,515	1,025.0	44 / 52
030	3,000	1,515	1,025.3	44 / 29
033	3,250	1,515	1,025.4	55 / 46
035	3,511	1,515	1,026.0	45 / 64
038	3,750	1,515	1,026.6	57 / 21
040	4,000	1,515	1,027.3	25 / 31
043	4,250	1,515	1,027.8	43 / 34
045	4,500	1,515	1,028.1	49 / 87
048	4,750	1,515	1,028.2	68 / 61
053	5,250	1,515	1,029.9	83 / 15
055	5,500	1,515	1,031.4	34 / 17
057	5,749	1,515	1,032.4	14 / 81
060	6,000	1,361	1,033.1	73 / 14
063	6,250	1,361	1,033.8	60 / 14
065	6,500	1,361	1,034.6	36 / 37
068	6,750	1,361	1,035.3	62 / 15
070	7,018	1,361	1,036.4	14 / 48
075	7,511	1,361	1,039.7	21 / 20
080	7,966	1,361	1,041.0	14 / 21
083	8,250	1,361	1,042.7	14 / 21
085	8,500	1,361	1,044.0	10 / 27
087	8,730	1,361	1,045.8	14 / 14
090	9,000	1,361	1,047.8	22 / 31
093	9,269	1,361	1,049.0	21 / 23
098	9,824	1,361	1,051.7	14 / 32
100	10,000	1,361	1,052.0	36 / 14
103	10,250	1,201	1,052.9	13 / 14
109	10,875	1,201	1,057.8	49 / 54
110	11,000	1,201	1,060.0	25 / 25
113	11,250	1,201	1,063.7	27 / 26
115	11,500	1,201	1,065.1	27 / 9
118	11,750	1,201	1,067.8	34 / 13
120	12,000	1,201	1,069.1	22 / 53
123	12,250	1,201	1,070.7	69 / 13
125	12,500	1,201	1,072.9	30 / 13
128	12,750	1,201	1,075.9	58 / 23
130	13,000	1,201	1,077.7	13 / 46
STEWARTS CREEK TRIBUTARY 2				
003	250	804	1,057.7[4]	23 / 12
005	500	804	1,057.7[4]	20 / 12
007	720	804	1,057.7[4]	12 / 20
010	1,000	804	1,057.7[4]	28 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
STEWARTS CREEK TRIBUTARY 2				
012	1,214	804	1,058.7	25 / 12
015	1,500	804	1,061.6	12 / 12
017	1,652	804	1,064.8	12 / 26
019	1,871	804	1,067.0	30 / 12
020	2,000	804	1,068.4	12 / 12
023	2,250	804	1,072.5	17 / 23
025	2,490	804	1,076.3	21 / 59
027	2,747	804	1,078.6	19 / 21
029	2,889	804	1,078.9	12 / 12
031	3,051	755	1,081.4	12 / 37
033	3,253	755	1,083.7	12 / 13
034	3,447	755	1,088.4	14 / 12
036	3,642	755	1,092.2	15 / 36
039	3,904	755	1,095.8	11 / 14
041	4,089	755	1,098.5	22 / 30
043	4,252	755	1,099.2	20 / 16
044	4,392	755	1,101.2	50 / 17
046	4,593	755	1,101.2	21 / 14
047	4,709	755	1,103.6	12 / 22
051	5,060	755	1,109.0	12 / 38
052	5,217	755	1,110.3	28 / 12
055	5,467	755	1,113.8	12 / 12
057	5,701	755	1,117.3	30 / 18
060	5,967	536	1,120.7	12 / 30
062	6,214	536	1,125.9	12 / 45
064	6,395	536	1,128.2	20 / 29
067	6,714	536	1,131.8	12 / 53
070	6,994	536	1,136.5	12 / 33
072	7,202	536	1,139.9	12 / 12
073	7,346	536	1,143.3	12 / 12
075	7,452	536	1,145.1	34 / 12
076	7,564	536	1,148.5	14 / 14
079	7,900	536	1,157.4	12 / 12
082	8,203	536	1,162.9	12 / 34
084	8,389	536	1,167.1	24 / 12
085	8,453	536	1,169.0	15 / 50
087	8,679	383	1,174.0	11 / 23
088	8,776	383	1,175.9	12 / 25
090	8,955	383	1,181.8	23 / 15
092	9,207	383	1,186.8	17 / 23
095	9,481	383	1,193.6	19 / 59
097	9,710	383	1,201.7	47 / 32
100	9,960	383	1,209.5	20 / 20
102	10,210	383	1,218.5	52 / 23
105	10,461	383	1,228.1	20 / 20
109	10,916	383	1,248.2	18 / 3
STEWARTS CREEK TRIBUTARY 2A				
001	105	417	1,117.3[4]	10 / 11

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
STEWARTS CREEK TRIBUTARY 2A				
003	250	417	1,118.5	17 / 8
005	500	417	1,125.1	22 / 29
008	794	417	1,130.6	24 / 17
010	1,016	417	1,134.9	12 / 13
013	1,250	417	1,138.7	26 / 15
015	1,482	376	1,144.8	20 / 3
017	1,702	376	1,152.1	6 / 6
019	1,904	376	1,157.5	7 / 10
020	2,024	376	1,159.9	5 / 7
022	2,161	230	1,165.1	5 / 7
023	2,250	230	1,168.5	8 / 8
024	2,379	230	1,172.7	2 / 10
025	2,511	230	1,178.2	12 / 3
026	2,591	230	1,183.2	40 / 9
028	2,761	230	1,188.7	31 / 8
030	3,011	230	1,192.4	7 / 2
032	3,183	230	1,203.7	11 / 5
034	3,363	230	1,210.5	14 / 18
038	3,761	230	1,226.5	12 / 20
040	4,011	230	1,237.9	42 / 3
042	4,152	230	1,248.1	9 / 12
043	4,262	230	1,252.2	11 / 20
STONEY CREEK				
001	106	2,391	915.7[4]	27 / 39
004	396	2,391	915.9	50 / 30
007	742	2,391	917.2	36 / 20
009	905	2,391	924.7	32 / 78
013	1,323	2,391	929.4	24 / 10
018	1,772	2,391	935.0	20 / 24
022	2,240	2,188	943.2	65 / 17
026	2,560	2,188	947.1	9 / 30
030	2,964	2,188	953.2	21 / 40
038	3,780	2,188	972.6	35 / 33
041	4,123	2,188	975.3	24 / 24
043	4,321	2,188	981.8	18 / 12
047	4,681	2,188	992.1	26 / 50
050	5,000	2,188	995.9	28 / 31
055	5,500	2,188	1,001.9	33 / 22
060	6,026	2,086	1,009.3	23 / 18
063	6,279	2,086	1,013.3	37 / 30
065	6,500	2,086	1,017.2	31 / 19
068	6,810	2,086	1,021.4	20 / 18
071	7,080	2,086	1,023.9	31 / 27
079	7,890	2,086	1,031.1	50 / 120
082	8,190	2,086	1,031.5	55 / 40
085	8,536	2,086	1,033.6	50 / 73
090	9,016	2,086	1,037.8	11 / 95
093	9,292	2,086	1,040.9	30 / 45

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
STONEY CREEK				
097	9,684	2,086	1,043.6	12 / 53
100	10,000	2,086	1,046.8	22 / 51
105	10,536	2,086	1,049.5	16 / 12
108	10,828	2,086	1,053.0	55 / 18
111	11,127	2,086	1,054.1	19 / 19
116	11,573	2,086	1,060.7	34 / 60
119	11,931	2,086	1,062.3	15 / 15
124	12,354	2,086	1,066.1	12 / 35
125	12,544	1,821	1,067.5	8 / 18
130	13,000	1,821	1,074.2	12 / 13
135	13,482	1,821	1,080.8	24 / 15
138	13,810	1,821	1,083.3	27 / 15
141	14,097	1,821	1,089.2	30 / 41
147	14,694	1,789	1,095.5	45 / 26
150	15,000	1,789	1,097.7	103 / 62
154	15,365	1,789	1,101.0	78 / 11
160	15,977	1,789	1,105.6	24 / 45
164	16,382	1,789	1,107.9	34 / 103
170	17,000	1,789	1,112.5	28 / 180
174	17,443	1,789	1,113.6	22 / 100
177	17,719	1,673	1,116.4	25 / 21
180	18,016	1,673	1,119.1	30 / 82
186	18,577	1,673	1,120.1	51 / 17
191	19,089	1,673	1,126.9	72 / 10
195	19,537	1,673	1,131.6	42 / 10
199	19,905	1,630	1,135.3	15 / 15
205	20,500	1,630	1,139.4	20 / 20
210	20,980	1,630	1,141.0	33 / 12
215	21,500	1,630	1,148.5	43 / 13
220	22,000	1,355	1,153.1	81 / 12
227	22,679	1,355	1,158.4	94 / 14
232	23,203	1,355	1,161.6	144 / 12
236	23,596	1,355	1,166.0	11 / 76
239	23,934	1,355	1,169.4	41 / 22
244	24,402	1,282	1,172.8	57 / 16
252	25,159	1,282	1,179.8	11 / 82
257	25,661	1,282	1,182.5	11 / 8
261	26,104	1,170	1,187.6	18 / 11
266	26,559	1,170	1,190.5	10 / 11
270	26,962	1,170	1,197.3	76 / 11
273	27,316	1,040	1,200.3	98 / 11
276	27,647	1,040	1,207.7	80 / 60
TOMS CREEK				
004	358	7,287	879.0[4]	30 / 30
010	967	7,287	879.0[4]	30 / 28
015	1,465	7,287	879.0[4]	26 / 40
020	2,017	7,287	879.0[4]	26 / 34
025	2,504	7,287	879.0[4]	30 / 24

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TOMS CREEK				
030	3,000	7,255	879.2	30 / 26
035	3,537	7,255	880.4	28 / 35
041	4,070	7,255	881.1	25 / 26
045	4,486	7,255	883.0	23 / 50
052	5,205	7,255	883.7	36 / 28
055	5,544	7,255	884.7	30 / 30
058	5,842	7,255	886.4	30 / 30
062	6,209	7,255	887.6	33 / 33
066	6,599	7,255	888.2	30 / 30
070	7,000	7,255	889.0	30 / 30
075	7,473	7,255	889.6	25 / 25
079	7,923	7,255	891.3	30 / 30
085	8,475	7,255	892.0	25 / 25
089	8,942	7,131	894.2	31 / 27
093	9,259	7,131	894.5	25 / 25
100	9,971	7,131	896.1	32 / 32
106	10,570	7,097	896.7	32 / 32
110	11,000	7,097	897.2	29 / 29
115	11,500	7,097	897.9	27 / 27
120	12,000	7,097	898.8	29 / 29
125	12,469	7,052	899.6	29 / 29
128	12,844	7,052	900.0	24 / 24
135	13,540	7,052	901.8	29 / 29
141	14,091	7,052	902.4	24 / 24
145	14,527	7,052	904.0	29 / 29
150	15,000	7,052	904.9	29 / 29
155	15,476	7,052	905.5	24 / 29
160	15,983	7,052	906.7	29 / 35
165	16,540	7,052	907.1	28 / 29
170	17,000	7,052	908.8	29 / 29
173	17,315	6,699	910.2	28 / 28
176	17,598	6,699	911.4	37 / 28
180	17,998	6,699	912.5	33 / 33
184	18,407	6,699	913.1	28 / 39
189	18,850	6,699	913.8	28 / 30
196	19,582	6,699	915.3	30 / 30
200	19,985	6,699	915.8	28 / 28
207	20,683	6,699	917.1	28 / 28
210	21,037	6,699	917.7	28 / 28
217	21,741	6,330	918.9	27 / 27
221	22,099	6,330	919.8	33 / 27
225	22,500	6,330	920.4	27 / 27
230	23,000	6,330	921.5	29 / 29
235	23,545	6,320	922.2	31 / 31
241	24,081	6,320	922.7	25 / 25
245	24,522	6,320	924.6	27 / 27
249	24,948	6,320	925.9	29 / 43
257	25,744	6,320	926.7	27 / 30

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TOMS CREEK				
263	26,320	6,320	928.6	27 / 27
266	26,642	6,320	929.4	27 / 27
271	27,129	6,320	930.5	27 / 27
279	27,905	6,209	932.3	26 / 26
285	28,480	6,209	933.3	26 / 35
288	28,772	6,209	933.7	26 / 26
291	29,120	6,209	936.0	33 / 33
295	29,488	6,209	937.4	26 / 26
300	29,989	6,175	939.9	36 / 114
305	30,500	6,175	943.0	26 / 26
310	31,035	6,175	943.9	57 / 47
317	31,687	6,175	944.4	26 / 26
321	32,081	6,110	944.9	26 / 26
325	32,490	6,110	945.4	26 / 30
331	33,133	6,110	946.2	27 / 26
335	33,512	6,110	946.8	29 / 26
340	34,000	5,972	947.4	16 / 37
345	34,500	5,972	948.1	36 / 28
351	35,107	5,972	949.3	21 / 36
355	35,549	5,972	949.4	28 / 17
360	35,985	5,972	952.1	25 / 29
366	36,553	5,972	953.3	28 / 28
370	37,007	5,972	954.4	26 / 26
373	37,328	5,972	955.5	44 / 18
380	37,963	5,972	956.7	26 / 26
390	39,005	4,576	960.1	22 / 22
395	39,493	4,576	961.8	45 / 37
403	40,306	4,576	963.0	20 / 140
410	41,014	4,576	964.2	38 / 40
TOMS CREEK TRIBUTARY 1				
002	226	1,278	909.1[4]	9 / 13
005	493	1,278	909.6	5 / 6
008	801	1,278	916.2	16 / 11
012	1,203	1,278	917.6	25 / 11
016	1,603	1,046	919.9	14 / 50
020	1,974	1,046	921.8	64 / 9
024	2,446	1,042	925.1	11 / 130
028	2,783	1,042	926.8	43 / 60
032	3,166	1,042	930.5	62 / 24
036	3,639	1,027	933.4	91 / 26
040	3,963	1,027	936.0	8 / 92
046	4,599	941	941.0	18 / 80
048	4,823	941	941.6	17 / 33
051	5,146	934	949.5	30 / 15
054	5,420	934	953.6	34 / 14
056	5,643	934	954.3	24 / 10
TOMS CREEK TRIBUTARY 1A				
002	173	552	918.7[4]	20 / 7

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
TOMS CREEK TRIBUTARY 1A				
004	400	543	920.8	10 / 8
007	672	543	923.9	8 / 8
008	831	543	925.9	8 / 8
012	1,181	543	931.4	11 / 8
014	1,429	543	934.0	8 / 8
TOMS CREEK TRIBUTARY 2				
002	216	491	930.8[4]	14 / 30
004	378	491	933.5	7 / 60
005	535	491	935.9	18 / 16
009	929	491	951.2	20 / 20
TURKEY CREEK				
006	605	1,072	890.4[4]	52 / 37
012	1,227	1,072	890.4[4]	27 / 18
016	1,636	1,072	890.4[4]	32 / 5
019	1,936	1,012	890.4[4]	18 / 4
022	2,221	1,012	895.3	11 / 13
024	2,390	1,012	899.7	8 / 21
027	2,707	1,012	907.4	16 / 12
030	2,996	1,012	914.1	24 / 4
032	3,201	1,012	920.3	24 / 21
034	3,445	1,012	922.9	58 / 43
038	3,802	1,012	924.6	7 / 33
040	3,993	1,012	926.5	4 / 40
WEST DOUBLE CREEK				
001	108	1,972	822.3[4]	400 / 15
005	529	1,972	822.3[4]	218 / 28
010	953	1,972	822.3[4]	14 / 110
015	1,468	1,972	822.3[4]	30 / 51
019	1,932	1,972	822.3[4]	48 / 12
024	2,433	1,972	822.3[4]	17 / 12
030	2,961	1,972	825.1	12 / 138
035	3,477	1,972	827.7	22 / 25
045	4,488	1,301	835.1	40 / 64
049	4,935	1,301	839.0	15 / 69
054	5,424	1,301	843.3	8 / 19
059	5,908	1,257	848.0	17 / 26
064	6,423	1,257	851.7	18 / 8
069	6,916	1,257	858.3	24 / 9
074	7,416	1,154	862.2	14 / 52
079	7,927	1,154	865.2	19 / 21
084	8,435	1,154	868.6	13 / 80
089	8,905	1,135	871.9	76 / 9
094	9,434	1,023	876.9	12 / 15
100	10,016	1,023	882.7	106 / 7
104	10,371	1,001	885.3	7 / 14
109	10,907	902	891.8	65 / 40
114	11,419	902	895.5	11 / 8
119	11,905	902	902.5	83 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
WEST DOUBLE CREEK TRIBUTARY 1				
005	500	1,188	836.9	18 / 20
010	1,004	1,188	843.7	40 / 8
015	1,501	1,188	847.6	12 / 31
019	1,937	1,188	851.3	7 / 12
025	2,505	1,188	857.8	14 / 25
028	2,768	1,188	859.5	77 / 8
033	3,304	1,144	862.6	13 / 150
037	3,661	1,144	864.7	45 / 177
045	4,477	1,144	871.1	88 / 105
050	4,968	1,144	874.9	9 / 176
055	5,548	807	879.5	7 / 57
062	6,157	807	887.5	11 / 30
065	6,505	807	891.1	39 / 65
069	6,903	807	894.8	62 / 56
074	7,404	752	898.9	140 / 8
WEST DOUBLE CREEK TRIBUTARY 1A				
001	64	614	876.9[4]	27 / 16
005	499	614	882.0	20 / 7
010	993	614	888.4	19 / 8
015	1,458	614	894.2	15 / 7
020	2,025	614	901.0	57 / 7
025	2,496	536	907.4	16 / 9
WHITTIER CREEK				
001	148	2,539	930.8[4]	23 / 17
004	415	2,539	931.8	18 / 17
006	563	2,539	935.0	18 / 18
008	796	2,539	937.3	23 / 13
014	1,406	2,539	942.6	38 / 23
020	1,994	2,501	945.3	105 / 18
024	2,412	2,501	946.6	98 / 18
029	2,855	2,501	948.0	18 / 28
035	3,503	2,501	953.7	49 / 18
039	3,894	2,501	955.5	24 / 92
044	4,442	2,501	956.8	35 / 77
049	4,895	2,501	958.3	72 / 26
055	5,475	2,070	960.3	17 / 17
059	5,935	2,070	966.1	13 / 32
064	6,395	2,070	968.3	17 / 17
069	6,907	2,070	971.0	36 / 17
074	7,389	2,070	972.6	17 / 17
078	7,750	2,070	974.3	21 / 16
080	7,972	2,070	976.5	12 / 14
085	8,514	2,070	982.8	107 / 17
088	8,759	1,407	983.4	144 / 14
090	9,046	1,407	983.9	94 / 14
094	9,373	1,407	985.5	43 / 29
097	9,672	1,407	986.7	26 / 14

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
WOOD BRANCH				
004	445	1,242	1,116.9[4]	45 / 55
007	743	1,242	1,119.1	60 / 35
011	1,139	1,242	1,121.6	55 / 25
015	1,515	1,242	1,126.1	13 / 50
019	1,892	1,191	1,130.1	40 / 25
022	2,162	1,191	1,132.8	20 / 24
024	2,364	1,191	1,135.9	25 / 15
025	2,469	1,191	1,136.8	30 / 9
026	2,607	1,191	1,140.3	18 / 25
028	2,833	1,191	1,141.9	45 / 30
030	3,030	1,191	1,142.6	22 / 22
032	3,219	1,191	1,143.8	30 / 16
035	3,485	1,142	1,148.9	24 / 28
038	3,805	1,142	1,151.2	37 / 30
041	4,087	1,142	1,153.9	14 / 90
042	4,200	1,142	1,154.8	45 / 55
045	4,485	927	1,158.3	50 / 9
YADKIN RIVER				
8369	836,868	77,050	757.6	440 / 603
8379	837,871	77,050	757.8	378 / 576
8389	838,887	75,500	758.6	371 / 552
8399	839,889	75,500	759.1	248 / 441
8409	840,889	75,500	759.4	282 / 352
8417	841,737	75,500	759.7	262 / 428
8430	842,978	75,500	760.1	366 / 367
8439	843,889	75,500	760.7	449 / 302
8449	844,851	75,300	761.4	560 / 207
8458	845,805	75,300	762.3	476 / 253
8469	846,889	75,300	763.2	259 / 585
8479	847,889	75,300	763.6	284 / 399
8491	849,110	75,300	764.0	294 / 200
8499	849,909	75,300	765.8	200 / 225
8509	850,885	75,300	767.2	234 / 229
8519	851,917	75,300	768.8	160 / 450
8529	852,899	75,300	769.5	150 / 700
8538	853,833	75,300	770.4	122 / 827
8549	854,859	75,300	771.6	190 / 915
8559	855,942	75,300	772.5	200 / 1289
8567	856,716	75,300	773.2	200 / 975
8572	857,233	75,100	773.7	343 / 720
8579	857,919	75,100	774.3	220 / 580
8589	858,874	75,100	776.1	268 / 700
8599	859,929	75,100	778.4	345 / 360
8610	860,992	75,100	780.7	296 / 308
8619	861,929	75,100	782.8	243 / 260
8630	862,956	75,100	784.9	202 / 223
8638	863,826	75,100	787.0	212 / 217
8649	864,908	75,100	788.8	210 / 210

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
YADKIN RIVER				
8658	865,759	75,100	790.0	195 / 195
8667	866,672	75,100	791.3	277 / 400
8680	868,033	75,100	793.3	180 / 200
8690	868,972	75,100	794.5	238 / 160
8698	869,792	75,100	795.4	250 / 200
8709	870,889	75,100	796.3	228 / 258
8719	871,889	75,100	797.3	224 / 288
8729	872,888	75,100	798.3	195 / 304
8739	873,889	75,100	799.0	150 / 335
8749	874,889	75,100	800.5	264 / 259
8758	875,789	75,100	801.4	310 / 224
8767	876,743	75,100	802.0	300 / 258
8781	878,117	75,100	803.1	190 / 332
8790	878,977	70,000	803.3	270 / 244
8800	879,975	70,000	804.8	593 / 120
8809	880,904	70,000	805.2	654 / 120
8819	881,889	70,000	806.1	557 / 314
8839	883,889	69,900	807.9	580 / 143
8849	884,894	69,900	808.4	540 / 227
8861	886,107	69,900	809.3	565 / 219
8869	886,905	69,900	810.0	604 / 135
8879	887,878	69,900	810.4	465 / 308
8890	888,979	69,900	810.8	583 / 202
8901	890,064	69,900	811.4	447 / 274
8910	891,030	69,900	811.8	502 / 130
8918	891,845	69,900	812.7	499 / 195
8929	892,858	69,900	813.1	507 / 150
8940	893,955	69,900	813.7	518 / 145
8949	894,922	69,900	814.3	466 / 138
8959	895,914	69,900	814.9	159 / 398
8968	896,827	69,900	815.7	272 / 368
8979	897,909	69,900	816.4	309 / 307
8990	898,964	69,900	817.2	310 / 304
8998	899,849	69,900	817.7	460 / 162
9009	900,873	69,900	818.2	442 / 144
9019	901,943	69,900	818.6	363 / 231
9028	902,830	69,900	819.2	300 / 235
9038	903,821	69,900	819.7	165 / 275
9049	904,889	69,900	820.2	132 / 295
9059	905,879	69,900	821.1	138 / 377
9069	906,883	69,900	822.1	155 / 366
9079	907,922	69,900	822.8	246 / 269
9089	908,860	69,900	823.2	279 / 235
9099	909,890	69,900	823.6	180 / 140
9109	910,889	69,900	824.1	344 / 135
9119	911,888	69,900	825.1	403 / 90
9129	912,943	69,900	826.2	295 / 157
9140	914,029	69,500	826.9	233 / 252

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
YADKIN RIVER				
9149	914,870	69,500	827.3	125 / 284
9159	915,907	69,500	828.0	120 / 286
9169	916,868	69,500	828.6	135 / 339
9180	918,041	69,500	829.8	240 / 262
9189	918,947	69,500	830.3	465 / 168
9199	919,901	69,500	830.8	433 / 280
9208	920,825	69,500	831.0	439 / 315
9219	921,913	69,500	831.4	554 / 165
9229	922,868	69,500	832.2	538 / 179
9244	924,387	69,500	833.1	403 / 225
9249	924,910	69,300	833.5	351 / 238
9259	925,867	69,300	834.4	338 / 216
9269	926,922	69,300	835.2	370 / 203
9279	927,891	69,300	836.1	291 / 233
9289	928,889	69,300	836.6	266 / 203
9300	929,991	69,300	837.3	344 / 185
9309	930,921	69,300	837.9	179 / 286
9318	931,824	69,300	838.7	180 / 285
9330	932,954	69,300	840.3	302 / 155
9339	933,916	69,100	840.7	368 / 153
9349	934,884	69,100	841.3	311 / 150
9359	935,889	69,100	842.3	155 / 160
9369	936,949	69,100	843.2	168 / 172
9378	937,818	69,100	844.0	185 / 250
9389	938,946	69,100	844.6	170 / 186
9399	939,889	69,100	845.2	172 / 125
9409	940,878	69,100	847.0	331 / 135
9419	941,867	66,000	848.2	239 / 201
9428	942,833	66,000	849.0	176 / 295
9439	943,876	66,000	851.1	287 / 223
9449	944,895	66,000	851.6	305 / 366
9459	945,930	66,000	853.1	263 / 369
9470	946,965	66,000	853.8	411 / 110
9479	947,890	66,000	854.9	457 / 125
9490	948,974	66,000	855.3	229 / 275
9499	949,896	66,000	855.8	173 / 354
9516	951,553	66,000	857.1	250 / 125
9524	952,371	66,000	858.3	263 / 150
9532	953,217	66,000	858.9	181 / 230
9539	953,889	66,000	859.1	300 / 200
9549	954,899	66,000	859.2	415 / 175
9558	955,848	66,000	860.5	166 / 442
9569	956,881	66,000	861.3	155 / 364
9579	957,889	66,000	861.8	223 / 369
9588	958,844	66,000	862.5	300 / 236
9599	959,871	66,000	863.7	105 / 475
9609	960,947	66,000	864.4	115 / 468
9619	961,880	66,000	865.6	300 / 300

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
YADKIN RIVER				
9629	962,851	65,900	866.0	450 / 105
9638	963,770	65,900	867.0	500 / 121
9651	965,122	65,900	867.9	138 / 302
9659	965,889	65,900	868.4	150 / 216
9669	966,903	65,900	868.9	390 / 137
9679	967,932	65,900	869.9	392 / 130
9689	968,889	65,900	870.5	305 / 352
9699	969,877	65,900	870.9	248 / 381
9708	970,795	65,900	871.8	211 / 438
9721	972,066	65,900	872.6	213 / 465
9730	972,961	65,900	873.4	263 / 347
9739	973,876	65,900	873.8	267 / 284
9749	974,949	63,600	874.7	160 / 297
9760	975,995	63,600	875.2	157 / 286
9769	976,889	63,600	876.7	209 / 311
9778	977,809	63,600	877.2	120 / 457
9789	978,899	63,600	877.9	149 / 411
9798	979,834	63,600	878.8	152 / 361
9808	980,814	63,600	879.7	253 / 265
9819	981,923	63,600	880.3	336 / 125
9829	982,856	63,600	880.9	457 / 105
9839	983,873	63,600	881.8	273 / 346
9849	984,863	63,600	882.2	349 / 248
9859	985,875	63,600	882.6	382 / 160
9869	986,927	63,600	883.6	268 / 331
9879	987,926	63,600	884.1	207 / 396
9889	988,872	63,600	884.5	335 / 140
9901	990,105	63,600	886.0	517 / 93
9908	990,808	63,600	886.3	468 / 156
9919	991,889	63,600	886.8	110 / 604
9929	992,949	63,600	887.8	361 / 293
9939	993,932	63,600	888.0	110 / 681
9949	994,889	63,600	888.9	362 / 413
9959	995,918	63,600	889.3	440 / 167
9969	996,910	63,600	890.4	585 / 120
9975	997,516	63,300	890.5	539 / 199
9993	999,292	63,300	895.5	176 / 1315
YADKIN RIVER TRIBUTARY 12				
002	170	1,008	865.7[6]	12 / 16
009	924	1,008	865.8[6]	12 / 52
013	1,256	942	865.9[6]	12 / 80
015	1,469	942	866.0[6]	12 / 75
024	2,377	870	866.4[4]	12 / 64
027	2,749	870	866.4[4]	22 / 19
030	2,978	870	866.4[4]	24 / 29
033	3,254	870	867.3	25 / 22
035	3,484	870	870.1	67 / 12
037	3,719	870	871.8	45 / 12

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*
YADKIN RIVER TRIBUTARY 12				
041	4,090	834	875.0	45 / 12
043	4,259	834	877.6	58 / 12
045	4,469	834	880.0	58 / 12
046	4,584	834	881.1	24 / 20
YADKIN RIVER TRIBUTARY 13				
001	103	1,026	887.3[4]	16 / 17
008	794	959	887.3[4]	41 / 17
010	1,043	959	887.3[4]	33 / 31
013	1,301	959	887.3[4]	18 / 31
016	1,551	959	887.3[4]	13 / 20
020	2,047	917	894.7	126 / 176
024	2,412	917	894.7	137 / 131
030	2,955	917	894.7	43 / 188
YADKIN RIVER TRIBUTARY 16				
002	224	458	823.6[4]	7 / 9
009	927	458	823.6[4]	7 / 53
015	1,457	458	823.6[4]	35 / 9
019	1,942	417	828.7	25 / 20
024	2,437	417	836.0	29 / 7
030	2,953	417	844.7	32 / 20
033	3,342	363	850.0	33 / 9
YADKIN RIVER TRIBUTARY 18				
005	496	778	831.0[4]	25 / 24
013	1,262	778	831.0[4]	60 / 15
017	1,689	778	831.0[4]	7 / 109
021	2,093	778	831.0[4]	13 / 5
025	2,549	748	836.0	45 / 24
031	3,064	748	841.7	93 / 3
036	3,556	748	846.6	130 / 7
040	4,011	748	850.5	15 / 23
045	4,514	748	858.8	7 / 8
054	5,427	704	869.6	40 / 14
059	5,904	606	877.8	14 / 7
063	6,347	606	885.2	53 / 7
YADKIN RIVER TRIBUTARY 37				
002	188	758	800.0[4]	17 / 8
007	666	758	800.0[4]	14 / 8
010	1,023	758	800.0[4]	24 / 13
017	1,660	692	810.2	9 / 19
020	2,043	692	816.5	29 / 21
024	2,401	692	820.2	29 / 23
026	2,649	692	822.9	15 / 57
031	3,069	692	826.0	47 / 17
037	3,742	692	834.8	12 / 54
040	4,031	570	838.3	17 / 32
045	4,462	570	842.5	19 / 7
047	4,743	570	847.2	15 / 11
051	5,079	570	852.2	39 / 9

Table 11—Limited Detailed Flood Hazard Data

Cross Section[1]	Stream Station[2]	Flood Discharge *(cfs)*	1% Annual Chance Water-Surface Elevation *(feet NAVD 88)*	Non-Encroachment Width[3] *(feet)*

[1]This table reflects all modeled cross sections. Some cross sections shown in this table may not appear on the map.
[2]Feet above mouth.
[3]Left/right distance from the mapped center of stream to encroachment boundary based on a 1.0 foot or less surcharge (looking downstream).
[4]Elevation includes backwater effects.
[5]Flooding controlled by Mitchell River
[6]Flooding controlled by Yadkin River
[7]Flooding controlled by Grassy Creek
[8]Flooding controlled by Little Fisher River Tributary 3
[9]Flooding controlled by Moores Fork
[10]Flooding controlled by Pilot Creek
[11]Flooding controlled by Grassy Creek Tributary 5
[12]Flooding controlled by Little Fisher River

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. Until recently, the standard vertical datum in use for newly created or revised FISs was the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FISs are being prepared using NAVD 88 as the referenced vertical datum.

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

Prior versions of this FIS were referenced to NGVD 29. When a datum conversion is effected for an FIS, the Flood Profiles, BFEs, and bench marks reflect the new datum values. To compare structural and ground elevations to 1% annual chance flood elevations shown in this FIS, the subject structural and ground elevations must be referenced to the new datum values.

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 Surry County is -0.51 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 12, "Datum Conversion Locations and Values," is shown below.

Table 12—Datum Conversion Locations and Values

Latitude	Longitude	Conversion from NGVD 29 to NAVD 88 (feet)
36.500	80.875	-0.49
36.500	80.750	-0.54
36.500	80.625	-0.54
36.500	80.500	-0.46
36.375	80.875	-0.50
36.375	80.750	-0.50
36.375	80.625	-0.50
36.375	80.500	-0.53
36.250	80.875	-0.53
36.250	80.750	-0.51
36.250	80.625	-0.52
36.250	80.500	-0.55
Average conversion in Surry County from NGVD 29 to NAVD 88 = -0.51 feet		

The BFEs shown on the FIRM represent whole-foot rounded values. For example, a 1% annual chance water-surface elevation of 102.4 feet will appear as 102 on the FIRM and 102.6 feet will appear as 103. Therefore, users who wish to convert the elevations in this FIS to NGVD 29 should apply the stated conversion factor(s) to elevations shown on the Flood Profiles and supporting data tables in the FIS Report, which are shown, at a minimum, to the nearest 0.1 foot.

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

Vertical Control Monuments

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

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

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

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

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

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

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

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

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

Horizontal Datum and Control

The digital files that comprise the FIRM are georeferenced to an established coordinate system. The coordinate system used for the production of this FIRM is North Carolina State Plane (FIPSZONE 3200) referenced to the North American Datum of 1983 (NAD83), GRS80 ellipsoid.

6.2 Base Map

County orthophotos, flown by Surry County in 2001 for the Roanoke River Basin portion and in 2005 for the Yadkin River Basin portion, are used as the base maps for digital FIRM production for Surry County. The base maps are supplemented with stream centerlines, shoreline, and political boundaries, and road name data from other sources; this includes locally available GIS data.

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.

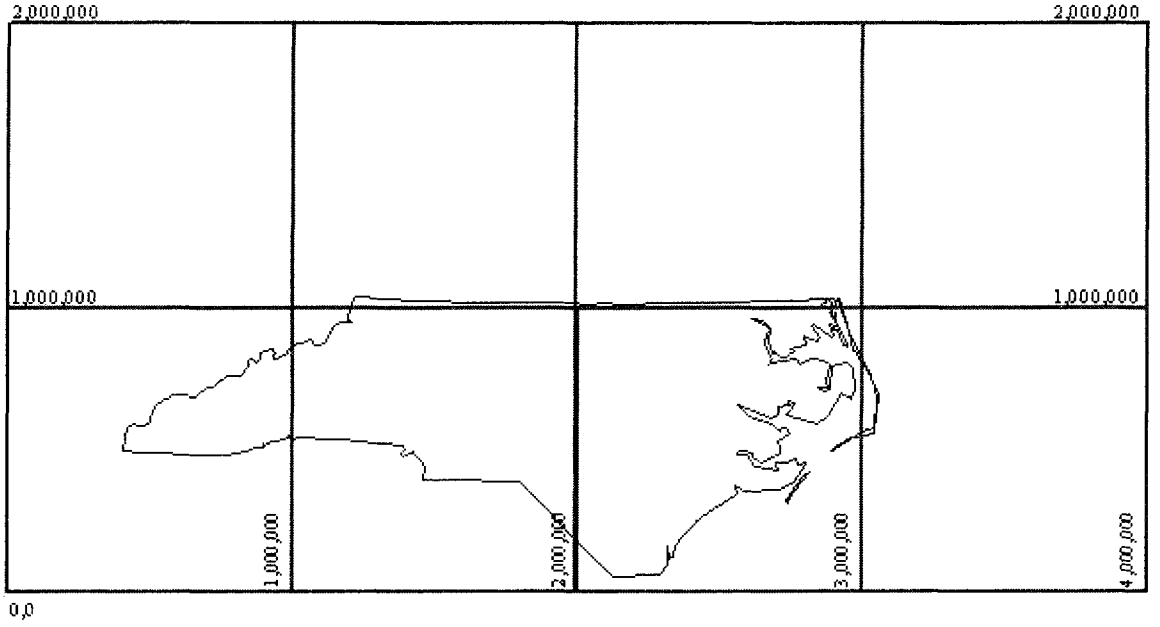

Figure 2—North Carolina's State Plane Coordinate System

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 Winter 2002-2003 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 13, "Floodway Data"). The computed floodway is shown on the FIRM. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown. In areas where the top of the bridge or road is higher than the 1.0-percent annual chance (100-year) flood, the FIRM will show the flood discharge as contained within the structure for emergency management purposes. It is important to note that FEMA and community floodway regulations still apply in and around those areas.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Ararat River								
1257	125,660	500	5,166	5.4	985.2	985.2	986.0	0.8
1270	127,000	480	6,200	4.5	987.5	987.5	988.1	0.6
1294	129,380	400	6,197	4.5	990.6	990.6	991.4	0.8
1303	130,300	200	2,963	7.2	991.3	991.3	992.1	0.8
1313	131,250	150	2,829	7.5	993.5	993.5	994.1	0.6
1359	135,940	450	6,039	3.5	1,000.0	1,000.0	1,000.7	0.7
1378	137,830	160[2]	1,427	14.9	1,000.8	1,000.8	1,001.5	0.7
1381	138,130	250	4,045	5.3	1,005.6	1,005.6	1,005.7	0.1
1399	139,910	615	5,687	3.7	1,006.8	1,006.8	1,007.2	0.4
1414	141,390	600	6,361	3.0	1,008.0	1,008.0	1,008.6	0.6
1415	141,510	700	6,325	3.0	1,008.3	1,008.3	1,008.9	0.6
1435	143,520	500	4,987	3.8	1,012.5	1,012.5	1,013.0	0.5
1449	144,880	500	4,567	4.2	1,015.5	1,015.5	1,016.1	0.6
1464	146,440	230	2,152	8.9	1,016.2	1,016.2	1,016.9	0.7
1466	146,630	430	4,863	3.9	1,018.7	1,018.7	1,019.5	0.8
1481	148,105	325	3,575	5.4	1,019.5	1,019.5	1,020.5	1.0
1500	149,985	342[2,3]	4,098	4.7	1,024.7	1,024.7	1,025.2	0.5
1501	150,140	200	2,381	8.1	1,024.7	1,024.7	1,024.9	0.2
1518	151,790	270	2,986	6.4	1,028.9	1,028.9	1,029.7	0.8
1521	152,060	335[3]	3,996	4.8	1,032.0	1,032.0	1,032.4	0.4
1535	153,460	192	2,410	8.0	1,034.2	1,034.2	1,034.4	0.2
1562	156,210	436[2]	3,015	5.8	1,040.6	1,040.6	1,040.8	0.2

[1] Feet above mouth

[2] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

[3] Value is inaccurate, as the floodway has been adjusted in this area to comply with FEMA's Guidelines for levee mapping

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

ARARAT RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Ararat River								
1590	159,010	718[3]	5,186	3.4	1,047.2	1,047.2	1,047.2	0.0
1610	160,970	244[3]	1,739	10.0	1,050.2	1,050.2	1,050.2	0.0
1623	162,270	251[3]	2,004	8.7	1,054.6	1,054.6	1,054.6	0.0
1632	163,210	486[3]	2,697	6.5	1,057.5	1,057.5	1,057.5	0.0
1648	164,810	441	2,422	4.8	1,063.5	1,063.5	1,063.5	0.0
1669	166,890	980	5,032	2.3	1,068.2	1,068.2	1,068.2	0.0
1680	168,040	635[3]	2,217	5.2	1,070.3	1,070.3	1,070.3	0.0
1692	169,190	373	2,019	5.7	1,075.3	1,075.3	1,075.3	0.0
1710	170,970	546[3]	3,110	3.7	1,080.6	1,080.6	1,080.6	0.0
1730	172,970	616	4,153	2.8	1,084.8	1,084.8	1,084.8	0.0
1746	174,570	891	4,053	2.7	1,087.5	1,087.5	1,087.5	0.0
Ararat River Tributary 8								
008	830	52[2]	308	3.7	1,034.3	1,031.0[4]	1,031.9	0.9
019	1,853	58	287	3.8	1,039.0	1,039.0	1,039.6	0.6
030	3,017	52	248	4.4	1,049.6	1,049.6	1,050.0	0.4
041	4,097	55	173	5.7	1,060.4	1,060.4	1,060.8	0.4

[1] Feet above mouth
[2] Value is inaccurate, as the floodway has been adjusted in this area to comply with FEMA's Guidelines for levee mapping
[3] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation
[4] Elevation computed without consideration of backwater effects from Ararat River

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

ARARAT RIVER – ARARAT RIVER TRIBUTARY 8

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Dutchmans Creek								
032	3,150	70	426	3.4	899.3	899.3	900.3	1.0
035	3,450	50	200	7.2	903.6	903.6	904.6	1.0
039	3,900	60	328	4.4	910.2	910.2	911.2	1.0
041	4,050	55	276	5.2	911.9	911.9	912.9	1.0
051	5,100	65	340	4.2	923.4	923.4	924.4	1.0
057	5,700	85	346	3.6	929.3	929.3	930.3	1.0
064	6,400	95	307	3.4	937.2	937.2	938.2	1.0
070	6,950	75[2]	216	4.8	945.3	945.3	946.3	1.0
073	7,300	70[2]	276	3.8	953.2	953.2	954.2	1.0
081	8,100	90[2]	315	3.3	981.0	981.0	982.0	1.0
090	9,000	85	308	3.4	990.9	990.9	991.9	1.0
095	9,500	90	380	2.7	995.5	995.5	996.5	1.0
098	9,800	60[2]	267	3.4	1,000.2	1,000.2	1,001.0	0.8
105	10,500	45[2]	130	5.8	1,012.6	1,012.6	1,013.5	0.9
110	11,020	45[2]	168	4.5	1,021.5	1,021.5	1,022.5	1.0
111	11,100	60[2]	455	1.7	1,028.2	1,028.2	1,028.2	0.0
114	11,400	70[2]	125	6.1	1,031.1	1,031.1	1,031.1	0.0

[1]Feet above mouth

[2] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

DUTCHMANS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Elkin Creek								
013	1,319	120	2,567	4.3	900.0	894.7[2]	895.4	0.7
023	2,339	240	2,015	5.5	905.0	905.0	905.0	0.0
039	3,884	310	2,548	4.3	906.2	906.2	907.2	1.0
054	5,417	128	1,415	7.8	909.4	909.4	910.3	0.9
065	6,548	104	1,459	7.5	912.5	912.5	913.2	0.7
081	8,110	225	1,111	9.6	925.0	925.0	925.0	0.0
091	9,102	99	1,224	8.8	928.8	928.8	929.7	0.9
101	10,077	72	984	10.9	932.8	932.8	933.3	0.5
108	10,807	116	1,456	7.3	935.6	935.6	936.0	0.4
119	11,867	156	1,804	5.9	937.9	937.9	938.6	0.7
127	12,696	87	1,057	9.8	940.2	940.2	941.1	0.9
135	13,524	73	773	13.4	944.8	944.8	945.5	0.7

[1]Feet above mouth

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

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

ELKIN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Heatherly Creek								
001	102	47	238	5.5	918.3	916.8[2]	916.8	0.0
007	674	29	170	7.7	922.2	922.2	922.3	0.1
016	1,596	74	181	6.7	927.2	927.2	927.3	0.1
025	2,473	101	419	2.9	934.8	934.8	935.6	0.8
034	3,389	36	202	5.7	942.8	942.8	943.2	0.4
040	3,973	36	174	6.5	954.0	954.0	954.4	0.4
045	4,453	63	328	3.5	957.7	957.7	957.9	0.2
055	5,495	75	376	2.6	965.4	965.4	966.1	0.7
063	6,269	65	190	5.2	971.4	971.4	971.4	0.0
065	6,516	80	187	5.3	974.4	974.4	974.4	0.0
072	7,217	29	120	8.3	982.9	982.9	983.0	0.1
081	8,135	77	293	3.2	996.6	996.6	996.7	0.1
093	9,329	56	153	6.1	1,003.8	1,003.8	1,004.0	0.2
103	10,304	17	116	8.0	1,012.9	1,012.9	1,013.3	0.4
117	11,696	38	125	5.8	1,022.3	1,022.3	1,022.8	0.5
127	12,702	35	90	7.2	1,030.6	1,030.6	1,030.8	0.2
138	13,764	61	128	5.1	1,042.7	1,042.7	1,042.8	0.1
147	14,739	21	73	6.8	1,050.3	1,050.3	1,050.3	0.0
155	15,544	33	75	6.6	1,060.4	1,060.4	1,060.4	0.0
164	16,403	37	87	5.7	1,078.4	1,078.4	1,078.4	0.0
174	17,442	115	142	2.5	1,092.5	1,092.5	1,092.5	0.0
183	18,308	25	76	4.7	1,103.1	1,103.1	1,103.3	0.2
194	19,403	60	139	2.6	1,129.9	1,129.9	1,130.4	0.5

[1]Feet above mouth

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

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

HEATHERLY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Lovills Creek								
004	433	205	1,635	2.8	990.5	983.5[2]	983.5	0.0
014	1,439	140	1,151	4.0	990.5	984.2[2]	984.4	0.2
031	3,053	89	861	5.3	990.5	986.5[2]	987.2	0.7
037	3,694	91	919	5.0	990.5	987.5[2]	988.2	0.7
047	4,663	88	784	5.8	991.1	991.1	992.0	0.9
056	5,643	67	614	7.1	994.0	994.0	994.3	0.3
065	6,463	109	859	5.1	997.1	997.1	997.1	0.0
075	7,509	103	784	5.6	999.0	999.0	999.1	0.1
085	8,461	115	789	5.0	1,001.3	1,001.3	1,001.4	0.1
096	9,566	119	867	4.5	1,004.6	1,004.6	1,004.6	0.0
110	11,047	114	769	5.1	1,010.0	1,010.0	1,010.1	0.1
126	12,599	101	707	5.6	1,014.3	1,014.3	1,014.5	0.2
137	13,678	114	734	5.3	1,017.2	1,017.2	1,017.4	0.2
150	15,009	165	697	5.5	1,020.7	1,020.7	1,021.6	0.9
159	15,874	200	834	4.6	1,023.7	1,023.7	1,024.7	1.0
166	16,591	114	655	5.9	1,026.5	1,026.5	1,026.8	0.3
180	17,996	98	536	7.2	1,030.3	1,030.3	1,030.9	0.6
197	19,659	114	831	4.6	1,037.5	1,037.5	1,037.6	0.1
208	20,797	100	807	4.8	1,039.0	1,039.0	1,039.5	0.5
217	21,678	104	777	5.0	1,040.8	1,040.8	1,041.0	0.2

[1]Feet above mouth

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

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

LOVILLS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Lovills Creek								
223	22,325	101	708	5.4	1,042.3	1,042.3	1,042.4	0.1
231	23,056	76	580	6.6	1,050.6	1,050.6	1,050.6	0.0
238	23,754	71	462	8.3	1,052.6	1,052.6	1,052.6	0.0
247	24,668	72	591	6.5	1,056.1	1,056.1	1,056.5	0.4
257	25,711	85	573	6.7	1,059.6	1,059.6	1,060.2	0.6
263	26,322	177	927	4.2	1,061.2	1,061.2	1,062.1	0.9
270	26,976	240	935	4.1	1,062.8	1,062.8	1,063.8	1.0
278	27,764	60	498	7.7	1,065.6	1,065.6	1,066.4	0.8
289	28,877	308	1,040	3.7	1,071.1	1,071.1	1,071.6	0.5
294	29,440	205	872	4.4	1,071.6	1,071.6	1,072.5	0.9
298	29,841	430	1,285	3.0	1,073.5	1,073.5	1,074.3	0.8
304	30,393	240	1,464	2.6	1,076.1	1,076.1	1,076.5	0.4
308	30,770	85	686	5.6	1,077.6	1,077.6	1,078.0	0.4
314	31,421	93	749	5.1	1,079.3	1,079.3	1,079.6	0.3
323	32,296	65	459	8.4	1,081.6	1,081.6	1,081.7	0.1
333	33,294	61	486	7.2	1,085.7	1,085.7	1,085.7	0.0
340	34,032	61	445	7.8	1,088.6	1,088.6	1,088.8	0.2
348	34,781	59	494	7.1	1,091.6	1,091.6	1,091.6	0.0
355	35,508	54	499	6.5	1,093.4	1,093.4	1,093.9	0.5

[1]Feet above mouth

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

LOVILLS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Pauls Creek								
004	390	448	6,848	1.5	1,063.5	1,063.5	1,064.5	1.0
022	2,230	1,073	8,579	1.2	1,063.7	1,063.7	1,064.7	1.0
051	5,110	469[2]	3,926	2.7	1,067.2	1,067.2	1,068.2	1.0
075	7,470	378	2,097	5.2	1,077.7	1,077.7	1,078.7	1.0
089	8,870	567	3,379	3.3	1,083.5	1,083.5	1,084.5	1.0
109	10,870	1,027	3,652	3.1	1,089.7	1,089.7	1,090.7	1.0
121	12,070	344	2,222	5.1	1,101.7	1,101.7	1,102.7	1.0
142	14,150	319	3,643	3.1	1,109.0	1,109.0	1,110.0	1.0
156	15,630	501	4,216	2.7	1,110.4	1,110.4	1,111.4	1.0
194	19,430	394	2,465	4.7	1,121.0	1,121.0	1,122.0	1.0
231	23,110	502	1,840	3.4	1,133.1	1,133.1	1,134.1	1.0
257	25,670	356	1,417	4.2	1,145.4	1,145.4	1,146.4	1.0

[1]Feet above mouth

[2] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

PAULS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Stewarts Creek								
006	600	243	3,748	3.1	985.9	985.9	986.9	1.0
017	1,700	342	5,265	2.2	988.9	988.9	989.9	1.0
029	2,880	132	2,823	4.1	989.9	989.9	990.9	1.0
048	4,800	965	13,413	0.9	990.7	990.7	991.7	1.0
073	7,320	491	5,268	2.2	993.0	993.0	994.0	1.0
100	10,000	1,221	10,563	1.1	993.7	993.7	994.7	1.0
134	13,380	108	1,557	7.8	1,001.5	1,001.5	1,002.5	1.0
150	14,980	601	6,899	1.8	1,003.0	1,003.0	1,004.0	1.0
159	15,850	1,138	14,173	0.9	1,005.1	1,005.1	1,006.1	1.0
162	16,180	669	8,507	1.6	1,005.3	1,005.3	1,006.3	1.0
182	18,180	1,359	14,416	1.0	1,007.3	1,007.3	1,008.3	1.0
216	21,600	921	6,601	2.3	1,010.8	1,010.8	1,011.8	1.0
242	24,160	623	4,167	3.6	1,013.5	1,013.5	1,014.5	1.0
254	25,360	257	2,624	5.7	1,016.8	1,016.8	1,017.8	1.0
271	27,120	1,155	6,714	2.3	1,018.7	1,018.7	1,019.7	1.0
307	30,720	381	3,110	4.9	1,028.0	1,028.0	1,029.0	1.0
327	32,700	1,033	5,715	2.7	1,030.8	1,030.8	1,031.8	1.0
347	34,650	95	1,671	9.3	1,039.8	1,039.8	1,040.8	1.0

[1]Feet above mouth

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

STEWARTS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Stewarts Creek								
349	34,850	412	5,592	2.8	1,043.0	1,043.0	1,044.0	1.0
372	37,150	149	2217	7.1	1,050.7	1,050.7	1,051.7	1.0
400	39,950	1,143	12,174	1.3	1,052.1	1,052.1	1,053.1	1.0
418	41,750	569	5,490	2.9	1,053.5	1,053.5	1,054.5	1.0
443	44,330	114	1,782	9.1	1,057.7	1,057.7	1,058.7	1.0
446	44,630	402	5,498	2.9	1,060.5	1,060.5	1,061.5	1.0
461	46,130	812	4,823	1.4	1,061.0	1,061.0	1,062.0	1.0
466	46,610	681	3,876	1.7	1,061.0	1,061.0	1,062.0	1.0
492	49,235	425	1,828	3.7	1,064.5	1,064.5	1,065.5	1.0
510	50,955	191	1,358	5.0	1,069.8	1,069.8	1,070.8	1.0
550	55,035	292	1,406	3.7	1,083.4	1,083.4	1,084.4	1.0
589	58,875	403[2]	1,420	3.5	1,096.5	1,096.5	1,097.5	1.0
603	60,275	160[2]	885	5.6	1,102.7	1,102.7	1,103.7	1.0
643	64,285	181[2]	1 600	3.0	1,124.5	1,124.5	1,125.5	1.0
664	66,445	356[2]	1,684	2.8	1,132.1	1,132.1	1,133.1	1.0
676	67,605	110[2]	816	5.7	1,138.1	1,138.1	1,139.1	1.0
715	71,525	36[2]	222	4.7	1,151.4	1,151.4	1,152.4	1.0
731	73,085	108[2]	362	2.7	1,160.5	1,160.5	1,161.5	1.0
751	75,085	35	185	4.9	1,173.9	1,173.9	1,174.9	1.0
786	78,595	50	193	3.9	1,193.5	1,193.5	1,194.5	1.0
798	79,835	80	194	3.2	1,208.5	1,208.5	1,209.5	1.0
830	83,035	50	219	2.6	1,220.0	1,220.0	1,221.0	1.0

[1]Feet above mouth

[2] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

STEWARTS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tributary D-1								
002	220	50	89	6.2	938.3	938.3	938.3	0.0
003	320	50	1,008	0.5	959.5	959.5	959.5	0.0
007	740	50	490	1.1	959.5	959.5	959.6	0.1
010	1,000	50	96	5.7	960.0	960.0	960.6	0.6
016	1,600	50	150	3.7	975.3	975.3	976.3	1.0
026	2,560	50	150	3.7	991.0	991.0	992.0	1.0
027	2,650	50	200	2.8	1,006.1	1,006.1	1,007.1	1.0
031	3,100	50	210	2.0	1,006.3	1,006.3	1,007.3	1.0
037	3,700	50	86	4.8	1,016.1	1,016.1	1,017.1	1.0
Tributary E-1								
006	600	50	340	2.0	905.9	901.7[2]	902.7	1.0
009	850	60	150	4.6	907.8	907.8	908.8	1.0
011	1,050	60	160	4.3	912.0	912.0	913.0	1.0
014	1,350	50	140	4.9	921.0	921.0	922.0	1.0
016	1,550	50	156	4.4	925.9	925.9	926.9	1.0
019	1,920	50	150	4.6	933.0	933.0	934.0	1.0
024	2,350	50[3]	175	3.9	941.1	941.1	942.1	1.0
029	2,900	40[3]	88	7.8	952.6	952.6	953.2	0.6

[1]Feet above mouth

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

[3]Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

TRIBUTARY D-1 – TRIBUTARY E-1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tumbling Rock Branch								
001	50	184	489	3.2	1,024.5[3]	1,024.7	1,025.5	0.8
002	240	281	638	2.5	1,025.1[3]	1,025.9	1,026.7	0.8
014	1,420	42	236	5.7	1,034.5	1,034.5	1,035.2	0.7
020	1,980	56[2]	185	7.3	1,038.2	1,038.2	1,038.5	0.3
021	2,111	104	430	3.1	1,039.6	1,039.6	1,040.4	0.8
029	2,891	106	284	4.8	1,042.7	1,042.7	1,043.4	0.7
036	3,596	53	195	6.9	1,050.7	1,050.7	1,050.7	0.0
037	3,651	17	128	13.6	1,051.4	1,051.4	1,051.4	0.0
039	3,919	43	409	3.3	1,058.2	1,058.2	1,058.4	0.2
042	4,191	38	291	4.4	1,058.3	1,058.3	1,058.7	0.4
043	4,288	14	426	6.1	1,063.1	1,063.1	1,063.6	0.5
047	4,717	35	128	10.1	1,067.1	1,067.1	1,067.0	- 0.1
051	5,127	135	1,455	0.9	1,101.1	1,101.1	1,101.6	0.5
052	5,202	195	2,049	0.6	1,101.1	1,101.1	1,101.6	0.5
067	6,747	51	216	5.2	1,107.0	1,107.0	1,107.3	0.3
074	7,357	41	147	7.6	1,111.3	1,111.3	1,111.9	0.6
079	7,897	35	132	7.5	1,119.1	1,119.1	1,119.1	0.0
080	7,972	50	222	5.3	1,120.5	1,120.5	1,120.8	0.3

[1]Feet above mouth

[2] Value is inaccurate, as the floodway has been adjusted in this area to match topographic-based floodplain redelineation

[3]Flooding controlled by Lovills Creek

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

TUMBLING ROCK BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tumbling Rock Branch								
081	8,127	9	1,057	5.5	1,134.5	1,134.5	1,134.5	0.0
083	8,338	348	3,306	0.3	1,134.5	1,134.5	1,134.9	0.4
087	8,698	294	1,726	0.5	1,134.5	1,134.5	1,134.8	0.3
090	8,988	108	619	1.4	1,134.5	1,134.5	1,134.9	0.4
093	9,338	33	95	9.3	1,138.3	1,138.3	1,138.1	-0.2
098	9,778	39	114	7.1	1,146.5	1,146.5	1,146.7	0.2
103	10,328	26	81	9.1	1,157.3	1,157.3	1,157.2	-0.1
105	10,508	32	115	6.4	1,160.7	1,160.7	1,161.4	0.7
109	10,898	32	87	8.0	1,168.9	1,168.9	1,169.0	0.1
111	11,083	34	140	5.0	1,171.7	1,171.7	1,172.7	1.0
116	11,599	33	82	7.6	1,181.4	1,181.4	1,181.4	0.0
119	11,859	34	114	5.5	1,186.5	1,186.5	1,187.2	0.7
121	12,089	30	91	6.5	1,190.7	1,190.7	1,190.9	0.2

[1]Feet above mouth

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

TUMBLING ROCK BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Yadkin River								
9993	999,292	1,491	25,177	2.5	895.5	895.5	896.2	0.7
10012	1,001,155	1,145	19,129	3.3	895.8	895.8	896.5	0.7
10029	1,002,898	520	9,435	6.7	896.0	896.0	896.8	0.8
10052	1,005,215	1,140	19,663	3.2	897.6	897.6	898.5	0.9
10072	1,007,154	718	14,248	4.4	898.7	898.7	899.6	0.9
10099	1,009,883	860	17,451	3.6	900.6	900.6	901.5	0.9
10118	1,011,757	760	16,109	3.9	901.5	901.5	902.5	1.0
10125	1,012,548	500	11,671	5.3	901.6	901.6	902.6	1.0
10139	1,013,916	495	11,572	5.4	902.2	902.2	903.1	0.9
10150	1,014,959	655	14,759	4.2	903.1	903.1	904.1	1.0

[1]Feet above mouth

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

SURRY COUNTY, NC AND INCORPORATED AREAS

FLOODWAY DATA

YADKIN RIVER

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

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

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

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

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

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

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

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

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

7.2 Letters of Map Revision

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

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

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

7.3 Physical Map Revisions

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

FIS Reports. For more information regarding FEMA-contracted restudies, please contact the FEMA Map Assistance Center toll-free information line at 1-877-FEMA MAP (1-877-336-2627) or the FEMA Regional Office at the address listed on the Notice to Flood Insurance Study Users page at the front of this report.

7.5 Map Revision History

The current FIRM is a subset of the Statewide FIRM, showing flood hazard information for the entire geographic area of Surry 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 North Carolina Statewide FIRM, which includes Surry County, are presented in Table 14, "Community Map History."

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

Table 14—Community Map History

Community Name	Initial Identification Date	FHBM Revision Date	FIRM Effective Date	FIRM Revision Date
Dobson, Town of	August 18, 2009	None	August 18, 2009	
Elkin, Town of	June 28, 1974	June 11, 1976	August 15, 1978	August 18, 2009
Mount Airy, City of	June 28, 1974	May 14, 1976	December 1, 1981	February 19, 1987 August 18, 2009
Pilot Mountain, Town of	August 18, 2009	None	August 18, 2009	
Surry County (Unincorporated Areas)	August 11, 1978	None	December 1, 1981	September 15, 1989 August 18, 2009

Section 8.0 – Study Contracting and Community Coordination

8.1 Authority and Acknowledgments

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

This FIS revises and updates previous FISs for the geographic area of Surry County. Table 15, "Authority and Acknowledgments," includes information for the single-jurisdiction FISs published for each community included in this countywide FIS, with the exceptions of the Town of Dobson and the Town of Pilot Mountain, as compiled from their previously printed FIS Reports. The table also includes information for this revision.

Table 15—Authority and Acknowledgments

Community	FIS Dated	Study Contracted by	Data Source *(Study Contractor or Source of Data)*	Contract or Inter-Agency Agreement (IAA) Number	Work Completed in *(month and/or year)*
Surry County and Incorporated Areas	August 18, 2009	FEMA	North Carolina Floodplain Mapping Program	N/A	October 2007
Surry County (Unincorporated Areas)	September 15, 1989	FEMA	U.S. Army Corps of Engineers, Wilmington District and U.S. Soil Conservation Service	*	*
Town of Elkin	February 1978	Federal Insurance Administration	U.S. Army Corps of Engineers, Charleston District	No. IAA-H-7-76, Project Order No. 17	May 1977
City of Mount Airy	February 19, 1987	FEMA	U.S. Army Corps of Engineers, Wilmington District	No. EMW-E-1153, Project Order No. 1, Amendment 33	September 1984

N/A – Not Applicable * Data Not Available

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 were produced by Watershed Concepts, under contract with the State of North Carolina.

In August 2000, the North Carolina General Assembly allocated $23 million to Phase I of the Program. FEMA has contributed an additional $10.0 million towards the Program, as well as in-kind contributions of engineering, mapping, and program management services.

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.

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

The dates of the initial and final CCO meetings held for Surry County were compiled from their previous FIS Reports and are shown in Table 16, "Consultation Coordination Officer's Meetings." Dates are not shown for the Town of Dobson and the Town of Pilot Mountain because these communities never had previously printed FISs.

Table 16—Consultation Coordination Officer's Meetings

Community Name	For FIS Dated	Initial CCO Date	Attended by	Final CCO Date	Attended by
Surry County (Unincorporated Areas)	September 15, 1989	*	*	January 5, 1981	Representatives of the Soil Conservation Service, FEMA, and Surry County
Town of Elkin	February 1978	December 3, 1975	Representatives of the FIA, U.S. Army Corps of Engineers, the Town of Elkin, and the general public	August 3, 1977	Representatives of the FIA, U.S. Army Corps of Engineers, the Town of Elkin, and the general public
City of Mount Airy	February 19, 1987	August 1, 1983	Representatives of FEMA, The State of North Carolina, the City of Mount Airy, and the Study Contractor	March 25, 1986	Representatives of FEMA, the City of Mount Airy, and the Study Contractor

*Data Not Available

A Preliminary Meeting was held in Dobson, North Carolina, on July 17, 2008, to disseminate and review the FIS Report and FIRM panels for Surry County. This meeting was attended by community officials from Surry County and the Incorporated Communities, along with representatives from the State of North Carolina, Dewberry, and Watershed Concepts. A Public Participation Meeting was held on August 28, 2008, to review and discuss the FIS Report and FIRM panels for Surry County in a public setting.

The dates of the Initial and Final Scoping Meetings held for Surry County are shown in Table 17, "Scoping Meetings."

Table 17—Scoping Meetings

Community Name	Basin	Initial Scoping Date	Attended by	Final Scoping Date	Attended by
Surry County (Unincorporated Areas)	Yadkin and Roanoke	November 6, 2003	Representatives of Surry County, North Carolina Floodplain Mapping Program, North Carolina Emergency Management, and Dewberry	January 20, 2006	Representatives of the State, FEMA, Dewberry, and Surry County
City of Mount Airy	Yadkin	November 6, 2003	Representatives of the City of Mount Airy, North Carolina Floodplain Mapping Program, North Carolina Emergency Management, and Dewberry	January 20, 2006	Representatives of the State, FEMA, Dewberry, and Surry County
Town of Dobson	Yadkin	November 6, 2003	Representatives of the Town of Dobson, North Carolina Floodplain Mapping Program, North Carolina Emergency Management, and Dewberry	*	*

Table 17—Scoping Meetings

Community Name	Basin	Initial Scoping Date	Attended by	Final Scoping Date	Attended by
Town of Elkin	Yadkin	November 6, 2003	Representatives of the Town of Elkin, North Carolina Floodplain Mapping Program, North Carolina Emergency Management, and Dewberry	January 20, 2006	Representatives of the State, FEMA, Dewberry, and Surry County

*Data Not Available

Section 9.0 – Guide to Additional Information

This is a multivolume FIS. Each volume may be revised separately, in which case it supersedes the previously printed volume. Users should refer to the Table of Contents in Volume 1 for the current date of each volume; volumes bearing these dates contain the most up-to-date flood hazard data.

FISs have been prepared for Forsyth County and Incorporated Areas (FEMA, 2009), Stokes County and Incorporated Areas (FEMA, 2007), Yadkin County and Incorporated Areas (FEMA, 2009), and Wilkes County and Incorporated Areas (FEMA, 2009). Countywide FISs to accompany the Statewide FIRM are being prepared for Alleghany County and Incorporated Areas (FEMA, 2004). 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 18, "Additional Information," contains useful contact information regarding this FIS, the FIRM, and data.

Table 18—Additional Information

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

Section 10.0 – Bibliography and References

Federal Emergency Management Agency. (May 18, 2009). Flood Insurance Study, Yadkin County and Incorporated Areas, North Carolina. Washington, D.C.

Federal Emergency Management Agency. (March 2, 2009). Flood Insurance Study, Wilkes County and Incorporated Areas, North Carolina. Washington, D.C.

Federal Emergency Management Agency. (January 2, 2009). Flood Insurance Study, Forsyth County and Incorporated Areas, North Carolina. Washington, D.C.

Federal Emergency Management Agency, (May 16, 2007). Flood Insurance Study, Stokes County and Incorporated Areas, North Carolina. Washington, D.C.

Federal Emergency Management Agency. (September 15, 1989). Flood Insurance Study, Surry County (Unincorporated Areas), North Carolina. Washington, D.C.

Federal Emergency Management Agency. (February 1, 2004). Flood Insurance Rate Maps, Alleghany County (Unincorporated Areas). Washington D.C. Currently being revised.

Interagency Advisory Committee on Water Data, Bulletin No. 17B, (1981). Guidelines for Determining Flood Flow Frequency.

Thomas, Nathan O. (1978). Composite Hydrologic Study of Floods in the Coastal Plain and Piedmont Areas of North Carolina.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (2004). HEC-RAS Step-Backwater Computer Program, Version 3.1.2. Davis, California.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (December 1968, with updates). Computer Program 723-X6-L202A HEC-2 Water-Surface Profiles. Davis, California.

U.S. Army Corps of Engineers. (January 1962). Statistical Methods in Hydrology. Leo R. Beard (author).

U.S. Army Corps of Engineers. (August 1959). EM 1110-2-1405, Flood Hydrograph Analyses and Computations.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (October 1973). HEC-2 Water-Surface Profiles, Generalized Computer Program. Davis, California.

U.S. Department of Agriculture, Soil Conservation Service. (June 1979). Flood Hazard Analyses of Stewarts Creek – Lovills Creek, Surry County, North Carolina.

U.S. Department of Agriculture, Soil Conservation Service. (April 1979). Flood Hazard Analyses of Ararat River, Surry County, North Carolina.

U.S. Department of Agriculture, Soil Conservation Service. (May 1965). Engineering Division, Technical Release No. 20, Computer Program for Project Formulation, Hydrology.

U.S. Department of the Interior, Geological Survey. (2001). Water Resources Investigations Report 01-4207, Estimating the Magnitude and Frequency of Floods in Rural Basins in North Carolina – Revised. J.C. Robbins, B.F. Pope, and G.D. Tasker (authors).

U.S. Department of the Interior, Geological Survey. (1996). Water Resources Investigations Report 96-4084, Estimation of Flood Frequency Characteristics of Small Urban Streams in North Carolina. J.C. Robbins and B.F. Pope (authors).

U.S. Department of the Interior, Geological Survey. (1975). Water Resources Data for North Carolina, Part 1, Surface Water Records.

U.S. Department of the Interior, Geological Survey. (1962). Effect of Urban Development on Floods in the Piedmont Province of North Carolina. Arthur L. Putnam (author).

U.S. Geological Survey. (1972). Effect of Urban Development on Floods in the Piedmont Province of North Carolina. Arthur T. Putnam (author).

U.S. Geological Survey. (1932-1979). Water Resources Data, North Carolina.

U.S. Water Resources Council. (December 1967). Bulletin 15, "A Uniform Technique for Determining Flood Flow Frequencies."