

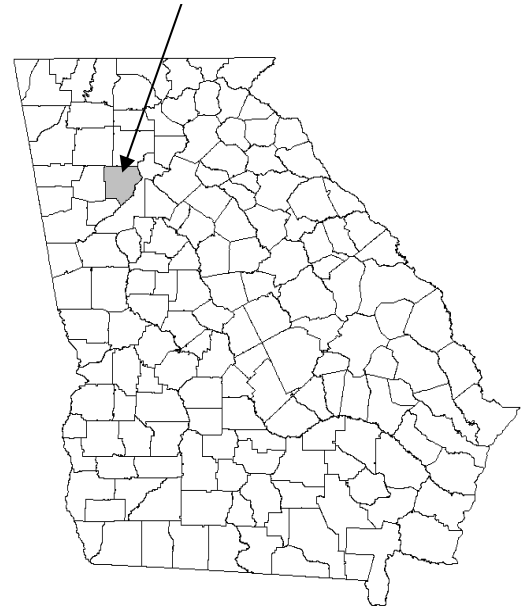
FLOOD INSURANCE STUDY

VOLUME 1 OF 4



Cobb County

COBB COUNTY, GEORGIA AND INCORPORATED AREAS



COMMUNITY NAME	COMMUNITY NUMBER
ACWORTH, CITY OF	130053
AUSTELL, CITY OF	130054
COBB COUNTY (UNINCORPORATED AREAS)	130052
KENNESAW, CITY OF	130055
MARIETTA, CITY OF	130226
POWDER SPRINGS, CITY OF	130056
SMYRNA, CITY OF	130057

REVISED:
MARCH 4, 2013



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
13067CV001D

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) report may not contain all data available within the Community Map Repository. Please contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Initial Countywide FIS Effective Date: August 18, 1992

Revised Countywide FIS Effective Date: December 16, 2008

Revised Countywide FIS Effective Date: March 4, 2013

TABLE OF CONTENTS

	<u>Page</u>
1.0 <u>INTRODUCTION</u>	1
1.1 Purpose of Study	1
1.2 Authority and Acknowledgments	1
1.3 Coordination	3
2.0 <u>AREA STUDIED</u>	5
2.1 Scope of Study	5
2.2 Community Description	10
2.3 Principal Flood Problems	10
2.4 Flood Protection Measures	11
3.0 <u>ENGINEERING METHODS</u>	12
3.1 Hydrologic Analyses	13
3.2 Hydraulic Analyses	42
3.3 Vertical Datum	48
4.0 <u>FLOODPLAIN MANAGEMENT APPLICATIONS</u>	49
4.1 Floodplain Boundaries	49
4.2 Floodways	50
5.0 <u>INSURANCE APPLICATIONS</u>	107
6.0 <u>FLOOD INSURANCE RATE MAP</u>	109
7.0 <u>OTHER STUDIES</u>	109
8.0 <u>LOCATION OF DATA</u>	111
9.0 <u>BIBLIOGRAPHY AND REFERENCES</u>	111

TABLE OF CONTENTS - VOLUME I

	<u>Page</u>
<u>FIGURES</u>	
Figure 1 – Floodway Schematic	107
<u>TABLES</u>	
Table 1 – Redelineated Streams	8-9
Table 2 – Summary of Discharges	20-41
Table 3 – Summary of Stillwater Elevations	42
Table 4 – Manning’s “n” Values	45-47
Table 5 – Vertical Datum Conversion	48
Table 6 – Floodway Data	52-106
Table 7 – Community Map History	110

TABLE OF CONTENTS - VOLUME II

EXHIBITS

Exhibit 1 - Flood Profiles	
Allatoona Branch	Panel 01P
Allatoona Creek	Panels 02P-12P
Bishop Creek	Panels 13P-14P
Blackjack Creek	Panels 15P-16P
Butler Creek	Panels 17P-22P
Buttermilk Creek	Panels 23P-26P
Campground Creek	Panels 27P-28P
Chattahoochee River	Panels 29P-33P
Clay Branch	Panels 34P-35P
Concord Creek	Panels 36P-37P
Cooper Lake Creek	Panels 38P-39P
Davis Branch	Panel 40P
Due West Creek	Panels 41P-43P
Eastside Creek	Panel 44P
Elizabeth Branch	Panels 45P-46P
Favor Creek	Panels 47P-48P
Florence Branch	Panels 49P-50P
Gilmore Creek	Panel 51P
Gordon Branch	Panel 52P

TABLE OF CONTENTS - VOLUME II - continued

EXHIBITS - continued

Exhibit 1 - Flood Profiles - continued

Gordon Creek	Panels 53P-54P
Gothards Creek	Panels 55P-56P
Harmony Grove Creek	Panels 57P-58P
Hope Creek	Panels 59P-60P
Laurel Creek	Panels 61P-64P
Liberty Hill Branch	Panels 65P-67P
Little Allatoona Creek	Panels 68P-71P
Little Noonday Creek	Panels 72P-75P
Lost Mountain Creek	Panel 76P
Luther Ward Branch	Panels 77P-79P

TABLE OF CONTENTS - VOLUME III

EXHIBITS - continued

Exhibit 1 - Flood Profiles - continued

Milam Branch	Panels 80P-82P
Mill Creek No.1	Panels 83P-84P
Mill Creek No.2	Panels 85P-86P
Morgan Lake Tributary	Panel 87P
Mud Creek	Panels 88P-94P
Nickajack Creek	Panels 95P-100P
Noonday Creek	Panels 101P-110P
Noonday Creek Tributary No. 1	Panel 111P
Noonday Creek Tributary No. 3	Panels 112P-114P
Noonday Creek Tributary No. 4	Panels 115P-117P
Noonday Creek Tributary No. 6	Panels 118P
Noonday Creek Tributary No. 7	Panels 119P-120P
Noses Creek	Panels 121P-132P
Olley Creek	Panels 133P-137P
Olley Creek Tributary	Panel 138P
Pine Branch	Panel 139P
Pine Creek	Panels 140P-141P
Piney Grove Creek	Panels 142P-145P
Pitner Creek	Panels 146P-147P
Poorhouse Creek	Panels 148P-149P
Poplar Creek	Panels 150P-151P
Powder Springs Creek	Panels 152P-158P
Powers Branch	Panels 159P-160P

TABLE OF CONTENTS - VOLUME IV

EXHIBITS - continued

Exhibit 1 - Flood Profiles - continued

Powers Creek	Panel 161P
Proctor Creek	Panel 162P-164P
Queen Creek	Panels 165P-169P
Robertson Creek	Panels 170P-171P
Rottenwood Creek	Panels 172P-177P
Rubes Creek	Panels 178P-181P
Rubes Creek Tributary	Panel 182P
Sewell Mill Creek	Panels 183P-188P
Smyrna Branch	Panels 189P-190P
Sope Branch	Panel 191P
Sope Creek	Panels 192P-201P
Sweat Mountain Creek	Panels 202P-203P
Sweetwater Creek	Panels 204P-206P
Tanyard Creek	Panels 207P-210P
Tate Creek	Panels 211P-212P
Terrell Branch	Panels 213P-214P
Theater Branch	Panels 215P-216P
Thompson Creek	Panel 217P
Timber Ridge Branch	Panel 218P
Trickum Creek	Panels 219P-221P
Trickum Creek Tributary	Panels 222P-223P
Vinings Branch	Panel 224P
Ward Creek	Panels 225P-229P
Westside Branch	Panel 230P
Wildhorse Creek	Panels 231P-232P
Wildwood Branch	Panel 233P
Willeo Creek	Panels 234P-236P

Exhibit 2 - Flood Insurance Rate Map Index
Flood Insurance Rate Map

FLOOD INSURANCE STUDY
COBB COUNTY, GEORGIA AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and updates information on the existence and severity of flood hazards in the geographic area of Cobb County, including the Cities of Acworth, Austell, Kennesaw, Marietta, Powder Springs, and Smyrna; and the unincorporated areas of Cobb County (referred to collectively herein as Cobb County). Please note that the City of Austell is geographically located in both Cobb and Douglas Counties. The City of Austell is included in its entirety in this FIS report. This FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood-risk data for various areas of the community that will be used to establish actuarial flood insurance rates and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in the Code of Federal Regulations (CFR) at 44 CFR, 60.3.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

1.2 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.

The hydrologic and hydraulic analyses for the initial countywide FIS, dated August 18, 1992 (FEMA, 1992), were prepared by PBS&J for FEMA, under Contract No. EMW-88-C-2614 for the following streams: Rottenwood Creek upstream of Interstate 75; Olley Creek downstream of Hill Street; Noonday Creek Tributary No. 4; Noonday Creek Tributary No. 7; Rubes Creek; Trikum Creek; Tate Creek; and Morgan Lake Tributary. That work was completed in May 1989.

The Hydrologic and hydraulic analyses for certain other streams were previously determined (Cobb County FIS, 1989). These streams were: Rottenwood Creek Downstream of Interstate 75 and Rottenwood Creek's 477840 tributaries; Sweetwater Creek and tributaries; Nickajack Creek and tributaries; Sope Creek and tributaries; Willeo Creek and tributaries; the Chattahoochee River and several of its minor tributaries; Rubes Creek and

tributaries; Noonday Creek Tributary No. 6; Tanyard Creek; Proctor Creek; Butler Creek, and Allatoona Creek and tributaries.

Other streams with detailed analysis were taken from the FISs for the Cities of Acworth, Kennesaw, Marietta, Powder Springs, Smyrna, and Austell, Georgia (Reference).

For the revised countywide FIS dated December 16, 2008, the hydrologic and hydraulic analyses were performed by Jordan Jones & Goulding, Inc., for FEMA, under Contract No. EMA-2003-GR-5369 for the following streams:

Bishop Creek	Rubes Creek Tributary
Blackjack Creek	Sewell Mill Creek
Campground Creek	Sope Branch
Eastside Creek	Sope Creek
Elizabeth Branch	Thompson Creek
Piney Grove Creek	Trickum Creek
Robertson Creek	Trickum Creek Tributary
Rubes Creek	Wildwood Branch

This work was completed in December 2004. In addition, hydrologic and hydraulic analyses were also performed by AMEC Earth and Environmental, Inc., for FEMA, under Contract No. EMA-2003-GR-5369 for the following streams:

Concord Creek	Olley Creek
Cooper Lake Creek	Olley Creek Tributary
Favor Creek	Poorhouse Creek
Hope Creek	Poplar Creek
Laurel Creek	Powers Creek
Liberty Hill Branch	Queen Creek
Milam Branch	Rottenwood Creek
Mill Creek No. 2	Smyrna Branch
Nickajack Creek	Theater Branch

This work was completed in October 2004. Hydrologic and hydraulic analyses were also performed by Dewberry and Davis LLC for Cobb County Stormwater Management under Contract SW653 for the following streams:

Allatoona Branch	Noonday Creek
Allatoona Creek	Noonday Creek Tributary No. 3
Butler Creek	Noonday Creek Tributary No. 7
Due West Creek	Noses Creek
Little Allatoona Creek	Pitner Creek
Little Noonday Creek	Powder Springs Creek
Luther Ward Branch	Proctor Creek
Mill Creek No. 1	Tanyard Creek
Morgan Lake Tributary	Ward Creek
Mud Creek	

Limited detail hydrologic and hydraulic analyses were also performed for all Zone A and shaded Zone X floodplains, and all non-revised streams were redelineated. This work was completed in December 2006. A revised floodway analysis of the Chattahoochee River was also performed by Cobb County Stormwater Management and completed in August 2007.

The digital base map files are digital orthophotos collected for Cobb County Geographic Information Systems in March 2006. The imagery was collected to produce the set at 6-inch resolution.

For the revised countywide FIS dated June 18, 2010, the hydrological and hydraulic analyses were performed by Braswell Engineering, Inc., for FEMA, as part of a Physical Map Revision (PMR), Case No.09-04-0114S. This work was completed in July 2007.

For the revised countywide FIS dated November 2, 2012, the hydrologic analysis for this revision was performed by Dewberry under contract to Cobb County Stormwater Management. The hydraulic analyses for this revision were performed by Jordan, Jones & Goulding, for Cobb County, as part of a PMR, Case No. 10-04-6265S. This work was completed in 2008.

For this revised countywide FIS, the hydrologic and hydraulic analyses were performed by Dewberry and Davis LLC for FEMA, under Contract No. EMA-2009-CA-5930. Detailed hydrologic and hydraulic analyses were performed for the Chattahoochee River and approximately 32 miles of stream within the Noses and Nickajack sub-basin. This work was completed in July 2011.

The effective hydrologic and hydraulic models for Noonday Creek from the 2008 FIS were revised to incorporate new survey data for culverts under the railroad adjacent to Barrett Parkway and the Chastain Meadows Regional Stormwater Management Facility located approximately 300 feet upstream of the Chastain Meadows Parkway Bridge.

The coordinate system used for the production of the digital FIRM is the Transverse Mercator, State Plane Georgia West (FIPS 1002) projection referenced to the North American Datum of 1983. The use of the base map is restricted by the data agreement between Cobb County Geographic Information Systems and the Study Contractor.

1.3 Coordination

For the countywide FIS dated August 18, 1992, for Cobb County, the initial Consultation Coordination Officer (CCO) meeting was held on July 7, 1987, and was attended by representatives of the Study Contractor, Cobb County, and FEMA. The purpose of this meeting was to identify streams requiring detailed study. An additional meeting was held on May 6, 1988, by representatives of

the Study Contractor, Cobb County Development Control Division, and FEMA. The purpose of this meeting was to evaluate flood attenuations and to determine which flood-retarding structures would require special hydrologic analyses.

The results of the study were reviewed at the final Consultation Coordination Officer (CCO) meeting which was held on January 30, 1991, and attended by representatives of the Study Contractor, Cobb County, and FEMA.

For the revised countywide FIS dated December 16, 2008, a scoping meeting was held on September 23, 2004, and was attended by representatives of Cobb County, the Georgia Department of Natural Resources (DNR), FEMA, and PBS&J, the study contractor. The purpose of this meeting was to discuss the scope of the FIS.

For the revised countywide FIS dated June 18, 2010, discussions took place between FEMA and the communities involved in this map revision, and it was decided that a final Consultation Coordination Officer (CCO) meeting CCO meeting was not necessary.

For the revised countywide FIS dated: November 2, 2012, a scoping meeting was held on September 23, 2004, and was attended by representatives of Cobb County, The Georgia DNR, FEMA, and PBS&J. The purpose of this meeting was to discuss the scope of the FIS.

For the revised countywide FIS, a final CCO meeting was held on September 5, 2011 to review the results of this revision. This meeting was attended by representatives of FEMA, local communities, and Dewberry and Davis LLC. All issues raised at that meeting have been addressed.

For this revised countywide FIS, a scoping meeting was held on April 16, 2010, and was attended by representatives of FEMA, the DNR, local communities, and Dewberry and Davis LLC. The purpose of this meeting was to discuss the scope of the FIS.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Cobb County, Georgia, including the incorporated communities listed in Section 1.1. The areas studied by detailed methods were selected with priority given to all known flood hazards and areas of projected development or proposed construction.

The following sources are studied by detailed methods:

Allatoona Branch	Nickajack Creek
Allatoona Creek	Noonday Creek
Allatoona Lake	Noonday Creek Tributary No. 1
Bishop Creek	Noonday Creek Tributary No. 3
Blackjack Creek	Noonday Creek Tributary No. 4
Butler Creek	Noonday Creek Tributary No. 6
Buttermilk Creek	Noonday Creek Tributary No. 7
Campground Creek	Noses Creek
Chattahoochee River	Olley Creek
Clay Branch	Olley Creek Tributary
Concord Creek	Pine Branch
Cooper Lake Creek	Pine Creek
Davis Branch	Piney Grove Creek
Due West Creek	Pitner Creek
Eastside Creek	Poorhouse Creek
Elizabeth Branch	Poplar Creek
Favor Creek	Powder Springs Creek
Florence Branch	Powers Branch
Gilmore Creek	Powers Creek
Gordon Branch	Proctor Creek
Gordon Creek	Queen Creek
Gothards Creek	Robertson Creek
Harmony Grove Creek	Rottenwood Creek
Hope Creek	Rubes Creek
Lake Acworth	Rubes Creek Tributary
Laurel Creek	Sewell Mill Creek
Liberty Hill Branch	Smyrna Branch
Little Allatoona Creek	Sope Branch
Little Noonday Creek	Sope Creek
Lost Mountain Creek	Sweat Mountain Creek
Luther Ward Branch	Sweetwater Creek
Milam Branch	Tanyard Creek
Mill Creek No.1	Tate Creek
Mill Creek No. 2	Terrell Branch
Morgan Lake Tributary	Theater Branch
Mud Creek	Thompson Creek

Timber Ridge Branch
Trickum Creek
Trickum Creek Tributary
Vinings Branch
Ward Creek

Westside Branch
Wildhorse Creek
Wildwood Branch
Willeo Creek

The limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

Limited detail analyses were used to study those areas having low development potential or minimal flood hazards. The scope and methods of study were proposed to and agreed upon by Cobb County.

For countywide FIS dated December 16, 2008, the following streams were restudied by detailed methods:

Allatoona Branch
Allatoona Creek
Bishop Creek
Blackjack Creek
Butler Creek
Campground Creek
Concord Creek
Cooper Lake Creek
Due West Creek
Eastside Creek
Elizabeth Branch
Favor Creek
Hope Creek
Laurel Creek
Liberty Hill Branch
Little Allatoona Creek
Little Noonday Creek
Luther Ward Branch
Milam Branch
Mill Creek No. 1
Mill Creek No. 2
Morgan Lake Tributary
Mud Creek
Nickajack Creek
Noonday Creek
Noonday Creek Tributary No. 3
Noonday Creek Tributary No. 7
Noses Creek
Olley Creek

Olley Creek Tributary
Piney Grove Creek
Pitner Creek
Poorhouse Creek

Poplar Creek
Powder Springs Creek
Powers Creek
Proctor Creek
Queen Creek
Robertson Creek
Rottenwood Creek
Rubes Creek
Rubes Creek Tributary
Sewell Mill Creek
Smyrna Branch
Sope Branch
Sope Creek
Tanyard Creek
Theater Branch
Thompson Creek
Trickum Creek
Trickum Creek Tributary
Ward Creek
Wildwood Branch

For countywide FIS December 16, 2008, non-restudied reaches of streams that have been studied by detailed methods were selected for redelineation based on more recent topography. Cobb County provided digital topography for the entire county dated February 2000 and April 2005 (Cobb County, Georgia, 2000 and

2005). This data has a vertical accuracy of 1 foot and horizontal accuracy of 2 feet. The areas that were redelineated are below.

Buttermilk Creek	Pine Branch
Chattahoochee River	Pine Creek
Clay Branch	Powers Branch
Davis Branch	Sweat Mountain Creek
Florence Branch	Sweetwater Creek
Gilmore Creek	Terrell Branch
Gordon Branch	Timber Ridge Branch
Gordon Creek	Vinings Branch
Gothards Creek	Westside Branch
Lost Mountain Creek	Wildhorse Creek
Noonday Creek Tributary No.1	Willeo Creek
NoondayCreek Tributary No.4	

For the countywide FIS revised June 18, 2010, detailed flood hazard information was developed for the Chattahoochee River within Cobb County. The Chattahoochee River was revised from Morgan Falls Dam upstream to Buford Dam, a distance of approximately 37 miles.

The revised countywide FIS dated November 2, 2012, incorporates detailed analysis and mapping of Sope Creek and Sewell Mill Creek, as well as revised backwater analysis for several tributaries of Sope Creek and Sewell Mill Creek, including:

Bishop Creek	Robertson Creek
Blacjack Creek	Sewell Mill Creek
Campground Creek	Sope Branch
Eastside Creek	Sope Creek
Elizabeth Branch	Thompson Creek
Piney Grove Creek	Wildwood Branch

For this countywide revision, a new detailed study was used for the following streams.

Chattahoochee River	Nickajack Creek
Concord Creek	Noonday Creek
Cooper Lake Creek	Noses Creek
Favor Creek	Queen Creek
Gothards Creek	Smyrna Branch
Harmony Grove Creek	Sweat Mountain Creek
Laurel Creek	Sweetwater Creek

Liberty Hill Branch
 Lost Mountain creek
 Milam Branch
 Mill Creek No. 2

Theater Branch
 Timber Ridge Branch
 Wildhorse Creek
 Willeo Creek

For this countywide revision, non-restudied reaches of streams that have been studied by detailed methods were selected for redelineation based on more recent topography. Cobb County provided digital topography for the entire county dated February 2000 and April 2005 (Cobb County, Georgia, 2000 and 2005). This data has a vertical accuracy of 1 foot and horizontal accuracy of 2 feet. The areas that were redelineated are listed in Table 1, "Redelineated streams."

TABLE 1 - REDELINEATED STREAMS

<u>Stream</u>	<u>Reach Description</u>
Buttermilk Creek	From the county boundary to a point approximately 1,440 feet upstream of Anderson Mill Road
Chattahoochee River	Entire reach within Cobb County
Clay Branch	From the confluence with Buttermilk Creek to a point just downstream of Green Valley Road
Davis Branch	From the confluence with Davis Branch to a point approximately 250 feet upstream of Pendley Drive
Florence Branch	From the confluence with Powder Springs Creek to a point approximately 1 mile upstream of Macland Road
Gilmore Creek	From the confluence with the Chattahoochee River to a point just upstream of Elizabeth Lane
Gordon Branch	From the confluence with Gordon Creek to a point just downstream of Gordon Road
Gordon Creek	From the county boundary to a point just downstream of Kenneth Lane
Gothards Creek	From the confluence with Sweetwater Creek to the county boundary
Noonday Creek Tributary No. 1	From the confluence with Noonday Creek to a point approximately 2,000 feet upstream of Hawkins Store Road

TABLE 1 - REDELINEATED STREAMS(continued)

Noonday Creek Tributary No. 4	From the confluence with Noonday Creek to a point just downstream of Cobb Parkway
Pine Branch	From the confluence with Pine Creek to a point just upstream of Mount Pisgah Lane
Pine Creek	From the county boundary to a point just downstream of Dunn Road
Powers Branch	From the confluence with the Chattahoochee River to a point just downstream of Windy Hill Road
Sweat Mountain Creek	From the confluence with Willeo Creek to a point approximately 900 feet upstream of Wesley Chapel Road
Sweetwater Creek	Entire reach within Cobb County
Terrell Branch	From the confluence with the Chattahoochee River to a point approximately 3,000 upstream of the confluence with the Chattahoochee River
Timber Ridge Branch	From the confluence with Willeo Creek to a point just downstream of Little Willeo Road
Vinings Branch	From the confluence with the Chattahoochee River to a point just downstream of Randall Farm Road
Westside Branch	From the confluence with Ward Creek to a point just downstream of Maple Avenue
Wildhorse Creek	From the confluence with Noses Creek to a point just downstream of New Macland Road
Willeo Creek	From the confluence with the Chattahoochee River to a point approximately 1,150 feet upstream of Childers Road

2.2 Community Description

Cobb County is located in northwest Georgia and encompasses an area of approximately 340 square miles. Organized in 1832 from lands of the Cherokee Indian Nation, the county was named for Thomas Welch Cobb, a United States Senator, Congressman, and Superior Court Judge. The City of Marietta, which was settled in 1834 and incorporated in 1852, serves as the county seat and was named after Cobb's wife.

Cobb County is situated west and northwest of the City of Atlanta, and is served by a network of primary and secondary highways, including U.S. Highways 41, 78, and 278; and U.S. Interstates 20, 75, 285, and 575. The county is bordered on the south by Douglas County, on the east by Fulton County, on the west by Paulding County, and on the north by Cherokee and Bartow Counties. The population of Cobb County in 2010 was reported as 688,078 (2010 U.S. Census).

The county lies within the Piedmont Plateau physiographic province. The present tree growth is similar to the original oak-pine forest that once covered the southeastern United States, but is now much less extensive. Dominant oak species are white, common red, scarlet, black, and blackjack. Shortleaf is the chief pine species.

Surface soils are prevailing sandy, while the subsoils are prevailing clayey. Red-yellow podzolic soils predominate in the Piedmont Province. In many areas of steep topography, loose rock fragments are scattered over the surface, and outcrops of bedrock are common.

The climate of Cobb County consists of long, warm summers and short, mild winters. Summer temperatures are frequently quite warm, but prolonged periods of hot weather are rare. In winter, freezing temperatures are typically of short duration. On average, July is the warmest month of the year while January is the coldest. The highest recorded temperature was 104 degrees Fahrenheit (°F) in 1980 and the lowest recorded temperature was -12°F in 1985.

The average annual rainfall in Cobb County is 54.43 inches. March is typically the wettest month of the year with an average precipitation total of 5.94 inches, while October is usually the driest, with an average precipitation of 3.38 inches (Monthly Averages for Marietta, Georgia, 2005).

2.3 Principal Flood Problems

In June 1999, the City of Powder Springs was hit by slow-moving thunderstorms over a three hour period. Approximately 90 homes were

damaged by flood waters, many because of poor drainage, causing approximately \$1.2 million in property damage.

In September 2004, rainfall associated with Hurricane Ivan reached Cobb County, resulting in catastrophic flooding in some areas. Six to ten inches of rain fell across most of the county, with much of it falling during one afternoon and evening. Record flooding was reported along many creeks and rivers in the area. Parts of the Chattahoochee River crested at more than eight feet above flood stage, the second highest crest since the Buford Dam was built on the river. Sope Creek in Marietta crested more than five feet above flood stage, more than a foot higher than the previous record high crest. Portions of the Six Flags Amusement Park in the southern portion of the county were inundated by floodwaters, including two roller coasters and approximately 3,000 parking spaces. In all, estimated damages in Cobb County totaled more than \$5 million from this storm event.

Several weeks later in September 2004, remnants of Tropical Storm Jeanne also hit Cobb County, causing additional damage. The Chattahoochee River once again rose several feet above flood stage, causing damage to homes, many of which had been impacted by Hurricane Ivan less than two weeks earlier. Estimated property damage in the county from this rainfall event totaled more than \$500,000 (National Oceanic and Atmospheric Administration, 2005).

Most recently, extensive flooding occurred in Cobb County following the historical flooding event in September 2009, where parts of Cobb County experienced significant flooding that exceeded the 0.2-percent-annual-chance flooding event (U.S. Geological Survey (USGS), 2009).

Other large floods of note in Cobb County occurred in July 1916, November 1948, February 1961, March 1975, and March 1977.

2.4 Flood Protection Measures

Buford Dam, located on the Chattahoochee River approximately 35 miles northeast of Atlanta, was completed by the U.S. Army Corps of Engineers (USACE) in 1957. This dam, which forms Lake Sidney Lanier, has provided substantial flood protection to areas in Cobb County along the Chattahoochee River.

Cobb County installed a levee in 1976 along Sope Creek to protect the Fox Hills subdivision area. The levee was overtopped and severely damaged by the March 1977 flood and no longer provides any flood protection.

The County has a floodplain zoning ordinance that prohibits new development in floodprone areas. The ordinance also requires erosion and sediment runoff control from construction areas, and controls increases in runoff due to construction.

During the 1950s, the U.S. Soil Conservation Service (SCS) completed five Floodwater Retarding Structures in the Noonday Creek basin. These included Floodwater Retarding Structure No. 4 on Noonday Creek Tributary No. 1, Floodwater Retarding Structure No. 9 on Noonday Creek Tributary No. 8, Floodwater Retarding Structure No. 15 on Noonday Creek Tributary No. 7, Floodwater Retarding Structure No. 16 on Noonday Creek No. 5, and Floodwater Retarding Structure No. 17 on Tate Creek. A total of 14 structures were originally planned, but none of the remaining floodwater retarding structures have been built. In addition to the Floodwater Retarding Structures, extensive channel improvements were performed during the 1950s on Noonday Creek and all major tributaries (U.S. Department of Agriculture, 1976).

In December 1964, a reconnaissance report for flood control on Sweetwater Creek in and near the City of Austell, Georgia was completed. A system of levees was considered for protection of the urban area, but the annual cost of the work would have exceeded the annual benefits, and, therefore, it was not recommended. There are no proposed or existing flood control measures for Sweetwater Creek.

The Chastain Meadows Regional Stormwater Facility is an earthen embankment with no permanent pool. Smaller storm events pass through the embankment via a multi stage weir structure and corresponding box culverts, while higher flow events pass over a section of the embankment that is armored to allow safe overtopping. The primary purpose of the facility is to reduce flood discharges downstream of the facility to decrease downstream flooding and to provide channel protection.

3.0 ENGINEERING METHODS

For the flooding sources studied by detailed methods in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance (100-year) flood in any 50-year period is approximately 40 percent (4 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

Initial Countywide Analyses

Discharge-frequency relationships for Noonday Creek Tributary No. 4 and Tate Creek were determined using the HEC-1 computer program (USACE, 1985). This method was used because of several floodwater retarding structures along these streams. Runoff hydrographs entered into the HEC-1 models were developed according to methods outlined by the USGS (USGS, 1986).

Discharge – frequency relationships for Rottenwood Creek upstream of Interstate 75, Olley Creek downstream of Hill Street, Noonday Creek, Little Noonday Creek, Noonday Creek tributary No.3 Rubes Creek, Trickum Creek, Buttermilk Creek, Westside Branch, and Butler Creek, approximately one –half mile downstream of Mack Dobbs Road, were determined using regional regression equations developed for the metropolitan Atlanta area by the USGS (Reference). Drainage basin areas were planimetered from topographic maps (Reference).

Discharge - frequency relationships for Tate Creek, Noonday Creek Tributary No.4, Noonday Creek Tributary No.7, and Sope Creek were determined using the HEC-1 computer program (Reference 12). This method was used because several floodwater retarding structures are located along these streams. Runoff hydrographs entered into the HEC-1 were developed according to methods outlined by the USGS (References) except on Noonday Creek Tributary No.7 at Bozeman Lake Dam. Runoff hydrographs at the dams were taken from a flood event report (Reference 14), and from information provided by Cobb County.

Discharge-frequency relationships for Sweetwater Creek were based on statistical analyses of the peak flows, covering 42 years of record at the Austell gaging station, USGS Station No. 2-3370. This analyses followed the log-Pearson Type III method (USGS, 1982).

Discharge-frequency relationships for the Chattahoochee River were determined using three separate hydrologic analyses, and using separate procedures to study the effects of Peachtree Creek and Sweetwater Creek. Although the flows at Vinings are highly regulated by Buford Dam, the first approach consisted of an analytical curve (log-Pearson Type III distribution) using 24 years of gage records available at the Vinings gage since operation of Buford Dam began, and a regional skew of zero that fitted the plotted data and

was adopted for this study (USGS, 1982). The March 1977 flood, which had the highest observed discharge (28,900 cubic feet per second (cfs) since operation of Buford Dam began, would be approximately a 5.6-percent-annual-chance flood on this curve.

As part of the second set of analyses, discharge frequency for the 410-square-mile uncontrolled area above the gage was computed using equations from a USGS report (USGS, 1983), with allowances for Buford Dam power releases. Since this method is not recommended for areas larger than 100 square miles, it was used only as an alternate method for comparison purposes.

The third set of hydrologic analyses consisted of a comparison of pre- to post-Buford Dam discharges. This comparison was carried out by computing a frequency curve for natural conditions using only the data observed before Buford operations began.

In conjunction with the gage analyses, the contribution of tributary flow to flood peaks in the river was estimated. The March 1977 and April 1979 floods were selected for analysis because they were pertinent to the restudy, and the flood hydrographs were readily available at several locations.

The flood hydrograph for Peachtree Creek in the City of Atlanta at the Northside Drive gage was routed to the river and increased by the drainage area ratio to estimate Peachtree Creek flow at its mouth. This hydrograph was then added to the Vinings hydrograph, which had been lagged in time to allow for distance between the two points. This gaged an estimate of the total flow in the Chattahoochee River at the confluence of Peachtree Creek.

A similar procedure was followed at Sweetwater Creek. Sweetwater Creek characteristically peaks later than the Chattahoochee River. The Sweetwater Creek hydrographs are flatter than those of Peachtree Creek, which causes their effect on the river to be more consistent and probably less drastic.

Effects of tributaries where no observed data were available were estimated by applying the drainage area ratios to the main stream flow.

The estimated flow distributions on the Chattahoochee River for the March 1977 and April 1979 floods were plotted as discharge versus river mile. The frequency discharges at the upper and lower limits of the restudy were left unchanged, but were transitioned within the reach to incorporate the revised frequency curve at the Vinings gage.

Frequency discharges for points between the gage stations were estimated by prorating the difference in adjacent frequency curves by the drainage area ratio. One exception to this was discharge estimates at Marietta Boulevard (downstream of Vinings gage), which included the flow from Peachtree Creek.

Discharges at Marietta Boulevard were obtained using runoff rates computed from the local contribution between the Norcross and Vinings gages, which were higher than those obtained for the local contribution between Vinings and Fairburn. This was done to account for the high degree of urbanization in the Peachtree Creek watershed. Because of the higher flows per unit area adopted at this point, a slight attenuation was required to tie in downstream.

Discharge-frequency relationships for the following streams were determined using regional regression equations (USGS, 1976) with modifications for urban areas (USGS, 1974):

Buttermilk Creek	Noonday Creek Tributary 6
Clay Branch	Pine Branch
Davis Branch	Pine Creek
Florence Branch	Powers Branch
Gilmore Creek	Sweat Mountain Creek
Gordon Branch	Terrell Branch
Gordon Creek	Timber Ridge Branch
Gothards Creek	Vinings Branch
Harmony Grove Creek	Wildhorse Creek
Lost Mountain Creek	Willeo Creek
Noonday Creek Tributary No. 1	

Revised Countywide Analyses

For the revised countywide FIS dated December 16, 2008 update of the hydrologic model (HEC-1) (USACE, 1998) representing existing conditions and future conditions were performed for the following streams:

Allatoona Branch	Noonday Creek
Allatoona Creek	Noonday Creek Tributary No. 3
Butler Creek	Noonday Creek Tributary No. 7
Due West Creek	Noses Creek
Little Allatoona Creek	Olley Creek
Little Noonday Creek	Olley Creek Tributary
Luther Ward Branch	Powder Springs Creek
Mill Creek No. 1	Proctor Creek
Morgan Lake Tributary	Tanyard Creek
Mud Creek	Ward Creek

New hydrologic models (HEC-1) (USACE, 1998) representing both existing and future conditions were created for the following watersheds: Nickajack Creek (Concord Creek, Cooper Lake Creek, Favor Creek, Laurel Creek, Liberty Hill Branch, Milam Branch, Mill Creek No. 2, Nickajack Creek, Queen Creek, Smyrna Branch, and Theater Branch); Rottenwood Creek (Hope Creek, Poorhouse Creek, Poplar Creek, Powers Creek, and Rottenwood Creek); Sope Creek (Bishop Creek, Blackjack Creek, Campground Creek, Eastside Creek, Elizabeth Branch, Piney Grove Creek, Robertson Creek, Sewell Mill Creek, Sope Branch, Sope Creek, Thompson Creek, and Wildwood Branch); and

Rubes Creek (Rubes Creek, Rubes Creek Tributary, Trickum Creek, and Trickum Creek Tributary). The revised hydrology was used as input to the HEC-RAS hydraulic models (USACE, 2003). A new hydrologic model (HEC-HMS version 3.1) (USACE, 2006) was developed for Pitner Creek.

The 24-hour rainfall depths for the 50-, 20-, 10-, 2-, 1-, and 0.2-percent-annual-chance frequency storms were obtained from the Georgia Stormwater Management Manual (Atlanta Regional Commission, 2003). The 0.2-percent-annual-chance, 24-hour precipitation depth was determined by graphically extrapolating the 24-hour depths presented in U.S. Weather Bureau's Technical Paper 40 (TP-40) (U.S. Weather Bureau, 1961). Precipitation was distributed using the SCS Type II Distribution.

Rainfall was converted to runoff utilizing the Curve Number (CN) methodology documented in TR-55, Urban Hydrology for Small Watersheds (Natural Resources Conservation Service, 1986). CNs were based on hydrologic soil type provided by the Natural Resources Conservation Service (NRCS) and existing and future land-use data were provided by the Cobb County Water System (CCWS) and Atlanta Regional Commission, with equivalent land-use descriptions between the two sources defined (Atlanta Regional Commission, Atlanta Regional Information System).

The time of concentration (T_c) was determined for each sub-basin using SCS methods (NRCS, 1986). Channelized flow was calculated using flow path length, slope, and ground cover (Manning's "n" value). CCWS 2-foot contour topography (Cobb County, Georgia, 2000 and 2005) and field observations were used to define typical channel geometry, separating the open channel flow into two segments: a tributary channel from the end of shallow concentrated flow to the receiving stream; and the receiving stream. Adding the travel times provided the time of concentration for the sub-basin. The time of concentration was then used to calculate the lag time, which has a significant effect on each sub-basin hydrograph.

Hydrograph routing to account for the attenuation of flows in open-channel segments was performed using the Muskingum-Cunge routing technique as outlined in the HEC-1 Users Manual (USACE, 1990). This method utilizes an 8-point cross section with its associated channel slope, length, and Manning's "n" values. The variables used in the Muskingum-Cunge method are determined by HEC-1 (USACE, 1998) using the input of the channel geometry and the hydrograph routed through the channel. These input parameters were derived using 2-foot topography and aerial photography; stream walk data; and USGS quadrangle maps (Cobb County, Georgia, 2000 and 2005; Woolpert Consultants, 1988; USGS, 1954). Channel routing simulates the in-stream storage and effects on travel time and lead to sub-basin hydrograph attenuation. Therefore, cross-section shapes were selected at points that were representative

of the routing reach, such that when combined with an average reach slope, the attenuation would be simulated with reasonable accuracy.

For the revised countywide FIS dated June 18, 2010, new hydrologic and hydraulic data were prepared for the Chattahoochee River, between Buford Dam and the crossing with Medlock Bridge at Norcross. Revised discharge values resulted in lower water-surface elevations (WSELs) for much of the area between the noted upstream and downstream study limits. WSELs between Buford Dam and Morgan Falls Dam were redelineated based on more recent topography (Fulton County, Georgia, 2006).

Buford Dam (constructed in 1957) regulates the surface runoff generated in the upper 1,040 square miles of the Chattahoochee River watershed. The maximum peak flow at Norcross over the last 50 years has been 13,200 cfs.

A calibrated HEC-1 model for the 130-square mile watershed downstream of Buford Dam and upstream of Norcross, Georgia, was developed (Braswell, May 2007). The calibration and verification of the model involved the identification and collection of rainfall and runoff data for four storm events that are considered extreme events for the 130-square-mile watershed. The watershed downstream of Buford Dam was divided into sub-basins to account for the geographic distribution of the available precipitation and stream flow data and to aid in the development of the hydrographs. Runoff hydrographs from each sub-basin were generated using the SCS CN method and the USACE HEC-1 flood hydrograph computer program (USDA, 1972; and USACE, 1998). The HEC-1 model was calibrated by determining lag times and CNs for the sub-basins that produced flood hydrographs most consistent with observed flows.

If possible, Buford Dam releases are restricted to a single low level turbine during major storm events as outlined in the reservoir regulation manual. Under these operating conditions, the resulting 1-percent annual-chance base flow from the dam is 620 cfs, and this outflow was added to sub-basin hydrographs.

The calibrated and verified basin models were used to simulate the 1-percent-annual-chance flood event, as well as the 10-, 2- and 0.2-percent-annual-chance events. An SCS Type II storm distribution for a 24-hour duration was used along with the geographically adjusted rainfall amounts from TP 40 (U.S. Weather Bureau, 1961) for each storm. As with the calibration events, runoff hydrographs for each of the sub-basins were generated with the HEC-1 model and then routed to the Norcross gage using the dynamic routing option in HEC-RAS (USACE, 2005). The resulting 1-percent-annual-chance discharge at the Norcross gage was 14,480 cfs. The 10-, 2- and 0.2-percent-annual-chance discharges were 8,250, 13,342 and 18,159 cfs, respectively (Braswell, July 2007).

WSELs for the revised study area of the Chattahoochee River were determined by re-running the previously effective (HEC-2) model with the updated discharge values (USACE, 1991). Floodway encroachment stations remain the same as they were with the previously effective model; however, the HEC-2 floodway model was re-run to reflect the revised discharge values. The water surface at Morgan Falls has been mapped to an elevation of 854 feet. This represents the Morgan Falls spillway elevation and the starting WSEL of the previously effective HEC-2 model.

For the revised countywide FIS TBD, new hydrologic and hydraulic data were prepared for both Sope Creek and Sewell Mill Creek using a combination of gage analysis and urban regression analysis. Peak discharges for Sope Creek, calculated at USGS Gage number 02335870 near Marietta, were transferred to ungaged locations downstream of the confluence with Sewell Mill Creek. For both Sope Creek upstream of the confluence with Sewell Mill Creek and for Sewell Mill Creek, urban regression equations (USGS, 1999) were used to determine peak discharges at ungaged locations. The revised analysis resulted in significant reductions in peak discharges throughout the area of revision.

The previously effective HEC-RAS models for Sope Creek and Sewell Mill Creek were updated with the revised hydrology. Additionally, the floodway was adjusted and both the 1- and 0.2-percent-annual-chance floodplains were redelineated on Cobb County's 2005, 2-foot equivalent aerial topography. This resulted in significant decreases in WSELs.

For the revised countywide FIS dated December 16, 2008, the streams studied by limited detailed methods used the USACE's HEC-HMS version 3.1 computer program to compute the peak discharges for the selected flood recurrence intervals (USACE, 2006). Cobb County provided digital topographic data, which had a vertical accuracy of 1 foot for the portions of the watersheds contained within the county boundary. For the portions of the watersheds contained outside of the county boundaries, USGS 30-meter resolution Digital Elevation Models (DEMs) were gathered from the National Elevation Dataset (NED). The county's digital topographic data was then merged with the NED data to produce the working DEM that was used in the hydrologic analysis. The ArcHydro Toolset computer program (ESRI, 2005) was then used to preprocess the working DEMs. The synthetic unit hydrograph method developed by the NRCS was selected as the approach to transform rainfall excess into surface runoff. The 10-, 2-, 1-, and 0.2-percent storm depth-duration of precipitation for the study watersheds was estimated from the isohyetal maps in the National Weather Service publications Rainfall Frequency Atlas of the United States, Technical Paper No. 40 and Technical Memorandum HYRDRO-35, Five to Sixty Minute Precipitation of the Eastern and Central United States (U.S. Weather Bureau, 1961; USACE, 2003). Rainfall loss was calculated by the NRCS CN method, which is built into the HEC-HMS program.

For this current countywide revision, discharge-frequency relationships for Sweetwater Creek were based on statistical analyses of the peak flows, covering 72 years of record at the Austell gaging station, USGS Station No. 2-3370, and flood frequency at nearby ungaged streams. The correction factor at each of the 1982 gages for the 25-year storm was validated by using the rural regression equation (Region 2).

This revision to the FIS incorporates a new detailed study for the Chattahoochee River, from Buford Dam downstream to the headwater of West Point Lake just above the Heard County and Troup County lines. Flood discharges in the Chattahoochee River Basin study area were determined based on a combination of methods. For the reach from the Roswell gage downstream to the headwater of West Point Lake, discharges were determined based on a logarithmic discharge – area relationship derived based on flood-frequency analysis at selected gaging stations. Since Lake Lanier reached its normal elevation in 1959, flood-frequency analysis was performed for six selected gages that have a minimum of 10 years of flood records, from 1960 to 2009. Since the logarithms of the peak discharges were reasonably consistent with Pearson Type III distribution, a flood-frequency analysis was performed based on Bulletin 17B guidelines (Interagency Advisory Committee on Water Data [IACWD], 1982).

Peak discharge-drainage area relationships for the streams studied by detailed methods are shown in Table 2, “Summary of Discharges.”

TABLE 2 - SUMMARY OF DISCHARGES

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
ALLATOONA BRANCH						
At confluence with Allatoona Creek	0.60	590	920	1,067	1,287	1,393
At Holland Road	0.27	365	541	611	670	762
ALLATOONA CREEK						
At confluence with Allatoona Lake	28.20	5,093	8,402	9,610	11,742	13,603
Just upstream of confluence with Little Allatoona Creek	19.80	4,713	7,435	8,367	9,856	11,254
Downstream of County Line Road	18.69	4,971	7,759	8,775	10,347	11,831
At Mars Hill Road Northwest/(Downstream Crossing)	17.10	4,875	7,595	8,630	10,207	11,660
At Stilesboro Road (Downstream)	14.60	5,268	8,345	9,727	11,587	13,095
Downstream of Due West Creek	12.72	3,770	5,845	6,808	8,038	8,898
At Hadaway Road Northwest	9.20	3,777	5,865	6,830	8,061	8,917
At Burnt Hickory	7.32	3,395	5,122	5,890	6,922	7,654
At Due West Road Northwest	4.50	2,617	3,996	4,630	5,632	6,231
At Old Mountain Road	3.58	2,399	3,622	4,166	5,093	5,669
At Mars Hill Road Northwest (upstream crossing)	2.10	1,312	2,051	2,385	3,230	3,469
At Hermitage Drive	1.23	715	1,238	1,454	1,888	2,023
At Holland Road	0.64	354	536	606	700	762
BISHOP CREEK						
Approximately 190 feet Upstream of Indian Hills Trail Northeast	1.95	2,152	3,755	4,400	4,488	6,603
Approximately 1,530 feet downstream of Fairfield Drive Northeast	0.40	641	1,027	1,192	1,214	1,622

TABLE 2 - SUMMARY OF DISCHARGES - continued

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
BLACKJACK CREEK						
Approximately 580 feet upstream of Lookhead School Road	2.69	2,908	5,085	6,073	6,644	8,481
Approximately 550 feet upstream of Allgood Road Northeast	1.11	1,313	2,201	2,663	2,938	3,775
Approximately 360 feet upstream of Tappahannock Trail	0.21	391	632	743	782	1,025
BUTLER CREEK						
At Nance Road	9.28	3,566	5,144	5,721	6,231	7,364
At Cobb Parkway	7.61	3,536	5,028	5,668	6,198	7,222
At Mack Dobbs Road Northwest	4.00	2,744	3,639	4,290	4,646	5,739
At Pine Mountain Road Northwest	1.80	1,979	2,835	3,176	3,308	3,859
BUTTERMILK CREEK						
At confluence with Sweetwater Creek	6.30	2,459	3,489	3,929	*	5,015
At U.S. Highway 78/278/ Bankhead Highway Northwest	5.60	2,207	3,151	3,555	*	4,559
At Norfolk Southern Railway	5.00	1,988	2,854	3,228	*	4,159
At Clay Road Southwest	2.30	1,121	1,649	1,885	*	2,475
At CSX Transportation	0.70	479	728	846	*	1,141
CAMPGROUND CREEK						
Approximately 790 feet upstream of Sope Creek Drive	0.84	792	1,292	1,547	1,704	2,200
At Lawrence Mill Run	0.57	628	1005	1,151	1,275	1,576
Approximately 320 feet upstream of Robinson Road Northeast	0.30	452	697	809	902	1,088
At Roswell Road	0.07	218	324	370	428	485

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES - continued

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>		
				<u>Existing</u>	<u>Future</u>	
CHATTAHOOCHEE RIVER						
Approximately 550 feet downstream of the confluence with Sandy Creek	1,653	28,921	38,007	41,867	*	51,043
Approximately 720 upstream of Atlanta Road	1,586	27,368	35,872	39,474	*	48,006
At interstate Highway 75	1,447	24,040	31,295	34,342	*	41,494
CLAY BRANCH						
At confluence with Buttermilk Creek	2.10	1,284	1,832	2,075	*	2,667
At Clay Road Southwest	0.80	643	940	1,077	*	1,411
CONCORD CREEK						
At confluence with Nickajack Creek	1.81	1,557	2,335	2,480	*	3,118
Approximately 696 feet upstream of Hurt Road	0.92	1,515	2,262	2,400	*	3,011
At East West Connector	0.75	1,176	1,815	1,947	*	2,465
At Hicks Road Southwest	0.61	890	1,299	1,382	*	1,711
COOPER LAKE CREEK						
At confluence with Nickajack Creek	1.86	1,800	3,021	3,288	*	4,382
Approximately 1620 feet upstream of Derby Lane	1.62	1,731	2,855	3,089	*	4,049
Approximately 120 feet upstream of Gann Road	1.20	1,589	2,517	2,719	*	3,517
DAVIS BRANCH						
At confluence with Pine Creek	0.20	315	450	514	*	666
At Old Alabama Road Southwest	0.10	254	363	414	*	536

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES - continued

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
DUE WEST CREEK						
At confluence with Allatoona Creek	3.40	1,494	2,542	3,010	3,665	4,153
At Acworth Due West Road	3.08	1,534	2,599	3,066	3,723	4,176
At Paul Samuel Road Southwest	2.40	1,458	2,509	2,928	3,541	3,940
EASTSIDE CREEK						
Just upstream of Indian Hills Golf Cart Path	0.40	359	961	1,117	1,087	1,550
At Clubland Drive	0.27	571	898	1,044	1,077	1,410
ELIZABETH BRANCH						
Approximately 640 feet downstream of Allgood Road Northeast	1.18	1,986	2,981	3,364	3,428	4,359
Approximately 170 feet upstream of U.S. Interstate 75/ State Highway 401	0.81	1,797	2,489	2,770	2,770	3,448
FAVOR CREEK						
At confluence with Nickajack Creek	1.42	318	524	577	*	796
Approximately 300 feet upstream of Church Road	0.85	1,020	1,634	1,766	*	2,286
Approximately 2,100 feet upstream of Smyrna - Powder Springs Road Southwest	0.67	838	1,310	1,417	*	1,815
FLORENCE BRANCH						
At confluence with Powder Springs Creek	4.50	1,109	1,770	2,064	*	2,845
At Shipp Road Southwest	3.50	958	1,530	1,789	*	2,469
At Moon Road Southwest	2.60	805	1,291	1,513	*	2,094
At Gaydon Road	2.20	727	1,167	1,370	*	1,901
At Macland Road/State Highway 360	1.30	529	859	1,016	*	1,422
GILMORE CREEK						
At confluence with Chattahoochee River	1.60	954	1,397	1,597	*	2,092
At Woodland Brook Drive Northwest	1.30	849	1,245	1,425	*	1,869

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	Peak Discharges (cubic feet per second)				0.2-Percent- <u>Annual- Chance</u>
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
GORDON BRANCH						
At confluence with Gordon Creek	0.30	382	546	623	*	806
At South Gordon Road	0.10	208	298	342	*	446
GORDON CREEK						
At county boundary	2.40	1,375	1,962	2,220	*	2,852
At South Dillon Road Southwest	1.60	1,133	1,612	1,824	*	2,341
At South Gordon Road Southwest	1.00	890	1,256	1,421	*	1,815
At Kenneth Lane Southwest	0.40	481	683	776	*	998
GOTHARDS CREEK						
At confluence with Sweetwater Creek	23.00	2,200	4,110	5,060	*	7,880
HARMONY GROVE CREEK						
At confluence with Willeo Creek	1.40	580	1,264	1,404	*	1,977
At Long Lake Dr	1.37	850	1,401	1,514	*	2,008
Approximately 436 feet upstream of Long Lake Dr	1.12	535	904	984	*	1,371
Approximately 351 feet Downstream of MountainTree	0.79	465	755	816	*	1,105
Approximately 463 feet upstream of Mountain Creek Dr	0.69	354	575	624	*	871
Approximately 110 feet Upstream of Johnson Ferry Road	0.41	37	94	124	*	432
HOPE CREEK						
At Confluence with Rottenwood Creek	1.30	1,650	2,450	2,800	2,930	3,650
At Interstate 75	0.84	1,100	1,590	1,790	1,920	2,300
Approximately 1290 feet Upstream of south Marietta parkway South State Highway 120	0.55	860	1,240	1,400	1,490	1,790

*Data not available

TABLE 2 SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	Peak Discharges (cubic feet per second)				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual- Chance</u>
				<u>Existing</u>	<u>Future</u>	
LAUREL CREEK						
At confluence with Nickajack Creek	3.67	517	1,100	1,481	*	2,892
Approximately 360 feet upstream of Laurel Bridge	2.83	1,729	2,871	3,052	*	3,660
Approximately 160 feet upstream of Copper Lake Road Southeast	2.74	2,111	3,357	3,610	*	4,605
Approximately 940 feet upstream of South Cobb Drive Southeast/State Highway 280	1.82	1,213	1,813	1,952	*	2435
Approximately 65 feet upstream of Drawbridge Road	1.46	962	1,325	1,393	*	1,642
At Forest Drive southeast	1.1	1,242	1,991	2,152	*	2,799
At Lee Street Southeast	0.23	162	268	292	*	385
LIBERTY HILL BRANCH						
At confluence with Queen Creek	0.48	372	661	726	*	988
At Hickory Trail Southeast	0.26	173	308	338	*	460
Approximately 200 feet upstream of Blackhawk Trail Southeast	0.16	91	167	184	*	253
LITTLE ALLATOONA CREEK						
At Old Stilesboro Road Northwest	5.90	2,182	3,119	3,546	4,206	4,591
At Pitner Road Northwest	4.50	1,451	2,198	2,603	3,303	3,757
At Collins Road		1,365	2,213	2,586	3,215	3,699
At Burnt Hickory Road Northwest	1.10	649	1,125	1,472	2,005	2,213

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
LITTLE NOONDAY CREEK						
At confluence with Noonday Creek	7.20	4,901	6,802	7,724	7,907	9,474
At Canton Road Northeast/ State Highway 754	6.53	4,823	6,700	7,587	7,754	9,386
At Blackwell Road Northeast	5.21	4,255	6,140	6,981	7,147	8,764
At Worley Drive Northeast	4.75	4,187	6,146	6,982	7,159	8,757
At Piedmont Road Northeast	1.85	2,259	3,243	3,624	3,761	4,379
At Liberty Hill Road Northeast	0.89	878	1,265	1,417	1,447	1,742
LOST MOUNTAIN CREEK						
At confluence with Wildhorse Creek	1.00	754	1,201	1,311	*	1,805
Approximately 734 Feet upstream os lost mountain	0.67	676.8	1,030	1,099	*	1,373
LUTHER WARD BRANCH						
At confluence with Mud Creek	5.70	2,425	4,081	4,847	5,549	6,394
At Villa Rica Road Southwest	3.00	1,489	2,890	3,422	3,912	4,451
At Luther Ward Road Southwest	2.30	1,541	2,404	2,860	3,404	3,879
MILAM BRANCH						
At confluence with Queen Creek	1.00	1,076	1,757	1,891	*	2,447
Approximately 125 feet upstream of Sheraton Way Southwest	0.75	763	1,230	1,327	*	1,725
At Dodgen Road	0.62	641	1,042	1,129	*	1,478
At Lane Drive	0.29	304	492	534	*	698
At Gamer Road	0.19	237	371	400	*	514
MILL CREEK No. 1						
At confluence with Powder Springs Creek	2.30	1,251	2,011	2,338	2,794	3,026
At Wright Road Southwest	1.90	1,121	1,804	2,078	2,516	2,693
At Poplar Springs Road Southwest	0.50	452	697	796	950	1,016

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
MILL CREEK No. 2						
At confluence with Nickajack Creek	2.30	1,392	2,773	3,074	*	4,315
At Cindys Lake Dam	2.19	1,662	3,013	3,323	*	4,521
At Mill Creek Dam	1.70	2,335	3,885	4,227	*	5,590
At Hicks Road Southwest	0.58	797	1,315	1,428	*	1,879
MORGAN LAKE TRIBUTARY						
At confluence with Little Noonday Creek	2.40	1,767	2,554	2,939	2,960	3,806
At Piedmont Road	0.81	1,585	2,284	2,611	2,637	3,419
Just upstream of Morgan Lake Drive Northeast	0.58	422	552	662	664	983
MUD CREEK						
At confluence with Noses Creek	16.40	5,423	8,354	9,668	11,015	12,825
Just upstream of confluence with Luther Ward Branch	9.40	2,986	4,452	4,975	5,606	6,497
At Villa Rica Road	6.80	2,728	4,177	4,628	5,154	5,960
At West Sandtown Road Southwest	5.30	1,869	3,101	3,485	3,815	4,327
At Old Dallas Road Southwest	4.40	1,869	3,101	3,485	3,815	4,327
At Burnt Hickory Road Southwest	1.50	908	1,402	1,608	1,828	2,049

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
NICKAJACK CREEK						
At confluence with Chattahoochee River	35.68	8,489	14,014	15,314	*	21,306
Approximately 3,100 feet upstream of Discovery Boulevard Southeast	31.30	8,046	13,260	14,487	*	20,242
Approximately 625 feet upstream of Veterans memorial highway Southeast	30.50	8,271	13,645	14,927	*	20,525
At Buckner Road southeast	28.91	8,582	13,779	15,124	*	20,766
At confluence of Laurel Creek	23.10	7,676	12,601	13,884	*	19,261
Approximately 450 feet upstream of Norfolk South Railway	20.74	6,769	11,946	13,142	*	18,106
Approximately 375 feet Upstream of Copper Lake Road	18.47	6,155	11,236	12,394	*	17,200
Approximately 575 feet downstream of Fontaine Road	15.80	5,513	9,466	10,380	*	14,119
Approximately 275 feet downstream of East –West Connector	11.41	4,838	7,760	8,376	*	11,059
Approximately 500 feet upstream of Hurt Road	6.78	4,138	6,693	7,216	*	9,519
Approximately 400 feet upstream of Church Road	3.42	2,832	4,563	4,972	*	6,694
Approximately 750 feet upstream of Smyrna powder Spring road Southeast	1.9	1,694	2,748	2,975	*	3,896
Approximately 1,400 feet upstream of Downstream of south Cobb Drive Southeast\State Highway	0.39	408	647	699	*	904

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
NOONDAY CREEK						
At Shallowford Road Northeast	34.39	9,537	13,962	15,888	*	20,217
At Hawkins Store Road Northeast	25.10	7,965	11,156	12,399	*	15,889
At New Chastain Road Northeast	22.31	8,032	11,115	14,452	*	15614
At Bells Ferry Road Northeast	17.50	5,548	7705	8,533	*	11,583
Approximately 100feet upstream of Lakes Boulevard Northwest	10.80	4,933	6,930	7,939	*	10,415
Just Down Stream of Duncan Road	7.62	3,017	4,373	4,924	*	5,960
Approximately 100 feet downstream of Roberts Boulevard Northwest	5.78	2,561	3,901	4,284	*	5,070
Approximately 500 feet downstream of Ernest Barrett Parkway Ernest Barrett Parkway	1.01	1,114	1,671	1,861	*	2,256
Approximately 170 feet upstream of New Salem Road	0.68	739	1,115	1,231	*	1,468
NOONDAY CREEK TRIBUTARY NO. 1						
Just downstream of Flood Retarding Structure No. 4	1.40	137	210	227	*	254
At Hawkins Store Road	1.00	386	613	669	*	754
Approximately 1,800 feet upstream of Hawkins Store Road Northeast	0.90	346	550	600	*	675
NOONDAY CREEK TRIBUTARY NO. 3						
At confluence with Noonday Creek	3.90	3,762	4,998	5,482	5,979	6,403

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
NOONDAY CREEK						
TRIBUTARY NO. 3(Continued)						
At Rock Bridge Road						
Northeast	3.70	3,762	4,998	5,482	5,979	6,403
At Cedarbrook Drive	3.47	3,985	5,147	5,680	6,238	6,634
At Piedmont Road Northeast	3.30	3,794	4,890	5,364	5,919	6,211
At Kurtz Road Northeast	2.50	3,355	4,247	4,603	5,109	5,290
At Mark Avenue Northeast	1.80	2,851	3,555	3,815	4,156	4,302
Approximately 1,065 feet upstream of U.S. Interstate 75/State Highway 401/5	0.80	1,676	2,101	2,184	2,283	2,291
NOONDAY CREEK						
TRIBUTARY NO. 4						
At confluence with Noonday Creek						
	3.10	906	1,804	2,195	*	3,472
About 1,500 feet upstream of mouth	2.99	1,028	2,050	2,482	*	3,900
Just downstream of Laura Lake Dam	2.23	1,374	2,685	3,243	*	5,042
Just upstream of Laura Lake Dam	2.23	1,905	3,115	3,638	*	5,370
NOONDAY CREEK						
TRIBUTARY NO. 6						
Just upstream of Interstate 75	1.03	339	550	601	*	680
About 1 mile upstream of Interstate 75	0.57	236	408	475	*	459
NOONDAY CREEK						
TRIBUTARY NO. 7						
At confluence with Noonday Creek						
	2.79	1,739	2,185	3,153	3,197	4,373
At Chastain Road	1.10	480	625	704	724	798

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	Peak Discharges (cubic feet per second)				<u>0.2-Percent- Annual-Chance</u>
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
NOSES CREEK						
At confluence with Sweetwater Creek	48.00	6,080	10,851	11,917	*	16,251
At Clay Road Southwest	46.92	6,045	10,791	11,850	*	16,156
At Confluence of Wildhorse Creek	43.67	6,194	11,074	12,164	*	16,595
Approximately 1430 feet upstream of Macedonia Road South West	37.85	6,152	10,978	12,065	*	16,443
At confluence with Mud Creek Approximately 1013 feet Downstream of Macland Road	36.17	6,331	11,361	12,507	*	17,117
Approximately 699 feet Downstream of Irwin Road	8.69	1,703	3,058	3,371	*	4,294
Approximately 30 feet downstream of Old Dallas Road	6.69	1,677	2,910	3,195	*	4,007
At Mount Calvary Road	6.04	1,744	3,196	3,538	*	5,011
At Burnt Hickory Road Northwest	2.40	1,796	2,857	3,132	*	4,255
At Kennesaw Avenue Northwest	1.35	1,684	2,677	2,891	*	3,742
OLLEY CREEK						
At confluence with Sweetwater Creek	14.33	4,060	6,350	7,430	7,880	10,350
At Flint Hill Road Southwest	12.25	4,180	6,510	7,630	8,080	10,620
At East West Connector	11.42	4,150	6,470	7,580	8,020	10,560
At Hurt Road	9.31	4,080	6,360	7,450	7,880	10,350
At Callaway Road Southwest Approximately 1,050 feet upstream of Candy Lane Southwest	5.37	3,900	6,120	7,160	7,500	9,830
At Cunningham Road	4.14	3,630	5,670	6,610	6,890	9,020
	3.32	3,290	5,100	5,900	6,130	7,950

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>				<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>	
				<u>Existing</u>	<u>Future</u>		
OLLEY CREEK (continued)							
Approximately 1,480 feet upstream of Bellmeade Drive Southwest	2.41	2,950	4,460	5,150	5,360	6,810	
Downstream of confluence of Olley Creek Tributary	2.18	2,780	4,210	4,830	5,040	6,360	
Upstream of confluence of Olley Creek Tributary	1.17	1,720	2,560	2,940	3,090	3,830	
At Carruth Drive	0.50	820	1,210	1,390	1,500	1,820	
Just downstream of South Cobb Drive Southeast	0.21	330	510	580	580	780	
OLLEY CREEK TRIBUTARY							
Approximately 400 feet upstream from confluence of Olley Creek Southwest	0.85	1,122	1,678	1,921	1,980	2,526	
At Booth Road	0.74	786	1,197	1,378	1,437	1,821	
Approximately 1,260 feet upstream of Juliet Lane Southwest	0.20	540	837	969	969	1,301	
PINE BRANCH							
At Thunderwood Road	0.50	596	844	957	*	1,228	
Approximately 2,640 feet upstream of Thunderwood Road Southwest	0.30	473	671	763	*	982	
Approximately 4,065 feet upstream of Thunderwood Road Southwest	0.10	267	380	434	*	562	
PINE CREEK							
At Cardell Road Southwest	2.00	1,357	1,910	2,154	*	2,740	
At South Gordon Road Southwest	1.60	1,205	1,697	1,916	*	2,440	
At Old Alabama Road Southwest	0.40	560	791	896	*	1,147	
At Dunn Road Southwest	0.20	307	434	493	*	633	

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
PINEY GROVE CREEK						
Approximately 2,630 feet upstream of Sewell Mill Creek	5.41	2,889	4,546	5,308	5,348	7,484
Approximately 3,050 feet upstream of Casteel Road Northeast	3.74	2,894	4,673	5,468	5,492	7,818
At Post Oak Tritt Road	2.50	2,342	3,950	4,682	4,697	6,434
Approximately 340 feet upstream of Hembree Road Northeast	1.98	2,198	3,859	4,540	4,557	6,350
Approximately 170 feet upstream of Davis Road Northeast	0.28	334	507	584	596	782
PITNER CREEK						
At confluence with Little Allatoona Creek	1.80	1,053	1,592	1,778	2,091	2,296
At County Line Road	1.63	936	1,465	1,638	1,934	2,174
At Burnt Hickory Road Northwest	0.90	210	336	373	440	624
At Brookstone Walk	0.72	88	220	284	392	558
At Fords Road	0.35	420	797	901	1,046	1,213
POORHOUSE CREEK						
At confluence with Rottenwood Creek	3.61	2,480	2,920	3,080	3,110	3,460
Approximately 420 feet upstream of Cobb Parkway Southeast/ U.S. Highway 41/State Highway 3	2.98	2,810	3,460	3,650	3,760	4,120
At Dobbins Patrol Road	2.61	2,970	4,310	4,890	4,990	6,320
POPLAR CREEK						
At confluence with Rottenwood Creek	3.30	1,920	2,287	2,426	*	2,859
At Cobb Parkway	2.30	2,230	3,300	3,690	*	5,140
At Spring Road Southeast	1.15	1,290	1,820	2,040	2,040	2,640
At Pinecrest Circle	0.33	538	788	896	*	1,166

* Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
POWDER SPRINGS CREEK						
At confluence with Sweetwater Creek	28.00	3,752	5,777	6,313	7,439	8,367
At Oglesby Road Southeast	25.40	3,631	5,660	6,198	7,289	8,230
At Lewis Road Southeast	24.20	3,615	5,640	6,178	7,260	8,202
Just downstream of Florence Branch	22.90	3,599	5,643	6,189	7,209	8,157
At Elliot Road Southwest	15.20	2,981	4,671	5,111	6,051	6,698
At Moon Road Southwest	10.00	2,141	3,349	3,860	4,473	5,070
At MacFarland Road Southwest/State Highway360	9.10	1,980	3,225	3,721	4,301	4,875
Just upstream of confluence with Mill Creek No. 1	6.50	1,595	2,510	2,830	3,283	3,706
POWERS BRANCH						
At confluence with Chattahoochee River	0.50	318	514	611	*	856
POWERS CREEK						
At confluence with Rottenwood Creek	0.80	850	1,310	1,520	1,540	2,010
At Powers Ferry Road	0.59	770	1,180	1,360	1,380	1,810
PROCTOR CREEK						
At Old 41 Highway	7.56	3,092	4,347	4,861	5,475	5,993
At Legacy Park Circle	5.01	2,638	4,121	4,801	5,350	6,336
At Jiles Road	2.09	2,443	3,450	3,873	4,058	4,736
QUEEN CREEK						
At confluence with Nickajack Creek	3.94	3,350	5,681	6,180	*	8,232
Just upstream of confluence of Liberty Hill Branch	3.37	3,158	5,287	5,746	*	7,617
Approximately 1,000 feet upstream of Queens Mill Road	3.10	3,075	5,100	5,538	*	7,305
Just Downstream from Milam Branch	0.75	1,052	1,695	1,838	*	2,444
At Mableton Parkway Southwest/State Highway	0.46	643	1,044	1,133	*	1,530

* Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
ROBERTSON CREEK						
Approximately 500 feet upstream of confluence with Sewell Mill Creek Road Northeast	0.89	1,311	2,016	2,373	2,396	3,339
Approximately 1,620 feet upstream of Old Canton Road Northeast	0.65	760	1,207	1,407	1,471	3,104
At Roswell Road	0.27	465	731	850	873	1,162
ROTTENWOOD CREEK						
At confluence with Chattahoochee River	19.71	9,550	12,290	13,390	13,750	16,210
At Windy Hill Road Southeast	17.91	7,330	9,590	10,510	10,700	12,980
At Terrell Mill Road	13.62	7,130	9,260	10,110	10,290	12,720
At Delk Road Southeast/State Highway 280	9.44	4,560	6,340	7,110	7,280	9,230
At Franklin Road Northeast	5.68	3,770	5,810	6,680	7,050	8,890
At Cobb Parkway Southeast/ U.S. Highway 41/State Highway 3	4.76	3,570	5,560	6,360	6,720	8,400
At Barclay Circle Southeast	2.10	2,590	3,810	4,370	4,720	5,760
At Alumni Drive	1.57	2,230	3,240	3,670	3,900	4,730
At Fairground Street	0.58	330	470	530	560	680
RUBES CREEK						
Approximately 210 feet downstream of Jamerson Road Northeast	8.69	5,042	9,034	10,700	11,166	15,998
At confluence of Rubes Creek Tributary	4.09	2,908	4,778	5,678	5,748	7,977
Approximately 1,310 feet downstream Shallow Road Northeast	3.54	2,774	4,552	5,365	5,435	7,426
Approximately 1,120 downstream of Downing Street Northeast	1.78	2,385	3,755	4,401	4,448	5,952
Approximately 160 feet upstream of Saxony Glen	0.25	501	722	818	818	1,054

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
RUBES CREEK TRIBUTARY						
Approximately 1,162 feet upstream of Keheley Drive Northeast	0.52	469	738	858	858	1,164
SEWELL MILL CREEK						
At Confluence with Sope Creek	14.4	4,490	6,427	7,423	*	9,336
Approximately 610 feet downstream of Murdock Road Northeast	13.2	4,291	6,134	7,079	*	8,892
Approximately 700 feet upstream of Roswell Road Old Canton Road	11.3	3,849	5,510	6,359	*	7,594
Approximately 850 feet upstream of Sewell Mill Road	5.6	2,318	3,349	3,869	*	4,912
Approximately 1000 feet downstream of Old Canton Road	4.7	2,050	2,968	3,428	*	4,360
At Holly Spring Road	3.6	1,728	2,502	2,888	*	3,675
At Piedmont Forest Drive	1.6	1,020	1,481	1,706	*	2,176
Approximately 900 feet upstream of Post Oak Tritt Road	0.8	612	598	1,035	*	1,334
At Cynthia Court	0.3	294	438	507	*	664
SMYRNA BRANCH						
At confluence with Theater Branch	0.90	1,166	1,652	1,741	*	2,022
Approximately 1,100 feet Downstream of Lavista Place	0.70	1,016	1,689	1,825	*	2,354
La Vista Place	0.42	694	1,136	1,222	*	1,564
At Powder Springs Street	0.13	260	401	425	*	546
SOPE BRANCH						
Approximately 240 feet upstream of Chicopee Drive	0.42	969	1,419	1,588	1,588	2,000
At Apache Trail	0.11	680	953	1,071	1,071	1,359
SOPE CREEK						
At the confluence with Chattahoochee River	35.5	8,952	12,237	13,570	*	16,459

* Data not available

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	Peak Discharges (cubic feet per second)				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
Sope Creek (Continued)						
Approximately 1,400 feet Downstream of paper Mill Road						
At paper Mill Road	33.3	8,115	11,206	12,484	*	15,327
Approximately 1800 feet downstream of lower Roswell Road	32.9	7,985	11,045	12,314	*	15148
Approximately 3600 feet downstream of lower Roswell Road	32.1	7,687	10,677	11,925	*	14,740
Approximately 1500 feet downstream of Lower Roswell Road	31.1	7,337	10,242	11,242	*	14,740
Approximately 1,650 feet downstream of lower Roswell Road	28.9	6,598	9,321	10,488	*	13,219
Approximately 1,250 feet downstream of Indian Hills Drive	13.4	5,053	7,066	8,096	*	9,947
Approximately 150 feet upstream of Old Canton Road	11.9	4,650	6,510	7,459	*	9,176
Approximately 100 feet upstream of Holt Road	10.8	4,435	6,197	7,094	*	8709
Approximately 1,000 feet Upstream of Roswell Road	8.5	3,799	5,311	6,076	*	7464
Approximately 750 feet downstream of Barnes Mill Road	6.6	3,203	4,484	5,128	*	6,309
Approximately 2,300 feet upstream of Barnes Mill Road	3.7	2,122	2,992	3,423	*	4,240
Approximately 500 feet downstream of Pickens Industrial Drive	2.4	1,663	2,334	2,663	*	3,285
At Interstate 75	2.3	1,262	1,420	1,478	*	1,578
Approximately 150 feet upstream of Cobb Parkway	1.0	865	1,232	1,408	*	1,762

* Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	Peak Discharges (cubic feet per second)				
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
SWEAT MOUNTAIN CREEK						
At confluence with Willeo Creek	4.47	994	2,019	2,249	*	3,897
Approximately 1,424 feet upstream of Rock Ivy Trl	4.34	992	2,015	2,246		3,892
At Mabry Road Northeast	3.53	849	1,817	2,041	*	3,588
At Loch Highland Pkwy	2.68	994	1,984	2,174		3,506
Approximately 258 feet upstream of Wesley Chapel Road	2.00	1,411	2,335	2,539	*	3,546
SWEETWATER CREEK						
Old Alabama Road SW	233	8,333	13,681	16,475	*	24,390
At US Highway 78	227	8,255	13,552	16,319	*	24,160
At Austell-Powder Springs Road SW	164	7,469	12,261	14,765	*	21,859
At Westside Road	163	7,233	11,874	14,299	*	21,169
At Lithia Spring Road	131	6,525	10,712	12,900	*	19,098
Holloman Road	128	6,289	10,325	12,434	*	18,407
At Brown Road	105	5,739	9,422	11,346	*	16,797
TANYARD CREEK						
At county boundary	2.70	1,461	1,889	2,074	2,339	2,456
At Lake Acworth Drive	2.50	1,076	1,397	1,513	1,738	2,047
At Cherokee Street Northwest	2.10	960	1,329	1,478	1,714	2,020
At Cowan Road Northwest	1.40	893	1,168	1,374	1,608	1,940
At Baker Grove Road	1.00	789	1,051	1,261	1,485	1,844
At Baker Plantation Drive (Downstream)	0.50	472	723	815	888	1,024
TATE CREEK						
At confluence with Noonday Creek	5.10	742	1,246	1,471	*	2,240
Just downstream of Flood Retarding Structure No. 17	4.60	62	447	819	*	1,354

* Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
TATE CREEK(Continued)						
Just upstream of Flood Retarding Structure No. 17	4.60	2,827	4,684	5,521	*	8,261
Just downstream of Regional Flood Control Facility	1.70	264	502	630	*	1,777
Just upstream of Regional Flood Control Facility	1.70	1,696	2,850	3,365	*	5,122
Just downstream of Wooten Lake Road Northwest	0.50	236	434	535	*	960
Just upstream of Wooten Lake Road Northwest	0.50	805	1,353	1,591	*	2,421
TERRELL BRANCH						
At confluence with Chattahoochee River	1.50	812	1,217	1,402	*	1,866
THEATER BRANCH						
At confluence with Nickajack Creek	2.56	2,221	3,430	3,736	*	3,850
Just upstream of confluence of Smyrna Branch	1.49	1,512	2,204	2308	*	3,062
Approximately 1000 feet upstream of Powder Springs Road Southeast	1.10	1,319	2,132	2,307	*	3,015
At Windy Hill Road Southeast	0.61	770	1,277	1,393	*	1,837
At Parkway Drive	0.40	604	977	1,066	*	1,383
THOMPSON CREEK						
Approximately 1,320 feet downstream of Liberty Lane Northeast	1.11	1,351	2,161	2,651	2,729	3,935
At Liberty Lane	0.72	722	1,412	1,940	1,951	3,197
At Pine Road	0.36	114	683	913	913	1,672
TIMBER RIDGE BRANCH						
At confluence with Willeo Creek	2.94	1,760	3,297	3,632	*	5,461
Approximately 366 feet upstream of Timber Ridge Road	2.82	1736	3,254	3,587	*	5,405

*Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			<u>0.2-Percent- Annual-Chance</u>
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		
				<u>Existing</u>	<u>Future</u>	
TIMBER RIDGE						
BRANCH(Continued)						
At Huntingford Drive	2.06	1,453	2,543	2,819	*	4,217
At Little Willeo Road	1.23	825	1,423	1,555	*	2,214
TRICKUM CREEK						
Approximately 2,260 feet upstream of Jamerson Road						
Northeast	4.32	3,148	5,559	6,426	6,846	9,368
Approximately 1,780 feet upstream of Trickum Road						
Northeast	2.04	2,054	3,701	4,407	4,750	6,487
At Steinhauer Road	1.54	1,999	3,497	4,222	4,555	6,149
Approximately 370 feet upstream of Pete Shaw Road						
Northeast	0.35	640	962	1,104	1,175	1,456
TRICKUM CREEK TRIBUTARY						
Approximately 260 feet upstream of Netherstone						
Court Northeast	1.04	1,129	2,022	2,386	2,562	3,415
At Forest Way	0.74	1,088	1,946	2,134	2,288	3,223
Approximately 210 feet upstream of Jims Road						
Northeast	0.20	401	624	723	723	972
VININGS BRANCH						
At confluence with Chattahoochee River						
At Randall Farm Road	0.90	716	1,038	1,186	*	1,546
Northwest	0.60	591	854	976	*	1,270
At confluence with Noses Creek						
At John Ward Road Southwest	8.10	2,130	3,360	3,739	4,122	5,059
At Cheatham Hill Road	7.20	2,066	3,242	3,620	3,993	4,873
Southwest	5.80	2,149	3,408	3,894	4,260	5,123

* Data not available

TABLE 2 - SUMMARY OF DISCHARGES (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>Peak Discharges (cubic feet per second)</u>			
			<u>2-Percent- Annual-Chance</u>	<u>1-Percent-Annual- Chance</u>		<u>0.2-Percent- Annual-Chance</u>
				<u>Existing</u>	<u>Future</u>	
VININGS BRANCH(Continued)						
At Kirkpatrick Drive Southwest	1.70	1,070	1,702	1,962	2,121	2,470
WARD CREEK						
At confluence with Noses Creek	8.10	2,130	3,360	3,739	4,122	5,059
At John Ward Road Southwest	7.20	2,066	3,242	3,620	3,993	4,873
At Cheatham Hill Road Southwest	5.80	2,149	3,408	3,894	4,260	5,123
At Kirkpatrick Drive Southwest	1.70	1,070	1,702	1,962	2,121	2,470
WESTSIDE BRANCH						
At confluence with Ward Creek	0.87	1,020	1,700	2,000	*	2,880
WILDHORSE CREEK						
At confluence with Noses Creek	4.30	1,755	2,881	3,134	*	4,209
At Macedonia Road Southwest Approximately 1967 Feet upstream of old Villarica road	2.40	1,012	1,800	1,987	*	2,747
At Lost Mountain Road	1.40	983	1,694	1,864	*	2561
	0.69	571	996	1,089	*	1,474
WILDWOOD BRANCH						
Approximately 1,670 feet upstream of North Marietta Parkway	0.67	1,239	1,839	2,102	2,281	2,764
At Amanda Lane	0.33	884	1,282	1,456	1,607	1,892
WILLEO CREEK						
At confluence with Chattahoochee River	19.70	4,145	7,057	7,699	*	11,092
Approximately 367 feet Upstream of Lower Roswell Road	19.62	4,159	7,071	7,707	*	11,123
At Roswell Road	16.14	4,024	6,856	7,482	*	10,931
Approximately 111 feet Downstream of Post Oak Tritt Drive	12.55	3,443	5,527	5,958	*	8,556
At Chiders Road	7.28	1,573	3,449	3,847	*	6,391

* Data not available

The stillwater elevation for the 1-percent-annual-chance flood event for Allatoona Lake and Lake Acworth is shown in Table 3, “Summary of Stillwater Elevations.”

TABLE 3 - SUMMARY OF STILLWATER ELEVATIONS

<u>Flooding Source</u>	Water Surface Elevations (Feet NAVD88 ¹)			
	<u>10-Percent-Annual-Chance</u>	<u>2-Percent-Annual-Chance</u>	<u>1-Percent-Annual-Chance</u>	<u>0.2-Percent-Annual-Chance</u>
ALLATOONA LAKE	*	*	861.1	*
LAKE ACWORTH	*	*	861.1	*

¹North American Vertical Datum of 1988

* Data not available

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of 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 Table in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS report in conjunction with the data shown on the FIRM.

Initial Countywide Analyses

Cross sections for the backwater analyses for the initial countywide study were obtained from aerial photography (Woolpert Consultants, 1988) for the following streams studied in detail: Buttermilk Creek, Chattahoochee River, Clay Branch, Davis Branch, Florence Branch, Gilmore Creek, Gordon Creek, Gothards Creek, Harmony Grove Creek, Lost Mountain Creek, Noonday Creek Tributary No. 1, Noonday Creek Tributary No. 4, Pine Branch, Pine Creek, Sweat Mountain Creek, Sweetwater Creek, Tate Creek, Terrell Branch, Timber Ridge Branch, Vinings Branch, Westside Branch, Wildhorse Creek, and Willeo Creek. The below-water sections were obtained by field measurement at bridge structures and interpolated or estimated between structures. All bridges, dams, and culverts were field surveyed to obtain elevation and structural geometry data. All cross-section information for Gordon Branch was obtained from field survey.

WSELs of floods of the selected recurrence intervals were computed using the HEC-2 step backwater computer program (USACE, 1985).

Starting WSELs, except for the Chattahoochee River, were determined using the slope/area method. For the Chattahoochee River, the flood discharges for the March 1977 and April 1979 floods, as measured by the gages, were used to reconstruct water-surface profiles for these flood events. Reconstructed profiles were compared to high-water marks obtained during these floods, and adjustments were made in channel and overbank roughness coefficients (Manning's "n") until the difference between reconstructed and observed stages was within plus or minus 0.5 foot.

Additional calibration was performed for the Vinings gage at Paces Ferry Road and its upstream "fall" gage at U.S. Highway 41 by comparing the discharges and corresponding stages computed by the model with the actual USGS data for these stations.

Flood profiles were drawn showing the computed WSELs for floods of the selected recurrence intervals. In cases where the 2- and 1-percent-annual-chance flood elevations are close together, due to limitations of the profile scale, only the 1-percent-annual-chance flood profile has been shown.

Revised Countywide Analyses

For the revised countywide FIS dated December 16, 2008, field-run cross sections were obtained for various locations along each stream as outlined in the survey plan. Cobb County topographic mapping at 2-foot intervals was also available throughout the study area (Cobb County, 2000 and 2005). Cross sections were cut from digital terrain models of the 2-foot contour interval mapping at desired locations. Where field survey information was available, field surveys were used in the model. Outside of the areas where field surveys were obtained, survey information was used to supplement the channel information at cut cross sections. Survey information was used by either interpolating between two surveyed channel sections or by applying a surveyed channel section as a typical section.

The hydraulic analysis was prepared using HEC-RAS (Version 3.1.1) (USACE, 2003) to compute WSELs for Olley Creek, Olley Creek Tributary, and the following watersheds: Nickajack Creek (Concord Creek, Cooper Lake Creek, Favor Creek, Laurel Creek, Liberty Hill Branch, Milam Branch, Mill Creek No. 2, Nickajack Creek, Queen Creek, Smyrna Branch, and Theater Branch); Rottenwood Creek (Hope Creek, Poorhouse Creek, Poplar Creek, Powers Creek, and Rottenwood Creek); Sope Creek (Bishop Creek, Blackjack Creek, Campground Creek, Eastside Creek, Elizabeth Branch, Piney Grove Creek, Robertson Creek, Sewell Mill Creek, Sope Branch, Sope Creek, Thompson Creek, and Wildwood Branch); and Rubes Creek (Rubes Creek, Rubes Creek Tributary, Trickum Creek, and Trickum Creek Tributary). HEC-RAS (Version

3.1.3) (USACE, River Analysis System, Version 3.1.3) was used to compute WSELs for Allatoona Branch, Allatoona Creek, Butler Creek, Due West Creek, Little Allatoona Creek, Little Noonday Creek, Luther Ward Branch, Mill Creek No.1, Morgan Lake Tributary, Mud Creek, Noonday Creek, Noonday Creek Tributary No. 3, Noonday Creek Tributary No. 7, Noses Creek, Pitner Creek, Powder Springs Creek, Proctor Creek, Tanyard Creek, and Ward Creek.

The starting WSELs for all models were calculated by HEC-RAS using the downstream energy slope specified in the boundary conditions editor of the flow file. Each HEC-RAS model contains one stream, with starting WSELs based on normal-depth calculations using the slope of the stream at the lower limits of the model. Water-surface profiles were computed for the 10-, 2-, 1-, and 0.2-percent-annual-chance floods for existing and future conditions.

Cross sections for the flooding sources studied by limited detail methods were obtained using digital topography. The 1-percent-annual-chance WSELs were computed using the USACE's HEC-RAS hydraulic model version 3.1.3 (USACE, River Analysis System, Version 3.1.3), and HEC-GeoRAS was used to delineate the 1-percent-annual-chance floodplain (USACE, 2004). The hydraulic model was prepared using digital elevation data (Cobb County, 2000 and 2005), without surveying bathymetric data. Where bridge or culvert data were readily available, these data were reflected in the hydraulic model. Where structure data were not readily available, field measurements were made to approximate their geometry in the hydraulic models. Models do not include field surveys that determine the specifics of channel and floodplain geometry. A limited detailed study can be upgraded to a full detailed study at a later date by verifying stream channel and overbank geometry, bridge and culvert geometry, and by analyzing multiple recurrence intervals.

For the revised countywide FIS dated June 18, 2010, WSELs for the revised study area of the Chattahoochee River were determined by re-running the previously effective HEC-2 model with the updated discharge values (USACE, 1991). Floodway encroachment stations remain the same as they were with the previously effective model; however, the HEC-2 floodway model was re-run to reflect the revised discharge values. The water surface at Morgan Falls has been mapped to an elevation of 854 feet. This represents the Morgan Falls spillway elevation and the starting WSEL of the previously effective HEC-2 model.

For the revised countywide FIS dated July 3, 2012, the previously effective HEC-RAS models for Sope Creek and Sewell Mill Creek were updated with the revised hydrology. Additionally, the floodway was adjusted and both the 1-percent and 0.2-percent-annual-chance floodplains were redelineated on Cobb County's 2-foot equivalent aerial topography from 2005. This resulted in significant decreases in WSELs.

For this revision, cross sections for the flooding sources studied by detailed methods were cut from the digital terrain model of the topographic Light Detection and Ranging (LiDAR) data (Photo Science, 2009) at desired locations. Field survey information was incorporated in the model where cross sections were surveyed. Field--survey information was used to supplement the channel information at cut cross sections outside of the areas where field surveys were obtained. All bridges, culverts, and dams were field surveyed to obtain elevation data and structural geometry.

WSELs for floods of the selected recurrence intervals were computed using the USACE HEC-RAS Version 4.0 computer program.

Starting WSELs were determined using normal depth unless a coincident peak situation is assumed. The energy slope was approximated by using the average slope of the channel at the lower limits of the model. Under a coincident peak situation, a known WSEL was implemented as the starting WSEL.

The Manning’s “n” values were assigned to channel and overbank portions of the studied streams based on field visits and aerial photographs. Comparisons of field conditions were made with published USGS photographs (USGS, 1977), “Open Channel Hydraulics” (Chow, 1959), and Manning’s “n” values found in the HEC-RAS Hydraulic Reference Guide (USACE, 2002). The Manning’s “n” values published in the Cobb County 1992 FIS (FEMA, 1992) were also consulted as a reference to verify the range of “n” values used.

The Manning’s “n” values for all detailed studied streams are listed in Table 4, Manning's "n" Values.

TABLE 4 - MANNING'S "N" VALUES

<u>Stream</u>	<u>Channel “n”</u>	<u>Overbank “n”</u>
Allatoona Branch	0.060	0.150
Allatoona Creek	0.040-0.060	0.140
Bishop Creek	0.035-0.045	0.030-0.120
Blackjack Creek	0.035-0.070	0.100-0.120
Butler Creek	0.050	0.150-0.170
Buttermilk Creek	0.040-0.065	0.080-0.120
Campground Creek	0.035-0.045	0.100-0.120
Chattahoochee River	0.035-0.040	0.070-0.120

TABLE 4 - MANNING'S "N" VALUES - CONTINUED

<u>Stream</u>	<u>Channel "n"</u>	<u>Overbank "n"</u>
Clay Branch	0.040-0.065	0.080-0.120
Concord Creek	0.035-0.040	0.070-0.120
Cooper Lake Creek	0.040	0.010-0.120
Davis Branch	0.040-0.065	0.080-0.120
Due West Creek	0.050	0.150
Eastside Creek	0.035-0.045	0.030-0.120
Elizabeth Branch	0.035-0.045	0.100-0.120
Favor Creek	0.04-0.045	0.080-0.120
Florence Branch	0.040-0.065	0.080-0.120
Gilmore Creek	0.040-0.065	0.080-0.120
Gordon Branch	0.040-0.065	0.080-0.120
Gordon Creek	0.040-0.065	0.080-0.120
Gothards Creek	0.030-0.070	0.045-0.100
Harmony Grove Creek	0.040-0.065	0.080-0.120
Hope Creek	0.025-0.045	0.080-0.120
Laurel Creek	0.035-0.040	0.080-0.120
Liberty Hill Branch	0.045-0.055	0.060-0.100
Little Allatoona Creek	0.060	0.150
Little Noonday Creek	0.045-0.065	0.080-0.120
Lost Mountain Creek	0.030-0.060	0.055-0.130
Luther Ward Branch	0.060	0.170
Milam Branch	0.045-0.055	0.060-0.120
Mill Creek No. 1	0.055	0.120
Mill Creek No. 2	0.035-0.040	0.100-0.120
Morgan Lake Tributary	0.055	0.120
Mud Creek	0.050	0.150
Nickajack Creek	0.045-0.055	0.060-0.080
Noonday Creek	0.040-0.065	0.080-0.110
Noonday Creek Tributary No. 1	0.040-0.065	0.080-0.120
Noonday Creek Tributary No. 3	0.012-0.055	0.060-0.130
Noonday Creek Tributary No. 4	0.040-0.065	0.080-0.120
Noonday Creek Tributary No. 6	0.040-0.065	0.080-0.120
Noonday Creek Tributary No. 7	0.050-0.060	0.110
Noses Creek	0.040-0.050	0.11-0.150
Olley Creek	0.040-0.055	0.060-0.130
Olley Creek Tributary	0.045	0.080-0.120
Pine Branch	0.040-0.065	0.080-0.120
Pine Creek	0.040-0.065	0.080-0.120

TABLE 4 - MANNING'S "N" VALUES - continued

<u>Stream</u>	<u>Channel "n"</u>	<u>Overbank "n"</u>
Piney Grove Creek	0.035-0.100	0.100-0.120
Pitner Creek	0.035-0.055	0.080-0.150
Poorhouse Creek	0.045-0.050	0.070-0.120
Poplar Creek	0.046-0.053	0.080-0.150
Powder Springs Creek	0.055	0.120
Powers Branch	0.040-0.065	0.080-0.120
Powers Creek	0.040-0.055	0.100-0.120
Proctor Creek	0.040-0.07	0.150
Queen Creek	0.045	0.060-0.100
Robertson Creek	0.035-0.045	0.030-0.120
Rottenwood Creek	0.040-0.058	0.060-0.120
Rubes Creek	0.035-0.070	0.050-0.120
Rubes Creek Tributary	0.035-0.040	0.100-0.120
Sewell Mill Creek	0.03-0.050	0.035-0.120
Smyrna Branch	0.040	0.060-0.120
Sope Branch	0.035-0.045	0.100-0.120
Sope Creek	0.035-0.050	0.030-0.120
Sweat Mountain Creek	0.040-0.065	0.080-0.120
Sweetwater Creek	0.035-0.055	0.050-0.20
Tanyard Creek	0.035-0.060	0.150
Tate Creek	0.040-0.065	0.080-0.120
Terrell Branch	0.040-0.065	0.080-0.120
Theater Branch	0.035-0.040	0.060-0.120
Thompson Creek	0.035-0.045	0.100-0.120
Timber Ridge Branch	0.040-0.065	0.080-0.120
Trickum Creek	0.035-0.050	0.045-0.120
Trickum Creek Tributary	0.035-0.040	0.012-0.120
Vinings Branch	0.040-0.065	0.080-0.120
Ward Creek	0.018-0.050	0.100-0.150
Westside Branch	0.040-0.065	0.080-0.120
Wildhorse Creek	0.030-0.065	0.055-0.130
Wildwood Branch	0.035-0.050	0.100-0.120
Willeo Creek	0.040-0.065	0.080-0.120

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the FIRM (Exhibit 2).

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the Flood Profiles (Exhibit 1) are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

3.3 Vertical Datum

All FIS reports and FIRMs 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 FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FIS reports and FIRMs are being prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD 88. Structure and ground elevations in the community must, therefore, be referenced to NAVD 88. It is important to note that adjacent communities may be referenced to NGVD 29. This may result in differences in Base Flood Elevations (BFEs) across the corporate limits between the communities. The average conversion factor that was used to convert the data in this FIS report to NAVD 88 was calculated using the National Geodetic Survey's (NGS) VERTCON online utility (NGS, 2005). The data points used to determine the conversion are listed in Table 5, Vertical Datum Conversion.

TABLE 5 - VERTICAL DATUM CONVERSION

Quadrangle Name	Corner	Longitude	Latitude	Conversion from NGVD 29 to NAVD 88
Burnt Hickory Ridge	SE	-84.750	34.001	0.16 foot
Acworth	SE	-84.623	34.002	0.14 foot
Kennesaw	SE	-84.499	34.000	0.16 foot
Mountain Park	SE	-84.376	34.002	0.17 foot
Dallas	SE	-84.749	33.875	0.24 foot
Lost Mountain	SE	-84.622	33.876	0.24 foot
Marietta	SE	-84.499	33.876	0.22 foot
Austell	SE	-84.625	33.751	0.22 foot
Mableton	SE	-84.499	33.752	0.25 foot
Average:				0.20 foot

For Allatoona Lake and Lake Acworth, the vertical datum conversion factor of 0.1 feet, which was previously determined in adjacent Cherokee County, was used

in this study. The average vertical datum conversion factor of 0.2 feet was used for all other streams in Cobb County.

For more information on NAVD 88, see the FEMA publication entitled Converting the National Flood Insurance Program to the North American Vertical Datum of 1988 (FEMA, June 1992), or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Silver Spring, Maryland 20910 (Internet address <http://www.ngs.noaa.gov>).

Temporary vertical monuments 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, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM for this community. Interested individuals may contact FEMA to access this data.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. Therefore, each FIS provides 1-percent-annual-chance flood elevations and delineations of the 1- and 0.2-percent-annual-chance floodplain boundaries and 1-percent-annual-chance floodway to assist communities in developing floodplain management measures. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data Tables, and Summary of Stillwater Elevations Table. Users should reference the data presented in the FIS report as well as additional information that may be available at the local map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. For each stream studied by detailed methods, the 1-percent-annual-chance floodplain boundary has been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps with a contour interval of 10 and 15 feet (USGS, 1954, etc.) for the following stream: Noonday Creek Tributary No. 6. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:2,400, with a contour interval of 2 feet (Cobb County, 2000 and 2005) for all other streams restudied by detailed methods, streams studied by limited detailed methods, and redelineated streams.

The existing-conditions 1-percent-annual-chance floodplain boundary is shown on the FIRM (Exhibit 2) for streams restudied by detailed methods in this countywide revision. On this map, the existing-conditions 1-percent-annual-

chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE). For streams that have not been restudied by detailed methods in this revision, the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate existing-conditions flood hazards (Zone X). In cases where these boundaries are close together, only the existing-conditions 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations, but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

4.2 Floodways

Encroachment on floodplains, such as 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, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the existing-conditions 1-percent-annual-chance 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-percent-annual-chance flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

Floodways for the Chattahoochee River and Willeo Creek extend beyond the county boundary into Fulton County for the entire limit of detailed study. The floodway for Sweetwater Creek extends beyond the county boundary into Douglas County towards the downstream end of the study.

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, “Without Floodway” elevations presented in Table 6 for certain downstream cross sections of the following streams are lower than the regulatory flood elevations in that area, which must take into account the 1-percent-annual-chance flooding due to backwater from other sources.

Allatoona Creek	Noonday Creek Tributary No. 6
Bishop Creek	Noonday Creek Tributary No. 7
Butler Creek	Noses Creek
Buttermilk Creek	Olley Creek
Campground Creek	Pitner Creek

Concord Creek	Powder Springs Creek
Cooper Lake Creek	Proctor Creek
Due West Creek	Queen Creek
Eastside Creek	Robertson Creek
Favor Creek	Sewell Mill Creek
Gilmore Creek	Smyrna Branch
Gothards Creek	Sweat Mountain Creek
Laurel Creek	Tanyard Creek
Liberty Hill Branch	Tate Creek
Little Allatoona Creek	Theater Branch
Little Noonday Creek	Thompson Creek
Luther Ward Branch	Timber Ridge Branch
Milam Branch	Vinings Branch
Mill Creek No. 1	Westside Branch
Morgan Lake Tributary	Wildhorse Creek
Nickajack Creek	Wildwood Branch
Noonday Creek Tributary No. 4	Willeo Creek

The floodways presented in this FIS report and on the FIRM 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 have been tabulated for selected cross sections (Table 6). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown. The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the WSEL of the 1-percent-annual-chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Allatoona Branch								
A	624 ¹	50	283	3.8	984.5	984.5	984.7	0.2
B	1,582 ¹	70	127	7.6	992.8	992.8	992.8	0.0
C	2,775 ¹	80	280	3.4	1,009.9	1,009.9	1,010.2	0.3
D	3,763 ¹	75	332	1.8	1,019.1	1,019.1	1,019.2	0.1
Allatoona Creek								
A	261 ²	89	672	14.4	861.1	833.1 ³	833.5	0.2
B	1,707 ²	1,080	8,586	1.1	861.1	838.4 ³	839.0	0.6
C	3,459 ²	360	2,880	3.4	861.1	839.2 ³	839.9	0.7
D	5,361 ²	279	2,826	3.4	861.1	841.3 ³	841.7	0.4
E	7,374 ²	500	3,593	2.7	861.1	844.7 ³	844.8	0.1
F	8,946 ²	165	1,543	6.2	861.1	847.2 ³	847.2	0.0
G	11,517 ²	900	8,285	1.0	861.1	849.9 ³	850.1	0.2
H	13,454 ²	1,000	6,668	1.3	861.1	850.5 ³	850.8	0.3
I	14,936 ²	1,100	5,787	1.5	861.1	851.4 ³	851.7	0.3
J	18,098 ²	145	1,132	7.8	861.1	858.5 ³	858.6	0.1
K	18,269 ²	202	1,753	5.0	861.1	860.6 ³	860.9	0.3
L	18,908 ²	950	8,228	1.1	862.4	862.4	862.7	0.3
M	20,636 ²	310	2,359	3.7	863.3	863.3	863.6	0.3
N	22,488 ²	171	1,705	5.1	868.2	868.2	868.5	0.3
O	23,700 ²	650	5,742	1.6	871.1	871.1	871.5	0.4
P	25,121 ²	750	5,274	1.7	872.0	872.0	872.5	0.5
Q	27,008 ²	750	4,827	1.9	873.7	873.7	874.5	0.8
R	28,276 ²	220	1,158	7.7	875.4	875.4	875.7	0.3
S	29,560 ²	130	1,532	5.8	881.3	881.3	882.0	0.7
T	30,684 ²	190	2,170	4.1	884.2	884.2	884.8	0.6
U	32,644 ²	350	3,394	2.7	887.6	887.6	888.4	0.8
V	34,326 ²	470	3,973	1.7	889.6	889.6	890.6	1.0

¹Feet above confluence with Allatoona Creek

²Feet above confluence with Lake Allatoona

³Elevation computed without consideration of backwater from Lake Allatoona

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

ALLATOONA BRANCH – ALLATOONA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Allatoona Creek (continued)								
W	35,590	755	5,397	1.3	890.6	890.6	891.6	1.0
X	37,127	395	2,882	2.4	892.2	892.2	893.1	0.9
Y	38,164	165	1,064	6.4	896.6	896.6	896.6	0.0
Z	38,326	265	2,478	2.8	900.6	900.6	900.6	0.0
AA	41,179	150	1,427	4.4	906.0	906.0	906.1	0.1
AB	42,990	145	1,304	4.5	912.8	912.8	912.9	0.1
AC	44,315	130	926	6.4	914.1	914.1	914.3	0.2
AD	45,486	400	1,956	2.2	918.3	918.3	918.6	0.3
AE	47,016	355	1,288	3.4	922.2	922.2	922.7	0.5
AF	49,035	450	1,626	2.7	932.2	932.2	932.2	0.0
AG	50,079	159	851	5.4	937.2	937.2	938.1	0.9
AH	50,886	170	1,011	4.1	941.1	941.1	942.0	0.9
AI	51,748	170	1,036	4.0	947.5	947.5	947.6	0.1
AJ	53,077	268	1,697	1.4	955.4	955.4	955.5	0.1
AK	54,687	140	453	5.3	962.6	962.6	962.6	0.0
AL	56,154	115	369	6.5	971.3	971.3	971.4	0.1
AM	56,984	69	435	5.5	977.8	977.8	978.2	0.4
AN	57,084	80	880	2.7	983.2	983.2	983.2	0.0
AO	58,171	134	496	2.9	986.4	986.4	986.4	0.0
AP	59,439	185	304	4.8	997.4	997.4	997.5	0.1
AQ	60,527	120	289	5.0	1,009.6	1,009.6	1,009.6	0.0
AR	62,160	80	167	3.5	1,027.6	1,027.6	1,027.7	0.1
AS	62,275	264	407	1.4	1,049.7	1,049.7	1,049.7	0.0
AT	63,629	180	675	1.1	1,055.5	1,055.5	1,055.8	0.3
AU	65,232	67	113	2.2	1,069.9	1,069.9	1,069.9	0.0

¹Feet above confluence with Lake Allatoona

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

ALLATOONA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Bishop Creek								
A	1,180	97	646	6.8	910.1	904.8 ²	904.9	0.1
B	2,154	92	851	4.6	914.4	914.4	915.0	0.6
C	3,127	137	1,270	3.1	919.7	919.7	920.2	0.5
D	4,003	228	1,248	3.1	921.2	921.2	921.6	0.4
E	5,265	116	932	3.3	934.8	934.8	935.5	0.7
F	6,244	75	471	6.6	940.0	940.0	940.1	0.1
G	7,070	70	291	10.6	943.7	943.7	943.8	0.1
H	7,689	81	251	4.8	947.6	947.6	948.4	0.8
I	8,549	79	147	5.7	953.5	953.5	953.5	0.0
J	9,001	76	171	4.9	959.8	959.8	960.0	0.2
K	9,633	108	517	1.6	970.7	970.7	970.9	0.2
L	10,519	67	210	4.0	978.8	978.8	979.7	0.9
Blackjack Creek								
A	526	178	1,988	3.1	999.2	999.2	999.7	0.5
B	2,230	195	1,078	5.7	1,004.1	1,004.1	1,005.1	1.0
C	3,271	161	1,543	3.6	1,012.9	1,012.9	1,013.2	0.3
D	4,370	183	1,242	4.5	1,015.4	1,015.4	1,016.0	0.6
E	6,064	185	1,047	2.5	1,027.3	1,027.3	1,027.3	0.0
F	7,007	227	1,166	2.3	1,032.3	1,032.3	1,032.9	0.6
G	8,203	97	361	5.8	1,036.0	1,036.0	1,036.2	0.2
H	9,012	84	179	4.2	1,044.5	1,044.5	1,044.5	0.0
I	10,071	91	550	1.4	1,065.1	1,065.1	1,066.1	1.0

¹Feet above confluence with Sope Creek

²Elevation computed without consideration of backwater effects from Sope Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

BISHOP CREEK – BLACKJACK CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Butler Creek								
A	3,338	280	1,928	3.0	861.1	859.2 ²	859.8	0.6
B	4,552	345	2,028	2.7	861.7	861.7	862.3	0.6
C	5,681	300	1,424	3.9	863.9	863.9	864.9	1.0
D	6,577	214	1,579	3.6	867.9	867.9	868.3	0.4
E	7,262	170	1,219	4.7	869.3	869.3	869.7	0.4
F	8,144	323	1,946	2.9	871.6	871.6	872.5	0.9
G	8,872	55	439	12.9	872.7	872.7	873.6	0.9
H	9,123	140	891	6.4	877.9	877.9	877.9	0.0
I	9,888	150	954	5.8	881.0	881.0	881.2	0.2
J	10,761	160	1,019	5.4	884.5	884.5	884.8	0.3
K	11,635	160	1,021	5.4	887.7	887.7	888.1	0.4
L	12,770	365	1,784	3.1	891.2	891.2	892.1	0.9
M	13,678	438	1,826	3.0	893.3	893.3	894.3	1.0
N	14,836	336	1,483	3.8	899.4	899.4	899.9	0.5
O	15,814	340	1,287	4.3	904.3	904.3	904.6	0.3
P	16,699	175	1,375	3.6	911.4	911.4	911.6	0.2
Q	17,667	200	1,172	4.2	913.3	913.3	914.3	1.0
R	18,374	255	1,128	4.0	915.2	915.2	915.7	0.5
S	19,331	250	1,150	3.9	918.6	918.6	919.6	1.0
T	20,249	139	496	9.1	922.7	922.7	923.5	0.8
U	21,663	150	826	5.5	932.3	932.3	932.5	0.2
V	22,504	260	2,475	1.8	934.2	934.2	935.2	1.0
W	23,208	337	1,394	3.2	939.6	939.6	939.6	0.0
X	23,908	156	1,213	3.7	945.1	945.1	945.4	0.3
Y	24,754	253	1,177	3.8	947.1	947.1	947.7	0.6
Z	25,389	120	806	5.3	953.0	953.0	953.3	0.3

¹Feet above confluence with Lake Acworth

²Elevation computed without consideration of backwater effects from Lake Acworth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

BUTLER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Butler Creek (continued)								
AA	26,083 ¹	150	898	4.8	960.4	960.4	960.6	0.2
AB	27,098 ¹	99	1,338	2.7	971.5	971.5	971.6	0.1
AC	28,513 ¹	100	616	4.6	972.8	972.8	972.9	0.1
AD	29,444 ¹	75	569	4.9	974.8	974.8	975.6	0.8
AE	30,501 ¹	160	1,136	2.5	979.7	979.7	980.3	0.6
AF	31,370 ¹	53	347	8.1	983.7	983.7	983.9	0.2
AG	32,194 ¹	112	592	4.7	990.1	990.1	990.2	0.1
AH	33,093 ¹	165	971	3.3	997.8	997.8	998.2	0.4
AI	33,879 ¹	45	237	7.7	1,001.1	1,001.1	1,002.1	1.0
AJ	34,567 ¹	65	387	4.7	1,007.9	1,007.9	1,008.2	0.3
AK	35,417 ¹	37	196	9.4	1,015.5	1,015.5	1,015.9	0.4
AL	36,273 ¹	42	169	6.0	1,027.3	1,027.3	1,027.4	0.1
Buttermilk Creek								
A	1,584 ²	380	3,866	1.1	891.9	884.1 ³	884.9	0.8
B	2,376 ²	600	4,487	1.0	891.9	884.3 ³	885.1	0.8
C	5,227 ²	190	1,005	3.8	891.9	890.6 ³	891.6	1.0
D	7,181 ²	100	747	5.6	898.0	898.0	898.9	0.9
E	7,920 ²	200	1,380	2.5	902.3	902.3	903.1	0.8
F	8,237 ²	50	532	6.6	902.9	902.9	903.7	0.8
G	9,293 ²	130	876	3.8	906.7	906.7	907.6	0.9
H	10,666 ²	87	755	4.7	909.8	909.8	910.8	1.0
I	11,299 ²	223	1,898	1.7	917.3	917.3	918.2	0.9
J	12,989 ²	321	1,559	2.1	919.2	919.2	920.2	1.0

¹Feet above confluence with Lake Acworth

²Feet above confluence with Sweetwater Creek

³Elevation computed without consideration of backwater effects from Sweetwater Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

BUTLER CREEK – BUTTERMILK CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Buttermilk Creek (continued)								
K	15,576 ¹	90	474	4.0	930.5	930.5	931.4	0.9
L	17,266 ¹	63	304	6.2	936.9	936.9	937.8	0.9
M	19,114 ¹	22	97	11.0	946.4	946.4	946.4	0.0
N	21,542 ¹	60	123	6.9	971.3	971.3	971.6	0.3
O	21,648 ¹	60	146	5.8	977.4	977.4	977.8	0.4
P	23,074 ¹	60	140	6.0	994.4	994.4	994.6	0.2
Campground Creek								
A	1,460 ²	115	401	3.9	931.1	920.6 ³	921.4	0.8
B	3,310 ²	92	313	3.7	936.1	936.1	936.8	0.7
C	4,461 ²	59	304	3.8	955.1	955.1	956.1	1.0
D	6,068 ²	24	100	11.6	969.9	969.9	969.9	0.0
E	6,732 ²	23	78	10.4	987.9	987.9	988.3	0.4
F	7,358 ²	59	133	6.1	1,001.3	1,001.3	1,001.5	0.2
G	7,794 ²	34	69	5.4	1,007.1	1,007.1	1,007.6	0.5
H	8,358 ²	26	48	7.8	1,019.2	1,019.2	1,019.2	0.0
I	8,949 ²	35	58	6.4	1,032.0	1,032.0	1,032.0	0.0
J	9,651 ²	51	82	4.5	1,049.3	1,049.3	1,049.3	0.0
K	9,997 ²	15	43	8.7	1,057.2	1,057.2	1,057.2	0.0

¹Feet above confluence with Sweetwater Creek

²Feet above confluence with Sope Creek

³Elevation computed without consideration of backwater effects from Sope Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

BUTTERMILK CREEK – CAMPGROUND CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET) ²	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Chattahoochee River								
CD	91.05	673\497	12,006	3.6	759.7	759.7	760.4	0.7
CE	91.41	681\450	15,600	2.7	760.1	760.1	760.8	0.7
CF	93.59	350\142	9,360	4.5	761.7	761.7	762.5	0.8
CG	93.77	582\217	12,057	3.5	762.4	762.4	763.2	0.8
CH	94.44	463\196	10,987	3.8	763.0	763.0	763.7	0.7
CI	94.49	445\199	11,631	3.6	763.4	763.4	763.9	0.5
CJ	96.09	724\376	10,963	3.7	764.3	764.3	765.1	0.8
CK	96.26	537\153	11,602	3.5	764.5	764.5	765.3	0.8
CL	96.46	604\137	13,781	2.9	765.1	765.1	765.9	0.8
CM	97.40	742\429	13,467	2.9	766.5	766.5	767.3	0.8
CN	97.66	373\102	9,000	4.4	766.9	766.9	767.6	0.7
CO	97.91	441\175	10,322	3.8	767.2	767.2	767.8	0.6
CP	98.03	1721\659	15,691	2.5	770.2	770.2	770.8	0.6
CQ	98.52	680\271	14,924	2.7	770.6	770.6	771.2	0.6
CR	98.68	549\246	12,176	3.2	770.8	770.8	771.3	0.5
CS	99.63	232\97	7,416	5.3	771.6	771.6	772.3	0.7
CT	99.92	753\394	13,772	2.9	772.3	772.3	773.0	0.7
CU	100.25	554\330	10,041	3.9	772.5	772.5	773.3	0.8
CV	100.39	526\387	12,368	3.2	773.1	773.1	773.9	0.8
CW	100.49	505\238	15,412	2.6	773.4	773.4	774.1	0.7
CX	101.06	1390\300	22,463	1.5	773.7	773.7	774.4	0.7
CY	101.75	1464\1033	22,344	1.5	774.6	774.6	775.2	0.6
CZ	102.29	694\360	15,032	2.3	775.2	775.2	776.0	0.8
DA	102.79	375\250	7,629	4.5	775.5	775.5	776.4	0.9
DB	102.92	380\160	8,477	4.1	775.8	775.8	776.8	1.0
DC	103.01	310\156	8,356	4.1	776.4	776.4	777.3	0.9
DD	103.52	428\400	8,165	4.2	777.3	777.3	778.2	0.9

¹ Miles from West Point Dam

² Total Width\Width Inside the County

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

CHATTAHOOCHEE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET) ²	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Chattahoochee River (continued)								
DE	103.70	394\243	8,406	4.1	778.5	778.5	778.7	0.2
DF	104.06	720\390	13,209	2.6	779.1	779.1	779.4	0.3
DG	104.28	950\578	14,457	2.4	779.3	779.3	779.6	0.3
DH	104.36	1078\655	16,324	2.1	781.3	781.3	781.6	0.3
DI	104.55	960\440	14,241	2.3	781.5	781.5	781.8	0.3
DJ	105.15	578\257	8,320	4.0	782.9	782.9	783.3	0.4
DK	105.32	224\131	3,252	10.2	783.2	783.2	783.5	0.3
DL	105.40	191\125	3,177	10.5	784.3	784.3	784.7	0.4
DM	105.46	433\245	6,639	5.0	786.2	786.2	786.7	0.5
DN	105.74	449\303	6,026	5.5	787.0	787.0	787.5	0.5
DO	105.99	344\233	4,547	7.3	788.0	788.0	788.4	0.4
DP	106.25	389\215	4,666	7.1	789.6	789.6	789.9	0.3
DQ	106.53	284\207	4,220	7.9	792.4	792.4	792.6	0.2
DR	106.91	583\436	6,912	4.8	794.5	794.5	794.8	0.3
DS	107.22	330\231	3,756	8.8	795.3	795.3	795.6	0.3
DT	107.55	414\241	5,181	6.4	798.0	798.0	798.2	0.2
DU	108.17	264\167	4,303	7.7	800.4	800.4	800.6	0.2
DV	108.48	329\136	4,831	6.9	802.2	802.2	802.4	0.2
DW	109.05	323\159	4,868	6.4	804.2	804.2	804.6	0.4
DX	110.43	289\137	4,722	6.6	807.6	807.6	808.1	0.5
DY	110.55	288\141	4,980	6.3	808.9	808.9	809.4	0.5
DZ	112.43	254\177	4,882	6.4	812.1	812.1	812.7	0.6
EA	112.74	973\501	5,086	6.1	854.8	854.8	854.8	0.0
EB	112.86	879\421	5,297	5.8	856.1	856.1	856.1	0.0
EC	113.19	912\673	7,790	4.0	857.8	857.8	857.8	0.0

¹ Miles from West Point Dam

² Total Width\Width Inside the County

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

CHATTAHOOCHEE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET) ²	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Chattahoochee River (continued)								
ED	114.16 ¹	297\242	4,048	7.6	859.6	859.6	859.7	0.1
EE	114.49 ¹	490\327	6,279	4.9	860.9	860.9	861.4	0.5
Clay Branch								
A	1,373 ²	37	310	6.7	927.7	927.7	928.6	0.9
B	2,640 ²	110	607	3.4	935.0	935.0	936.0	1.0
C	4,488 ²	105	849	1.3	950.9	950.9	951.9	1.0
D	5,438 ²	95	197	5.5	956.5	956.5	956.5	0.0
E	7,445 ²	33	106	4.0	982.8	982.8	983.8	1.0
Concord Creek								
A	327 ³	55	378	6.6	893.6	893.0 ⁴	893.2	0.2
B	420 ³	98	397	6.3	896.2	896.2	896.3	0.1
C	1,533 ³	82	390	6.4	900.3	900.3	900.8	0.5
D	2,251 ³	50	227	10.9	919.4	919.4	919.4	0.0
E	2,762 ³	125	442	8.4	922.6	922.6	922.7	0.1
F	2,838 ³	125	658	5.2	924.5	924.5	924.5	0.0
G	3,246 ³	148	503	5.8	925.3	925.3	925.4	0.1
H	3,405 ³	85	767	3.2	932.3	932.3	932.3	0.0
I	4,763 ³	279	645	3.0	934.2	934.2	934.2	0.0
J	5,414 ³	96	298	6.6	938.4	938.4	938.4	0.0
K	5,559 ³	100	536	3.6	941.6	941.6	941.6	0.0
L	5,612 ³	220	908	2.1	942.0	942.0	942.0	0.0
M	5,945 ³	195	621	4.2	942.9	942.9	942.9	0.0
N	6,492 ³	153	315	4.4	945.0	945.0	945.3	0.3

¹ Miles from West Point Dam

² Feet above confluence with Buttermilk Creek

³ Feet above confluence with Nickajack Creek

⁴ Elevation computed without consideration of backwater effects from Nickajack Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**CHATTAHOOCHEE RIVER – CLAY BRANCH –
CONCORD CREEK**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Concord Creek(Continue)								
O	7,052 ¹	27	131	10.6	951.2	951.2	951.2	0.0
P	7,211 ¹	31	154	9.0	959.3	959.3	959.8	0.5
Q	7,832 ¹	59	223	6.2	968.6	968.6	968.6	0.0
R	8,051 ¹	117	1,128	1.2	979.9	979.9	980.4	0.5
S	8,683 ¹	33	201	3.4	980.9	980.9	981.5	0.6
T	8,777 ¹	107	935	0.7	986.9	986.9	987.6	0.7
U	9,532 ¹	19	65	10.5	989.0	989.0	989.4	0.4
V	9,649 ¹	41	229	3.0	995.5	995.5	995.5	0.0
W	10,375 ¹	34	87	7.8	999.5	999.5	999.5	0.0
X	10,461 ¹	170	154	4.4	1,004.3	1,004.3	1,004.2	0.0
Cooper Lake Creek								
A	284 ¹	156	72	7.5	824.6	814.0 ²	814.0	0.0
B	1,554 ¹	38	91	5.9	824.6	823.8 ²	824.0	0.2
C	1,796 ¹	18	70	7.8	827.6	827.6	827.6	0.0
D	1,992 ¹	35	221	2.4	829.4	829.4	829.4	0.0
E	2,255 ¹	77	531	6.2	835.2	835.2	836.1	0.9
F	2,376 ¹	93	914	3.6	840.1	840.1	840.9	0.8
G	4,205 ¹	56	301	10.3	855.3	855.3	855.5	0.2
H	4,689 ¹	112	824	3.8	860.1	860.1	860.4	0.3
I	5,312 ¹	52	332	9.3	860.7	860.7	861.6	0.9
J	6,470 ¹	85	359	8.6	872.0	872.0	872.2	0.2
K	6,586 ¹	100	1,337	2.3	880.8	880.8	881.5	0.7
L	7,263 ¹	35	199	13.7	886.5	886.5	886.6	0.1
M	7,587 ¹	63	365	7.5	889.7	889.7	890.4	0.7
N	7,670 ¹	115	831	3.3	892.2	892.2	892.4	0.2

¹Feet above confluence with Nickajack Creek

²Elevation computed without consideration of backwater effects from Nickajack Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

CONCORD CREEK- COOPERLAKE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Davis Branch								
A	528 ¹	63	269	1.5	937.5	937.5	937.5	0.0
B	950 ¹	52	93	4.5	950.4	950.4	951.2	0.8
C	1,373 ¹	25	99	4.2	953.5	953.5	954.5	1.0
D	2,112 ¹	20	40	5.5	967.7	967.7	967.7	0.0
Due West Creek								
A	436 ²	235	838	3.6	894.4	892.8 ⁴	893.4	0.6
B	1,731 ²	235	1,080	2.8	900.9	900.9	901.7	0.8
C	2,776 ²	220	1,087	2.8	907.4	907.4	907.9	0.5
D	3,672 ²	210	1,074	2.9	911.8	911.8	912.5	0.7
E	4,608 ²	80	580	5.3	918.7	918.7	918.9	0.2
F	4,818 ²	80	582	5.3	918.7	918.7	919.0	0.3
G	6,141 ²	190	1,061	2.9	925.9	925.9	926.9	1.0
H	7,355 ²	295	1,136	2.5	933.1	933.1	934.1	1.0
I	8,061 ²	270	1,035	2.7	937.4	937.4	938.4	1.0
J	8,883 ²	270	1,040	2.8	941.9	941.9	942.7	0.8
K	10,005 ²	190	954	2.8	951.8	951.8	952.3	0.5
L	11,400 ²	112	174	4.8	957.9	957.9	957.9	0.0
M	12,096 ²	65	128	6.5	966.2	966.2	966.2	0.0
N	12,746 ²	30	126	6.4	977.4	977.4	977.7	0.3
O	13,447 ²	30	122	6.6	988.1	988.1	988.4	0.3
Eastside Creek								
A	1,178 ³	30	154	6.0	920.3	915.3 ⁵	915.3	0.0
B	1,731 ³	190	2,036	0.5	929.3	929.3	929.4	0.1
C	3,959 ³	40	118	8.8	941.1	941.1	941.3	0.2

¹Feet above confluence with Pine Creek

²Feet above confluence with Allatoona Creek

³Feet above confluence with Sope Creek

⁴Elevation computed without consideration of backwater effects from Allatoona Creek

⁵Elevation computed without consideration of backwater effects from Sope Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**DAVIS BRANCH – DUE WEST CREEK– EASTSIDE
CREEK**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Elizabeth Branch								
A	1,209 ¹	220	746	4.5	1,008.7	1,008.7	1,009.2	0.5
B	2,402 ¹	76	614	4.5	1,023.3	1,023.3	1,023.6	0.3
C	3,650 ¹	129	709	3.9	1,035.8	1,035.8	1,036.2	0.4
D	4,718 ¹	76	385	1.7	1,059.0	1,059.0	1,059.0	0.0
E	6,238 ¹	32	82	8.1	1,081.7	1,081.7	1,081.8	0.1
Favor Creek								
A	897 ²	15	61	9.4	912.6	906.5 ²	906.5	0.0
B	1,795 ²	31	68	8.5	914.6	914.6	914.7	0.1
C	2,682 ²	36	153	3.8	920.3	920.3	920.6	0.3
D	2,764 ²	19	215	2.7	929.0	929.0	929.0	0.0
E	3,015 ²	18	180	3.2	929.1	929.1	929.1	0.0
F	3,074 ²	206	722	2.3	935.1	935.1	935.1	0.0
G	3,731 ²	61	288	1.4	935.2	935.2	935.2	0.0
H	4,554 ²	15	70	6.0	936.5	936.5	936.5	0.0
I	4,618 ²	27	53	8.0	940.6	940.6	940.6	0.0
J	6,962 ²	32	162	8.7	965.0	965.0	965.8	0.8
K	7,985 ²	24	176	9.6	989.3	989.3	989.3	0.0
L	8,098 ²	119	719	1.9	1,001.4	1,001.4	1,001.4	0.0

¹Feet above confluence with Sope Creek

²Feet above confluence with Nickajack Creek

³Elevation computed without consideration of backwater effects from Nickajack Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

ELIZABETH BRANCH – FAVOR CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Florence Branch								
A	1,056 ¹	132	639	3.2	912.0	912.0	912.5	0.5
B	1,426 ¹	215	1,861	1.1	914.4	914.4	914.8	0.4
C	2,904 ¹	399	2,695	0.8	914.7	914.7	915.4	0.7
D	5,280 ¹	229	1,420	1.4	917.5	917.5	918.2	0.7
E	6,864 ¹	165	639	2.8	924.0	924.0	924.2	0.2
F	9,029 ¹	305	1,226	1.5	931.0	931.0	931.9	0.9
G	10,560 ¹	216	1,710	0.9	936.4	936.4	937.3	0.9
H	10,718 ¹	218	1,730	0.9	936.4	936.4	937.3	0.9
I	13,094 ¹	118	226	6.1	942.1	942.1	942.1	0.0
J	16,051 ¹	48	301	3.4	957.3	957.3	958.3	1.0
K	17,899 ¹	35	179	5.7	965.0	965.0	965.6	0.6
L	21,226 ¹	83	341	3.0	988.9	988.9	989.7	0.8
Gilmore Creek								
A	3,010 ²	228	753	2.1	774.4	771.6 ⁵	772.6	1.0
B	3,643 ²	53	228	6.2	775.0	775.0	775.4	0.4
C	4,646 ²	36	264	5.4	784.6	784.6	785.0	0.4
Gordon Branch								
A	634 ³	25	99	6.3	920.1	920.1	920.4	0.3
B	1,478 ³	44	84	5.9	933.7	933.7	933.7	0.0
C	2,587 ³	17	60	5.7	960.7	960.7	961.3	0.6
Gordon Creek								
A	7,920 ⁴	63	380	5.8	911.2	911.2	911.8	0.6
B	10,454 ⁴	129	487	3.4	926.0	926.0	926.8	0.8
C	13,042 ⁴	120	348	4.1	949.5	949.5	949.7	0.2
D	15,576 ⁴	53	252	4.2	965.3	965.3	966.3	1.0
E	16,262 ⁴	61	251	4.2	971.5	971.5	972.3	0.8

¹Feet above confluence with Powder Springs Creek

⁴Feet above confluence with Sweetwater Creek

²Feet above confluence with Chattahoochee River

⁵Elevation Computed without consideration of backwater effects from Chattahoochee River

³Feet above confluence with Gordon Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**FLORENCE BRANCH – GILMORE CREEK – GORDON
BRANCH**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Gordon Creek F	17,371 ¹	16	98	7.9	985.3	985.3	985.5	0.2
Gothards Creek A	3,696 ¹	496	2,403	2.1	905.1	895.4 ³	896.4	1.0
B	7,697 ¹	256	1,675	3.3	905.1	902.2 ³	903.2	1.0
C	10,212 ¹	339	2,289	2.4	905.1	904.8 ³	905.4	0.6
Harmony Grove Creek A	716 ²	165	763	1.8	899.9	899.9	900.2	0.3
B	758 ²	183	980	1.4	900.8	900.8	901.5	0.7
C	899 ²	156	783	1.8	900.9	900.9	901.6	0.7
D	920 ²	173	975	1.4	901.7	901.7	902.4	0.7
E	1,065 ²	141	279	5.1	902.1	902.1	902.3	0.2
F	1,146 ²	510	6,789	0.2	913.4	913.4	913.4	0.0
G	2,147 ²	41	200	4.9	913.2	913.2	913.2	0.0
H	2,237 ²	40	224	4.4	915.2	915.2	915.2	0.0
I	2,608 ²	50	126	7.7	917.4	917.4	917.6	0.2
J	3,322 ²	18	81	12.1	934.1	934.1	934.3	0.2
K	3,361 ²	34	163	6.0	936.5	936.5	936.8	0.3
L	3,777 ²	66	282	3.5	938.8	938.8	938.9	0.0
M	3,856 ²	77	273	3.6	939.3	939.3	939.3	0.0
N	4,571 ²	19	91	9.0	941.3	941.3	942.2	0.9
O	4,640 ²	25	117	7.0	942.6	942.6	943.3	0.7

¹Feet above confluence with Sweetwater Creek

²Feet above confluence with Willeo Creek

³Elevation computed without consideration of backwater effects from Sweetwater Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**GORDON CREEK – GOTHARDS CREEK –
HARMONY GROVE CREEK**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Harmony Grove Creek (Continue)								
P	5,155 ¹	26	102	8.0	945.8	945.8	945.8	0.0
Q	5,408 ¹	40	148	5.6	948.3	948.3	948.8	0.5
R	5,518 ¹	25	141	5.8	950.1	950.1	950.5	0.3
S	6,569 ¹	30	73	8.6	968.5	968.5	968.6	0.2
T	6,953 ¹	24	66	9.4	981.8	981.8	981.8	0.0
U	7,582 ¹	71	104	6.0	1,020.8	1,020.8	1,020.8	0.1
V	7,931 ¹	25	96	6.5	1,030.8	1,030.8	1,030.8	0.0
W	8,010 ¹	25	173	3.6	1,034.1	1,034.1	1,034.7	0.6
X	8,472 ¹	86	479	1.3	1,034.5	1,034.5	1,035.2	0.7
Y	9,897 ¹	28	77	1.6	1,048.3	1,048.3	1,049.3	1.0
Z	10,031 ¹	60	204	0.6	1,052.3	1,052.3	1,052.4	0.0
Hope Creek								
A	1,084 ²	47	336	8.3	939.9	937.4 ³	938.1	0.7
B	3,785 ²	108	656	3.5	952.3	952.3	952.7	0.4
C	6,278 ²	52	203	8.8	972.6	972.6	972.6	0.0
D	8,000 ²	39	168	8.3	1,004.0	1,004.0	1,004.7	0.7

¹Feet above confluence with Willeo Creek

²Feet above confluence with Rottenwood Creek

³Elevation computed without consideration of backwater effects from Rottenwood Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

HARMONY GROVE CREEK – HOPE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Laurel Creek								
A	99	33	199	7.4	802.0	790.0 ²	790.9	0.9
B	260	45	349	4.6	802.0	799.1 ²	799.1	0.0
C	1,291	17	210	7.5	802.0	800.5 ²	800.7	0.2
D	1,566	93	599	4.0	804.0	804.0	804.0	0.0
E	2,989	125	592	5.2	812.6	812.6	813.2	0.6
F	3,248	87	588	5.2	816.8	816.8	817.7	0.9
G	4,263	90	373	10.2	828.7	828.7	828.7	0.0
H	4,604	88	946	4.1	837.6	837.6	837.6	0.0
I	5,259	45	311	11.6	839.0	839.0	839.0	0.0
J	5,396	85	683	5.3	845.5	845.5	845.6	0.1
K	6,604	101	751	4.8	859.5	859.5	860.5	1.0
L	6,706	51	508	7.1	864.0	864.0	864.2	0.2
M	6,761	204	1,439	2.5	864.8	864.8	865.7	0.9
N	6,851	553	2,194	1.7	873.0	873.0	873.0	0.0
O	10,295	288	735	2.7	875.4	875.4	875.4	0.0
P	10,569	179	322	6.1	877.2	877.2	877.3	0.1
Q	10,647	153	458	4.3	878.0	878.0	878.9	0.9
R	12,393	101	652	2.1	885.3	885.3	886.3	1.0
S	12,646	31	235	5.9	887.1	887.1	888.1	1.0
T	13,433	104	870	3.6	897.1	897.1	897.7	0.6
U	14,120	212	561	5.5	899.0	899.0	899.0	0.0
V	14,609 ¹	175	592	3.6	901.4	901.4	901.4	0.0
W	14,705 ¹	143	500	4.3	901.5	901.5	902.2	0.7
X	15,025 ¹	57	239	9.0	904.1	904.1	904.1	0.0
Y	15,742 ¹	28	206	10.5	920.6	920.6	921.2	0.6
Z	15,841 ¹	73	768	2.8	928.9	928.9	929.7	0.8

¹Feet above confluence with Nickajack Creek

²Elevation computed without consideration of backwater effects from Nickajack Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	LAUREL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Laurel Creek (Continued)								
AA	15,931 ¹	85	795	2.7	929.0	929.0	929.7	0.7
AB	16,157 ¹	65	466	4.6	929.1	929.1	929.7	0.6
AC	16,863 ¹	162	427	5.0	932.5	932.5	932.7	0.2
AD	16,939 ¹	182	694	3.1	933.8	933.8	933.8	0.0
AE	18,598 ¹	37	137	2.1	953.9	953.9	954.5	0.6
AF	18,668 ¹	37	147	2.0	958.2	958.2	958.3	0.1
AG	19,414 ¹	13	38	9.5	971.0	971.0	971.8	0.8
AH	19,484 ¹	45	226	1.2	979.1	979.1	979.2	0.1
Liberty Hill Branch								
A	268 ²	110	138	5.3	773.9	762.3 ³	762.6	0.3
B	364 ²	52	318	2.4	773.9	766.2 ³	766.2	0.0
C	821 ²	87	112	6.5	773.9	766.4 ³	766.9	0.5
D	1,195 ²	24	76	9.5	774.1	774.1	774.1	0.0
E	1,286 ²	71	374	2.9	779.4	779.4	779.7	0.3
F	1,363 ²	57	290	2.5	779.6	779.6	780.0	0.4
G	1,727 ²	29	82	8.9	782.4	782.4	783.3	0.9
H	1,908 ²	23	72	10.0	788.2	788.2	788.2	0.0
I	2,042 ²	28	179	4.1	793.4	793.4	793.4	0.0
J	2,544 ²	17	82	8.8	814.8	814.8	814.8	0.0
K	2,653 ²	30	406	0.8	828.9	828.9	829.4	0.5

¹ Feet above confluence with Nickajack Creek

² Feet above confluence with Queen Creek

³ Elevation computed without consideration of backwater effects from Queen Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		LAUREL CREEK – LIBERTY HILL BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Liberty Hill Branch(Continued)								
L	3,788 ¹	62	121	2.8	864.6	864.6	865.4	0.8
M	4,306 ¹	35	138	2.8	884.5	884.5	885.0	0.5
N	4,707 ¹	28	37	4.9	897.0	897.0	897.1	0.1
O	4,975 ¹	9	22	8.5	910.2	910.2	910.5	0.3
Little Allatoona Creek								
A	727 ²	494	2,378	1.5	861.1	847.2 ³	847.2	0.0
B	2,228 ²	434	2,154	1.7	861.1	849.3 ³	849.4	0.1
C	3,800 ²	230	988	3.6	861.1	852.9 ³	853.0	0.1
D	4,603 ²	230	1,165	3.0	861.1	856.3 ³	856.8	0.5
E	5,912 ²	200	1,350	2.6	861.1	860.4 ³	861.2	0.8
F	7,283 ²	200	1,332	2.3	863.6	863.6	864.6	1.0
G	8,637 ²	160	901	2.9	869.7	869.7	870.0	0.3
H	9,917 ²	300	2,282	1.1	870.9	870.9	871.4	0.5
I	11,478 ²	150	642	3.8	871.8	871.8	872.7	0.9
J	12,761 ²	300	1,317	1.9	880.4	880.4	880.4	0.0
K	14,094 ²	156	801	3.2	883.7	883.7	883.7	0.1
L	15,384 ²	100	409	3.6	888.8	888.8	889.3	0.5
M	16,918 ²	120	363	4.1	900.7	900.7	900.7	0.0
N	17,671 ²	140	747	2.0	904.6	904.6	905.3	0.7
O	17,930 ²	202	1,572	0.9	908.0	908.0	908.1	0.1
P	19,603 ²	70	346	2.9	913.5	913.5	914.3	0.8
Q	20,519 ²	80	310	3.3	931.2	931.2	931.2	0.0

¹Feet above confluence with Queen Creek

²Feet above confluence with Allatoona Creek

³Elevation computed without consideration of backwater effects from Lake Allatoona

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

LIBERTY HILL BRANCH – LITTLE ALLATOONA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Little Noonday Creek								
A	862	216	1,546	5.0	904.6	899.3 ²	899.8	0.5
B	1,832	300	1,708	4.5	904.6	902.2 ²	903.2	1.0
C	3,065	250	1,263	6.1	908.5	908.5	909.0	0.5
D	3,942	250	2,106	3.7	913.2	913.2	913.6	0.4
E	5,294	148	1,072	7.1	917.6	917.6	917.8	0.2
F	6,302	200	2,214	3.4	920.4	920.4	920.9	0.5
G	6,823	230	2,233	3.4	921.1	921.1	922.0	0.9
H	8,470	350	2,667	2.8	923.2	923.2	924.1	0.9
I	10,135	265	1,508	5.0	926.6	926.6	927.0	0.4
J	11,237	158	902	7.7	930.0	930.0	930.6	0.6
K	11,373	260	2,304	3.0	934.0	934.0	934.8	0.8
L	12,726	100	601	11.6	935.8	935.8	936.1	0.3
M	13,564	155	1,462	4.8	939.7	939.7	940.7	1.0
N	14,075	150	1,874	3.7	942.2	942.2	943.2	1.0
O	16,362	160	1,417	4.9	953.1	953.1	953.8	0.7
P	17,299	187	1,714	2.1	958.1	958.1	958.6	0.5
Q	18,217	185	1,301	2.8	960.3	960.3	961.1	0.8
R	19,307	170	1,103	3.3	965.9	965.9	966.5	0.6
S	20,402	100	548	6.6	970.7	970.7	971.2	0.5
T	21,513	82	297	4.8	978.9	978.9	979.0	0.1
U	22,468	115	417	3.4	987.9	987.9	987.9	0.0
V	23,213	100	291	4.9	997.5	997.5	997.5	0.0
W	23,849	33	135	10.5	1,008.4	1,008.4	1,008.9	0.5

¹Feet above confluence with Noonday Creek

²Elevation computed without consideration of backwater effects from Noonday Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		LITTLE NOONDAY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Lost Mountain Creek								
A	1,493 ¹	184	327	4.0	906.6	906.6	906.7	0.1
B	2,989 ¹	159	286	4.6	916.5	916.5	916.5	0.0
C	3,175 ¹	120	575	2.3	922.1	922.1	922.7	0.6
D	4,791 ¹	27	161	6.9	932.2	932.2	933.1	0.9
E	4,905 ¹	140	660	1.7	934.9	934.9	935.2	0.3
F	6,095 ¹	151	463	2.4	943.2	943.2	943.7	0.5
Luther Ward Branch								
A	1,116 ²	420	2,873	1.7	919.8	917.5 ⁴	918.5	1.0
B	2,117 ²	560	3,034	1.6	921.7	921.7	922.5	0.8
C	4,558 ²	500	3,259	1.5	927.4	927.4	928.0	0.6
D	6,395 ²	700	3,756	1.3	932.4	932.4	933.4	1.0
E	7,485 ²	330	1,684	2.9	936.7	936.7	937.4	0.7
F	8,456 ²	390	2,021	1.7	939.4	939.4	940.3	0.9
G	9,600 ²	249	1,593	2.2	946.2	946.2	946.6	0.4
H	10,687 ²	470	2,995	1.0	948.3	948.3	948.8	0.5
I	12,393 ²	270	719	4.0	952.9	952.9	953.3	0.4
J	12,744 ²	340	1,908	1.5	957.0	957.0	957.0	0.0
K	14,277 ²	150	561	4.5	963.4	963.4	963.7	0.3
Milam Branch								
A	408 ³	118	207	9.1	908.1	908.1	908.3	0.2
B	966 ³	25	143	13.2	919.5	919.5	919.8	0.3
C	1,429 ³	29	147	12.8	945.2	945.2	945.3	0.1
D	1,846 ³	32	192	9.8	952.3	952.3	953.1	0.8
E	1,912 ³	58	375	5.0	957.7	957.7	958.6	0.9
F	2,233 ³	29	149	8.9	958.3	958.8	959.8	1.0
G	2,393 ³	60	128	10.4	964.5	964.5	964.5	0.0

¹Feet above confluence with Wildhorse Creek

²Feet above confluence with Mud Creek

³Feet above confluence with Queen Creek

⁴Elevation computed without consideration of backwater effects from Mud Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**LOST MOUNTAIN CREEK – LUTHER WARD BRANCH –
MILAM BRANCH**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Milam Branch(Continued)								
H	2,470 ¹	105	882	1.5	974.2	974.2	975.1	0.9
I	3,160 ¹	82	490	2.7	974.4	974.4	975.2	0.8
J	3,200 ¹	64	382	3.5	974.4	974.4	975.3	0.9
K	3,546 ¹	54	180	7.4	975.4	975.4	975.7	0.3
L	3,621 ¹	86	519	2.2	977.7	977.7	978.5	0.8
M	3,885 ¹	79	298	3.8	978.1	978.1	978.9	0.8
N	4,191 ¹	42	126	8.9	979.6	979.6	980.1	0.5
O	4,261 ¹	32	111	10.1	982.0	982.0	982.0	0.0
P	4,320 ¹	48	255	2.1	983.6	983.6	983.8	0.2
Q	4,367 ¹	61	331	1.6	983.7	983.7	983.9	0.2
R	4,736 ¹	29	62	8.7	986.7	986.7	986.7	0.0
S	5,282 ¹	46	105	5.1	995.7	995.7	996.3	0.6
T	5,445 ¹	46	229	1.7	1,000.5	1,000.5	1,001.4	0.9
U	5,728 ¹	69	136	2.9	1,000.5	1,000.5	1,001.5	1.0
V	5,994 ¹	52	53	8.4	1,004.9	1,004.9	1,004.9	0.0
W	6,159 ¹	51	203	2.0	1,010.4	1,010.4	1,011.4	1.0
Mill Creek No. 1								
A	938 ²	230	694	3.4	941.8	940.7 ³	941.7	1.0
B	1,947 ²	276	727	2.9	945.4	945.4	945.9	0.5
C	2,953 ²	250	1,181	1.8	953.6	953.6	954.3	0.7
D	3,918 ²	260	1,024	2.0	956.6	956.6	957.5	0.9
E	5,035 ²	100	419	5.0	965.8	965.8	966.7	0.9
F	6,247 ²	79	240	8.7	980.6	980.6	980.7	0.1
G	7,659 ²	100	286	2.8	992.3	992.3	993.2	0.9
H	8,696 ²	73	452	1.8	1,008.5	1,008.5	1,009.3	0.7

¹Feet above confluence with Queen Creek

²Feet above confluence with Powder Springs Creek

³Elevation computed without consideration of backwater effects from Powder Springs Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		MILAM BRANCH – MILL CREEK NO.1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Mill Creek No. 2								
A	1,346 ¹	221	759	4.1	904.6	904.6	905.3	0.7
B	2,241 ¹	70	313	9.7	909.6	909.6	910.2	0.6
C	2,324 ¹	559	3,224	0.9	922.1	922.1	922.5	0.4
D	2,999 ¹	837	4,856	0.7	922.1	922.1	922.5	0.4
E	3,754 ¹	55	452	10.7	922.1	922.1	922.1	0.0
F	3,886 ¹	142	906	4.7	930.0	930.0	930.0	0.0
G	4,345 ¹	118	643	6.6	930.5	930.5	930.6	0.1
H	4,468 ¹	424	3,435	1.3	950.8	950.8	951.3	0.5
I	6,044 ¹	501	4,083	0.4	950.8	950.8	951.3	0.5
J	6,852 ¹	75	254	7.0	950.9	950.9	950.9	0.0
K	8,119 ¹	115	436	10.5	960.3	960.3	960.3	0.0
L	8,192 ¹	155	876	1.6	963.1	963.1	963.9	0.8
Morgan Lake Tributary								
A	488 ²	125	471	6.2	943.3	940.3 ³	940.3	0.0
B	1,179 ²	240	929	3.2	945.3	945.3	945.3	0.0
C	1,868 ²	120	563	4.6	949.1	949.1	949.4	0.3
D	2,725 ²	42	307	8.5	951.6	951.6	952.6	1.0
E	3,914 ²	80	513	5.1	963.1	963.1	964.1	1.0
F	4,608 ²	40	194	3.4	967.9	967.9	968.2	0.3
G	5,266 ²	60	586	1.1	983.6	983.6	984.5	0.9
H	6,161 ²	36	127	8.1	986.0	986.0	986.6	0.6

¹Feet above confluence with Nickajack Creek

²Feet above confluence with Little Noonday Creek

³Elevation computed without consideration of backwater effects from Little Noonday Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

MILL CREEK No. 2 - MORGAN LAKE TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Mud Creek								
A	1,437	700	3,011	3.2	909.4	909.4	910.0	0.6
B	3,072	700	5,216	1.9	913.6	913.6	914.3	0.7
C	3,448	770	6,443	1.5	914.9	914.9	915.3	0.4
D	6,468	400	3,604	2.7	917.6	917.6	918.6	1.0
E	9,606	700	5,524	0.9	921.5	921.5	922.1	0.6
F	11,801	700	5,021	1.0	922.3	922.3	923.1	0.8
G	13,486	98	567	8.2	923.4	923.4	924.4	1.0
H	13,648	245	1,470	3.2	926.3	926.3	926.3	0.0
I	15,047	800	4,035	1.2	928.9	928.9	929.1	0.2
J	17,482	230	1,172	3.4	931.8	931.8	932.4	0.6
K	19,331	150	1,108	3.6	936.8	936.8	937.4	0.6
L	20,794	140	1,106	3.2	941.6	941.6	942.0	0.4
M	22,886	400	2,617	1.3	944.4	944.4	945.2	0.8
N	24,743	130	619	5.6	947.0	947.0	947.5	0.5
O	26,092	62	733	4.8	954.3	954.3	955.1	0.8
P	27,008	111	1,160	2.8	957.4	957.4	957.9	0.5
Q	27,355	263	3,078	1.1	961.6	961.6	962.1	0.5
R	28,696	390	2,873	1.1	962.1	962.1	962.5	0.4
S	29,891	270	1,192	2.7	963.7	963.7	964.1	0.4
T	31,378	250	1,002	3.3	967.2	967.2	967.7	0.5
U	32,592	300	1,203	2.7	971.1	971.1	971.6	0.5
V	33,874	180	643	2.5	976.5	976.5	977.2	0.7
W	35,099	280	1,631	1.0	986.3	986.3	986.3	0.0
X	36,596	150	379	4.3	991.0	991.0	991.2	0.2
Y	37,585	500	1,286	1.3	1,001.2	1,001.2	1,001.2	0.0
Z	38,629	174	423	3.8	1,011.7	1,011.7	1,011.7	0.0
AA	39,815	260	2,266	0.7	1,033.1	1,033.1	1,033.4	0.3

¹Feet above confluence with Noses Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	MUD CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Nickajack Creek								
A	900	510	4,308	3.6	764.1	753.6 ²	754.4	0.8
B	1,115	510	3,958	3.9	764.1	754.3 ²	754.8	0.5
C	2,061	817	6,323	2.4	764.1	758.1 ²	758.8	0.7
D	5,721	125	1,071	13.5	764.1	759.3 ²	760.3	1.0
E	5,862	337	1,687	8.6	764.1	762.4 ²	762.7	0.3
F	7,121	277	3,284	4.4	765.2	765.2	765.3	0.1
G	7,334	270	3,725	3.9	765.7	765.7	765.8	0.1
H	11,861	395	2,800	5.3	771.1	771.1	771.6	0.5
I	17,436	190	1,502	9.4	778.9	778.9	779.5	0.6
J	17,568	447	3,711	4.9	783.3	783.3	783.9	0.6
K	19,844	318	3,407	4.4	787.1	787.1	787.8	0.7
L	22,609	199	2,257	6.5	798.1	798.1	798.4	0.3
M	24,596	110	1,586	8.8	804.6	804.6	805.4	0.8
N	28,949	192	2,213	5.9	817.1	817.1	817.1	0.0
O	29,085	282	3,681	3.5	817.9	817.9	817.9	0.0
P	29,470	148	2,456	5.4	818.2	818.2	818.2	0.0
Q	29,567	133	2,420	5.4	823.0	823.0	823.2	0.2
R	30,236	176	3,241	4.1	824.2	824.2	824.4	0.2
S	30,310	259	3,830	3.4	824.3	824.3	824.5	0.2
T	31,627	203	2,466	5.0	825.6	825.6	826.0	0.4
U	33,232	185	2,368	4.6	827.0	827.0	827.8	0.8
V	33,434	141	1,996	5.2	827.3	827.3	828.0	0.7
W	33,771	282	2,285	4.5	827.8	827.8	828.4	0.6
X	33,809	373	3,516	3.0	831.1	831.1	831.9	0.8
Y	38,404	143	1,817	5.6	844.5	844.5	845.3	0.8
Z	39,922	80	873	11.2	849.5	849.5	850.2	0.7

¹Feet above confluence with Chattahoochee River

²Elevation computed without consideration of backwater effects from Chattahoochee River

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	NICKAJACK CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Nickajack Creek (continued)								
AA	41,434	120	1,080	9.0	868.6	868.6	868.7	0.1
AB	42,193	115	1,186	8.2	874.5	874.5	874.7	0.2
AC	42,228	128	1,255	7.8	875.2	875.2	875.4	0.2
AD	43,351	117	949	10.3	887.2	887.2	888.2	1.0
AE	43,513	147	1,526	6.4	891.1	891.1	891.2	0.1
AF	43,957	113	1,562	5.4	894.2	894.2	894.2	0.0
AG	44,086	135	1,267	6.6	894.0	894.0	894.5	0.5
AH	50,894	304	1,974	3.5	907.1	907.1	907.6	0.5
AI	51,043	323	2,024	3.4	910.5	910.5	910.5	0.0
AJ	56,568	49	588	12.6	921.2	921.2	921.7	0.5
AK	56,664	119	1,557	4.8	924.3	924.3	925.2	0.9
AL	58,195	368	1,750	2.8	925.4	925.4	926.4	1.0
AM	58,255	442	2,091	2.4	925.5	925.5	926.5	1.0
AN	58,884	336	1,694	2.9	927.1	927.1	928.0	0.9
AO	60,139	194	1,034	4.7	930.5	930.5	931.2	0.7
AP	60,994	60	662	7.3	936.1	936.1	936.7	0.6
AQ	61,060	61	683	7.0	937.8	937.8	938.2	0.4
AR	62,655	68	679	7.1	960.5	960.5	960.6	0.1
AS	62,731	68	866	5.6	962.5	962.5	962.8	0.3
AT	64,338	58	292	10.2	974.3	974.3	974.7	0.4
AU	65,215	58	375	8.3	987.9	987.9	988.1	0.2
AV	65,402	63	936	3.3	998.5	998.5	998.6	0.1
AW	66,896	51	241	12.4	1,000.9	1,000.9	1,000.9	0.0
AX	68,287	41	400	4.7	1,008.3	1,008.3	1,009.1	0.8
AY	68,373	43	672	2.8	1,015.9	1,015.9	1,016.9	1.0
AZ	70,015	84	382	4.9	1,025.4	1,025.4	1,026.3	0.9
BA	71,169	73	251	2.8	1,030.5	1,030.5	1,030.9	0.4

¹Feet above confluence with Chattahoochee River

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	NICKAJACK CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Nickajack Creek (continued)								
BB	71,225 ¹	121	423	1.7	1,034.8	1,034.8	1,035.6	0.8
BC	71,547 ¹	74	182	3.8	1,034.9	1,034.9	1,035.8	0.9
BD	72,090 ¹	67	241	2.9	1,043.1	1,043.1	1,043.2	0.1
BE	72,282 ¹	87	421	1.7	1,048.7	1,048.7	1,048.8	0.1
Noonday Creek								
A	2,819 ²	125	1,832	8.7	901.2	901.2	902.2	1.0
B	3,024 ²	287	4,028	6.8	903.4	903.4	904.1	0.7
C	7,121 ²	110	1,883	9.3	907.1	907.1	907.5	0.4
D	7,364 ²	140	1,948	10.2	909.5	909.5	909.7	0.2
E	15,479 ²	1,362	9,323	3.2	914.3	914.3	915.2	0.9
F	15,814 ²	554	4,637	5.4	917.5	917.5	917.8	0.3
G	21,283 ²	98	1,198	10.6	923.8	923.8	924.7	0.9
H	21,543 ²	301	2,834	6.5	925.7	925.7	926.4	0.7
I	22,842 ²	698	5,813	4.4	927.1	927.1	927.7	0.6
J	23,000 ²	434	4,694	1.9	927.4	927.4	927.9	0.5
K	23,352 ²	545	4,627	2.2	933.2	933.2	933.2	0.0
L	25,990 ²	1,323	1,128	10.2	933.6	933.6	933.6	0.0
M	26,341 ²	563	1,563	10.2	935.0	935.0	935.0	0.0
N	27,721 ²	618	5,041	3.6	938.2	938.2	938.2	0.0
O	30,074 ²	117	1,417	6.8	942.8	942.8	943.1	0.3
P	32,230 ²	204	2,094	6.1	949.7	949.7	949.8	0.1
Q	32,385 ²	258	3,019	5.1	952.1	952.1	952.2	0.1
R	34,787 ²	559	2,395	3.3	953.9	953.9	953.9	0.0
S	37,843 ²	170	1,734	3.9	957.6	957.6	957.6	0.0
T	39,143 ²	132	1,735	2.8	958.9	958.9	958.9	0.0

¹Feet above confluence with Chattahoochee River

²Feet above county boundary

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		NICKAJACK CREEK - NOONDAY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Noonday Creek (continued)								
U	42,502	127	561	7.6	964.9	964.9	964.9	0.0
V	42,697	681	4,839	3.0	968.5	968.5	968.5	0.0
W	43,934	1,290	5,863	3.8	970.2	970.2	970.2	0.0
X	44,888	115	743	4.1	973.2	973.2	974.1	0.9
Y	46,187	260	1,104	2.7	976.1	976.1	976.6	0.5
Z	46,590	208	1,992	1.5	981.5	981.5	981.5	0.0
AA	47,199	193	1,835	1.3	982.3	982.3	982.3	0.0
AB	49,224	82	383	5.3	983.9	983.9	984.8	0.9
AC	52,067	207	587	1.2	998.1	998.1	999.0	0.9
AD	52,535	462	3,706	0.5	1007.5	1007.5	1008.3	0.8
AE	53,123	185	3,052	0.6	1008.8	1008.8	1009.0	0.2
AF	54,635	83	398	4.7	1009.6	1009.6	1009.7	0.1
AG	54,792	147	1,033	1.8	1015.8	1015.8	1015.8	0.0
AH	55,709	136	526	3.5	1016.4	1016.4	1016.5	0.1
AI	56,355	50	280	4.4	1019.7	1019.7	1020.2	0.5
AJ	56,481	93	396	3.1	1021.1	1021.1	1021.4	0.3

¹ Feet above county boundary

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	NOONDAY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Noonday Creek Tributary No. 1								
A	3,221	47	130	1.7	910.6	910.6	911.6	1.0
B	6,230	30	114	5.9	935.1	935.1	936.1	1.0
C	8,131	30	153	3.9	948.3	948.3	949.3	1.0
Noonday Creek Tributary No. 3								
A	1,384	68	559	9.8	929.7	929.7	930.3	0.6
B	2,122	105	1,181	4.8	935.7	935.7	936.2	0.5
C	3,147	170	1,591	3.6	937.6	937.6	938.2	0.6
D	3,696	150	1,423	4.0	939.6	939.6	940.0	0.4
E	5,317	189	691	7.8	943.8	943.8	943.8	0.0
F	6,315	154	680	8.0	949.3	949.3	949.3	0.0
G	7,486	220	2,022	2.7	976.4	976.4	976.6	0.2
H	8,326	305	1,839	3.0	978.9	978.9	979.8	0.9
I	9,428	402	1,596	2.9	984.5	984.5	984.6	0.1
J	10,289	225	657	7.0	987.1	987.1	987.1	0.0
K	11,344	157	804	5.7	996.7	996.7	996.8	0.1
L	12,205	120	973	3.9	1,003.6	1,003.6	1,004.0	0.4
M	13,200	120	595	6.4	1,008.4	1,008.4	1,008.6	0.2
N	14,224	110	811	3.9	1,024.2	1,024.2	1,024.2	0.0
O	14,938	100	690	4.6	1,026.9	1,026.9	1,027.4	0.5
P	16,128	20	144	15.1	1,032.5	1,032.5	1,032.5	0.0
Q	16,650	20	423	5.2	1,050.5	1,050.5	1,050.5	0.0
R	17,329	128	1,033	2.5	1,051.0	1,051.0	1,051.0	0.0

¹ Feet above confluence with Noonday Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	NOONDAY CREEK TRIBUTARY NO. 1 - NOONDAY CREEK TRIBUTARY NO. 3

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Noonday Creek Tributary No. 4								
A	1,340 ¹	150	833	2.6	926.9	926.8 ³	927.1	0.3
B	3,770 ¹	66	570	4.4	943.3	943.3	943.7	0.4
C	5,250 ¹	153	752	3.3	948.5	948.5	949.5	1.0
D	6,615 ¹	313	2,137	1.7	976.9	976.9	976.9	0.0
E	8,965 ¹	312	1,988	1.8	976.9	976.9	976.9	0.0
F	10,920 ¹	101	1,768	2.1	1,002.9	1,002.9	1,002.9	0.0
G	12,640 ¹	53	461	7.9	1,014.8	1,014.8	1,015.5	0.7
H	14,415 ¹	62	530	6.9	1,044.7	1,044.7	1,045.0	0.3
Noonday Creek Tributary No. 6								
A	0.26 ²	36	208	2.9	947.2	942.9	948.9	1.0
B	0.76 ²	85	200	2.7	961.4	961.4	962.4	1.0
C	1.21 ²	28	123	3.3	981.4	981.4	982.4	1.0
Noonday Creek Tributary No. 7								
A	55 ¹	180	884	3.6	953.1	944.9 ³	945.4	0.5
B	1,153 ¹	208	855	3.7	953.1	949.9 ³	950.9	1.0
C	2,275 ¹	120	445	7.1	955.0	955.0	955.0	0.0
D	3,014 ¹	160	1,061	3.0	962.8	962.8	963.7	0.9
E	4,167 ¹	55	165	4.3	964.4	964.4	965.1	0.7
F	4,678 ¹	65	130	5.4	969.5	969.5	969.5	0.0
G	5,661 ¹	90	135	7.0	979.9	979.9	979.9	0.0
H	6,734 ¹	33	131	7.3	985.1	985.1	985.6	0.5
I	7,820 ¹	30	176	5.4	995.6	995.6	996.2	0.6

¹Feet above confluence with Noonday Creek

²Miles above mouth

³Elevation computed without consideration of backwater effects from Noonday Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**NOONDAY CREEK TRIBUTARY NO. 4 – NOONDAY CREEK
TRIBUTARY NO. 6 – NOONDAY CREEK TRIBUTARY NO. 7**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Noses Creek								
A	1,940	1,097	12,401	1.0	894.7	889.2 ²	889.7	0.5
B	8,014	253	2,286	5.2	894.7	889.8 ²	890.4	0.6
C	8,211	218	2,373	5.0	894.7	891.2 ²	891.7	0.5
D	12,199	852	5,715	2.1	894.7	893.2 ²	893.7	0.5
E	16,473	390	3,092	3.8	898.6	898.6	899.2	0.6
F	16,608	393	3,551	3.3	899.1	899.1	899.6	0.5
G	16,823	286	2,111	5.5	899.1	899.1	899.6	0.5
H	17,524	213	2,331	5.0	900.9	900.9	901.2	0.3
I	17,748	248	3,052	3.8	902.3	902.3	902.5	0.2
J	18,974	676	7,010	1.7	903.2	903.2	903.3	0.1
K	20,727	440	4,958	2.5	904.1	904.1	904.2	0.1
L	22,538	950	9,042	1.4	904.7	904.7	904.8	0.1
M	24,573	300	2,860	4.3	905.0	905.0	905.1	0.1
N	24,696	516	5,345	2.9	905.6	905.6	906.1	0.5
O	27,333	834	6,996	1.7	906.3	906.3	907.3	1.0
P	29,353	829	6,803	1.8	907.2	907.2	908.0	0.8
Q	30,766	231	1,343	9.3	908.3	908.3	908.4	0.1
R	30,904	267	2,010	6.2	911.1	911.1	911.5	0.4
S	31,149	271	2,665	4.7	912.6	912.6	912.8	0.2
T	33,275	338	4,143	1.7	914.4	914.4	915.2	0.8
U	33,471	328	4,049	1.8	914.7	914.7	915.6	0.9
V	35,288	132	1,239	6.0	914.9	914.9	915.8	0.9
W	35,476	127	1,861	4.8	921.6	921.6	922.6	1.0
X	37,556	598	6,651	1.1	922.9	922.9	923.9	1.0
Y	42,455	272	958	3.4	924.3	924.3	925.1	0.8
Z	43,904	361	1,289	2.9	927.3	927.3	927.4	0.1
AA	44,008	163	1,036	3.6	928.6	928.6	929.4	0.8

¹Feet above confluence with Sweetwater Creek

²Elevation computed without consideration of backwater effects from Sweetwater Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	NOSES CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Noses Creek (continued)								
AB	45,405	853	1,820	1.7	929.7	929.7	930.3	0.6
AC	46,979	203	1,405	2.5	933.6	933.6	933.9	0.3
AD	49,306	417	1,414	2.4	939.1	939.1	939.5	0.4
AE	50,791	240	887	3.8	941.5	941.5	941.6	0.1
AF	52,013	249	1,051	3.2	946.6	946.6	947.0	0.4
AG	52,789	105	743	4.5	948.7	948.7	948.9	0.2
AH	52,925	81	768	4.0	949.9	949.9	950.1	0.2
AI	53,224	71	477	6.5	950.0	950.0	950.2	0.2
AJ	53,481	120	1,026	3.0	952.7	952.7	952.8	0.1
AK	54,782	228	1,260	2.5	954.1	954.1	954.4	0.3
AL	56,120	312	1,215	2.6	955.5	955.5	955.8	0.3
AM	56,913	103	782	4.5	957.2	957.2	957.5	0.3
AN	56,990	85	769	4.6	957.8	957.8	958.3	0.5
AO	58,937	584	1,308	2.4	960.4	960.4	960.8	0.4
AP	59,966	202	634	4.9	964.7	964.7	965.6	0.9
AQ	62,017	74	350	8.9	972.1	972.1	973.1	1.0
AR	62,097	79	470	6.6	975.1	975.1	975.1	0.0
AS	62,474	197	659	4.7	976.8	976.8	976.8	0.0
AT	63,191	194	706	4.4	984.8	984.8	984.9	0.1
AU	64,112	166	976	3.2	992.3	992.3	992.9	0.6
AV	64,779	207	874	3.6	993.0	993.0	993.6	0.6
AW	65,440	41	231	13.5	998.5	998.5	998.5	0.0
AX	66,043	149	476	6.5	1,003.2	1,003.2	1,003.3	0.1
AY	66,743	87	740	4.2	1,006.2	1,006.2	1,006.2	0.0
AZ	66,854	59	755	4.2	1,010.5	1,010.5	1,011.0	0.5
BA	68,181	207	762	4.1	1,014.0	1,014.0	1,014.5	0.5
BB	68,720	50	266	11.8	1,018.6	1,018.6	1,018.6	0.0

¹Feet above confluence with Sweetwater Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		NOSES CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Noses Creek(Continued)								
BC	68,841	64	739	4.2	1023.8	1023.8	1023.8	0.0
BD	69,861	65	455	6.9	1025.2	1025.2	1025.4	0.2
BE	69,965	69	535	5.9	1028.6	1028.6	1028.6	0.0
BF	70,438	83	333	9.4	1029.5	1029.5	1029.5	0.0
BG	71,430	160	564	5.7	1035.9	1035.9	1036.0	0.1
BH	71,494	158	710	4.7	1036.5	1036.5	1037.1	0.6
BI	71,959	150	487	6.4	1037.9	1037.9	1038.5	0.6
BJ	72,800	104	350	8.3	1046.3	1046.3	1046.3	0.0
BK	73,590	48	238	12.2	1060.3	1060.3	1060.3	0.0
BL	74,200	78	495	5.8	1063.5	1063.5	1063.5	0.0
BM	75,304	74	313	9.3	1075.9	1075.9	1076.0	0.1
BN	75,408	91	523	5.5	1079.2	1079.2	1079.2	0.0
BO	75,813	164	689	4.2	1080.6	1080.6	1080.7	0.1
Olley Creek								
A	3,195	405	2,912	2.6	894.8	885.1 ²	886.1	1.0
B	5,475	367	3,144	2.4	894.8	894.7 ²	894.8	0.1
C	8,205	378	2,113	3.6	895.8	895.8	896.5	0.7
D	9,997	114	1,083	7.1	903.5	903.5	903.6	0.1
E	11,911	364	4,289	1.8	906.7	906.7	906.9	0.2
F	15,025	411	3,470	2.2	908.8	908.8	909.7	0.9
G	19,353	426	2,483	3.1	915.8	915.8	916.7	0.9
H	20,327	334	3,242	2.3	922.3	922.3	922.6	0.3
I	24,095	359	2,838	2.6	927.6	927.6	928.4	0.8
J	25,869	318	2,676	2.8	931.9	931.9	932.7	0.8
K	29,409	273	2,541	3.0	942.6	942.6	942.7	0.1
L	32,400	313	2,647	2.9	947.7	947.7	948.6	0.9
M	34,848	341	1,949	3.6	950.7	950.7	951.4	0.7
N	37,337	263	1,931	3.6	958.4	958.4	959.3	0.9

¹Feet above confluence with Sweetwater Creek

²Elevation computed without consideration of backwater effects from Sweetwater Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
	NOSES CREEK- OLLEY CREEK	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Olley Creek (Continued)								
O	39,688 ¹	331	2,530	2.6	966.7	966.7	967.5	0.8
P	40,940 ¹	114	1,013	6.5	969.6	969.6	970.4	0.8
Q	44,019 ¹	200	1,639	3.7	978.8	978.8	979.1	0.3
R	46,132 ¹	240	1,319	4.0	982.0	982.0	982.8	0.8
S	47,765 ¹	230	1,321	3.9	988.9	988.9	989.6	0.7
T	49,988 ¹	144	853	3.5	998.7	998.7	999.6	0.9
U	51,869 ¹	142	588	4.1	1,008.8	1,008.8	1,009.6	0.8
V	53,725 ¹	64	527	3.6	1,020.1	1,020.1	1,020.9	0.8
W	54,875 ¹	34	145	9.6	1,027.5	1,027.5	1,027.9	0.4
X	56,109 ¹	48	235	5.9	1,040.6	1,040.6	1,041.2	0.6
Y	56,971 ¹	30	223	2.8	1,054.2	1,054.2	1,054.2	0.0
Z	58,303 ¹	72	411	1.4	1,068.6	1,068.6	1,069.4	0.8
Olley Creek Tributary								
A	1,021 ²	161	585	3.3	1,000.7	1,000.7	1,001.3	0.6
B	2,065 ²	72	285	4.8	1,008.8	1,008.8	1,009.6	0.8
C	3,657 ²	103	186	5.2	1,026.3	1,026.3	1,026.3	0.0
Pine Branch								
A	1,042 ³	27	146	6.6	941.4	941.4	942.3	0.9
B	2,943 ³	65	303	2.5	959.0	959.0	960.0	1.0
C	5,160 ³	12	49	8.8	983.8	983.8	984.0	0.2
Pine Creek								
A	4,858 ¹	64	529	4.1	897.1	897.1	897.8	0.7
B	6,442 ¹	68	378	5.7	903.6	903.6	904.6	1.0
C	7,022 ¹	49	291	6.6	909.2	909.2	909.8	0.6
D	9,451 ¹	63	288	6.7	918.9	918.9	919.1	0.2

¹Feet above confluence with Sweetwater Creek

²Feet above confluence with Olley Creek

³Feet above confluence with Pine Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
	OLLEY CREEK –OLLEY CREEK TRIBUTARY – PINE BRANCH – PINE CREEK	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Pine Creek(Continued)								
E	11,458 ¹	200 ³	492	3.9	937.2	937.2	937.5	0.3
F	11,986 ¹	111	847	1.1	943.5	943.5	944.4	0.9
G	12,408 ¹	103	177	5.1	945.9	945.9	945.9	0.0
H	14,890 ¹	25	100	4.9	984.4	984.4	984.7	0.3
Piney Grove Creek								
A	447 ²	102	723	7.3	952.0	952.0	952.9	0.9
B	1,626 ²	123	980	5.4	956.4	956.4	956.9	0.5
C	2,617 ²	109	966	5.5	962.0	962.0	962.8	0.8
D	4,135 ²	157	1,316	4.1	965.1	965.1	965.6	0.5
E	5,342 ²	193	1,428	4.1	967.8	967.8	968.3	0.5
F	6,778 ²	171	1,004	5.9	970.1	970.1	970.1	0.0
G	8,525 ²	131	923	5.9	977.1	977.1	977.3	0.2
H	10,088 ²	223	1,374	4.0	984.1	984.1	984.1	0.0
I	11,731 ²	245	2,115	2.6	992.6	992.6	992.8	0.2
J	13,111 ²	191	1,210	3.9	995.0	995.0	995.1	0.1
K	14,558 ²	151	789	5.9	997.3	997.3	998.1	0.8
L	15,642 ²	147	1,207	3.9	1,006.8	1,006.8	1,006.8	0.0
M	16,935 ²	176	736	6.2	1,008.5	1,008.5	1,008.6	0.1
N	17,977 ²	200	758	6.0	1,013.9	1,013.9	1,013.9	0.0
O	19,190 ²	51	342	13.3	1,019.7	1,019.7	1,019.8	0.1
P	19,780 ²	84	549	8.3	1,025.4	1,025.4	1,025.4	0.0
Q	20,364 ²	286	1,888	2.4	1,033.2	1,033.2	1,033.7	0.5
R	21,584 ²	38	153	10.4	1,035.8	1,035.8	1,035.8	0.0
S	22,414 ²	51	97	6.0	1,047.7	1,047.7	1,047.7	0.0
T	23,286 ²	25	79	7.4	1,057.9	1,057.9	1,058.1	0.2
U	24,057 ²	54	369	1.6	1,075.5	1,075.5	1,076.2	0.7

¹Feet above confluence with Sweetwater Creek

² Feet above confluence with Sewell Mill Creek

³ Combined floodway with Pine Branch

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

PINE CREEK – PINEY GROVE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Pitner Creek								
A	311	100	468	3.8	889.9	888.3 ³	889.0	0.7
B	1,680	120	422	4.2	894.9	894.9	895.1	0.2
C	2,736	58	450	3.6	903.6	903.6	903.8	0.2
D	2,959	220	2,018	0.8	906.4	906.4	906.8	0.4
E	3,966	70	338	4.9	907.9	907.9	908.6	0.7
F	5,139	18	79	6.2	912.8	912.8	913.3	0.5
G	6,315	52	165	2.3	927.4	927.4	927.4	0.0
H	7,465	26	79	4.8	938.8	938.8	938.9	0.1
I	8,732	52	183	2.0	946.7	946.7	947.3	0.6
J	9,893	407	4,369	0.1	969.0	969.0	969.0	0.0
K	10,781	256	1,375	0.4	989.5	989.5	989.5	0.0
L	11,442	307	1,612	0.6	989.5	989.5	989.5	0.0
M	12,152	60	289	3.1	997.0	997.0	997.7	0.7
Poorhouse Creek								
A	802 ²	497	5,112	0.8	927.7	927.7	928.4	0.7
B	2,888 ²	282	1,738	2.3	929.0	929.0	929.9	0.9
C	4,687 ²	59	551	6.4	933.0	933.0	933.6	0.6
D	8,463 ²	133	878	2.4	951.8	951.8	952.1	0.3
E	10,137 ²	85	391	4.7	954.0	954.0	954.6	0.6
Poplar Creek								
A	3,689 ²	160	1,400	2.6	894.0	894.0	894.4	0.4
B	7,141 ²	92	777	4.7	927.1	927.1	927.1	0.0
C	9,967 ²	33	280	12.1	938.8	938.8	939.6	0.8
D	12,085 ²	140	1,142	2.5	949.6	949.6	950.2	0.6
E	14,682 ²	53	327	6.2	959.6	959.6	960.5	0.9
F	18,069 ²	40	186	7.5	990.4	990.4	991.1	0.7

¹Feet above confluence with Little Allatoona Creek

²Feet above confluence with Rottenwood Creek

³Elevation computed without consideration of backwater effects from Allatoona Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	PITNER CREEK-POORHOUSE CREEK-POPLAR CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Powder Springs Creek								
A	36	572	3,548	1.8	901.2	893.2 ²	893.2	0.0
B	2,017	850	9,511	0.7	901.2	894.1 ²	894.3	0.2
C	3,867	450	4,542	1.4	901.2	894.2 ²	894.6	0.4
D	4,675	436	3,750	1.7	901.2	894.8 ²	895.2	0.4
E	6,136	815	7,660	0.8	901.2	895.6 ²	895.9	0.3
F	8,202	940	5,994	1.0	901.2	896.1 ²	896.4	0.3
G	9,439	350	2,711	2.3	901.2	899.3 ²	899.3	0.0
H	11,512	350	2,882	2.1	901.2	900.9 ²	901.5	0.6
I	13,084	350	2,771	2.2	902.8	902.8	903.2	0.4
J	14,987	245	1,800	3.4	904.4	904.4	905.3	0.9
K	16,698	500	3,392	1.8	907.0	907.0	908.0	1.0
L	16,877	500	3,583	1.7	907.5	907.5	908.2	0.7
M	18,128	530	4,273	1.5	908.3	908.3	909.1	0.8
N	20,554	150	1,104	4.6	911.2	911.2	911.4	0.2
O	20,799	150	1,399	3.7	913.0	913.0	913.2	0.2
P	22,851	500	4,135	1.2	914.3	914.3	914.9	0.7
Q	23,904	570	4,600	1.1	914.5	914.5	915.3	0.8
R	25,416	232	1,943	2.6	917.2	917.2	917.7	0.5
S	26,944	650	4,184	1.2	917.8	917.8	918.7	0.9
T	28,358	360	2,037	2.5	919.2	919.2	920.1	0.9
U	29,350	700	5,800	0.9	923.0	923.0	923.9	0.9
V	30,714	410	2,033	2.5	923.4	923.4	924.4	1.0
W	32,169	700	4,090	1.3	925.4	925.4	926.3	0.9
X	34,633	330	1,338	2.9	927.7	927.7	928.7	1.0
Y	36,077	200	1,213	3.2	931.7	931.7	932.1	0.4
Z	37,647	740	4,129	0.9	932.9	932.9	933.7	0.8

¹Feet above confluence with Sweetwater Creek

²Elevation computed without considering backwater effects from Sweetwater Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	POWDER SPRINGS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Powder Springs Creek (continued)								
AA	38,981 ¹	319	1,057	3.5	934.0	934.0	935.0	1.0
AB	39,905 ¹	100	999	3.7	941.0	941.0	941.1	0.1
AC	40,922 ¹	250	2,308	1.5	941.5	941.5	942.2	0.7
AD	42,102 ¹	325	1,769	1.6	942.4	942.4	943.3	0.9
AE	43,809 ¹	170	609	4.7	947.1	947.1	947.3	0.2
Powers Branch								
A	1,342 ²	94	270	2.3	798.3	798.3	799.2	0.9
B	2,187 ²	19	90	6.8	805.9	805.9	806.8	0.9
C	3,348 ²	31	77	7.9	822.6	822.6	822.8	0.2
D	4,457 ²	46	85	7.2	842.4	842.4	842.4	0.0
Powers Creek								
A	1,290 ³	54	296	5.1	936.2	936.2	936.6	0.4
B	2,245 ³	37	214	6.4	941.5	941.5	942.0	0.5
C	3,176 ³	51	436	3.1	951.4	951.4	952.2	0.8

¹Feet above confluence with Sweetwater Creek

²Feet above confluence with Chattahoochee River

³Feet above confluence with Rottenwood Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**POWDER SPRINGS CREEK – POWERS BRANCH -
POWERS CREEK**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Proctor Creek								
A	2,020	113	1,122	4.3	861.1	860.6 ²	860.9	0.3
B	2,675	450	2,558	1.6	861.1	860.4 ²	860.5	0.1
C	3,275	500	2,492	1.6	861.2	861.2	861.6	0.4
D	3,821	165	807	4.9	863.0	863.0	863.3	0.3
E	4,770	255	1,324	3.0	868.8	868.8	869.2	0.4
F	5,594	75	584	6.9	872.1	872.1	872.4	0.3
G	6,280	150	945	3.5	875.6	875.6	875.6	0.0
H	7,175	76	760	4.3	882.9	882.9	882.9	0.0
I	7,763	320	2,367	1.4	883.7	883.7	883.9	0.2
J	8,484	350	2,027	1.6	884.4	884.4	884.7	0.3
K	9,248	400	2,065	1.6	888.3	888.3	888.4	0.1
L	10,453	200	883	5.4	892.4	892.4	892.7	0.3
M	11,654	400	2,301	2.1	902.1	902.1	902.3	0.2
N	12,811	350	1,517	2.9	907.5	907.5	907.9	0.4
O	14,158	300	1,139	3.8	914.4	914.4	914.9	0.5
P	14,960	160	739	5.9	920.2	920.2	920.8	0.6
Q	15,899	200	1,051	4.1	927.0	927.0	927.6	0.6
R	16,934	44	424	13.5	933.9	933.9	934.6	0.7
S	17,802	250	1,950	2.0	942.1	942.1	942.3	0.2
T	18,892	100	533	7.3	948.1	948.1	948.5	0.4

¹Feet above confluence with Lake Acworth

²Elevation computed without consideration of backwater effects from Lake Acworth

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	PROCTOR CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Queen Creek								
A	586 ¹	154	618	10.0	764.1	757.7 ²	758.1	0.4
B	1,633 ¹	60	414	14.9	764.1	761.7 ²	761.8	0.1
C	1,795 ¹	60	1,078	5.7	773.7	773.7	774.1	0.4
D	2,782 ¹	276	4,122	1.4	774.3	774.3	774.9	0.6
E	3,739 ¹	60	698	8.2	774.3	774.3	774.7	0.4
F	3,816 ¹	65	720	7.9	774.6	774.6	775.1	0.5
G	4,490 ¹	167	1,104	5.2	775.6	775.6	776.3	0.9
H	6,434 ¹	45	386	14.4	790.8	790.8	791.1	0.3
I	6,584 ¹	198	2,355	3.5	804.4	804.4	805.3	0.9
J	9,278 ¹	140	1,011	5.1	805.6	805.6	806.5	0.9
K	11,625 ¹	51	324	12.6	846.1	846.1	846.2	0.1
L	12,472 ¹	80	419	9.8	883.4	883.4	883.4	0.0
M	14,599 ¹	40	171	10.8	916.3	916.3	916.3	0.0
N	15,038 ¹	42	176	10.4	948.2	948.2	948.4	0.2
O	16,023 ¹	49	223	9.3	963.0	963.0	963.0	0.0
P	16,081 ¹	103	629	3.4	968.5	968.5	968.8	0.3
Q	16,938 ¹	192	711	2.5	969.3	969.3	969.6	0.3
R	17,012 ¹	236	1,066	1.7	971.4	971.4	971.4	0.0
S	17,633 ¹	31	123	9.2	980.2	980.2	980.7	0.5
T	18,071 ¹	80	471	2.4	991.1	991.1	992.0	0.9
U	18,268 ¹	164	1,625	1.7	999.4	999.4	1,000.1	0.7

¹Feet above confluence with Nickajack Creek

²Elevation computed without consideration of backwater effects from Chattahoochee river

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		QUEEN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Robertson Creek								
A	520 ¹	67	288	8.2	923.4	918.7 ³	919.7	1.0
B	1,734 ¹	154	1,088	2.2	930.6	930.6	930.6	0.0
C	2,797 ¹	184	1,325	1.8	936.3	936.3	936.3	0.0
D	3,893 ¹	52	144	9.8	937.7	937.7	937.7	0.0
E	4,800 ¹	59	232	6.1	946.5	946.5	946.8	0.3
F	5,406 ¹	58	401	2.1	964.7	964.7	964.7	0.0
G	6,036 ¹	125	1,062	0.8	979.2	979.2	980.1	0.9
H	6,737 ¹	79	184	4.6	984.1	984.1	984.3	0.2
I	7,131 ¹	41	111	7.6	995.8	995.8	995.8	0.0
J	7,651 ¹	112	185	4.6	1,007.1	1,007.1	1,007.1	0.0
K	8,666 ¹	84	173	4.9	1,021.1	1,021.1	1,021.1	0.0
Rottenwood Creek								
A	2,124 ²	94	1,329	10.1	782.8	782.8	783.5	0.7
B	4,951 ²	75	864	15.4	800.3	800.3	800.4	0.1
C	6,257 ²	60	700	19.0	820.0	820.0	820.5	0.5
D	7,811 ²	82	1,225	10.7	838.1	838.1	838.1	0.0
E	9,074 ²	102	1,472	8.9	841.8	841.8	842.5	0.7
F	10,403 ²	200	2,027	6.4	855.7	855.7	855.7	0.0
G	11,812 ²	250	2,100	6.1	874.2	874.2	874.2	0.0
H	13,429 ²	385	4,426	2.4	880.3	880.3	880.8	0.5
I	15,011 ²	88	843	12.5	882.0	882.0	882.5	0.5
J	18,669 ²	86	1,117	9.3	899.5	899.5	900.3	0.8
K	21,367 ²	101	1,017	9.9	914.3	914.3	915.1	0.8
L	23,864 ²	106	1,426	5.0	927.4	927.4	928.1	0.7
M	26,384 ²	317	3,811	1.9	930.6	930.6	931.6	1.0
N	28,600 ²	414	3,843	1.7	932.7	932.7	933.5	0.8

¹Feet above confluence with Sewell Mill Creek

²Feet above confluence with Chattahoochee River

³Elevation computed without consideration of backwater effects from Sewell Mill Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
	ROBERTSON CREEK- RTOTTENWOOD CREEK	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Rottenwood Creek(Continue)								
O	31,473 ¹	500	3,815	1.7	939.9	939.9	940.7	0.8
P	35,471 ¹	310	2,152	3.0	946.5	946.5	947.1	0.6
Q	39,758 ¹	136	636	5.5	958.3	958.3	958.4	0.1
R	40,971 ¹	63	394	8.9	965.5	965.5	966.2	0.7
S	41,764 ¹	98	483	10.0	995.4	995.4	995.8	0.4
T	42,137 ¹	95	773	6.3	1,001.4	1,001.4	1,001.6	0.2
U	46,611 ¹	143	660	5.6	1,025.6	1,025.6	1,025.9	0.3
V	50,316 ¹	25	78	6.8	1,052.0	1,052.0	1,052.4	0.4
O	31,473 ¹	500	3,815	1.7	939.9	939.9	940.7	0.8
P	35,471 ¹	310	2,152	3.0	946.5	946.5	947.1	0.6
Rubes Creek								
A	474 ²	730	3,819	2.8	897.3	897.3	898.1	0.8
B	2,603 ²	207	1,443	7.4	907.0	907.0	907.2	0.2
C	4,373 ²	463	5,232	1.1	915.1	915.1	915.2	0.1
D	5,944 ²	323	2,002	2.8	915.7	915.7	915.8	0.1
E	7,128 ²	355	1,993	2.9	917.4	917.4	917.8	0.4
F	9,168 ²	359	1,673	3.2	921.8	921.8	922.4	0.6
G	10,207 ²	230	986	5.4	927.5	927.5	927.8	0.3
H	12,267 ²	256	1,539	3.5	939.9	939.9	940.6	0.7
I	13,416 ²	247	945	5.3	943.0	943.0	943.0	0.0
J	14,718 ²	214	1,210	4.2	948.6	948.6	948.6	0.0
K	16,111 ²	137	862	5.1	960.0	960.0	960.0	0.0
L	18,461 ²	224	711	6.2	973.6	973.6	973.6	0.0
M	19,276 ²	95	342	8.3	987.5	987.5	987.6	0.1
N	20,087 ²	100	427	6.7	1,005.7	1,005.7	1,005.7	0.0
O	20,811 ²	113	564	2.9	1,016.6	1,016.6	1,016.6	0.0
P	21,515 ²	76	237	6.9	1,021.2	1,021.2	1,021.2	0.0

¹Feet above confluence with Chattahoochee River

²Feet above county boundary

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	ROTTENWOOD CREEK- RUBES CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Rubes Creek(Continued)								
Q	23,553 ¹	76	389	2.1	1,047.2	1,047.2	1,047.5	0.3
R	24,229 ¹	63	679	1.2	1,064.5	1,064.5	1,064.5	0.0
S	24,980 ¹	33	324	2.5	1,074.5	1,074.5	1,075.3	0.8
Rubes Creek Tributary								
A	1,116 ²	14	71	12.1	925.3	925.3	926.2	0.9
B	1,807 ²	231	1,008	0.9	943.1	943.1	943.2	0.1
C	2,844 ²	28	94	9.1	950.7	950.7	950.8	0.1
D	3,585 ²	208	1,560	0.6	977.1	977.1	977.5	0.4
E	4,881 ²	116	211	4.1	986.1	986.1	986.1	0.0
Sewell Mill Creek								
A	617 ³	225	448	3.3	917.6	917.6	918.1	0.5
B	1,248 ³	184	770	4.9	917.8	917.8	918.3	0.5
C	3,197 ³	575	890	1.5	920.8	920.8	921.7	0.9
D	4,355 ³	190	609	3.4	921.5	921.5	922.4	0.9
E	5,568 ³	198	547	4.3	923.5	923.5	924.2	0.7
F	7,794 ³	257	880	2.5	932.5	932.5	933.4	0.9
G	8,939 ³	433	1,014	2.0	933.4	933.4	934.3	0.9
H	10,426 ³	107	424	11.5	942.9	942.9	943.0	0.1
I	11,676 ³	64	474	7.6	954.1	954.1	954.3	0.2
J	13,676 ³	55	382	9.0	964.5	964.5	965.5	1.0
K	15,767 ³	82	214	9.0	974.0	974.0	974.1	0.1
L	16,238 ³	154	264	3.0	978.1	978.1	978.5	0.4
M	17,259 ³	80	298	8.7	978.4	978.4	979.3	0.9
N	18,664 ³	104	544	3.8	984.1	984.1	984.8	0.7
O	20,345 ³	140	252	2.2	996.6	996.6	997.1	0.5

¹Feet above county boundary

²Feet above confluence with Rubes Creek

³Feet above confluence with Sope Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	RUBES CREEK – RUBES CREEK TRIBUTARY- SEWELL MILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sewell Mill Creek (Continued)								
P	21,328 ¹	98	464	4.9	997.2	997.2	997.2	0.6
Q	22,606 ¹	100	274	4.4	1,000.5	1,000.5	1,000.5	0.8
R	23,607 ¹	45	247	9.8	1,003.7	1,003.7	1,003.7	0.8
S	24,409 ¹	115	252	3.4	1,012.5	1,012.5	1,012.5	0.7
T	25,518 ¹	152	256	5.1	1,014.1	1,014.1	1,014.1	0.7
U	26,733 ¹	131	268	3.8	1,022.0	1,022.0	1,022.0	0.8
V	27,532 ¹	123	159	3.6	1,024.4	1,024.4	1,024.4	0.9
W	28,459 ¹	116	140	3.3	1,029.2	1,029.2	1,029.2	0.8
X	30,126 ¹	141	406	1.8	1,038.0	1,038.0	1,038.0	0.7
Y	31,589 ¹	82	442	2.5	1,045.4	1,045.4	1,045.4	0.0
Z	32,924 ¹	153	102	4.4	1,049.1	1,049.1	1,049.1	0.0
AA	33,881 ¹	27	137	7.6	1,055.7	1,055.7	1,055.7	0.4
AB	34,701 ¹	31	128	8.1	1,063.0	1,063.0	1,063.0	0.8
Smyrna Branch								
A	902 ²	156	501	3.5	930.2	929.8 ³	930.6	0.8
B	1,736 ²	42	252	6.9	936.1	936.1	936.6	0.5
C	1,916 ²	56	563	3.1	943.1	943.1	943.1	0.0
D	2,031 ²	83	384	4.5	943.2	943.2	943.2	0.0
E	2,861 ²	162	325	5.4	943.9	943.9	943.9	0.0
F	3,872 ²	67	313	3.9	954.5	954.5	954.8	0.3
G	4,328 ²	35	142	8.6	956.4	956.4	956.5	0.1
H	4,402 ²	47	330	3.7	963.7	963.7	964.6	0.9
I	4,918 ²	22	88	4.9	963.9	963.9	964.8	0.9
J	5,348 ²	56	165	2.6	967.6	967.6	967.6	0.0
K	5,642 ²	40	220	1.9	979.1	979.1	979.7	0.6
L	6,096 ²	18	71	6.1	979.9	979.9	980.4	0.5
M	6,215 ²	21	227	1.9	988.4	988.4	988.5	0.1

¹Feet above confluence with Sope Creek

²Feet above confluence with Theater Branch

³Elevation computed without consideration of backwater effects from Theater Branch

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		SEWELL MILL CREEK- SMYRNA BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Smyrna Branch (Continued)								
N	6.688 ¹	17	47	9.1	989.8	989.8	989.9	0.1
O	6.792 ¹	23	226	1.9	997.7	997.7	998.7	1.0
Sope Branch								
A	892 ²	76	214	7.4	1,025.9	1,025.9	1,026.0	0.1
B	3,365 ²	50	238	4.5	1,052.5	1,052.5	1,053.4	0.9
C	4,625 ²	116	238	4.5	1,076.3	1,076.3	1,076.3	0.0
Sope Creek								
A	2,279 ³	201	1,941	7.0	811.9	811.9	811.9	0.0
B	3,443 ³	173	2,143	6.3	815.4	815.4	815.4	0.2
C	4,284 ³	165	1,664	8.2	817.8	817.8	817.8	0.1
D	4,995 ³	84	766	16.5	824.9	824.9	824.9	0.0
E	5,974 ³	133	936	13.5	842.1	842.1	842.1	0.0
F	6,825 ³	119	830	15.1	871.1	871.1	871.1	0.0
G	7,405 ³	111	812	15.4	880.5	880.5	880.5	0.0
H	8,104 ³	316	2,269	5.4	891.2	891.2	891.2	0.0
I	9,459 ³	277	2,766	4.5	895.0	895.0	895.0	0.0
J	10,910 ³	542	3,932	3.0	896.5	896.5	896.5	0.2
K	12,459 ³	136	1,483	7.7	897.9	897.9	897.9	0.3
L	14,071 ³	143	2,026	5.7	902.4	902.4	902.4	0.5
M	15,401 ³	171	1,713	6.1	905.1	905.1	905.1	0.8
N	16,663 ³	159	1,903	5.5	908.3	908.3	908.3	0.4
O	18,491 ³	480	5,652	1.9	910.6	910.6	910.6	0.5
P	20,086 ³	330	3,748	2.8	915.0	915.0	915.0	0.2

¹Feet above confluence with Theatre Branch

²Feet above confluence with Sope Creek

³Feet above confluence with Chattahoochee River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

SMYRNA BRANCH – SOPE BRANCH – SOPE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sope Creek (continued)								
Q	22,123	669	7,254	1.1	915.6	915.6	916.2	0.6
R	23,855	379	4,004	2.0	918.9	918.9	919.6	0.7
S	25,959	519	6,552	1.1	926.5	926.5	926.5	0.0
T	28,417	427	3,059	2.4	928.0	928.0	928.7	0.7
U	31,098	467	4,275	1.7	932.2	932.2	932.7	0.5
V	32,609	103	905	7.8	935.3	935.3	935.5	0.2
W	34,138	220	1,071	6.6	939.5	939.5	940.1	0.6
X	35,298	102	1,121	6.3	946.7	946.7	946.9	0.2
Y	36,333	112	1,248	5.7	951.4	951.4	952.2	0.8
Z	37,150	77	633	11.2	953.4	953.4	953.6	0.2
AA	37,927	54	507	14.0	959.1	959.1	959.8	0.7
AB	38,560	273	2,082	3.4	966.8	966.8	967.4	0.6
AC	39,940	107	1,453	4.9	975.8	975.8	976.7	0.9
AD	42,110	169	2,262	2.7	977.9	977.9	978.8	0.9
AE	43,649	121	1,344	4.5	979.8	979.8	980.5	0.7
AF	45,056	150	2,138	2.8	985.0	985.0	985.7	0.7
AG	46,808	119	1,324	3.9	988.3	988.3	988.9	0.7
AH	48,413	101	851	6.0	990.4	990.4	990.9	0.5
AI	49,630	70	482	7.1	993.9	993.9	994.6	0.7
AJ	50,779	38	373	9.2	997.9	997.9	998.6	0.7
AK	52,033	122	872	1.7	1,008.3	1,008.3	1,009.1	0.8
AL	53,093	184	893	3.0	1,011.3	1,011.3	1,011.3	0.0
AM	54,088	95	297	9.0	1,012.6	1,012.6	1,012.6	0.0
AN	55,688	89	521	2.7	1,021.7	1,021.7	1,022.5	0.8
AO	57,426	50	264	5.3	1,030.9	1,030.9	1,031.7	0.8
AP	58,819	41	230	6.1	1,042.0	1,042.0	1,042.1	0.1

¹Feet above confluence with Chattahoochee River

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		SOPE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sweet Mountain Creek								
A	268 ¹	87	301	7.5	940.9	938.5 ³	938.5	0.0
B	1,192 ¹	65	374	6.0	947.3	947.3	947.3	0.0
C	1,235 ¹	76	454	4.9	947.5	947.5	947.5	0.0
D	1,827 ¹	191	882	2.6	950.4	950.4	950.4	0.0
E	4,104 ¹	440	915	2.3	955.8	955.8	955.8	0.0
F	4,982 ¹	61	356	5.9	956.3	956.3	956.3	0.0
G	6,247 ¹	30	247	8.3	963.4	963.4	963.4	0.0
H	6,451 ¹	390	9,597	0.2	985.8	985.8	985.8	0.0
I	7,636 ¹	234	3,894	0.7	985.8	985.8	985.8	0.0
J	8,683 ¹	99	934	2.3	985.8	985.8	985.8	0.0
K	8,814 ¹	324	4,679	1.5	994.7	994.7	994.7	0.0
L	9,858 ¹	178	1,991	1.2	994.8	994.8	994.7	0.0
M	10,728 ¹	41	286	8.2	994.4	994.4	994.4	0.0
N	10,813 ¹	55	236	10.0	994.4	994.4	994.4	0.0
O	11,555 ¹	113	280	7.0	998.2	998.2	998.3	0.0
P	11,732 ¹	120	381	5.1	999.9	999.9	999.9	0.0
Sweetwater Creek								
A	226 ²	344	6,075	2.7	891.0	891.0	891.9	0.9
B	365 ²	357	6,671	2.5	891.5	891.5	892.4	0.9
C	3,144 ²	1,374	26,546	0.6	892.4	892.4	893.4	1.0
D	4,823 ²	1,092	21,160	0.8	892.5	892.5	893.4	1.0
E	7,565 ²	268	4,162	3.9	893.3	893.3	894.2	1.0
F	7,725 ²	277	4,722	3.5	893.6	893.6	894.6	1.0
G	7,855 ²	402	7,488	2.2	894.0	894.0	895.0	0.9
H	10,796 ²	1,216	19,033	0.8	894.7	894.7	895.7	1.0
I	10,933 ²	1,261	20,440	0.7	894.8	894.8	895.7	1.0
J	14,301	1,597	19,587	0.8	894.9	894.9	895.9	1.0
K	17,858	1,266	10,888	1.4	895.5	895.5	896.4	0.9

¹Feet above confluence with Willeo Creek

²Feet above County Boundary

³Elevation computed without consideration of backwater effects from Willeo Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

SWEAT MOUNTAIN CREEK – SWEETWATER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sweetwater Creek (Continue)								
L	17,983 ¹	1,312	12,886	1.2	896.0	896.0	896.9	0.9
M	21,118 ¹	160	2,698	5.3	896.0	896.0	896.9	0.8
N	25,215 ¹	846	12,579	1.1	898.1	898.1	898.9	0.8
O	25,308 ¹	871	10,703	1.3	898.0	898.0	899.0	1.0
P	25,731 ¹	669	8,384	1.7	898.4	898.4	899.1	0.7
Q	26,183 ¹	493	6,811	2.1	898.5	898.5	899.3	0.8
R	27,267 ¹	241	4,566	3.1	898.8	898.8	899.7	0.9
S	27,463 ¹	229	4,349	3.3	899.4	899.4	900.2	0.8
T	28,379 ¹	406	7,477	1.9	900.1	900.1	900.9	0.8
U	29,351 ¹	521	9,912	1.4	901.2	901.2	901.8	0.7
V	32,574 ¹	741	12,856	1.0	901.2	901.2	902.1	0.8
W	37,566 ¹	530	6,272	2.1	901.5	901.5	902.5	0.9
X	37,705 ¹	600	8,637	1.5	901.9	901.9	902.9	1.0
Y	41,032 ¹	521	6,225	2.0	902.4	902.4	903.4	1.0
Z	44,161 ¹	742	8,285	1.5	902.9	902.9	903.9	1.0
AA	48,682 ¹	769	8,321	1.5	904.3	904.3	905.3	1.0
AB	48,793 ¹	725	7,682	1.6	904.7	904.7	905.3	0.7
AC	51,792 ¹	1,648	25,402	0.5	905.3	905.3	906.1	0.8
AD	54,621 ¹	514	6,433	1.8	905.3	905.3	906.2	0.8
AE	54,745 ¹	510	6,070	1.9	905.5	905.5	906.3	0.8
AF	59,345 ¹	859	11,851	1.0	906.3	906.3	907.1	0.8
AG	61,836 ¹	189	3,559	3.2	906.7	906.7	907.5	0.8
AH	62,001 ¹	189	3,052	3.7	907.9	907.9	908.7	0.8
AI	63,722 ¹	880	12,910	0.9	908.6	908.6	909.5	0.9
Tanyard Creek								
A	5,007 ²	150	558	2.7	861.1	849.8 ³	850.4	0.6

¹Feet above confluence with Lake Allatoona

²Feet above County Boundary

³Elevation computed without considering backwater effects from Lake Allatoona

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

SWEETWATER CREEK – TANYARD CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tanyard Creek (Continue)								
B	6,035 ¹	150	458	3.3	861.1	853.9 ⁴	854.6	0.7
C	6,891 ¹	100	270	5.6	861.1	858.1 ⁴	858.3	0.2
D	7,203 ¹	200	1,426	1.1	863.1	863.1	863.9	0.8
E	8,137 ¹	100	460	3.3	863.2	863.2	864.1	0.9
F	9,188 ¹	127	497	3.0	866.2	866.2	866.9	0.7
G	9,476 ¹	80	322	4.6	867.5	867.5	868.1	0.6
H	10,418 ¹	100	448	3.3	870.1	870.1	871.1	1.0
I	11,628 ¹	60	478	3.0	873.1	873.1	874.0	0.9
J	12,676 ¹	100	314	4.6	878.5	878.5	879.0	0.5
K	14,179 ¹	130	504	2.7	885.5	885.5	886.5	1.0
L	14,649 ¹	144	679	2.0	887.0	887.0	887.9	0.9
M	15,401 ¹	96	471	2.9	891.7	891.7	891.7	0.0
N	16,595 ¹	170	638	2.2	895.0	895.0	895.8	0.8
O	17,433 ¹	80	312	4.0	900.7	900.7	901.0	0.3
P	18,898 ¹	70	700	1.8	912.1	912.1	912.7	0.6
Q	19,828 ¹	150	1,317	1.0	912.3	912.3	913.1	0.8
R	20,354 ¹	65	261	3.1	913.0	913.0	913.5	0.5
S	21,156 ¹	25	150	5.4	919.9	919.9	920.3	0.4
Tate Creek								
A	750 ²	224	676	2.2	896.4	891.9 ⁵	891.9	0.0
B	5,210 ²	227/50 ³	475	1.7	908.8	908.8	909.5	0.7
C	5,560 ²	824/50 ³	3,701	0.4	943.4	943.4	943.4	0.0
D	11,690 ²	185	1,408	3.9	945.7	945.7	945.9	0.2
E	12,860 ²	358	3,278	1.7	963.0	963.0	963.0	0.0
F	14,070 ²	190	1,271	4.3	963.3	963.3	963.3	0.0
G	15,115 ²	222	3,013	0.3	984.3	984.3	984.3	0.0

¹Feet above confluence with Lake Allatoona

²Feet above confluence with Noonday Creek

³Total width/width within county

⁴Elevation computed without consideration of backwater effects from Lake Allatoona

⁵Elevation computed without consideration of backwater effects from Noonday Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	TANYARD CREEK– TATE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tate Creek (Continued)								
H	16,140 ¹	334	1,998	1.7	993.3	993.3	993.3	0.0
I	18,605 ¹	163	886	3.8	993.3	993.3	993.3	0.0
J	20,130 ¹	205	1,335	2.5	1,022.0	1,022.0	1,022.0	0.0
K	21,585 ¹	64	82	6.5	1,026.2	1,026.2	1,026.2	0.0
Terrell Branch								
A	1,267 ²	130	322	4.3	802.0	802.0	802.3	0.3
B	2,059 ²	52	259	5.4	805.6	805.6	806.6	1.0
C	2,957 ²	48	166	8.4	819.0	819.0	819.0	0.0
Theater Branch								
A	599 ³	262	701	5.3	922.7	921.8 ⁴	922.3	0.5
B	785 ³	73	751	5.3	924.5	924.5	925.2	0.7
C	919 ³	76	651	6.1	928.7	928.7	928.7	0.0
D	2,852 ³	41	225	10.3	933.9	933.9	933.9	0.0
E	2,930 ³	78	583	4.0	939.9	939.9	940.6	0.7
F	3,345 ³	125	878	2.6	940.4	940.4	941.2	0.8
G	3,587 ³	121	1,356	1.7	944.5	944.5	945.1	0.6
H	4,067 ³	91	628	4.1	944.7	944.7	945.1	0.4
I	4,145 ³	147	789	3.5	944.7	944.7	945.3	0.6
J	5,330 ³	50	241	9.6	947.2	947.2	947.2	0.0
K	5,427 ³	95	845	3.2	952.1	952.1	952.8	0.7
L	6,037 ³	168	1,382	1.7	952.8	952.8	953.7	0.9
M	6,851 ³	109	407	5.7	954.2	954.2	954.5	0.3
N	8,032 ³	38	110	9.7	962.5	962.5	962.5	0.0
O	8,137 ³	53	220	5.4	964.3	964.3	964.3	0.0
P	9,000 ³	43	120	8.9	969.6	969.6	970.1	0.5

¹Feet above confluence with Noonday Creek

²Feet above confluence with Chattahoochee River

³Feet above confluence with Nickajack Creek

⁴Elevation computed without consideration of backwater effects from Nickajack Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

**TATE CREEK–TERRELL BRANCH – THEATER
BRANCH**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Theater Branch(Continue)								
Q	9,399 ¹	80	217	7.2	974.6	974.6	974.2	0.2
R	9,459 ¹	38	289	3.7	978.0	978.0	978.9	0.9
Thompson Creek								
A	12,032 ²	94	530	5.0	934.1	932.7 ⁴	933.4	0.7
B	27,042 ²	53	370	5.3	938.4	938.4	939.2	0.8
C	40,102 ²	79	564	1.6	947.6	947.6	948.4	0.8
D	48,722 ²	39	297	3.1	955.6	955.6	956.2	0.6
E	58,072 ²	73	427	2.1	965.0	965.0	966.0	1.0
Timber Ridge Branch								
A	1,220 ³	180	527	6.9	863.3	850.2 ⁵	850.3	0.1
B	1,448 ³	46	268	13.6	863.3	853.8 ⁵	853.8	0.0
C	1,533 ³	50	675	5.4	864.7	864.7	865.1	0.4
D	1,549 ³	257	1609	2.3	864.7	864.7	865.5	0.8
E	1,878 ³	87	778	4.6	864.8	864.8	865.5	0.7
F	1,927 ³	88	420	8.5	866.0	866.0	866.5	0.5
G	2,007 ³	222	1582	2.3	871.8	871.8	871.8	0.0
H	2,091 ³	240	1761	2.3	871.8	871.8	871.8	0.0
I	3,767 ³	132	1012	3.9	872.4	872.4	872.5	0.1
J	4,757 ³	69	515	5.5	872.8	872.8	873.0	0.2
K	4,769 ³	69	571	4.9	872.8	872.8	873.4	0.6
L	4,854 ³	36	260	10.9	873.1	873.1	873.4	0.3
M	4,938 ³	45	459	6.1	876.1	876.1	877.0	0.9
N	5,681 ³	170	1052	1.5	877.9	877.9	878.7	0.8
O	6,064 ³	56	367	4.2	878.0	878.0	878.8	0.8
P	6,465 ³	28	154	10.1	878.7	878.7	879.2	0.5

¹Feet above confluence with Nickajack Creek

²Feet above confluence with Sewell Mill Creek

³Feet above confluence with Willeo Creek

⁴Elevation computed without consideration of backwater effects from Sewell Mill Creek

⁵Elevation computed without consideration of backwater effects from Willeo Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	THEATER BRANCH – THOMPSON CREEK–TIMBER RIDGE BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Trickum Creek								
A	604 ¹	234	1,722	3.7	914.6	914.6	914.6	0.0
B	1,660 ¹	196	2,384	2.7	918.9	918.9	919.8	0.9
C	2,844 ¹	313	3,179	2.0	919.8	919.8	920.6	0.8
D	4,028 ¹	253	2,207	2.9	920.6	920.6	921.5	0.9
E	5,452 ¹	218	1,327	4.9	924.5	924.5	924.9	0.4
F	6,538 ¹	351	3,186	2.1	933.1	933.1	933.4	0.3
G	7,771 ¹	172	874	5.0	936.0	936.0	936.4	0.4
H	9,022 ¹	123	663	6.4	944.0	944.0	944.5	0.5
I	10,059 ¹	138	1,010	4.2	954.9	954.9	954.9	0.0
J	11,278 ¹	81	508	8.3	969.6	969.6	970.6	1.0
K	12,448 ¹	131	505	8.4	996.4	996.4	996.6	0.2
L	13,468 ¹	74	487	6.5	1,005.6	1,005.6	1,006.6	1.0
M	14,860 ¹	39	195	5.7	1,019.5	1,019.5	1,019.9	0.4
N	16,049 ¹	87	184	6.0	1,032.6	1,032.6	1,032.6	0.0
O	17,299 ¹	60	181	6.1	1,046.5	1,046.5	1,046.6	0.1
P	17,902 ¹	47	120	9.2	1,054.0	1,054.0	1,054.0	0.0
Trickum Creek Tributary								
A	1,533 ²	129	911	2.3	948.7	948.7	949.0	0.3
B	2,221 ²	74	262	8.1	954.3	954.3	954.5	0.2
C	3,360 ²	37	182	11.7	972.5	972.5	972.8	0.3
D	4,685 ²	42	176	8.0	991.8	991.8	992.2	0.4
E	5,374 ²	65	189	7.5	1,007.9	1,007.9	1,007.9	0.0
F	6,446 ²	52	171	8.3	1,026.2	1,026.2	1,026.3	0.1
G	7,306 ²	37	80	9.0	1,049.2	1,049.2	1,049.2	0.0
H	8,120 ²	24	72	10.0	1,077.4	1,077.4	1,077.4	0.0

¹Feet above confluence with Rubes Creek

²Feet above confluence with Trickum Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		TRICKUM CREEK – TRICKUM CREEK TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Vinings Branch								
A	739 ¹	116	512	2.2	775.5	765.5 ³	766.1	0.6
B	1,637 ¹	127	395	2.5	775.5	769.1 ³	769.9	0.8
C	2,323 ¹	84	186	5.3	778.9	778.9	778.9	0.0
Ward Creek								
A	2,605 ²	300	1,623	2.3	926.1	926.1	927.0	0.9
B	3,716 ²	330	2,163	1.7	928.1	928.1	929.0	0.9
C	4,190 ²	400	1,860	2.0	929.0	929.0	930.0	1.0
D	4,920 ²	257	977	3.7	933.0	933.0	933.8	0.8
E	5,842 ²	620	4,217	0.9	936.0	936.0	936.0	0.0
F	6,505 ²	360	1,448	2.5	936.6	936.6	936.7	0.1
G	6,954 ²	300	1,508	2.4	938.2	938.2	939.0	0.8
H	7,255 ²	200	1,301	2.8	939.3	939.3	940.1	0.8
I	9,860 ²	400	1,932	1.9	945.8	945.8	946.6	0.8
J	10,740 ²	300	1,862	2.1	947.3	947.3	948.1	0.8
K	11,876 ²	290	1,696	2.3	949.4	949.4	950.4	1.0
L	12,893 ²	265	19,912	2.0	952.2	952.2	953.1	0.9
M	13,720 ²	270	1,391	2.8	954.4	954.4	954.8	0.4
N	14,699 ²	300	2,088	1.9	957.4	957.4	957.7	0.3
O	15,868 ²	350	1,003	3.9	963.4	963.4	963.5	0.1
P	16,747 ²	450	3,406	1.0	965.5	965.5	965.8	0.3
Q	17,249 ²	360	1,910	1.7	965.9	965.9	966.2	0.3
R	18,312 ²	300	1,385	2.3	968.8	968.8	969.2	0.4
S	19,190 ²	400	1,959	1.7	971.6	971.6	972.0	0.4
T	19,684 ²	400	2,220	1.5	972.7	972.7	973.1	0.4

¹Feet above confluence with Chattahoochee River

²Feet above confluence with Noses Creek

³Elevation computed without consideration of backwater effects from Chattahoochee River

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		VININGS BRANCH – WARD CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Ward Creek (continue)								
U	20,995 ¹	220	1,189	2.7	979.4	979.4	979.7	0.3
V	21,754 ¹	500	2,699	1.2	981.1	981.1	981.5	0.4
W	22,457 ¹	320	1,824	1.8	981.9	981.9	982.4	0.5
X	23,491 ¹	220	1,044	3.1	984.9	984.9	985.2	0.3
Y	24,191 ¹	180	608	5.3	987.5	987.5	987.7	0.2
Z	24,868 ¹	120	659	4.9	991.6	991.6	991.9	0.3
AA	25,501 ¹	170	908	3.6	996.6	996.6	996.8	0.2
AB	26,187 ¹	100	643	3.1	1,000.1	1,000.1	1,000.2	0.1
AC	27,044 ¹	258	825	2.4	1,007.3	1,007.3	1,007.4	0.1
AD	27,338 ¹	100	466	3.4	1,007.9	1,007.9	1,007.9	0.0
AE	27,749 ¹	100	303	5.2	1,011.2	1,011.2	1,011.4	0.2
AF	28,523 ¹	80	452	3.5	1,015.1	1,015.1	1,015.5	0.4
AG	29,299 ¹	54	217	7.3	1,018.9	1,018.9	1,018.9	0.0
AH	29,699 ¹	55	291	5.5	1,025.2	1,025.2	1,025.3	0.1
AI	30,258 ¹	31	185	8.6	1,034.1	1,034.1	1,034.2	0.1
AJ	30,835 ¹	44	309	5.1	1,038.8	1,038.8	1,039.7	0.9
AK	31,061 ¹	80	430	3.7	1,042.7	1,042.7	1,043.5	0.8
AL	31,356 ¹	35	221	7.2	1,043.8	1,043.8	1,044.4	0.6
AM	31,796 ¹	23	65	6.2	1,050.2	1,050.2	1,050.9	0.7
Westside Branch								
A	422 ²	31	203	9.9	1,019.0	1,016.4 ³	1,017.1	0.7
B	1,109 ²	78	354	5.6	1,024.8	1,024.8	1,025.8	1.0
C	1,901 ²	167	1,071	1.9	1,034.4	1,034.4	1,035.4	1.0
D	2,482 ²	109	559	3.6	1,040.6	1,040.6	1,041.4	0.8
E	3,590 ²	73	406	2.5	1,054.4	1,054.4	1,054.5	0.1
F	4,488 ²	41	117	8.6	1,065.5	1,065.5	1,065.5	0.0

¹Feet above confluence with Noses Creek

²Feet above confluence with Ward Creek

³Elevation computed without consideration of backwater effects from Ward Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

FLOODWAY DATA

WARD CREEK–WESTSIDE BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Wildhorse Creek								
A	151 ¹	673	2788	1.1	903.0	896.6 ³	897.5	0.9
B	1,601 ¹	305	1762	1.8	903.0	899.7 ³	900.2	0.6
C	3,269 ¹	432	1406	1.4	903.0	900.3 ³	901.2	0.9
D	5,535 ¹	55	357	5.7	907.9	907.9	908.4	0.5
E	5,628 ¹	44	343	5.9	909.6	909.6	910.2	0.6
F	8,196 ¹	134	338	5.9	915.3	915.3	915.6	0.3
G	10,501 ¹	111	485	4.0	924.8	924.8	925.4	0.7
H	10,645 ¹	113	576	3.4	926.8	926.8	926.8	0.0
I	13,936 ¹	51	265	7.0	941.8	941.8	941.8	0.0
J	14,014 ¹	86	614	3.0	944.1	944.1	944.7	0.5
K	15,440 ¹	147	252	4.3	952.6	952.6	952.6	0.0
Wildwood Branch								
A	646 ²	200	693	3.0	985.1	970.3 ⁴	970.5	0.2
B	1,068 ²	105	381	5.5	985.1	973.3 ⁴	973.3	0.0
C	1,388 ²	66	348	6.0	985.1	975.0 ⁴	975.1	0.1
D	1,933 ²	104	337	6.2	985.1	979.8 ⁴	979.9	0.1
E	2,778 ²	96	375	3.9	985.1	985.0 ⁴	985.3	0.3
F	3,395 ²	97	372	3.9	987.3	987.3	987.6	0.3
G	3,804 ²	78	307	4.7	993.0	993.0	993.0	0.0
H	4,229 ²	130	308	4.7	997.5	997.5	997.5	0.0
I	4,757 ²	59	881	1.7	1,015.6	1,015.6	1,015.8	0.2
J	5,759 ²	58	135	5.8	1,021.1	1,021.1	1,021.2	0.1
K	6,130 ²	53	152	5.1	1,027.2	1,027.2	1,027.7	0.5

¹Feet above confluence with Noses Creek

²Feet above confluence with Sope Creek

³Elevation computed without consideration of backwater effects from Noses Creek

⁴Elevation computed without consideration of backwater effects from Sope Creek

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
	WILDHORSE CREEK – WILDWOOD BRANCH	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Willeo Creek								
A	948 ¹	182\182 ²	774	10.0	862.1	857.4 ³	857.4	0.0
B	1,035 ¹	395\394 ²	3,349	2.3	863.1	863.1	863.1	0.0
C	2,563 ¹	157\157 ²	1,086	6.0	863.4	863.4	863.4	0.0
D	7,154 ¹	97\45 ²	758	9.9	868.3	868.3	869.0	0.7
E	7,308 ¹	105\34 ²	1,049	7.1	873.0	873.0	873.1	0.1
F	9,759 ¹	365\50 ²	3,570	2.1	876.1	876.1	876.4	0.3
G	12,753 ¹	78\26 ²	917	6.5	877.6	877.6	878.3	0.7
H	13,334 ¹	72\72 ²	583	10.3	889.1	889.1	889.8	0.7
I	14,910 ¹	69\29 ²	494	10.5	898.3	898.3	898.7	0.4
J	15,041 ¹	83\42 ²	835	6.2	903.0	903.0	903.1	0.1
K	17,263 ¹	131\52 ²	672	7.7	904.1	904.1	904.8	0.7
L	17,373 ¹	179\81 ²	1,322	3.9	906.6	906.6	906.9	0.3
M	19,148 ¹	116\93 ²	834	4.9	908.9	908.9	909.9	1.0
N	20,745 ¹	67\55 ²	629	6.4	912.4	912.4	912.9	0.5
O	20,868 ¹	109\36 ²	886	4.5	913.2	913.2	913.6	0.4
P	23,986 ¹	214\111 ²	1,281	3.1	920.8	920.8	921.1	0.3
Q	24,448 ¹	112\58 ²	548	7.3	920.9	920.9	921.3	0.4
R	27,255 ¹	43\43 ²	346	11.2	929.7	929.7	929.9	0.2
S	28,164 ¹	66\0 ^{2*}	664	5.8	938.8	938.8	939.6	0.8
R	28,526 ¹	48\48 ²	486	7.9	939.4	939.4	940.1	0.7
U	29,256 ¹	39\39 ²	269	6.8	941.6	941.6	942.2	0.6

¹Feet above confluence with Chattahoochee River

²Total width/width within county

³Elevation computed without consideration of backwater effects from Chattahoochee River

*Floodway lies entirely outside of Cobb County

TABLE 6	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	COBB COUNTY, GA AND INCORPORATED AREAS	
		WILLEO CREEK

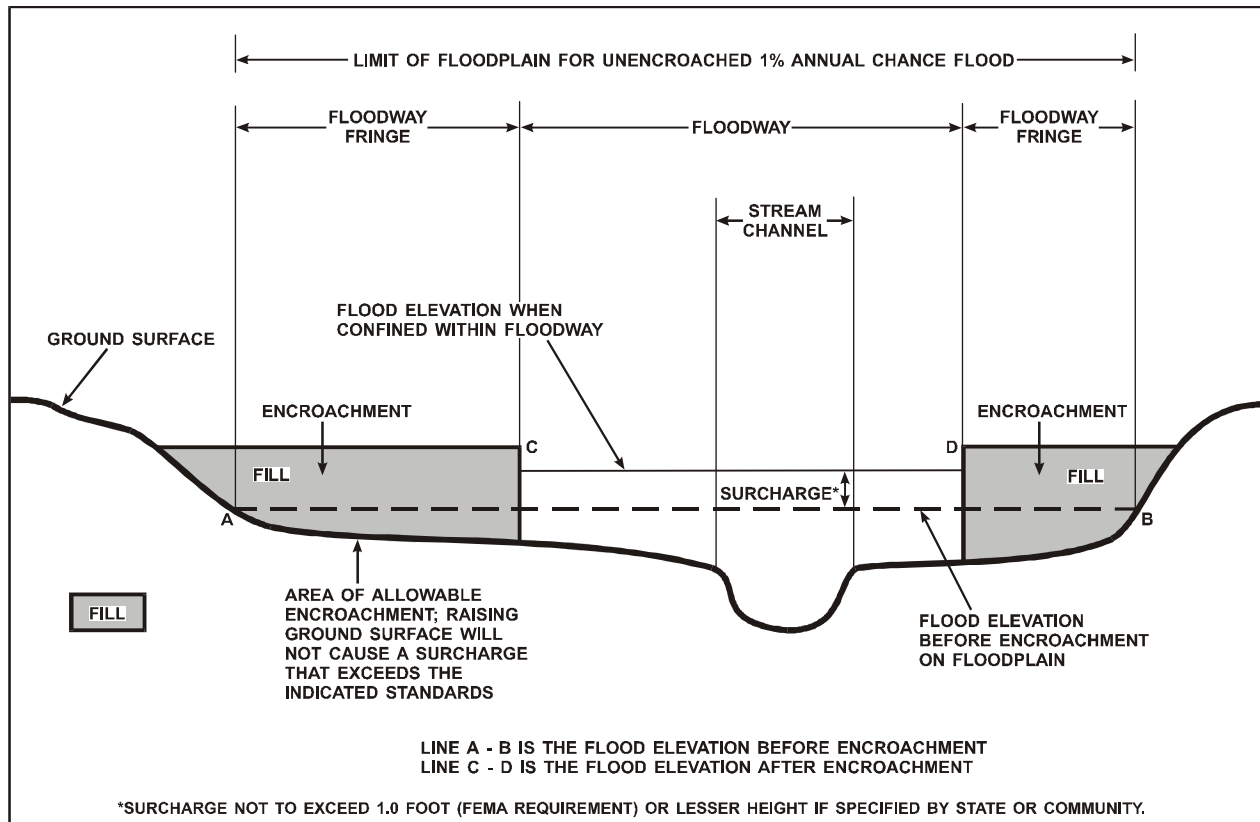


Figure 1

FLOWWAY SCHEMATIC

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance risk zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs or base flood depths are shown within this zone.

Zone AE

Zone AE is the flood insurance risk zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 100-year 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.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to the areas of 100-year 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.

Zone A99

Zone A99 is the flood insurance rate zone that corresponds to areas of the 100-year 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.

Zone V

Zone V is the flood insurance risk zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no BFEs are shown within this zone.

Zone VE

Zone VE is the flood insurance risk zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance risk zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the existing-conditions 0.2-percent-annual-chance floodplain, areas between the existing-conditions and future-conditions 1-percent-annual-chance floodplain boundaries, and to areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent-annual-chance flood by levees. No BFEs or base flood depths are shown within this zone.

Zone X (Future Base Flood)

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.

Zone D

Zone D is the flood insurance risk zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance risk zones as described in Section 5.0 and, in the existing-conditions 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use the zones and BFEs for existing-conditions in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by cross-hatching, tints, screens, and symbols, the existing- and future-conditions 1-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Cobb County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps, where applicable. Historical data relating to the maps prepared for each community are presented in Table 7, "Community Map History."

7.0 OTHER STUDIES

Flood elevations for streams studied by limited detailed methods were provided to Cobb County Stormwater Management Division at model cross sections. Contact the local floodplain administrator for more information.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Acworth, City of	April 5, 1974	February 13, 1976	February 15, 1978	None
Austell, City of	April 5, 1974	February 20, 1976	December 1, 1977	September 27, 1991
Cobb County (Unincorporated Areas)	October 3, 1975	None	January 3, 1979	December 4, 1985 August 3, 1989
Kennesaw, City of	June 14, 1974	April 16, 1976	August 1, 1980	September 6, 1989
Marietta, City of	June 21, 1974	January 7, 1977	February 15, 1978	January 5, 1984 June 17, 1986 November 15, 1989
Powder Springs, City of	April 12, 1974	August 27, 1976	August 1, 1980	April 17, 1984
Smyrna, City of	June 7, 1974	January 30, 1976	December 15, 1977	March 12, 1982

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

**COBB COUNTY, GA
AND INCORPORATED AREAS**

COMMUNITY MAP HISTORY

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting FEMA, Federal Insurance and Mitigation Division, Federal Regional Center, 3003 Chamblee-Tucker Road, Atlanta, Georgia 30341.

9.0 BIBLIOGRAPHY AND REFERENCES

2010 U.S. Census: Cobb County, Georgia. Retrieved on April 19, 2011, from <http://factfinder2.census.gov>

Dewberry and Davis LLC, Georgia Department of Natural Resources Cooperating Technical Partner Mapping Activity Statement No. FY09.09, FEMA Contract Number: EMA-2009-CA-5930, Chattahoochee River Hydrologic Study: Buford Dam to West Point Lake, April 2011

Dewberry and Davis LLC, Georgia Department of Natural Resources Cooperating Technical Partner Mapping Activity Statement No. FY09.09, FEMA Contract Number: EMA-2009-CA-5930, Chattahoochee River Hydraulic Study, May 2011.

Dewberry and Davis LLC, Georgia Department of Natural Resources Cooperating Technical Partner Mapping Activity Statement No. FY09.09, FEMA Contract Number: EMA-2009-CA-5930, Cobb County, GA: Hydrology Report, October 2010.

Dewberry and Davis LLC, Georgia Department of Natural Resources Cooperating Technical Partner Mapping Activity Statement No. FY09.09, FEMA Contract Number: EMA-2009-CA-5930, Cobb County, GA: Hydraulic Report, October 2010.

Federal Emergency Management Agency, Flood Insurance Study, Cobb County, Georgia (Unincorporated Areas), Flood Insurance Study, August 18, 1992; Flood Insurance Rate Map, August 2, 1992.

Federal Emergency Management Agency, Flood Insurance Study, Cobb County, Georgia (Unincorporated Areas), Flood Insurance Study, December 16, 2008; Flood Insurance Rate Map, December 16, 2008.

Braswell Engineering, Inc., Hydrologic Analysis of the Chattahoochee River Basin from Buford Dam to Medlock Bridge, Submittal #1, #2, and #3. 2007.

Interagency Advisory Committee on Water Data, Guidelines for determining flood flow frequency: Bulletin 17B of the Hydrology Subcommittee, Office of Water Data Coordination, U.S. Geological Survey, Reston, VA. 1982.

NOAA National Weather Services, Technical Paper 40: Rainfall Frequency Atlanta of the United States.1961.

Interagency Advisory Committee on Water Data, Guidelines for determining flood flow frequency: Bulletin 17B of the Hydrology Subcommittee, Office of Water Data Coordination, U.S. Geological Survey, Reston, VA, 1982

Atlanta Regional Commission, Atlanta Regional Information System, GIS Data and Multimedia Resources, Volume 1B.

Atlanta Regional Commission and Georgia Department of Natural Resources-Environmental Protection Division. (2003). Georgia Stormwater Management Manual. Atlanta, Georgia.

Chow. (1959). Open Channel Hydraulics. New York, New York.

Cobb County, Georgia. (February 2000 and April 2005). Digital Topography, Contour Interval of 2 feet.

ESRI. (May 2005). Arc Hydro Tools version 1.2. Redlands California.

Federal Emergency Management Agency (August 1989), Flood Insurance Study, Cobb County, Georgia, Unincorporated Areas. Washington, D.C.

U.S.Department of housing and urban development, Federal Insurance Administration, Flood Insurance Study, City of Acworth Cobb County, Georgia, July 1977.

Federal Emergency Management Agency, Flood Insurance Study, City of Kennesaw, Cobb County, Georgia, September 1989.

Flood Insurance Study, City of Marietta, Cobb County Georgia, November 1989.

Flood insurance Study, City of Powder Spring, Cobb County Georgia, November 1984.

Flood insurance Study, City of Smyrna, Cobb County Georgia, March 1982.

Federal Emergency Management Agency. (August 18, 1992). Flood Insurance Study, Cobb County, Georgia and Incorporated Areas. Washington, D.C.

Federal Emergency Management Agency. (December 18, 2008). Flood Insurance Study, Cobb County, Georgia and Incorporated Areas. Washington, D.C.

Federal Emergency Management Agency. (June 8, 2010). Flood Insurance Study, Cobb County, Georgia and Incorporated Areas. Washington, D.C.

Monthly Averages for Marietta, Georgia. (Retrieved on May 6, 2005). Source: <http://www.weather.com/>.

National Oceanic & Atmospheric Administration. (Retrieved May 10, 2005). Source: www.4.ncdc.noaa.gov

Natural Resources Conservation Service. (June 1986). TR-55, Urban Hydrology for Small Watersheds.

NGS: VERTCON-North American Vertical Datum Conversion Utility, Retrieved on May 4, 2005, from <http://www.ngs.noaa.gov/>.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (November 2006). Hydrologic Modeling System, Version 3.1. Davis California.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (April 2004). HEC-GeoRAS, Version BETA 6.0.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (May 2003). River Analysis System, Version 3.1.1. Davis California.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (May 2003). Hydrologic Modeling System, HEC-HMS, Version 2.2.2. Davis, California.

U.S. Army Corps of Engineers. (2002). HEC-RAS River Analysis System Hydraulic Reference Manual. Davis, California.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (1998). HEC-1 Flood Hydrograph Package, Version 4.1. Davis, California.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (September 1990). HEC-1 Users Manual, Flood Hydrograph Package. Davis, California.

U.S. Army, Corps of Engineers, Hydrologic Engineering Center. (May 1985). HEC-2 Water Surface Profiles, Generalized Computer Program. Davis, California.

U.S. Army Corps of Engineers, Hydrologic Engineering Center. (January 1985). HEC-1 Flood Hydrograph Package, Computer Program. Davis, California.

U.S. Army Corps of Engineers, Hydrologic Engineering Center, River Analysis System, Version 3.1.3, Davis California.

U.S. Department of Agriculture, Soil Conservation Service. (April 1976). Flood Hazard Analyses – Noonday Creek and Tributaries, Cherokee and Cobb Counties, Georgia.

U.S. Geological Survey. (1986). Simulation of Flood Hydrographs for Georgia Streams, Water Resources Investigations Report 86-4004. Ernest J. Inman (author).

U.S. Geological Survey. (1983). Flood-Frequency Relations for Urban Streams in Metropolitan Atlanta, Georgia, Water Resources Investigations Report 82-4203. Ernest J. Inman (author).

U.S. Geological Survey, Interagency Advisory Committee on Water Data, Office of Water Data Coordination, Hydrology Subcommittee. (September 1981, revised March 1982). Bulletin No. 17B, Guidelines for Determining Flood Flow Frequency.

U.S. Geological Survey. (July 1976). Open-File Report 76-511, Flood Frequency Analyses for Small Streams in Georgia. (H.H. Golden and McGlone Price (authors).

U.S. Geological Survey. (July 1974). An Approach to Estimating Flood Frequency for Urban Areas in Oklahoma. V.B. Sauer (author).

U.S. Geological Survey, (Austell, Georgia, 1954, photo revised 1968 and 1973; Mableton, Georgia, 1954, photo revised 1968; Acworth, Georgia, 1956, photo revised 1968 and 1973; Lost Mountain, Georgia, photo revised 1968; Marietta, Georgia, 1956, photo revised 1968 and 1973; and Sandy Springs, Georgia, 1955, photo revised 1968 and 1973). 7.5 Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 10 and 20 Feet.

U.S. Weather Bureau. (1961). Rainfall Frequency Atlas of the United States, Technical Paper No. 40.

Woolpert Consultants. (March 1988). Aerial Photographs, Cobb County, Georgia, Scale 1:14,400. Mobile, Alabama.

U.S. Geological Survey. (1977). Roughness Characteristics of Natural Channels, Geological Survey Water-Supply Paper 1849. Washington, D.C.