CALHOUN COUNTY, ALABAMA

AND INCORPORATED AREAS

Volume 1 of 3

COMMUNITY NAME	COMMUNITY NUMBER
ANNISTON, CITY OF	010020
HOBSON CITY, TOWN OF	010021
JACKSONVILLE, CITY OF	010022
OHATCHEE, TOWN OF	010232
OXFORD, CITY OF	010023
PIEDMONT, CITY OF	010024
WEAVER, CITY OF	010025
CALHOUN COUNTY (UNINCORPORATED AREAS)	010013

PRELIMINARY DATE
AUGUST 29, 2014

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER

01015CV001B

NOTICE TO
FLOOD INSURANCE STUDY USERS

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

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

Initial Countywide FIS Effective Date: September 28, 2007

Revised Countywide FIS Date: August 29, 2014 (Preliminary)

TABLE OF CONTENTS – Volume 1

TABLE OF CONTENTS – Volume 1

FIGURES

TABLES

TABLE OF CONTENTS – Volume 2

EXHIBITS

FLOOD INSURANCE STUDY
CALHOUN COUNTY, ALABAMA 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 Calhoun County, Alabama, including the Cities of Anniston, Jacksonville, Oxford, Piedmont, Weaver, the Town of Ohatchee and Hobson City, and the unincorporated areas of Calhoun County (hereinafter referred to collectively as Calhoun County).

The City of Oxford is located in Calhoun and Talladega Counties. Only the portion of Oxford in Calhoun County is shown in this FIS.

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 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.

The Digital Flood Insurance Rate Map (DFIRM) and FIS Report for this countywide study have been produced in digital format. Flood hazard information was converted to meet the Federal Emergency Management Agency (FEMA) DFIRM database specifications and Geographic Information System (GIS) format requirements. The flood hazard information was created and is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community.

1.2 Authority and Acknowledgement

The source of authority for this FIS is the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. Information on the authority and acknowledgments for each jurisdiction included in the countywide FIS, as compiled from their previously printed FIS reports, is shown below.

City of Anniston: The hydrologic and hydraulic analyses for Boiling Springs Branch, Cane Creek, DeArmanville

Branch, Golden Springs Branch, Hobson Creek, and Snow Creek were performed by the U.S. Army Corps of Engineers (USACE), Mobile District, (the Study Contractor) for the FEMA, under Contract No. EMW-90-E-3263, Project Order No. 1. This study was completed in April 1991.

The hydrologic and hydraulic analyses for Cave Creek and Pilgrim Creek were performed by the USACE in April 1982.

Town of Hobson City: The hydrologic and hydraulic analyses for the FIS dated March 30, 1983 were performed by the Mobile District USACE for FEMA, under Interagency Agreement No. IAA-H-9-79. The study was completed in September 1981.

City of Jacksonville: The result of the flood hazard analyses of the Soil Conservation Service (SCS) (Reference 1) has been used in the January 5, 1982 FIS.

City of Oxford: The hydrologic and hydraulic analyses for the FIS dated February 3, 1993 were performed by the USACE Mobile District, (the Study Contractor) for FEMA, under Contract No. EMW-90-E-3263, Project Order No. 1. This study was completed in April 1991.

City of Piedmont: The hydrologic and hydraulic analyses for the FIS dated December 15, 1983 were performed by U.S. Department of Agriculture, Soil Conservation Service.

City of Weaver: The hydrologic and hydraulic analyses for the FIS dated March 30, 1983 were performed by the Mobile District USACE. Survey data for this study were collected by Hoffman-Whitson Joint Venture, Atlanta, Georgia under the direction of the Mobile District for FEMA under Interagency Agreement No. IAA-H-9-79, Project Order No. 27. This study was completed in September 1981.

Unincorporated Areas: The hydrologic and hydraulic analyses for the FIS dated February 3, 1993 were performed by the Mobile District USACE for FEMA, under Interagency Agreement No. IAA-H-9-79 Project

Order No. 27. Field surveys for this study were performed by Hoffman-Whitson Joint Venture, under supervision of the USACE. This study was completed in March 1982.

The hydrologic and hydraulic analyses for the FIS Revision dated February 3, 1993, were performed by the USACE, Mobile District under Interagency Agreement No. EMW-90-E-3263, Project Order No. 1.

The authority and acknowledgements for the Town of Ohatchee is not listed because a FIS report was never published for this community.

For the initial countywide FIS dated September 28, 2007, no new hydrologic and/or hydraulic analyses were performed. These non-revised flood areas were converted to digital format in conformance with FEMA DFIRM Specifications.

For this revised countywide FIS, new hydrologic and hydraulic analyses were prepared for FEMA by AMEC under Contract No. C00661101 with the Alabama Department of Economic and Community Affairs (ADECA), Office of Water Resources (OWR). This work was completed in December XXXX. The extents of these analyses are listed in Section 2.0 of this report. All floodplain boundaries were delineated using a digital elevation surface created from Light Detection and Ranging (LiDAR) data collected in 2010 and provided by OWR and the Atlantic Group.

The projection used in the preparation of this FIS was Universal Transverse Mercator (UTM) Zone 16. The horizontal datum was North American Datum of 1983, GRS80 spheroid. Differences in the datum and spheroid used in the production of FIRMs for adjacent counties may result in slight positional differences in map features at the county boundaries. These differences do not affect the accuracy of information shown on the FIRM.

1.3 Coordination

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

The dates of the initial and final CCO meetings held for Calhoun County and the incorporated communities within its boundaries are shown in the following tabulation:

Community Name	Initial CCO Date	Final CCO Date
City of Anniston	*	February 19, 1992
Town of Hobson City	November 1978	October 14, 1982
City of Jacksonville	*	August 24, 1981
City of Oxford	*	February 19, 1992
City of Piedmont	*	March 4, 1983
City of Weaver	November 1978	October 14, 1982
Unincorporated Areas	November 1978	October 12, 1982

*Data not available

For the initial countywide FIS, an initial CCO meeting was held on February 16, 2005, and a final CCO meeting was held on October 17, 2006. The initial and final meetings were attended by representatives of Calhoun County, OWR, and FEMA.

For this revised countywide FIS, an initial CCO meeting was held on March 7, 2012, and was attended by representatives of Calhoun County; the Cities of Anniston, Jacksonville, Oxford, the Town of Ohatchee and Hobson City; OWR; the State of Alabama Emergency Management Agency (AEMA); and FEMA.

The results of the study were reviewed at the final CCO meeting held on XXXX, and attended by representatives of XXXX.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Calhoun County, Alabama.

All or portions of the flooding sources listed in "Streams Studied by Detailed Methods" were studied by detailed methods. All or portions of the flooding sources listed in "Stream Studied by Limited Detailed Methods" were studied by limited detailed methods. Limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM.

STREAMS STUDIED BY DETAILED METHODS

Alexandria Creek
Battle Creek
Boiling Springs Branch
Cane Creek
Cave Creek
Choccolocco Creek
Coldwater Creek
Coosa River
Mill Creek
Mill Creek Tributary No. 1
Nances Creek
Nances Creek Tributary No. 2
Park Creek
Pilgrim Creek
Remount Creek
Snow Creek

STREAMS STUDIED BY DETAILED METHODS

DeArmanville Branch
Dry Creek
East Branch Snow Creek
Eastaboga Creek
Golden Springs Branch
Hobson Creek
Ingram Creek
Lenlock Branch
Little Tallasseehatchee Creek
South Branch Cane Creek
Tallasseehatchee Creek (Jacksonville)
Tallasseehatchee Creek Tributary 1
Tallasseehatchee Creek Tributary 2
Tallasseehatchee Creek Tributary 3
Terrapin Creek
West Branch

STREAMS STUDIED BY LIMITED DETAILED METHODS

Cane Creek Tributary 11
Cane Creek Tributary 11.1
Cane Creek Tributary 11.2
Choccolocco Creek
Choccolocco Creek Tributary 11
Choccolocco Creek Tributary 27
Coldwater Creek Tributary
DeArmanville Branch Tributary 1
DeArmanville Branch Tributary 2
Tallasseehatchee Creek

This revision was carried out in order to update flood hazard information for all jurisdictions within Calhoun County. As part of this revision, updated detailed analyses are included for the flooding sources shown in Table 1, "Scope of Detailed Study Revision" and Table 2, "Scope of Limited Detailed Study Revision".

TABLE 1 – SCOPE OF DETAILED STUDY REVISION

Stream	**Limits of Detailed Study or New Detailed Study**
Alexandria Creek	From the confluence with Tallasseehatchee Creek to approximately 0.6 mile upstream of Melanie Lane
Battle Creek	From the confluence with Alexandria Creek to approximately 1,790 feet upstream of Alexandria Jacksonville Highway
Boiling Springs Branch*	From the confluence with Choccolocco Creek to just downstream of Spring Valley Road
Cane Creek**	From the confluence with Coosa River to approximately 3.4. miles upstream of Mudd Street and from just downstream of Unnamed Road to approximately 1,450 feet upstream of Iron Mountain Road
Cave Creek*	From the confluence with Cane Creek to approximately 2,160 feet upstream of Nautica Way
Choccolocco Creek*	At the Calhoun County boundary to approximately 0.8 mile upstream of Old Downing Mill Road
Coldwater Creek	From the Calhoun County boundary to approximately 1,400 feet upstream of Eulation Road

TABLE 1 – SCOPE OF DETAILED STUDY REVISION	
Stream	**Limits of Detailed Study or New Detailed Study**
Coosa River	From the southern Calhoun County boundary to the northern Calhoun County boundary
DeArmanville Branch	From the confluence with Choccolocco Creek to approximately 530 feet upstream of Choccolocco Road
East Branch Snow Creek	From the confluence with Snow Creek to approximately 0.4 miles upstream of Woodland Avenue
Eastaboga Creek*	From the Calhoun County boundary to approximately 760 feet upstream of the Calhoun County boundary
Golden Springs Branch	From the confluence with Choccolocco Creek to approximately 1,940 feet upstream of the Anniston Bypass
Hobson Creek*	From the confluence with Snow Creek to approximately 1,290 feet upstream of Church Street
Ingram Creek*	From the confluence with Cane Creek to just downstream of Iron Mountain Road
Lenlock Branch*	From the confluence with Cane Creek to just downstream of 49th Street
Little Tallasseehatchee Creek*	Approximately 2.8 miles upstream of the confluence with Tallasseehatchee Creek to approximately 0.7 mile upstream of Weaver Road\George Douthit Drive
Park Creek*	From the confluence with Hobson Creek to approximately 520 feet upstream of Washington Street
Pilgrim Creek	From just upstream of G Street to approximately 410 feet upstream of 10th Street E
Remount Creek*	From the confluence with Cane Creek to 2,150 feet upstream of Brigadier D H Stern Avenue
Snow Creek*	From the confluence with Choccolocco Creek to approximately 500 ft upstream of 21st Street W
South Branch Cane Creek*	From the confluence with Cane Creek to just downstream of Iron Mountain Road
Tallasseehatchee Creek (Jacksonville)	From approximately 550 feet downstream of State Highway 204 to approximately 1,230 feet upstream of Morningside Drive NE
Tallasseehatchee Creek Tributary 1*	From the confluence with Tallasseehatchee Creek (Jacksonville) to approximately 720 feet upstream of Church Avenue SE
Tallasseehatchee Creek Tributary 2*	From the confluence with Tallasseehatchee Creek Tributary 1 to approximately 280 feet upstream of Church Avenue SE
Tallasseehatchee Creek Tributary 3*	From the confluence with Tallasseehatchee Creek (Jacksonville) to approximately 90 feet upstream of Macon Drive NE
West Branch	From the confluence with Snow Creek to approximately 230 feet upstream of McKleroy Avenue

*Studies were redelineated on updated topographic data using hydrology and hydraulics from the effective Calhoun County and Unincorporated FIS.

The December 10, 2014 revision incorporated three Letter of Map Revision (LOMR) within Calhoun County. The LOMR dated August 11, 2009 (Case No. 09-04-1158P) was issued by FEMA for Boiling Springs Branch, from approximately 100 feet downstream of Golden Springs Road to approximately 200 feet upstream of Greenbrier Dear Road. The LOMR dated February 28, 1996 (Case No. 95-04-217P) was issued by FEMA for Snow Creek, from U.S. Highway 431 to approximately 100 feet downstream of Snow Street. The LOMR dated August 16, 1995 (Case No. 95-04-135P) was issued by FEMA for Snow Creek, upstream of the Norfolk Southern Railway.

**Two separate reaches of Cane Creek were studied. The downstream study was studied as part of this revision. The upstream study was redelineated on updated topographic data using hydrology and hydraulics from the effective FIS.

TABLE 2 – SCOPE OF LIMITED DETAILED STUDY REVISION

Stream	**Limits of Limited Detailed Study or New Limited Detailed Study**
Cane Creek Tributary 11	From the confluence with Cane Creek to approximately 400 feet upstream of Old Gadsden Highway
Cane Creek Tributary 11.1	From the confluence with Cane Creek Tributary 11 to approximately 600 feet upstream of Reaves Drive
Cane Creek Tributary 11.2	From the confluence with Cane Creek Tributary 11 to approximately 110 feet upstream of U.S. Route 431
Choccolocco Creek	Approximately 0.8 mile upstream of Old Downing Mill Road to approximately 4.4 miles upstream of the confluence with Choccolocco Creek Tributary 27
Choccolocco Creek Tributary 11	From the confluence with Choccolocco Creek to just downstream of Rock Quarry Road
Choccolocco Creek Tributary 27	From the confluence with Choccolocco Creek to approximately 2.9 miles upstream of the confluence with Choccolocco Creek
Coldwater Creek Tributary	From the confluence with Coldwater Creek to approximately 220 feet upstream of Hudson Avenue
DeArmanville Branch Tributary 1	From the confluence with DeArmanville Branch to approximately 400 feet upstream of Honeysuckle Trail
DeArmanville Branch Tributary 2	From the confluence with DeArmanville Branch to approximately 1,200 feet upstream of Interstate 20
Tallasseehatchee Creek	From the confluence with Ohatchee Creek to approximately 200 feet downstream of State Route 21

Approximate analyses were used to study the remaining flooding sources in the Middle Coosa watershed up to one square mile drainage area. The scope and

methods of study were proposed to, and agreed upon, by representatives of FEMA, the communities of Calhoun County, OWR, and AMEC.

2.2 Community Description

Calhoun County, located in the northeast part of Alabama, is bordered by Etowah and Cherokee Counties to the north, Cleburne County to the east, Talladega County to the south, and St. Clair County to the west. Calhoun County covers an area of approximately 612 square miles, of which 99 percent is land and 1 percent water (Reference 2**)**. The 2012 population was reported to be 117,296 (Reference 3). Calhoun County is served by Interstate Highway 20, U.S. Highways 78 and 278, and State Highways 1, 4, 9, 21, 77, 202, and 204; and the Anniston Municipal Airport.

The climate of Calhoun County is of the humid, warm-temperate type, characteristic of the southern United States. The summers are usually long with hot days and fairly cool nights. Most winters are fairly mild. Temperatures at night during the winter months frequently fall below freezing but rarely stay below freezing for more than 1 to 3 days. The mean annual temperature determined from the 2009 records of the National Weather Service Forecast Office in Birmingham, AL is 62 degrees (Reference 4). Precipitation is evenly distributed throughout the year. March is the wettest month, averaging 6.0 inches of rainfall. October is the driest month, averaging 3.0 inches of rainfall. The annual precipitation is 52 inches based on the Southeast Regional Climate Center's two Calhoun County stations (Reference 5).

Calhoun County lies primarily in the Coosa Valley physiographic region with a large variety of soil types, including clay, fine sandy, shale, and stony loam soils, and a rolling terrain. Elevations range from approximately 600 feet above mean sea level in the valleys to 2,000 feet above mean sea level in the mountainous areas (Reference 6). The west area of Calhoun County drains to the Coosa River. The northeast corner of the county drains to the north by way of Mill Creek, Nances Creek and Terrapin Creek. The remainder of the county drains south to Choccolocco Creek.

2.3 Principal Flood Problems

Principal flood problems occur near Cane Creek, South Branch Cane Creek, Cave Creek, Ingram Creek, Remount Creek, and along Choccolocco Creek, with extensive flooding near the confluences of Golden Springs Branch, Boiling Springs Branch, and DeArmanville Branch.

Records from two (USGS) stream gages located on Choccolocco Creek near the Town of Jenifer, Alabama (Reference 7), and the Town of Lincoln, Alabama (Reference 8), indicate that large floods have occurred in the area in January 1947, November 1949, March 1951, February 1961, April 1963, August 1967, May 1968, and April 1979. Gage records show that the four most

recent large flood events occurred in 1961, 1963, 1979, and 2003. Peak discharges and peak elevations associated with these events are as follows:

TABLE 3 – PEAK DISCHARGES AND ELEVATIONS OF RECENT LARGE FLOODS

Flooding Source	Gage Identifier	Site Name	Peak Discharges (cfs)				Peak Elevations (ft NAVD88)			
			1961	1963	1979	2003	1961	1963	1979	2003
Terrapin Creek	02400000	Terrapin Creek near Piedmont, AL	n/a	13,800	17,600	n/a	n/a	662.0	n/a	n/a
Coosa River	02401620	H. Neely Henry Dam near Ohatchee, AL	n/a	n/a	93,700	n/a	n/a	n/a	n/a	507.9
Tallasseehatchee Creek	02401800	Tallasseehatchee Creek near Wellington, AL	4,400	n/a	n/a	n/a	541.6	n/a	n/a	n/a
Choccolocco Creek	02403395	Choccolocco Creek at Oxford, AL	n/a	n/a	n/a	4,880	n/a	n/a	n/a	603.2
Choccolocco Creek	02403200	Choccolocco Creek at Choccolocco, AL	4,400	n/a	n/a	n/a	654.8	n/a	n/a	n/a

Flooding damages along Cane Creek, South Branch Cane Creek, Remount Creek, and Ingram Creek are concentrated along reaches of these streams within the Fort McClellan Military Reservation. Development in these areas consists mainly of storage buildings and military offices and classrooms. Substantial portions of the floodplains of Remount Creek and Cane Creek within Fort McClellan are used as a golf course.

Overbank flooding along Cave Creek is very extensive upstream of Weaver Cave. The stream flows into the cave through an opening approximately 1.5 feet high and 50 feet wide. During periods of low flow, the stream flows through the 1060-foot long cave formed in a limestone ridge that rises approximately 35 feet above the stream bed. During periods of high flows, the small and usually debris clogged opening cannot pass all of the flood waters and the limestone ridge above the cave acts as a dam. During large floods, upstream flood elevations rise rapidly behind the ridge. This creates a large pond of water upstream of Weaver Cave with extensive flooding and substantial depths immediately upstream of the cave. Development in this area consists primarily of storage buildings and military housing.

For flooding information of detailed study reaches of Terrapin Creek, Mill

Creek, Mill Creek Tributary No. 1, Dry Creek, Nances Creek and Nances Creek Tributary No. 2, refer to the Flood Hazard Study for Piedmont, Alabama (Reference 9). For flooding information of detailed study reaches of Tallasseehatchee Creek (Jacksonville) and Little Tallasseehatchee Creek, refer to the Flood Hazard Study for Jacksonville, Alabama (Reference 1).

Overbank flooding in Hobson City is confined mostly to the lower reaches of Hobson and Park Creeks.

The 24-hour rainfall report by the Weather Service shows the storm of March 3-4, 1979, was approximately 8 inches (Reference 10). This approximates a 1-percent-annual-chance storm. The flooding on Mill Creek and Nances Creek was equivalent to that expected from a 10-percent-annual-chance storm. During this storm, 16 properties in Piedmont consisting of a mobile home park, residences, commercial buildings, and industrial sites were estimated to be damaged by high water. Debris was deposited in storm drains and yards. This occurs about once every 10 years. Unusual trash blockages and log jams were not considered in the analysis. The 1-percent-annual-chance depths of flooding range from less than 1 foot on the tributaries to over 10 feet on the main stream. The velocities vary from less than 1 foot per second to about 7 feet per second. Streams studied are tabulated by reaches with acreages subject to inundation from the 1- and 0.2-percent-annual-chance floods. Flood stages presented in this report are based on the assumption that road embankments will not fail before the maximum flood stages are reached.

Calhoun County has had several storms in 2013 resulting in flooding around Snow Creek and Choccolocco Creek. On April 17, Oxford, AL received severe flooding from Choccolocco Creek. One-half inch of rainfall was recorded in two hours at the Anniston Regional Airport. Flooding was observed at the intersection of Snow Street and State Highway 21, in the parking lot of Quintard Mall, and at Oxford High School. Several shops in downtown Oxford reported flood damage (Reference 11). On May 18, the 3 tributaries of Snow Creek flooded causing damage to stormwater infrastructure in Anniston, AL. An average of 4 inches was recorded in the county by the National Weather Service from May 17–19 (Reference 12), with as much as six inches recorded in Anniston, AL (Reference 13).

2.4 Flood Protection Measures

The SCS has constructed seven small dams in the Choccolocco Creek basin upstream of the City of Oxford. These dams provide a substantial degree of protection from floods to areas downstream, including the detailed study reach of Choccolocco Creek included in this study.

No other flood protection measures for the county are known to exist at this time.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail 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 is expected to be equaled or exceeded once on the average during any 10-, 25-, 50-, 100-, and 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10, 4, 2, 1, and 0.2 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 which equals or exceeds the 1-percent-annual-chance 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 time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

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.

Precountywide Analyses

The primary method of computing discharge-frequency relationships for the detailed study reaches included in this study was the use of regression equations from a regional study developed by the USACE, Mobile District, for the Coosa, Alabama, and Tallapoosa River basins (Reference 14). These equations were used without urbanization adjustment for Remount Creek and Ingram Creek. For the other streams included in this study except Cave Creek and Choccolocco Creek, the equations were adjusted because of urbanization by applying an adjustment factor related to percentage of impervious area and percentage of area served by storm sewers. Discharge-frequency relationships computed using these equations were then compared to discharge-frequency relationships computed by methods described in two studies prepared by the USGS. These two studies were Flood Frequency of Small Streams in Alabama (Reference 15) and Floods in Alabama (Reference 16). The discharge-frequency relationships computed using the Mobile District regression equations compared well to those computed by using the methods in the USGS studies, and have been adopted for use in this study for those streams listed above.

To determine the effects of Weaver Cave on peak discharges for Cave Creek, a reservoir-routing procedure was used. Synthetic 10-, 2-, 1-, and 0.2-percent-annual-chance rainfall amounts were taken from U.S. Weather Bureau

publication TP-40 (Reference 10) and applied to unit hydrographs developed by methods described in the SCS publication National Engineering Handbook (Reference 17). Peak discharges for several locations on Cave Creek were then computed using the USACE HEC-1 (Hydrologic Engineering Center) computer program (Reference 18). The cave and limestone ridge over the cave act as a dam during periods of high flows and causes a significant reduction in downstream discharges. The discharge estimates obtained from the HEC-1 routing were then adopted for the reach of Cave Creek downstream of Weaver Cave. The HEC-1 routing had little effect on discharges upstream of Weaver Cave. It was decided that the Mobile District regression equations, derived from actual gage data, would provide a more reliable estimate of discharges along reaches of Cave Creek upstream of Weaver Cave, and that the discharge-frequency relationships using those regression equations would be adopted for use in this study.

The USGS maintains a gaging station on Choccolocco Creek near Jenifer, Alabama which was considered to be representative of the creek for the detailed study reaches of the creek included in this study. By substituting the mean and standard deviation from the gage statistics into the appropriate equation from the previously mentioned Mobile District regression equations, the equations were adjusted to the gage data. These adjustments to the regression equations and the use of a weighted skew factor were used to make the discharge-frequency curves for Choccolocco Creek used in this study compatible with the frequency curve for the gage.

For Boiling Springs Branch, Cane Creek, Choccolocco Creek, Coldwater Creek, DeArmanville Branch, Golden Springs Branch, Hobson Creek, Ingram Creek, Lenlock Branch, Remount Creek, Snow Creek, and South Branch Cane Creek discharges were determined using USGS regression equations (Reference 19) and adjusted for urbanization as necessary (Reference 20).

For Pilgrim Creek and Cave Creek, discharges were determined using regression equations from a regional study developed by the USACE for the Coosa, Alabama, and Tallapoosa River basins (Reference 21). These equations were adjusted to account for urbanization by applying an adjustment factor related to the percentage of impervious area and percentage of area served by storm sewers. Discharge-frequency relationships using these equations were then compared to discharge-frequency relationships computed by methods described in two studies prepared by the USGS (References 15 and 16). The discharge-frequency relationships computed using USACE regression equations compared well to those computed by using the methods in the USGS studies, and have been adopted for use in this study for all of Pilgrim Creek and Cave Creek, except for the reach of Cave Creek downstream of Weaver Creek.

Initial Countywide Analysis

For the September 28, 2007 countywide analysis, no new hydrologic and/or

hydraulic analyses were performed.

August 29, 2014 Preliminary Revision

For this revision, detailed hydrologic studies were conducted on Alexandria Creek, Battle Creek, Cane Creek, Coldwater Creek, DeArmanville Branch, East Branch Snow Creek, Golden Springs Branch, Pilgrim Creek, Tallasseehatchee Creek (Jacksonville), and West Branch.

For Alexandria Creek, Battle Creek, Cane Creek, Coldwater Creek, and Tallasseehatchee Creek (Jacksonville), frequency discharges were computed for the detailed reaches using applicable rural regression equations developed as part of the 2003 USGS study on rural streams in Alabama (Reference 22) and urban regression equations from the 2007 USGS study on urban streams in Alabama (Reference 23). Regression flows were then adjusted using USGS gage data and USGS PeakFQ software (v5.2.0) through a log-Pearson Type III analysis in accordance with Bulletin 17B (Reference 24).

The DeArmanville Branch, Golden Springs Branch, and West Branch watersheds were modeled using the Hydrologic Engineering Center's Hydrologic Modeling System (HEC-HMS) Version 3.5 (Reference 25). Basins were delineated using Environmental Systems Research Institute (ESRI) ArcHydro with an input of a 1 meter DEM generated from LiDAR data. The ArcHydro basins were reviewed and edited by an engineer to better represent basin boundaries. Land use data was created using aerial imagery from 2010. Soils data were acquired from the Natural Resources Conservation Service (NRCS) Soil Data Mart (Reference 26). The soils data were classified into four hydrologic soil groups, which indicate general potential for infiltration of water into soil.

The United States Department of Agriculture (USDA) SCS Curve Number method was used as the loss method. The land use classification and hydrologic soil group were used to determine curve numbers. The curve number method is based on the description in SCS TR55 titled *Urban Hydrology for Small Watersheds* (Reference 27) published in June 1986. An antecedent moisture condition of II (AMC II) was assumed for the watersheds.

The 24-hour 10-percent, 4-percent, 2-percent, and 1-percent annual chance rainfall depths were found in Technical Paper No. 40 titled *Rainfall Frequency Atlas of the Eastern United States for Duration from 30 Minutes to 24 Hours and Return Periods from 1- to 100- Years* (Reference 10). The 24-hour 0.2-percent-annual-chance rainfall depth was extrapolated using the 24-hour 1-, 2-, 5-, 10-, 25-, 50- and 100-year events from TP-40. The rainfall distribution used for Calhoun County was the SCS Type III 24-hour storm distribution based on the description in TR55.

The HEC-HMS models used the Clark Unit Hydrograph Transform. The time-of-concentration input was calculated using the guidance in TR55 and *Highway Hydrology Hydraulic Design Series No. 2, Second Edition* published in October 2002 by the Federal Highway Administration (FHWA) (Reference 28). The HEC-HMS model used the Muskingum-Cunge Routing method with 8-point cross sections. The 8-point cross sections were estimated using the 1-meter DEM. The HEC-HMS model accounted for storage areas using elevation-area data and dam top and spillway data estimated from the 1-meter DEM.

Frequency discharges for the Coosa River detailed study were computed using a flood frequency analysis (FFA). The Coosa River was studied by the Alabama Power Company (APC) in 2005 as part of Federal Energy Regulatory Commission (FERC) requirements for relicensing of the Coosa project. Discharge hydrographs from the February 1990 flood event, an event widely accepted as being close to a one-percent-annual chance event, were adjusted to a Bulletin 17B analysis performed on annual daily peak flows and annual peak flood volumes for unimpaired flows from the years 1939 through 2001 at locations upstream of each dam (Reference 24). Adjusted hydrographs were routed through regulated conditions spreadsheet models to provide a regulated discharge downstream of each dam.

Frequency discharges for limited detailed studies Cane Creek Tributary 11, Cane Creek Tributary 11.1, Cane Creek Tributary 11.2, Choccolocco Creek, Choccolocco Creek Tributary 11, Choccolocco Creek Tributary 27, Coldwater Creek Tributary, and Tallasseehatchee Creek watersheds were computed using applicable rural and small stream rural regression equations developed by the USGS. Small stream rural regression equations were applied to flow change locations with a drainage area less than 0.5 square miles. Small rural regression equations were taken from the 2004 USGS study on small rural streams in Alabama (Reference 29). Rural regression equations were taken from the 2003 USGS study on rural streams in Alabama (Reference 19). Discharges from limited detailed studies DeArmanville Branch Tributary 1 and DeArmanville Branch Tributary 2 were taken from the DeArmanville Branch HMS study.

Frequency discharges for Pilgrim Creek and East Branch Snow Creek were calculated using a personal computer stormwater management model (PCSWMM), a two-dimensional program the can model conduits representing open channels and long pipe networks. Basins and flowpaths were delineated based on 1 meter DEM, aerial imagery, field survey and findings from field reconnaissance performed in March, 2013. Subbasin slopes were computed in GIS using the 1 meter DEM. Curve numbers were developed for each subbasin using the 2006 National Landcover Dataset (NLCD) (Reference 30) and NRCS soils data for Calhoun County (Reference 26).

Peak discharge-drainage area relationships for the 10-, 4-, 2-, 1-, and 0.2-percent-annual-chance floods of each flooding source studied in detail in the community are shown in Table 4, Summary of Discharges.

TABLE 4 – SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-Percent-Annual-Chance	4-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
ALEXANDRIA CREEK						
At the Tallasseehatchee Creek confluence	18.7	4,030	5,480	6,610	7,760	10,600
Approximately 1,400 feet upstream of Jones Road	7.6	2,310	3,170	3,860	4,570	6,300
At State Route 144	6.1	2,010	2,770	3,370	4,000	5,540
Approximately 1,040 feet upstream of State Route 144	3.4	1,390	1,940	2,370	2,830	3,950
Approximately 655 feet downstream of Alexandria-Jacksonville Highway	2.9	1,260	1,750	2,150	2,560	3,590
At Alexandria-Wellington Road	2.6	1,190	1,660	2,040	2,430	3,410
At State Farm Road	1.2	730	1,020	1,270	1,520	2,150
At Melanie Lane	0.9	610	860	1,070	1,280	1,830
Approximately 0.58 miles upstream of Melanie Lane	0.6	480	690	850	1,030	1,470
BATTLE CREEK						
At confluence with Alexandria Creek	8.7	2,510	3,440	4,180	4,940	6,810
Approximately 1,500 feet upstream of Gladden Lane West	6.1	2,010	2,780	3,380	4,010	5,560
Approximately 0.50 miles upstream of Gladden Lane West	2.8	1,240	1,730	2,130	2,540	3,550
At U.S. Highway 431	1.3	770	1,090	1,350	1,620	2,290
Approximately 250 feet downstream of Alexandria-Wellington Road	0.7	530	750	940	1,130	1,610
BOILING SPRINGS BRANCH						
At U.S. Route 78	1.0	520	*	750	860	1,160
At Golden Springs Branch	0.5	330	*	480	550	750
CANE CREEK						
At the Coosa River Confluence	96.9	11,200	14,900	17,800	20,600	27,400
Approximately 1.93 miles downstream of Gate 5 Road	82.1	10,100	13,500	16,100	18,700	24,900
At bridge crossing south of Peaceburg, AL	44.0	5,760	*	8,980	10,500	15,100

* Data not available

TABLE 4 – SUMMARY OF DISCHARGES (Continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-Percent-Annual-Chance	4-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
CANE CREEK (continued)						
At U.S. Highway 431	31.0	4,600	*	7,100	8,290	11,820
At Saks Road	27.0	4,930	*	7,390	8,550	11,870
Just upstream of the confluence of Lenlock Branch	21.0	4,130	*	6,180	7,150	9,930
Just upstream of confluence of Cave Creek	16.0	3,340	*	5,000	5,780	8,010
At Galloway Road	11.0	2,500	*	3,770	4,360	6,100
At Federal Way	5.4	1,560	*	2,330	2,680	3,700
At Berman Road	5.1	1,470	*	2,190	2,530	3,510
CAVE CREEK						
At the Cane Creek confluence	4.7	1,380	*	2,150	2,510	3,450
Upstream of Weaver Cave	4.0	1,360	*	1,630	1,700	1,840
At State Highway 21	2.8	1,430	*	2,620	3,250	5,060
At Eglin Avenue	1.9	1,050	*	2,010	2,530	4,030
CHOCCOLOCCO CREEK						
Approximately 1,250 feet upstream of State Route 21	225.0	16,330	*	27,050	32,100	44,700
At Friendship Road	222.0	16,190	*	26,830	31,830	44,320
2,400 feet upstream of confluence of Golden Springs Branch	194.0	14,860	*	24,630	29,220	40,700
At Boiling Springs Road	192.0	14,770	*	24,470	29,030	40,440
At Mellon Bridge Road	152.0	12,740	*	21,11	25,050	34,880
At Interstate 20	145.0	12,360	*	20,490	24,310	33,860
At Downing Mill Road	132.0	11,650	*	19,310	22,910	31,900
COLDWATER CREEK						
At Interstate 20	24.0	6,850	8,490	9,670	10,900	13,700
At U.S. Route 78	21.6	6,230	7,730	8,810	9,910	12,600
At U.S. Route 202	20.0	6,010	7,450	8,490	9,550	12,100
At Bynum Highway	16.2	5,370	6,650	7,580	8,520	10,800
Approximately 1,700 feet upstream of Railroad	13.8	4,730	5,870	6,700	7,550	9,610
Approximately 0.55 mile downstream of Bynum Leatherwood Road	6.7	3,060	3,790	4,340	4,900	6,270

* Data not available

TABLE 4 – SUMMARY OF DISCHARGES (Continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-Percent-Annual-Chance	4-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
COLDWATER CREEK (continued)						
At Bynum Leatherwood Road	5.7	2,770	3,440	3,940	4,450	5,690
At Willingham Bridge Road	4.0	2,210	2,750	3,150	3,560	4,580
Approximately 1,750 feet upstream of Lynne Drive	2.8	1,750	2,170	2,490	2,830	3,650
Approximately 1,350 feet upstream of Eulation Road	1.5	1,160	1,450	1,670	1,900	2,480
COOSA RIVER						
At the Cane Creek confluence	6,930	*	*	*	98,000	*
Just downstream of H. Neely Henry Dam	6,600	*	*	*	90,000	*
DEARMANVILLE BRANCH						
Approximately 0.6 miles upstream of the confluence with Choccolocco Creek	7.8	3,150	3,540	3,750	3,960	4,220
Approximately 0.5 miles downstream of Interstate 20	7.5	3,170	3,600	4,110	4,700	5,540
Just upstream of Interstate 20	5.8	2,950	3,520	4,220	5,000	7,030
Just upstream of the confluence of DeArmanville Branch Tributary 1	2.4	1,160	1,380	1,550	1,890	2,680
At Choccolocco Road	1.2	1,020	1,260	1,440	1,650	2,110
DRY CREEK						
At the Mill Creek confluence	4.9	2,500	*	3,700	4,600	7,600
At U.S. Highway 278	3.4	2,200	*	3,200	3,800	6,900
EASTABOGA CREEK*						
EAST BRANCH SNOW CREEK						
Just Upstream of 11th Street W	4.1	2,000	2,660	2,980	3,170	3,510
Just Upstream of Grove Street	3.9	3,840	3,400	3,540	4,080	5,030
Just Upstream of Wilmer Avenue	3.1	1,730	2,400	2,920	3,390	4,150

* Data not available

TABLE 4 – SUMMARY OF DISCHARGES (Continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-Percent-Annual-Chance	4-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
EAST BRANCH SNOW CREEK (continued)						
Just Upstream of Quintard Avenue	3.0	1,720	2,400	2,800	3,220	3,910
Just Upstream of Woodland Avenue	1.7	1,330	1,740	2,110	2,440	3,130
GOLDEN SPRINGS BRANCH						
At the Choccolocco Creek confluence	4.9	1,990	2,210	2,800	3,670	5,270
At Coleman Road	3.3	2,810	3,420	3,780	4,270	5,360
At Greenbrier Dear Road	2.9	2,570	3,120	3,320	3,850	4,640
Approximately 1,450 feet upstream of Greenbrier Dear Road	2.2	2,030	2,480	2,750	3,190	3,850
At Brookhaven Road	1.3	1,310	1,590	1,810	2,050	2,510
At Coleman Road	1.2	1,200	1,450	1,640	1,850	2,260
At Anniston Eastern Bypass	0.66	680	810	920	1,030	1,240
HOBSON CREEK						
At the Snow Creek confluence	1.4	630	*	920	1,060	1,440
INGRAM CREEK						
At the Cane Creek confluence	1.5	640	*	940	1,080	1,480
LENLOCK BRANCH						
At the Cane Creek confluence	4.9	1,520	*	2,250	2,590	3,550
At Lenlock Lane	4.0	1,300	*	1,920	2,200	3,023
LITTLE TALLASSEEHATCHEE CREEK						
At Chief Ladiga Trail	16.2	5,200	*	7,500	10,400	15,500
At Weaver Road\George Douthit Drive SW	15.7	5,000	*	6,900	9,900	15,000
MILL CREEK						
At State Highway 9	12.3	3,600	*	5,200	6,300	8,200
At U.S. Highway 278\74	7.1	3,000	*	4,400	5,400	6,800
MILL CREEK TRIBUTARY NO. 1						
At the Mill Creek confluence	1.2	1,200	*	2,100	2,900	4,000

* Data not available

TABLE 4 – SUMMARY OF DISCHARGES (Continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-Percent-Annual-Chance	4-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
NANCES CREEK						
At State Highway 9	24.2	5,000	*	7,300	8,900	11,700
At Babbling Brook Road	20.3	4,700	*	6,900	8,200	10, 500
NANCES CREEK TRIBUTARY NO. 2						
At U.S. Highway 278\74	0.7	380	*	560	640	760
PARK CREEK						
At the Hobson Creek confluence	0.9	450	*	650	750	1,020
PILGRIM CREEK						
At F Street	2.1	1,760	2,230	2,750	3,190	4,000
At Leighton Avenue S	2.0	2,460	3,050	3,720	4,250	5,220
Approximately 240 feet downstream of Allen Avenue S	1.8	2,830	3,730	4,360	4,750	5,220
Approximately 1,330 feet downstream of 7th Street	1.7	2,440	3,040	3,440	3,930	4,950
Approximately 160 feet downstream of Glenwood Terrace	1.2	1,330	1,810	2,150	2,580	3,410
Approximately 50 feet upstream of 10th Street	0.4	1,690	2,150	2,500	2,910	3,980
REMOUNT CREEK						
At the Cane Creek confluence	2.3	890	*	1,320	1,510	2,070
At Remount Pass	1.8	730	*	1,070	1,230	1,680
SNOW CREEK						
At the Choccolocco Creek confluence	19.0	4,030	*	5,980	6,890	9,470
Just upstream of Hobson Creek	16.0	3,560	*	5,270	6,070	8,340
At the confluence of Pilgrim Creek	15.1	4,650	*	7,790	9,370	13,650
At F Street	11.0	3,000	*	4,370	5,020	6,800
At Railroad	3.8	1,550	*	2,230	2,540	3,380
SOUTH BRANCH CANE CREEK						
At the Cane Creek confluence	5.7	1,590	*	2,370	2,740	3,800
At Derby Street	4.8	1,220	*	1,860	2,170	3,060

* Data not available

TABLE 4 – SUMMARY OF DISCHARGES (Continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-Percent-Annual-Chance	4-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
TALLASSEEHATCHEE CREEK (Jacksonville)						
Just upstream of State Highway 204	9.0	3,660	4,540	5,190	5,850	7,470
Just upstream of Chief Ladiga Trail	7.4	3,150	3,910	4,480	5,070	6,500
Approximately 0.3 mile downstream of State Route 21	3.0	1,760	2,200	2,530	2,870	3,710
Just upstream of State Route 21	1.0	810	1,020	1,190	1,360	1,790
TALLASSEEHATCHEE CREEK TRIBUTARY 1*						
TALLASSEEHATCHEE CREEK TRIBUTARY 2*						
TALLASSEEHATCHEE CREEK TRIBUTARY 3*						
TERRAPIN CREEK						
At confluence of Nances Creek	144.8	6,500	*	10,500	14,900	37,000
At U.S. Highway 278	115.0	6,000	*	10,000	14,000	35,000
WEST BRANCH						
At the Snow Creek confluence	1.1	1,280	1,610	1,880	2,180	2,810
At the confluence with West Branch diversion flow	0.83	1,040	1,320	1,530	1,770	2,280
Just upstream of the confluence with West Branch diversion flow	0.52	500	590	660	740	920
Approximately 0.4 mile upstream of Alexandria Road	0.33	350	400	430	480	570
Just downstream of McKleroy Avenue	0.12	110	150	170	200	260

*Data not available

Hydrologic analyses was not conducted on Eastaboga Creek, Dry Creek, Little Tallassehatchee Creek, Mill Creek, Mill Creek Tributary 1, Nances Creek, Nances Creek Tributary 2, Park Creek, Tallasseehatchee Creek Tributary 1, Tallasseehatchee Creek Tributary 2, Tallasseehatchee Creek

Tributary 3, Terrapin Creek. The above streams are not part of the Middle Coosa Watershed and were not included in the scope of this update, with the exception of Eastaboga Creek. For information about Eastaboga Creek, refer to the FIS for Talladega County, Alabama (Reference 31).

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 tables 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 in conjunction with the data shown on the FIRM.

Pre County-wide Analyses

Each community within Calhoun County, with the exception of the Town of Ohatchee has a previously printed FIS report. The hydraulic analyses described in those reports have been compiled and are summarized below.

Cross sections for the flooding sources studied by detailed methods were obtained from topographic maps, field surveys and orthophotography. Hydraulically significant bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry.

Channel roughness factors (Manning's "n") used in the hydraulic computations, were chosen by engineering judgment and based on field observations of the streams and floodplain areas. Roughness values ranged from 0.015 to 0.08 for the main channels of streams and 0.04 to 0.15 for the overbank areas. The acceptability of all assumed hydraulic factors, cross sections, and hydraulic structure data was checked by computations that duplicated historic floodwater profiles and USGS Stream Gage Data.

Water-surface elevations of floods of the selected recurrence intervals were computed through use of HEC-2 step-backwater hydraulic models. Flood profiles were drawn showing computed water-surface elevations to an accuracy of 0.5 foot for floods of the selected recurrence intervals (Exhibit 1). Starting water-surface elevations for streams in the study area were calculated using slope-area method. Starting water-surface elevations for Choccolocco Creek were based on those found in the FIS for Talladega County, Alabama (Reference 31).

August 29, 2014 Preliminary Revision

As part of this revision, Alexandria Creek, Battle Creek, Cane Creek, Coldwater Creek, DeArmanville Branch, East Branch Snow Creek, Golden Springs Branch, Pilgrim Creek, Tallasseehatchee Creek (Jacksonville), and West Branch were studied by detailed hydraulic methods. Cane Creek Tributary 11, Cane Creek Tributary 11.1, Cane Creek Tributary 11.2, Choccolocco Creek, Choccolocco Creek Tributary 11, Choccolocco Creek Tributary 27, Coldwater Creek Tributary, DeArmanville Branch Tributary 1, DeArmanville Branch Tributary 2, and Tallasseehatchee Creek were studied by limited detailed hydraulic methods. The models produced in this revision include water surface profiles for the 10-, 4-, 2-, 1-, and 0.2- percent-annual-chance flood events. Water surface elevations and floodway surcharges were computed through the use of the USACE HEC-RAS version 4.1.0 water-surface computer profiles program (Reference 32) with exception of East Branch Snow Creek and Pilgrim Creek. Those studies were performed using PCSWMM.

Geometric data for the detailed study models were compiled using a combination of survey data and the 1-meter DEM. Structure geometry was based on survey data. In general cross section geometry incorporated survey data for the channel and banks and utilized the DEM data outside of the banks. At cross sections where survey data was not available, the nearest upstream and downstream survey data was used to linearly interpolate the minimum channel elevation. Channel geometry for limited detailed models was generated from the DEM.

Model inputs associated with cross sections were estimated using guidance provided in the HEC-RAS *Hydraulic Reference Manual* (Reference 32) that is provided with the software. In general, expansion and contraction coefficients were set to 0.3 and 0.1, respectively, at cross sections not associated with structures. At structure cross sections 2, 3, and 4, expansion and contraction coefficients were typically set to 0.5 and 0.3, respectively. In general, ineffective flow areas were placed based on a 1 to 3 expansion and 1 to 1 contraction of the floodplain.

Pilgrim Creek and East Branch Snow Creek were studied using PCSWMM. These flooding sources were modeled using a series of conduits, junctions and weirs. The conduits represented either open channels or culverts. Junctions in PCSWMM were used to represent catch basins, subbasin outfalls and storage areas. Open channel cross-section geometry was developed using a combination of 1-meter DEM and field survey data. Dimensions and elevations of storm sewer structures were obtained from survey data collected in January 2013 and field reconnaissance performed in March 2013. Flow over roadways were modeled using weirs. Aerial imagery and DEMs were used to determine weir parameters.

Manning's values were estimated based on review of aerial imagery and site photos, and using the HEC-RAS *Hydraulic Reference Manual* (Reference 32). A summary of Manning's values used is provided in Table 5.

TABLE 5 – MANNING'S "N" ROUGHNESS COEFFICIENT SUMMARY

STREAM	CHANNEL	OVERBANK
Alexandria Creek	0.022 – 0.055	0.035 – 0.12
Battle Creek	0.04 – 0.05	0.015 – 0.12
Boiling Springs Branch	*	*
Cane Creek (redelin)	*	*
Cane Creek	0.04 – 0.05	0.07 – 0.12
Cane Creek Tributary 11	0.045 – 0.055	0.05 – 0.11
Cane Creek Tributary 11.1	0.045	0.06 – 0.08
Cane Creek Tributary 11.2	0.05 – 0.055	0.06 – 0.12
Cave Creek	*	*
Choccolocco Creek (redelin)	*	*
Choccolocco Creek (Limited Detailed)	0.045 – 0.055	0.08 – 0.12
Choccolocco Creek Tributary 11	0.04 – 0.045	0.018 – 0.12
Choccolocco Creek Tributary 27	0.055	0.11 – 0.12
Coldwater Creek	0.03 – 0.055	0.04 – 0.12
Coldwater Creek Tributary	0.045 – 0.05	0.07 – 0.11
Coosa River	0.023 – 0.052	0.04 – 0.17
DeArmanville Branch	0.04 – 0.055	0.04 – 0.11
DeArmanville Branch Tributary 1	0.05 – 0.055	0.05 – 0.12
DeArmanville Branch Tributary 2	0.045 – 0.055	0.06 – 0.11
Dry Creek	*	*
East Branch Snow Creek	0.013 – 0.045	0.011 – 0.12
Golden Springs Branch	0.04 – 0.055	0.011 – 0.12
Hobson Creek	*	*
Ingram Creek	*	*
Lenlock Branch	*	*
Little Tallasseehatchee Creek	*	*
Mill Creek	*	*
Mill Creek Tributary No. 1	*	*
Nances Creek	*	*
Nances Creek Tributary No. 2	*	*
Park Creek	*	*
Pilgrim Creek	0.011 – 0.06	0.025 – 0.035
Remount Creek	*	*
Snow Creek	*	*
South Branch Cane Creek	*	*

*Data not available

TABLE 5 – MANNING'S "N" ROUGHNESS COEFFICIENT SUMMARY
(Continued)

STREAM	CHANNEL	OVERBANK
Tallasseehatchee Creek (Jacksonville)	0.02 – 0.05	0.05 – 0.12
Tallasseehatchee Creek	0.045 – 0.055	0.04 – 0.13
Tallasseehatchee Creek Tributary 1	*	*
Tallasseehatchee Creek Tributary 2	*	*
Tallasseehatchee Creek Tributary 3	*	*
Terrapin Creek	*	*
West Branch	0.045 – 0.055	0.06 – 0.12

*Data not available

Normal depth slope was used as the downstream boundary condition for HEC-RAS models except for Choccolocco Creek and Tallasseehatchee Creek (Jacksonville). Known water surface elevations were used as the downstream boundary conditions for Choccolocco Creek and Tallasseehatchee Creek (Jacksonville) to provide a proper tie-in with the downstream studies. The water surface elevations were obtained from the downstream study.

Floodways were determined using equal reduction of conveyance on opposite sides of the stream while allowing a maximum surcharge of 1.0 ft.

Diverted flow occurs on DeArmanville Branch, Golden Springs Branch, and West Branch. Hydraulic analysis and floodplain mapping indicated there was a split flow scenario upstream of Henry Road on Golden Springs Branch and upstream of the railroad on West Branch. The spillover reaches were modeled using HEC-RAS. Culvert rating curves coded into diversion nodes in HEC-HMS were used to compute the diverted flow. For DeArmanville Branch, diversion flow occurred upstream and downstream of Interstate 20. A relief channel located upstream of I-20 diverted flow from the main stream to DeArmanville Branch Tributary 2. A lateral weir downstream of I-20 allowed overflow from the main stem to tributary as well. An inflow-diversion function was used at both locations to calculate the flow lost from the main stem.

For the limited detailed analyses, the stream stations (distance), 1-percent-annual-chance flood discharges, 1-percent-annual chance flood elevations, and non-encroachment widths are summarized in Table 6, "Limited Detailed Flood Hazard Risk." The non-encroachment width is the distance to the left and right of the stream that cannot be encroached upon.

For the detailed study Coosa River, the Alabama Power Company provided a HEC-RAS model of the stream through Calhoun County. The model contained the 1-percent-annual chance profile as determined by OWR, which was used to update floodplains and BFEs on the Coosa River. A floodway was not developed for the Coosa River. Model geometry was developed by Alabama Power in 2005

as part of FERC requirements for relicensing of the Coosa project.

Hydraulic analyses was not conducted on Eastaboga Creek, Dry Creek, Little Tallassehatchee Creek, Mill Creek, Mill Creek Tributary 1, Nances Creek, Nances Creek Tributary 2, Park Creek, Tallasseehatchee Creek Tributary 1, Tallasseehatchee Creek Tributary 2, Tallasseehatchee Creek Tributary 3, Terrapin Creek. The above streams are not part of the Middle Coosa Watershed and were not included in the scope of this update, with the exception of Eastaboga Creek. For information about Eastaboga Creek, refer to the FIS for Talladega County, Alabama (Reference 31).

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11				
	4,398	4,700	603.0[3]	26 / 601
	4,786	4,700	604.2	28 / 283
	5,605	4,700	607.8	100 / 185
A	6,522	4,700	610.7	33 / 46
	6,737	4,700	612.4	44 / 57
	7,003	4,700	616.4	44 / 57
	7,372	4,700	616.8	137 / 138
B	8,903	4,700	617.9	136 / 139
	10,405	4,700	620.1	780 / 45
	10,700	4,700	621.5	802 / 79
C	11,016	4,700	621.9	789 / 31
	11,584	4,310	622.2	358 / 31
	11,979	4,310	622.9	189 / 38
	12,306	4,310	625.8	197 / 43
	12,394	4,310	626.3	191 / 48
D	12,844	4,310	628.2	180 / 35
	13,507	3,390	633.2	141 / 45

[1]Feet above confluence with Cane Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)
[3]Considering backwater effects from Cane Creek.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11 (CONT'D)				
	13,749	3,390	634.3	252 / 58
	13,793	3,390	634.4	250 / 50
	13,854	3,390	634.4	232 / 31
	14,036	3,330	634.6	333 / 33
	14,156	3,330	635.9	330 / 36
	14,498	3,330	636.2	83 / 175
E	14,906	3,330	636.5	76 / 205
	15,284	3,330	636.9	170 / 105
	15,696	2,800	637.6	25 / 359
	15,854	2,800	637.7	38 / 73
	15,961	2,800	641.2	67 / 58
	16,342	2,800	642.4	84 / 26
	17,305	2,560	644.7	192 / 28
	17,534	2,560	645.2	198 / 30
F	18,334	2,560	648.3	23 / 348
	18,716	2,560	649.7	21 / 236
	18,998	2,310	650.7	14 / 360

[1]Feet above confluence with Cane Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11 (CONT'D)				
	19,111	2,310	651.2	13 / 361
	19,158	2,310	651.2	12 / 360
	19,188	2,310	651.4	13 / 267
	19,240	2,310	651.6	15 / 261
	19,284	2,310	651.6	15 / 261
	19,312	2,310	651.9	15 / 243
	19,358	2,310	652.3	11 / 252
	19,400	2,310	652.7	13 / 252
	19,445	2,310	652.9	14 / 258
	19,555	2,310	653.9	12 / 247
	19,595	2,310	654.8	15 / 245
	19,635	2,310	655.1	15 / 246
	19,706	2,310	655.7	15 / 250
	19,743	2,310	655.9	16 / 247
	19,787	2,310	656.2	16 / 193
	19,853	2,310	656.6	16 / 198
	19,894	2,310	657.1	15 / 196

[1]Feet above confluence with Cane Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11 (CONT'D)				
	19,987	2,310	658.0	15 / 159
G	20,075	2,310	659.2	32 / 108
	20,277	2,310	662.1	89 / 76
	20,336	2,310	662.9	88 / 77
	20,449	2,310	663.4	23 / 55
	20,740	2,090	667.4	16 / 29
	21,079	2,090	671.2	28 / 28
	21,467	2,090	673.7	20 / 96
H	21,852	1,890	676.2	25 / 117
	22,321	1,890	678.8	21 / 131
	22,764	1,890	681.0	291 / 25
	22,838	1,890	684.0	339 / 20
	22,950	1,890	684.4	80 / 25
I	23,217	1,890	685.2	74 / 33

[1]Feet above confluence with Cane Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11.1				
	25	2,230	636.0[3]	29 / 28
	204	2,230	636.0[3]	58 / 52
	277	2,230	636.0[3]	68 / 80
	358	2,030	636.0[3]	53 / 101
	436	2,030	636.0[3]	79 / 91
	552	2,030	636.0[3]	63 / 129
	710	2,030	636.0[3]	30 / 162
	1,179	2,030	636.0[3]	30 / 115
A	1,801	2,030	637.2	23 / 23
	2,139	2,030	640.2	39 / 57
	2,638	2,030	641.5	35 / 63
	3,104	2,030	642.1	28 / 86
	3,497	2,030	643.8	21 / 84
	3,599	2,030	645.1	23 / 86
	3,649	2,030	646.6	26 / 76
	3,717	2,030	646.5	25 / 41
B	3,889	2,030	647.6	30 / 42

[1]Feet above confluence with Cane Creek Tributary 11.

[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

[3]Considering backwater effects from Cane Creek Tributary 11.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL

AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11.1

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11.1 (CONT'D)				
	4,138	2,030	648.7	30 / 72
	4,244	2,030	648.9	28 / 73
	4,291	2,030	649.1	26 / 74
	4,333	2,030	649.2	28 / 62
	4,553	1,980	649.7	28 / 62
	4,684	1,980	649.9	24 / 32
	4,739	1,980	652.1	48 / 30
	4,807	1,980	652.3	40 / 50
	4,886	1,980	652.5	42 / 48
	4,978	1,980	652.7	42 / 48
	5,023	1,980	653.0	37 / 53
	5,077	1,980	653.1	33 / 57
C	5,194	1,980	653.3	30 / 60
	5,289	1,980	653.6	36 / 54
	5,355	1,980	653.7	24 / 66
	5,404	1,980	654.1	36 / 54
	5,425	1,520	654.4	38 / 52

[1]Feet above confluence with Cane Creek Tributary 11.

[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11.1

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11.1 (CONT'D)				
	5,513	1,520	654.5	29 / 61
	5,561	1,520	654.6	29 / 61
	5,606	1,520	654.6	29 / 61
	5,740	1,520	654.9	27 / 70
	5,863	1,520	655.0	17 / 83
	5,905	1,520	655.4	20 / 80
	5,965	1,520	655.3	21 / 46
	5,988	1,520	655.5	21 / 46
	6,045	1,520	656.4	25 / 38
D	6,084	1,520	657.1	29 / 34
	6,131	1,520	657.1	26 / 26

[1]Feet above confluence with Cane Creek Tributary 11

[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL

AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11.1

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CANE CREEK TRIBUTARY 11.2				
	45	1,490	638.0[3]	81 / 129
	329	1,490	638.0[3]	148 / 61
	643	1,350	638.0[3]	153 / 36
A	1,024	1,350	640.9	100 / 69
	1,143	1,350	642.1	124 / 47
	1,203	1,350	643.4	108 / 62
	1,271	1,350	643.6	77 / 66
	1,363	1,350	644.2	65 / 65
	1,437	1,350	644.8	139 / 61
	1,482	1,350	644.8	78 / 49
B	1,558	1,350	646.1	70 / 50
	1,822	1,350	648.6	40 / 42
	2,063	1,350	651.9	18 / 17
C	2,238	1,350	655.3	19 / 20
	2,338	1,350	655.3	18 / 21

[1]Feet above confluence with Cane Creek Tributary 11.

[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

[3]Considering backwater effects from Cane Creek Tributary 11.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CANE CREEK TRIBUTARY 11.2

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK				
	269,845	23,470	658.4	223 / 1514
AA	271,529	20,720	658.9	122 / 1772
	273,991	20,720	659.4	740 / 1283
	274,079	20,720	659.4	757 / 1350
	274,203	20,720	659.4	661 / 1356
	274,248	20,720	659.5	173 / 1999
	274,365	20,720	659.7	170 / 1847
AB	275,622	20,720	660.4	473 / 902
	280,235	20,720	663.4	62 / 2552
	280,400	20,720	664.1	162 / 2552
AC	282,011	20,720	665.3	184 / 1892
	284,274	20,720	666.3	687 / 574
AD	286,465	20,720	667.5	810 / 441
	288,628	20,720	668.8	800 / 473
	292,311	20,720	671.3	145 / 1137
AE	292,458	20,720	671.3	145 / 1137

[1]Feet above the confluence with Coosa River.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK (CONT'D)				
AF	293,223	20,720	672.1	187 / 1110
	295,195	20,720	673.6	104 / 1192
	299,927	20,720	675.7	2004 / 136
AG	302,953	20,720	677.7	198 / 904
	303,120	20,720	677.9	146 / 545
	303,239	20,720	680.2	132 / 150
AH	305,766	20,720	682.5	213 / 1334
	309,696	20,720	683.3	511 / 869
	312,477	20,720	684.3	455 / 911
	315,315	20,720	686.4	154 / 743
AI	315,452	20,720	687.5	161 / 736
	316,929	14,260	688.4	905 / 695
	320,572	11,260	689.3	456 / 869
	321,625	9,700	690.5	144 / 1234
	321,794	9,700	691.1	151 / 1227
AJ	322,676	9,700	692.2	451 / 379
	326,493	9,700	697.6	1050 / 392

[1]Feet above the confluence with Coosa River.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK (CONT'D)				
	328,416	9,700	700.6	740 / 44
	330,499	9,700	704.8	902 / 259
	332,532	9,700	708.8	457 / 68
	335,745	9,700	712.3	551 / 551
AK	337,830	9,700	714.5	806 / 90
	340,091	9,700	718.7	125 / 447
	341,082	9,700	721.0	44 / 283
AL	341,468	9,700	721.9	87 / 100
	341,574	9,700	722.9	97 / 88
AM	342,574	9,700	724.5	393 / 217
	343,461	9,090	724.9	552 / 40
	345,571	9,090	726.7	46 / 375
	346,903	9,090	730.0	194 / 440
AN	348,983	7,340	731.9	109 / 751
AO	350,369	7,340	732.6	141 / 708
	350,425	7,340	732.8	148 / 705
	351,685	7,340	735.3	769 / 101

[1]Feet above the confluence with Coosa River.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK (CONT'D)				
	353,843	6,220	739.6	858 / 192
	356,333	6,220	745.2	764 / 99
AP	360,248	6,220	755.9	183 / 565
	360,940	6,220	757.6	319 / 176
AQ	362,198	6,220	763.1	216 / 171
	362,792	6,220	765.2	48 / 101
	363,203	6,220	766.6	75 / 65
	363,780	8,340	769.6	39 / 83
AR	364,087	8,340	771.1	77 / 58
	364,597	8,340	827.8	597 / 217
AS	365,108	7,390	827.8	254 / 226
	365,915	6,660	827.8	164 / 262
	367,259	6,660	827.8	360 / 52
AT	368,550	6,660	827.8	231 / 92
	369,287	6,660	827.8	149 / 208
	370,074	6,660	827.8	89 / 229
	371,152	6,660	827.8	258 / 100

[1]Feet above the confluence with Coosa River.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[3]
CHOCCOLOCCO CREEK (CONT'D)				
	372,216	6,660	827.8	41 / 168
AU	373,067	6,660	827.8	355 / 43
	373,755	6,560	827.8	75 / 215
	374,739	6,560	827.9	38 / 437
	375,714	6,560	827.9	103 / 376
	376,313	6,560	827.9	40 / 269
	377,214	6,560	827.9	131 / 125
	377,214	6,560	827.9	64 / 279
	378,730	6,560	828.0	311 / 75
AV	379,201	6,560	828.0	282 / 39
	380,642	6,560	828.2	36 / 288
AW	381,445	4,860	828.7	195 / 113
	382,130	4,390	829.5	46 / 110
	383,156	4,390	832.8	54 / 176
	383,703	3,880	834.5	57 / 87
	384,245	3,880	836.4	23 / 278
	384,661	3,880	838.0	21 / 122

[1]Feet above the confluence with Coosa River.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK (CONT'D)				
AX	385,224	3,880	841.3	126 / 57
	385,591	3,880	843.3	57 / 22
	385,890	3,880	845.2	31 / 31
	386,159	3,880	846.8	26 / 21
	386,322	3,880	848.6	29 / 22
	386,549	3,880	850.4	28 / 20
	386,829	3,880	853.0	23 / 21
	386,996	3,880	855.2	23 / 23
	387,123	3,880	856.4	22 / 21
	387,259	3,880	859.6	18 / 40
	387,426	3,880	861.7	39 / 44
	387,568	3,880	862.6	29 / 23
	387,723	3,880	864.1	26 / 23
	387,834	3,880	866.1	45 / 21
AY	387,945	3,880	867.4	45 / 25
	388,118	3,880	868.3	32 / 27

[1]Feet above the confluence with Coosa River.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK TRIBUTARY 11				
	1,263	2,880	601.0[3]	26 / 2270
	1,572	2,880	601.0[3]	26 / 2093
	1,685	2,880	601.0[3]	30 / 1978
	1,744	2,880	601.0[3]	31 / 1940
	1,897	2,880	601.0[3]	27 / 1688
	2,689	2,880	601.0[3]	34 / 1084
	3,785	2,880	601.0[3]	135 / 100
	4,236	2,880	601.0[3]	204 / 111
	4,854	2,880	601.0[3]	34 / 429
	4,896	2,880	601.5	25 / 427
A	5,009	2,880	601.5	48 / 111
	5,062	2,880	601.6	243 / 92
	5,136	2,880	603.1	261 / 69
	5,445	2,880	603.9	748 / 25
B	5,665	2,690	605.9	741 / 23
	5,940	2,690	606.2	738 / 41

[1]Feet above confluence with Choccolocco Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)
[3]Elevation considering backwater effects from Choccolocco Creek.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK TRIBUTARY 11 (CONT'D)				
	6,342	2,690	607.1	728 / 32
	6,628	2,690	607.9	441 / 16
C	6,733	2,540	609.4	470 / 13
	7,016	2,540	612.3	32 / 195
	7,106	2,540	613.8	105 / 157
	7,331	2,540	615.6	102 / 175
	7,583	2,090	618.1	156 / 139
	7,758	2,090	619.4	21 / 256
	7,865	2,090	622.6	36 / 253
	8,044	2,090	624.7	43 / 107
D	8,462	1,990	628.8	31 / 24
	8,603	1,990	630.1	39 / 38
	8,731	1,990	633.1	44 / 46
	8,792	1,990	634.1	32 / 29
	8,910	1,990	635.4	98 / 22
	8,936	1,990	635.5	88 / 36
	9,013	1,990	638.6	70 / 54

[1]Feet above confluence with Choccolocco Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK TRIBUTARY 11 (CONT'D)				
	9,024	1,990	638.6	66 / 65
	9,040	1,990	638.6	57 / 76
	9,084	1,990	638.9	36 / 109
	9,090	1,990	638.9	32 / 106
	9,102	1,990	638.9	23 / 103
	9,315	1,990	642.5	28 / 85
	9,369	1,990	643.7	39 / 98
E	9,430	1,990	645.0	48 / 178
	9,560	1,990	646.3	15 / 255
	9,612	1,990	647.9	16 / 351
	9,697	1,990	650.9	30 / 78
	10,012	1,990	654.4	60 / 98
	10,189	1,990	657.6	63 / 81
	10,237	1,990	659.6	76 / 36
	10,456	1,990	663.1	161 / 15
F	10,967	1,990	672.1	46 / 119
	11,439	1,990	679.0	13 / 126

[1]Feet above confluence with Choccolocco Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK TRIBUTARY 11 (CONT'D)				
	11,525	1,990	684.7	132 / 38
	11,709	1,990	686.1	15 / 104
	11,835	1,990	689.6	25 / 94
	11,919	1,990	691.7	21 / 110
G	12,022	1,990	694.0	26 / 99

[1]Feet above confluence with Choccolocco Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK TRIBUTARY 11

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK TRIBUTARY 27				
	3,847	2,750	828.0[3]	30 / 52
	4,274	2,750	828.0[3]	82 / 30
	5,028	2,750	828.0[3]	36 / 38
	5,302	2,750	828.0[3]	61 / 19
	5,650	2,750	828.0[3]	36 / 42
	5,955	2,750	828.0[3]	66 / 33
	6,498	2,750	828.0[3]	22 / 76
	6,647	2,750	828.0[3]	55 / 42
	6,776	2,750	828.0[3]	43 / 53
	7,293	2,750	828.0[3]	121 / 26
	8,211	2,750	828.0[3]	27 / 27
	8,462	2,750	828.0[3]	20 / 20
	8,778	2,750	828.0[3]	20 / 26
A	9,122	2,750	828.1	38 / 23
	9,359	2,750	829.5	45 / 35
	9,780	2,750	832.4	80 / 65
B	10,091	2,500	833.8	43 / 104

[1]Feet above confluence with Choccolocco Creek.
[2] Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)
[3]Considering backwater effects from Choccolocco Creek.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK TRIBUTARY 27

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
CHOCCOLOCCO CREEK TRIBUTARY 27 (CONT'D)				
	10,257	2,500	835.5	48 / 99
C	10,592	2,500	838.4	86 / 33
	10,888	2,500	841.3	26 / 92
D	11,276	2,500	843.7	24 / 91
	11,694	2,500	847.7	65 / 67
E	12,065	2,500	850.1	50 / 82
	12,334	2,500	852.6	21 / 84
	12,698	2,010	857.3	18 / 79
F	12,933	2,010	860.1	44 / 51
	13,213	1,820	863.8	34 / 68
	13,511	1,820	867.2	54 / 47
G	13,705	1,820	869.8	29 / 72
	14,003	1,820	874.3	68 / 47
H	14,293	1,820	878.0	16 / 84
	14,601	1,630	882.7	96 / 18
I	14,856	1,610	887.3	48 / 56
	15,013	1,610	890.8	17 / 71

[1]Feet above confluence with Choccolocco Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

CHOCCOLOCCO CREEK TRIBUTARY 27

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
COLDWATER CREEK TRIBUTARY				
	329	1,310	694.0[3]	99 / 31
	731	1,310	698.0[3]	147 / 33
A	1,280	830	698.0[3]	43 / 52
	1,533	830	700.1	46 / 46
	1,710	830	700.9	34 / 26
B	1,954	830	701.9	40 / 27
	2,159	830	703.6	72 / 17
C	2,449	830	707.0	42 / 12
	2,697	830	708.0	30 / 16
	2,945	830	709.6	13 / 59
	3,113	830	711.1	13 / 96
	3,133	830	711.2	13 / 84
D	3,147	830	711.2	19 / 78
	3,174	830	711.3	15 / 85
	3,238	830	711.9	15 / 88
	3,258	830	712.0	13 / 58
E	3,274	830	712.1	18 / 57

[1]Feet above confluence with the Coldwater Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)
[3]Elevation controlled by Coldwater Creek.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

COLDWATER CREEK TRIBUTARY

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
COLDWATER CREEK TRIBUTARY (CONT'D)				
	3,300	830	712.3	18 / 41
	3,374	830	714.2	54 / 37
	3,428	830	714.2	24 / 23
F	3,574	830	715.1	43 / 20

[1]Feet above confluence with Coldwater Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

COLDWATER CREEK TRIBUTARY

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
DEARMANVILLE BRANCH TRIBUTARY 1				
	198	3,280	631.0[3]	23 / 268
	480	3,280	631.0[3]	86 / 152
A	990	3,130	632.1	119 / 120
	1,581	3,130	634.5	224 / 110
	1,676	3,130	636.2	245 / 128
	1,718	3,130	636.3	265 / 142
	1,811	3,130	636.5	320 / 160
	1,883	3,130	636.5	318 / 162
	2,047	3,130	636.5	225 / 160
B	2,859	3,130	637.5	325 / 88
	3,240	3,130	638.9	290 / 87
	3,870	3,130	641.1	252 / 34
	4,231	3,130	642.2	267 / 19
	4,277	3,130	642.3	264 / 19
C	4,409	3,130	643.0	264 / 21
	4,532	3,130	643.5	269 / 17
	4,582	3,130	644.2	262 / 24

[1]Feet above confluence with DeArmanville Branch.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)
[3]Eleavations considering backwater effects from DeArmanville Branch.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

DEARMANVILLE BRANCH TRIBUTARY 1

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
DEARMANVILLE BRANCH TRIBUTARY 1 (CONT'D)				
D	4,855	3,130	646.5	252 / 19
	5,430	3,130	647.5	295 / 316
	5,555	3,130	648.7	301 / 381
E	5,932	2,760	649.2	123 / 149
	6,299	2,760	652.6	30 / 156
	7,081	1,570	655.4	73 / 257
	7,171	1,570	656.7	96 / 221
F	7,762	1,570	660.4	97 / 129
	8,223	1,570	664.8	90 / 49
	8,600	1,570	668.6	18 / 92
	9,011	1,570	670.9	50 / 59
	9,134	1,570	677.0	34 / 88
G	9,272	1,680	677.0	24 / 105
	9,495	1,430	677.2	29 / 90
	9,633	1,430	677.4	77 / 37
	9,720	1,430	678.2	80 / 38
	9,945	1,430	678.4	66 / 91

[1]Feet above confluence with DeArmanville Branch.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

DEARMANVILLE BRANCH TRIBUTARY 1

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
DEARMANVILLE BRANCH TRIBUTARY 1 (CONT'D)				
H	10,044	1,430	679.2	48 / 82
	10,393	1,430	681.7	35 / 98
	10,653	1,430	683.4	23 / 66
	10,722	1,430	685.3	43 / 53
	10,862	1,430	686.2	42 / 68
I	11,133	1,430	687.4	61 / 41
	11,349	1,430	689.2	78 / 55
	11,397	1,430	689.5	83 / 61
J	11,512	1,430	690.5	102 / 51
	11,669	1,430	692.0	115 / 48
	11,724	1,430	693.0	126 / 48
K	11,964	1,430	694.4	157 / 12
	12,263	1,430	697.6	107 / 63
	12,313	1,430	698.0	106 / 65
L	12,543	1,430	700.3	138 / 14
	12,683	1,430	702.0	126 / 9
	12,736	1,430	703.3	105 / 18

[1]Feet above confluence with DeArmanville Branch.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

DEARMANVILLE BRANCH TRIBUTARY 1

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
DEARMANVILLE BRANCH TRIBUTARY 1 (CONT'D)				
	12,825	940	703.7	64 / 20
M	13,093	940	707.3	57 / 20
DEARMANVILLE BRANCH TRIBUTARY 2				
	10	1,940	624.0[3]	210 / 178
	31	1,940	624.0[3]	56 / 34
	913	1,940	627.2	79 / 81
	921	3,010	627.2	104 / 106
	930	3,010	627.2	99 / 111
	939	1,300	627.3	107 / 103
	972	1,300	627.3	91 / 93
	1,308	1,300	627.9	64 / 55
A	2,033	1,300	628.2	170 / 48
	2,345	1,300	629.1	170 / 90

[1]Feet above confluence with DeArmanville Branch.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)
[3]Elevation considering backwater effects from DeArmanville Branch.

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

DEARMANVILLE BRANCH TRIBUTARY 1
DEARMANVILLE BRANCH TRIBUTARY 2

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK				
A	8,255	24,040	495.0	856 / 205
	11,169	24,040	495.6	742 / 248
	12,603	24,040	496.2	700 / 65
B	14,977	24,040	498.2	44 / 801
	16,837	24,040	499.4	514 / 81
	17,795	24,040	500.2	493 / 61
	18,728	24,040	500.8	451 / 89
	18,945	24,040	500.9	504 / 78
	19,068	24,040	501.2	574 / 106
	19,544	24,040	501.2	454 / 63
	20,947	24,040	503.6	60 / 250
	22,145	24,040	505.7	75 / 235
C	24,106	24,040	508.1	793 / 67
	26,907	24,040	509.5	499 / 701
	27,896	24,040	510.2	309 / 761
	28,027	24,040	510.3	396 / 779
	28,839	24,040	510.4	896 / 164

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
	30,654	21,780	510.8	91 / 899
D	33,578	21,780	511.6	1915 / 60
	36,148	19,940	511.9	83 / 1287
	37,198	19,940	512.1	134 / 346
	38,891	19,940	515.0	79 / 286
	39,436	19,940	515.9	88 / 300
	39,553	19,940	516.0	97 / 299
	39,878	19,940	516.9	62 / 398
	41,498	19,940	517.9	416 / 201
E	42,466	19,940	518.6	501 / 89
	44,014	19,940	519.5	654 / 61
	46,599	19,940	521.3	643 / 62
	47,629	19,940	522.0	188 / 192
F	48,974	19,940	523.4	78 / 102
	50,384	19,940	526.1	56 / 303
	52,314	19,940	527.8	600 / 48
	54,657	19,940	528.7	802 / 255

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
G	57,859	19,940	530.2	46 / 870
	58,640	19,940	530.5	64 / 601
	60,091	19,940	531.1	107 / 1403
	61,868	19,940	531.5	189 / 147
	62,381	19,940	532.5	354 / 202
	62,752	19,940	532.6	270 / 203
	62,998	19,940	532.7	94 / 281
	63,895	19,940	533.5	41 / 872
	65,283	19,940	534.0	355 / 495
	66,745	19,940	534.3	1616 / 79
H	68,903	19,940	534.7	581 / 147
	70,079	19,940	535.7	79 / 673
	71,438	19,940	536.4	804 / 91
	72,105	19,940	536.6	855 / 145
I	73,016	19,940	537.7	282 / 639
	73,441	19,940	537.8	194 / 424
	73,493	19,940	538.3	198 / 405

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
	74,084	19,940	539.6	490 / 474
	77,469	19,940	540.6	637 / 1103
	79,796	19,940	541.1	868 / 732
J	82,803	19,940	541.8	1888 / 189
	83,442	19,940	542.3	1705 / 145
	83,945	19,940	542.7	1276 / 132
	84,042	19,940	542.9	1349 / 130
	84,510	19,940	543.5	1297 / 286
	85,412	19,940	544.1	426 / 736
K	86,514	19,940	545.0	57 / 259
	89,805	18,040	549.1	1636 / 189
	91,893	18,040	549.9	366 / 435
	92,323	18,040	550.2	93 / 402
	92,830	18,040	550.3	77 / 143
	92,942	18,040	552.1	88 / 196
L	93,369	18,040	553.9	196 / 239
	94,613	18,040	554.8	272 / 68

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
	96,540	15,860	555.3	573 / 992
	97,755	15,860	555.3	318 / 1412
M	100,315	15,860	555.5	1006 / 115
	101,851	15,860	556.5	546 / 134
	102,993	15,860	557.8	330 / 337
	103,857	15,860	559.0	273 / 262
N	104,548	15,860	560.0	149 / 214
	104,894	15,860	561.4	87 / 323
	105,229	15,860	561.6	129 / 132
	105,315	15,860	562.3	144 / 146
	105,643	15,860	562.4	399 / 53
	106,315	15,860	563.0	406 / 109
	108,244	15,860	564.5	55 / 935
O	110,044	15,860	565.1	81 / 917
	111,507	15,860	566.2	47 / 1419
	113,499	15,860	567.4	600 / 357
	114,132	15,860	568.0	692 / 89

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
	115,156	15,860	569.5	510 / 105
	115,282	15,860	571.1	541 / 151
P	115,931	15,860	571.8	784 / 106
	117,657	15,860	573.3	38 / 887
	118,979	15,860	574.5	458 / 462
Q	120,519	15,860	575.7	445 / 545
	122,459	12,540	578.5	212 / 551
	123,781	12,540	579.5	715 / 271
	125,003	12,540	580.5	142 / 260
	125,274	12,540	581.5	150 / 211
	125,363	12,540	584.6	171 / 179
	125,683	12,540	585.2	403 / 270
	126,826	12,540	585.6	872 / 229
R	128,321	12,540	585.8	43 / 213
	128,949	12,540	587.1	40 / 211
	129,960	12,540	589.0	75 / 155
	130,255	12,540	590.1	126 / 100

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
	130,381	12,540	590.6	130 / 114
	130,649	12,540	590.8	79 / 276
	131,878	10,670	591.5	675 / 160
	133,422	9,970	591.8	87 / 622
S	133,881	9,970	591.9	235 / 303
	135,759	9,970	592.7	846 / 37
	137,709	9,970	593.4	70 / 730
T	139,324	9,970	595.4	95 / 189
	139,630	9,970	596.3	82 / 110
	139,770	9,970	597.5	98 / 126
	139,935	9,970	598.1	190 / 120
U	140,773	9,970	599.2	406 / 80
	141,408	9,970	599.9	694 / 41
	141,486	9,970	600.7	790 / 41
	142,182	9,970	600.8	164 / 300
	142,995	9,970	601.1	38 / 314
	145,053	8,270	602.4	284 / 832

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
V	146,668	8,270	602.9	379 / 129
	148,058	8,270	606.2	68 / 172
	148,507	8,270	607.7	120 / 38
W	148,777	8,270	607.7	139 / 31
	149,004	8,270	608.6	64 / 151
	149,087	8,270	609.3	66 / 149
	149,279	8,270	609.7	28 / 194
	150,009	8,270	610.7	363 / 87
	151,150	7,200	611.3	55 / 54
X	152,461	6,710	613.2	382 / 26
	154,556	6,710	614.1	206 / 309
Y	156,202	6,710	615.1	430 / 95
	157,090	6,710	615.7	327 / 183
	158,548	6,710	617.1	367 / 476
	159,437	6,710	619.2	713 / 292
	159,647	6,710	622.0	724 / 128
	160,167	6,710	622.2	94 / 306

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
Z	161,106	6,710	623.6	387 / 193
	161,678	6,710	625.2	354 / 99
	162,247	6,710	626.9	356 / 262
AA	162,710	6,710	628.1	398 / 102
	162,975	6,710	628.5	497 / 173
	163,055	6,710	628.9	446 / 199
	163,240	6,710	629.0	471 / 164
	164,028	6,710	630.3	501 / 154
	165,251	6,710	633.1	77 / 352
AB	165,864	5,480	634.2	92 / 453
	166,827	5,480	635.9	256 / 109
	167,259	5,030	637.7	425 / 31
AC	167,841	5,030	638.3	198 / 55
	168,112	5,030	639.3	206 / 84
	168,647	5,030	641.9	90 / 57
	169,287	5,030	645.2	272 / 138
	170,039	5,030	647.1	173 / 187

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
AD	170,528	5,030	649.0	157 / 228
	170,941	5,030	650.4	301 / 335
	171,121	5,030	652.2	247 / 336
	171,357	5,030	652.9	34 / 443
	172,619	5,030	657.6	251 / 74
	172,945	5,030	658.7	352 / 73
	173,507	5,030	660.0	27 / 560
	173,564	5,030	660.4	66 / 454
	173,741	5,030	661.2	194 / 156
	174,085	5,030	661.9	57 / 223
	174,277	5,030	662.2	51 / 221
AE	174,553	5,030	663.0	140 / 121
	175,065	5,030	665.9	249 / 111
	176,079	3,710	667.8	402 / 78
	176,359	3,710	668.5	372 / 54
	176,526	3,710	669.7	386 / 25
	176,560	3,710	669.6	363 / 25

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
	176,698	3,710	670.4	273 / 57
	176,898	3,710	671.6	238 / 112
	177,205	3,710	673.1	150 / 165
AF	177,936	3,710	677.6	102 / 249
	178,474	3,710	679.9	341 / 72
	178,693	2,830	680.8	276 / 59
	178,743	2,830	680.9	247 / 103
	179,034	2,830	682.2	116 / 154
	179,757	2,520	687.0	59 / 17
AG	180,216	2,520	690.2	190 / 12
	180,442	2,520	690.7	114 / 261
	180,605	2,520	690.9	50 / 300
	180,650	2,520	691.0	22 / 302
	180,808	2,520	691.2	30 / 340
	181,209	2,520	692.5	20 / 348
	182,047	2,520	697.9	84 / 150
AH	182,627	2,520	702.8	107 / 113

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
	182,761	2,520	703.8	107 / 113
	182,811	2,520	705.0	108 / 132
	182,948	2,520	705.3	197 / 133
	183,208	2,520	706.0	117 / 153
	183,511	2,520	707.6	98 / 102
	184,154	2,520	711.1	169 / 41
AI	184,743	2,520	715.3	30 / 40
	184,915	2,520	716.6	37 / 38
	184,957	2,520	718.2	74 / 52
	185,107	2,520	718.9	138 / 27
	185,403	2,520	719.9	130 / 40
	185,856	2,040	723.2	65 / 40
AJ	186,314	2,040	727.1	41 / 79
	186,645	2,040	728.7	67 / 83
	186,852	2,040	729.6	76 / 64
	187,022	2,040	730.3	139 / 71
	187,066	2,040	731.2	144 / 81

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

LIMITED DETAILED FLOOD HAZARD RISK

TALLASSEEHATCHEE CREEK

FLOODING SOURCE		MODEL DATA		
CROSS SECTION	DISTANCE[1]	FLOOD DISCHARGE (cfs)	1% ANNUAL CHANCE FLOOD ELEVATION (ft NAVD88)	NON-ENCROACHMENT WIDTH[2]
TALLASSEEHATCHEE CREEK (CONT'D)				
AK	187,354	2,040	732.1	121 / 69
	187,773	1,650	736.2	170 / 55
	188,339	1,650	739.3	140 / 120
AL	189,156	1,650	746.3	331 / 13

[1]Feet above confluence with Ohatchee Creek.
[2]Left / Right distance in feet from the mapped center of stream to non-encroachment boundary based on a 1.0 foot or less surcharge (looking downstream)

Floodplains were delineated using automated GIS procedures. Floodplains were mapped to include backwater effects that govern each flooding source near its downstream extent. Floodplains were reviewed for accuracy and adjusted as necessary.

For the streams that were not restudied but were redelineated, the FEMA effective profile elevations adjusted to the North American Vertical Datum of 1988 (NAVD88) were delineated on 1 meter DEM.

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.

The hydraulic analyses for all studies 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.

All qualifying benchmarks within a given jurisdiction that are catalogued by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS) as First or Second Order Vertical and have a vertical stability classification of A, B or C are shown and labeled on the FIRM with their 6-character NSRS Permanent Identifier.

Benchmarks catalogued by the NGS and entered into the NSRS vary widely in vertical stability classification. NSRS vertical stability classifications are as follows:

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

In addition to NSRS benchmarks, the FIRM may also show vertical control monuments established by a local jurisdiction; these monuments will be shown on the FIRM with the appropriate designations. Local monuments will only be placed on the FIRM if the community has requested that they be included, and if the monuments meet the aforementioned NSRS inclusion criteria.

To obtain current elevation, description, and/or location information for benchmarks shown on the FIRM for this jurisdiction, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their Web site at www.ngs.noaa.gov.

It is important to note that 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 these data.

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 (NGVD29). With the finalization of the NAVD88, many FIS reports and FIRMs are being prepared using NAVD88 as the referenced vertical datum.

Flood elevations shown in this FIS report and on the FIRM are referenced to the NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. It is important to note that adjacent counties may be referenced to NGVD29. This may result in differences in base flood elevations across the county boundaries between the counties.

Prior versions of the FIS report and FIRM were referenced to NGVD29. When a datum conversion is effected for an FIS report and FIRM, the Flood Profiles, base flood elevations (BFEs) and ERMs reflect the new datum values. To compare structure and ground elevations to 1-percent-annual-chance flood elevations shown in the FIS and on the FIRM, the subject structure and ground elevations must be referenced to the new datum values.

As noted above, the elevations shown in the FIS report and on the FIRM for Calhoun County are referenced to NAVD88. Ground, structure, and flood elevations may be compared and/or referenced to NGVD29 by applying a standard conversion factor.

The conversion factor from NGVD29 to NAVD88 is 0.23.

The BFEs shown on the FIRM represent whole-foot rounded values. For example, a BFE of 102.4 will appear as 102 on the FIRM and 102.6 will appear as 103. Therefore, users that wish to convert the elevations in this FIS to NGVD29 should apply the stated conversion factor(s) to elevations shown

on the Flood Profiles and supporting data tables in the FIS report, which are shown at a minimum to the nearest 0.1 foot.

For more information on NAVD88, see Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, FEMA Publication FIA-20/June 1992, or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS report provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent-annual-chance flood elevations; delineations of the 1- and 0.2-percent-annual-chance floodplains; and a 1-percent-annual-chance floodway. 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 Elevation tables. Users should reference the data presented in the FIS report as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Flood 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. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section.

For this revision, the floodplain boundaries were interpolated between cross sections using a digital elevation surface derived from LiDAR data collected in 2010 and provided by OWR and the Atlantic Group.

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM. On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, and AO), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 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.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces the flood-carrying capacity, increases the 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 1-percent annual 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 flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as a minimum standard that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this FIS were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (See Table 7, "Floodway Data"). The computed floodways are shown on the FIRM. In cases where the floodway and 1-percent annual floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause more than a 1.0 foot increase in the base flood elevations at any point within the community.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. A listing of stream velocities at selected cross sections in provided in Table 7, "Floodway Data." In order to reduce the risk of property damage in areas where the stream velocities are high, the community may wish to restrict development in areas outside the floodway.

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 7 for certain downstream cross sections 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.

No floodway was computed for Coosa River, East Branch Snow Creek, Little Tallasseehatchee Creek, Mill Creek Tributary No. 1, Nances Creek Tributary No. 2, Pilgrim Creek, Tallasseehatchee Creek (Jacksonville), Tallasseehatchee Creek Tributary 1, Tallasseehatchee Creek Tributary 2, and Tallasseehatchee Creek Tributary 3.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
ALEXANDRIA CREEK								
A	2,704	240	1,750	4.2	510.3	503.4[2]	503.9	0.5
B	6,848	190	1,300	5.6	510.7	510.7	511.0	0.3
C	8,184	150	1,139	4.0	514.9	514.9	515.2	0.3
D	10,593	385	1,229	3.7	519.8	519.8	520.6	0.8
E	14,957	197	1,046	3.8	534.5	534.5	534.9	0.4
F	15,768	102	541	5.2	537.3	537.3	537.5	0.2
G	17,308	145	936	3.0	543.3	543.3	543.9	0.6
H	19,841	319	811	3.2	546.3	546.3	546.9	0.6
I	21,870	189	876	2.9	555.0	555.0	555.5	0.5
J	23,715	83	425	6.0	561.2	561.2	561.4	0.2
K	24,575	207	1,049	2.3	565.3	565.3	566.3	1.0
L	25,009	252	1,235	2.0	569.1	569.1	569.4	0.3
M	25,707	265	969	2.5	569.8	569.8	570.5	0.7
N	28,721	163	470	3.2	582.8	582.8	583.7	0.9
O	30,956	74	336	4.5	601.7	601.7	602.2	0.5
P	32,796	102	189	6.8	614.2	614.2	614.3	0.1
Q	33,356	144	390	3.3	619.2	619.2	619.8	0.6
R	36,484	42	209	4.9	635.7	635.7	635.9	0.2

[1] Feet above confluence with Tallasseehatchee Creek.
[2] Elevation computed without consideration of backwater effects from Tallasseehatchee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

ALEXANDRIA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
BATTLE CREEK								
A	824[1]	111	766	5.6	511.1	511.1	511.4	0.3
B	3,578[1]	411	1,938	2.2	514.9	514.9	515.9	1.0
C	7,465[1]	358	1,222	3.3	522.4	522.4	522.9	0.5
D	8,624[1]	372	1,512	2.7	526.2	526.2	527.1	0.9
E	12,171[1]	352	857	2.5	533.8	533.8	534.7	0.9
F	15,720[1]	359	1,220	1.5	546.4	546.4	546.7	0.3
G	18,154[1]	134	281	4.9	557.1	557.1	557.7	0.6
H	19,110[1]	102	291	4.7	566.5	566.5	566.8	0.3
I	19,471[1]	125	438	3.2	570.8	570.8	571.7	0.9
J	20,373[1]	73	224	5.1	576.2	576.2	576.5	0.3
K	21,103[1]	58	244	4.6	582.1	582.1	582.2	0.1
BOILING SPRINGS BRANCH								
A	1,540[2]	340	906	1.1	619.0	619.0	620.0	1.0
B	3,297[2]	91	316	2.7	631.4	631.4	631.9	0.5
C	3,492[2]	113	1,458	0.6	641.8	641.8	642.4	0.6
D	4,202[2]	107	592	1.2	641.9	641.9	642.5	0.6
E	4,633[2]	32	202	3.5	643.2	643.2	643.9	0.7
F	5,947[2]	64	217	3.2	653.7	653.7	654.7	1.0
G	6,363[2]	49	202	3.5	655.1	655.1	656.1	1.0

[1] Feet above confluence with Alexandria Creek
[2] Feet above confluence with Choccolocco Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

BATTLE CREEK – BOILING SPRINGS BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
BOILING SPRINGS BRANCH (CONT.)								
H	6,757[1]	90	213	3.3	657.3	657.3	658.3	1.0
I	7,790[1]	43	161	4.4	664.8	664.8	665.8	1.0
J	8,428[1]	221	530	1.3	676.3	676.3	677.2	0.9
K	9,320[1]	136	311	1.8	683.6	683.6	684.0	0.4
L	10,505[1]	96	263	2.1	696.3	696.3	697.2	0.9
CANE CREEK								
A	11,008[2]	767	7,121	2.9	483	480.1[3]	481.0	0.9
B	16,923[2]	1,317	14,839	1.4	485.1	485.1	485.9	0.8
C	21,550[2]	1,843	15,525	1.3	486.1	486.1	486.9	0.8
D	28,301[2]	986	9,194	2.2	492.8	492.8	493.2	0.4
E	34,891[2]	627	7,646	2.6	500.8	500.8	501.4	0.6
F	37,195[2]	522	6,174	3.0	501.9	501.9	502.9	1.0
G	42,239[2]	639	8,019	2.3	503.9	503.9	504.9	1.0
H	44,838[2]	599	6,509	2.9	505.8	505.8	506.8	1.0
I	50,344[2]	950	7,138	2.6	510.8	510.8	511.3	0.5
J	102,600[2]	1,042	5,093	2.1	586.4	586.4	587.4	1.0
K	108,890[2]	794	4,056	2.1	597.0	597.0	597.6	0.6
L	113,880[2]	183	1,232	6.7	608.0	608.0	608.6	0.6
M	117,300[2]	884	3,647	2.3	613.4	613.4	614.1	0.7

[1] Feet above confluence with Choccolocco Creek
[2] Feet above confluence with Coosa River
[3] Elevation computed without consideration of backwater effects from Coosa River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

BOILING SPRINGS BRANCH – CANE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
CANE CREEK (CONT.)								
N	122,900[1]	795	4,164	2.0	625.6	625.6	626.6	1.0
O	131,000[1]	824	3,774	1.9	643.5	643.5	644.5	1.0
P	135,060[1]	653	3,097	2.3	655.2	655.2	656.2	1.0
Q	138,700[1]	82	822	7.0	671.2	671.2	672.1	0.9
R	142,000[1]	447	1,689	3.4	682.7	682.7	683.7	1.0
S	144,250[1]	121	753	7.7	702.1	702.1	702.1	0.0
T	147,890[1]	331	1,574	2.8	724.1	724.1	725.1	1.0
U	149,610[1]	67	450	6.0	741.7	741.7	742.0	0.3
V	151,900[1]	115	1,008	2.5	765.2	765.2	765.9	0.7
W	154,000[1]	90[3]	240	10.6	785.7	785.7	785.7	0.0
X	156,750[1]	36	164	10.1	822.6	822.6	822.8	0.2
CAVE CREEK								
A	5,041[2]	80	440	3.9	682.1	682.1	682.9	0.8
B	5,630[2]	150	790	2.2	688.8	688.8	689.6	0.8
C	6,740[2]	96	1,586	1.1	737.0	737.0	738.0	1.0
D	8,850[2]	784	6,878	0.2	737.1	737.1	738.1	1.0
E	11,420[2]	600	2,460	1.6	738.0	738.0	738.9	0.9
F	14,620[2]	220	950	3.4	748.5	748.5	749.4	0.9
G	17,050[2]	150	530	6.1	756.3	756.3	757.3	1.0
H	18,950[2]	60	312	6.4	768.8	768.8	769.2	0.4

[1] Feet above confluence with Coosa River
[2] Feet above confluence with Cane Creek
[3] Total width of floodway for cross section includes Cane Creek and Ingram Creek floodway

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

CANE CREEK – CAVE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
CAVE CREEK (CONT.)								
I	21,350[1]	80	250	8.0	805.2	805.2	805.9	0.7
CHOCCOLOCCO CREEK								
A	181,189[2]	1256[3]/2,466	18,618	1.5	598.7	598.7	599.7	1
B	185,355[2]	2,640	22,929	1.4	602.1	602.1	603.1	1.0
C	188,040[2]	3,041	21,007	1.5	603.0	603.0	604.0	1.0
D	191,100[2]	2,198	11,837	2.7	605.0	605.0	605.8	0.8
E	198,235[2]	2,189	15,056	1.9	609.9	609.9	610.6	0.7
F	203,775[2]	2,353	13,598	2.1	613.1	613.1	614.1	1.0
G	206,850[2]	2,468	14,538	2.0	615.2	615.2	616.2	1.0
H	208,492[2]	2928[4]	9,723	3.0	617.1	617.1	618.1	1.0
I	211,940[2]	1,283	10,204	2.8	621.2	621.2	622.2	1.0
J	213,450[2]	530	5,693	5.1	622.5	622.5	623.4	0.9
K	215,740[2]	527	8,438	3.4	626.1	626.1	627.1	1.0
L	220,430[2]	2,673	25,090	1.2	628.5	628.5	629.5	1.0
M	225,860[2]	1,657	12,595	2.0	630.9	630.9	631.8	0.9
N	234,100[2]	630	8,201	3.1	637.8	637.8	638.7	0.9
O	240,890[2]	1,760	19,667	1.3	640.7	640.7	641.7	1.0
P	244,075[2]	2,275	22,076	1.1	642.1	642.1	643.1	1.0
Q	246,410[2]	1,641	17,423	1.4	643.5	643.5	644.3	0.8
R	250,740[2]	1,680	13,230	1.8	644.9	644.9	645.9	1.0
S	254,780[2]	1,632	13,887	1.8	647.6	647.6	648.3	0.7

[1] Feet above confluence with Cane Creek
[2] Feet above confluence with Coosa River
[3] Total width of floodway within the county
[4] Total width of floodway for cross section includes Choccolocco Creek and Boiling Springs Branch floodway

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

CAVE CREEK – CHOCCOLOCCO CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
CHOCCOLOCCO CREEK (CONT.)								
T	257,340[1]	1,287	10,498	2.3	648.9	648.9	649.9	1.0
U	263,537[1]	751	8,548	2.7	654.2	654.2	655.2	1.0
V	267,450[1]	717	6,756	3.4	656.1	656.1	656.9	0.8
COLDWATER CREEK								
A	6,668[2]	450	4,493	2.2	584.0	584.0	584.6	0.6
B	9,261[2]	244	2,320	4.3	585.9	585.9	586.9	1.0
C	11,560[2]	475	4,527	2.2	590.7	590.7	591.5	0.8
D	14,937[2]	301	2,010	4.8	592.7	592.7	593.6	0.9
E	21,319[2]	760	2,821	3.0	605.7	605.7	606.7	1.0
F	23,395[2]	162	1,426	6.0	614.4	614.4	614.8	0.4
G	25,456[2]	112	1,061	7.1	617.2	617.2	617.8	0.6
H	26,677[2]	141	1,479	5.1	619.9	619.9	620.3	0.4
I	31,297[2]	111	1,235	5.8	623.7	623.7	624.1	0.4
J	31,783[2]	127	991	4.9	632.2	632.2	632.8	0.6
K	32,755[2]	87	606	7.3	633.2	633.2	633.6	0.4
L	34,108[2]	130	735	6.1	645.8	645.8	645.9	0.1
M	34,855[2]	99	796	5.6	650.5	650.5	651.2	0.7
N	35,636[2]	60	561	6.7	653.8	653.8	654.3	0.5
O	36,199[2]	94	907	4.1	657.2	657.2	657.8	0.6

[1] Feet above confluence with Coosa River
[2] Feet above confluence with Choccolocco Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

CHOCCOLOCCO CREEK – COLDWATER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
COLDWATER CREEK (CONT.)								
P	37,035	92	676	5.6	658.4	658.4	658.9	0.5
Q	37,985	251	1,265	3.0	661.3	661.3	662.2	0.9
R	39,761	363	1,038	3.4	667.5	667.5	668.3	0.8
S	40,970	413	786	3.6	669.9	669.9	670.8	0.9
T	42,572	174	657	4.3	678.4	678.4	679.0	0.6
U	43,946	180	528	5.0	683.4	683.4	684.1	0.7
V	45,301	130	444	6.0	692.6	692.6	693.1	0.5
W	47,269	320	630	3.0	704.2	704.2	705.1	0.9
X	49,052	65	265	7.2	721.1	721.1	722.1	1.0

[1] Feet above confluence with Choccolocco Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

COLDWATER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
DEARMANVILLE BRANCH								
A	1,246	80	561	7.1	620.5	619.3[2]	619.4	0.1
B	2,403	150	1,203	3.9	623.6	623.6	623.6	0.0
C	4,820	220	1,559	1.8	627.2	627.2	627.8	0.6
D	5,455	300	2,074	1.3	627.3	627.3	628.0	0.7
E	6,968	400	2,054	0.9	631.3	631.3	631.5	0.2
F	8,206	53	298	6.4	633.2	633.2	633.8	0.6
G	8,775	151	597	3.2	635.0	635.0	635.4	0.4
H	10,524	417	595	3.2	642.8	642.8	642.8	0.0
I	12,001	223	429	4.5	650.8	650.8	651.0	0.2
J	13,001	534	672	2.7	657.7	657.7	657.8	0.1
K	14,827	390	606	3.0	684.2	684.2	684.4	0.2
L	15,931	272	403	4.1	704.5	704.5	704.6	0.1
M	17,159	205	249	6.6	732.5	732.5	732.9	0.4
N	18,255	65	208	8.0	758.4	758.4	759.0	0.6
O	19,198	82	435	3.8	777.4	777.4	778.2	0.8
P	20,126	152	308	5.4	802.6	802.6	802.8	0.2
Q	20,889	173	316	5.2	827.1	827.1	827.2	0.1

[1] Feet above confluence with Choccolocco Creek
[2] Elevations computed without consideration of backwater effects from Choccolocco Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

DEARMANVILLE BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
DRY CREEK								
A	1,785[1]	166	*	*	668.3	668.3	669.3	1.0
B	4,255[1]	151	*	*	676.4	676.4	677.4	1.0
EASTABOGA CREEK								
A	33,800	284	1,096	7.4	568.3	568.3	568.4	0.1
GOLDEN SPRINGS BRANCH								
A	3,825[2]	359	1,412	2.6	614.1	614.1	615.1	1.0
B	4,580[2]	206	764	4.8	616.0	616.0	616.8	0.8
C	5,434[2]	120	680	5.3	623.9	623.9	624.5	0.6
D	6,080[2]	213	3,259	1.3	635.7	635.7	636.7	1.0
E	7,061[2]	382	4,693	0.9	635.8	635.8	636.8	1.0
F	8,939[2]	273	1,745	2.2	635.8	635.8	636.8	1.0
G	10,116[2]	143	919	4.2	648.0	648.0	648.2	0.2
H	11,504[2]	143	609	6.3	656.9	656.9	657.3	0.4
I	12,833[2]	208	482	6.6	670.1	670.1	671.1	1.0
J	13,965[2]	103	286	7.2	685.4	685.4	685.6	0.2
K	14,937[2]	201	390	5.3	698.2	698.2	698.9	0.7
L	15,429[2]	249	577	3.6	707.6	707.6	707.9	0.3

*Data not available
[1] Feet above confluence with Mill Creek
[2] Feet above confluence with Choccolocco Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

DRY CREEK – EASTABOGA CREEK – GOLDEN SPRINGS BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
GOLDEN SPRINGS BRANCH (CONT.)								
M	16,309[1]	155	392	5.2	725.6	725.6	725.9	0.3
N	17,661[1]	117	280	6.6	754.4	754.4	754.8	0.4
O	19,101[1]	176	383	4.8	790.0	790.0	791.0	1.0
P	19,845[1]	58	207	8.9	811.0	811.0	811.0	0.0
Q	20,576[1]	20	95	8.2	828.9	828.9	828.9	0.0
R	21,306[1]	47	151	5.2	853.7	853.7	853.7	0.0
S	21,935[1]	46	107	9.6	879.5	879.5	879.5	0.0
T	23,827[1]	55	264	3.0	953.2	953.2	953.2	0.0
U	24,888[1]	52	133	5.9	990.0	990.0	990.0	0.0
HOBSON CREEK								
A	820[2]	26	123	8.6	636.8	636.8	637.8	1.0
B	1,246[2]	39	205	5.2	642.3	642.3	642.3	0.0
C	2,492[2]	177	505	2.2	671.7	671.7	672.5	0.8
D	3,435[2]	386	226	5.0	702.7	702.7	702.8	1.0
INGRAM CREEK								
A	1,600[3]	55	167	6.5	798.4	798.4	799.0	0.6
B	2,900[3]	104	381	2.8	811.9	811.9	812.9	1.0

[1] Feet above confluence with Choccolocco Creek
[2] Feet above confluence with Snow Creek
[3] Feet above confluence with Cane Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

GOLDEN SPRINGS BRANCH – HOBSON CREEK – INGRAM CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
LENLOCK BRANCH								
A	2,680[1]	128	599	4.3	654.1	654.1	655.1	1.0
B	3,275[1]	124	1,132	2.3	660.3	660.3	660.6	0.3
C	4,350[1]	150	453	5.7	660.9	660.9	661.5	0.6
D	5,700[1]	86	592	4.4	667.9	667.9	668.8	0.9
E	6,010[1]	110	863	3.0	669.4	669.4	670.3	0.9
F	6,400[1]	264	2,384	0.9	672.7	672.7	673.5	0.8
G	7,210[1]	251	1,341	1.6	672.8	672.8	673.7	0.9
H	8,118[1]	178	793	2.8	676.1	676.1	676.9	0.8
I	10,190[1]	153	624	3.5	687.0	687.0	687.8	0.8
J	11,675[1]	140	657	3.4	697.7	697.7	698.5	0.8
MILL CREEK								
A	14,295[2]	339	*	*	661.1	661.1	662.1	1.0
B	18,280[2]	418	*	*	673.3	673.3	674.3	1.0
C	20,875[2]	408	*	*	682.1	682.1	683.1	1.0
D	22,535[2]	387	*	*	685.7	685.7	686.7	1.0
E	28,155[2]	200	*	*	709.2	709.2	710.2	1.0
F	31,750[2]	344	*	*	730.5	730.5	731.5	1.0

*Data not available
[1] Feet above confluence with Cane Creek
[2] Feet above confluence with Terrapin Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

LENLOCK BRANCH – MILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
NANCES CREEK								
A	23,935[1]	423	*	*	683.0	683.2	684.2	1.0
B	28,765[1]	354	*	*	691.0	691.2	692.2	1.0
PARK CREEK								
A	500[2]	27	111	6.8	659.7	659.7	660.7	1.0
B	1,182[2]	178	568	3.1	673.1	673.1	674.1	1.0
C	1,753[2]	81	333	5.2	683.0	683.0	683.8	0.8
D	1,945[2]	120	277	6.3	689.5	689.5	690.4	0.9
E	2,153[2]	134	491	3.5	694.1	694.1	695.0	0.9
F	2,550[2]	134	533	3.1	715.6	715.6	716.6	1.0
REMOUNT CREEK								
A	1,300[3]	94	251	6.0	716.1	714.9[4]	715.8	1.0
B	2,500[3]	68	221	6.0	726.4	726.3	726.3	0.0
C	4,900[3]	32	172	7.4	752.7	752.7	752.8	0.1
D	6,450[3]	88	240	5.1	767.5	767.5	768.1	0.6
E	8,900[3]	261	325	3.8	805.3	805.3	806.3	1.0

*Data not available
[1] Feet above confluence with Terrapin Creek
[2] Feet above confluence with Hobson Creek
[3] Feet above confluence with Cane Creek
[4] Elevations computed without consideration of backwater effects from Cane Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

NANCES CREEK – PARK CREEK – REMOUNT CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
SNOW CREEK								
A	920	423	1,775	3.9	608.2	604.9[2]	605.9	1.0
B	3,100	199	1,215	5.7	611.8	611.8	612.8	1.0
C	4,130	320	2,830	2.4	618.4	618.4	618.5	0.1
D	4,830	320	2,459	2.8	618.7	618.7	618.9	0.2
E	5,530	155	714	9.6	621.4	621.4	621.6	0.2
F	6,090	116	899	7.7	624.0	624.0	624.7	0.7
G	6,770	58	647	10.7	627.7	627.7	628.4	0.7
H	7,650	262	2,175	3.2	632.0	632.0	632.7	0.7
I	9,380	142	1,004	6.0	635.1	635.1	636.1	1.0
J	12,200	641	1,336	4.5	644.6	644.6	644.8	0.2
K	13,970	536	1,440	4.2	652.6	652.6	652.6	0.0
L	16,120	261	749	6.7	661.8	661.8	661.9	0.1
M	17,468	519	3,625	1.4	673.0	673.0	673.9	0.9
N	20,790	806	2,108	2.4	683.4	683.4	683.5	0.1
O	23,800	155	1,032	4.9	699.5	699.5	700.2	0.7
P	26,150	388	969	2.6	702.6	702.6	703.0	0.4
Q	28,775	126	169	7.4	714.5	714.5	714.9	0.4
R	30,460	133	590	2.1	721.2	721.2	722.2	1.0

[1] Feet above confluence with Choccolocco Creek
[2] Elevations computed without consideration of backwater effects from Choccolocco Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

SNOW CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
SOUTH BRANCH CANE CREEK								
A	500	94	747	3.7	731.4	731.4	732.2	0.8
B	1,900	95	465	5.9	742.5	742.5	743.0	0.5
C	3,540	87	337	8.1	757.1	757.1	757.6	0.5
D	6,150	367	1,427	1.5	786.3	786.3	787.3	1.0
E	6,950	144	803	2.7	798.3	798.3	798.5	0.2
F	9,000	69	375	5.8	812.9	812.9	812.9	0.0
G	10,600	77	307	7.1	832.3	832.3	832.7	0.4
TERRAPIN CREEK[2]								

[1] Feet above confluence with Cane Creek
[2] All cross sections lie outside county limits

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH BRANCH CANE CREEK – TERRAPIN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD88)	WITHOUT FLOODWAY (FEET NAVD88)	WITH FLOODWAY (FEET NAVD88)	INCREASE (FEET)
WEST BRANCH								
A	786	98	382	5.7	710.2	710.2	710.9	0.7
B	2,155	54	221	8.0	720.4	720.4	720.6	0.2
C	2,920	96	501	3.5	726.7	726.7	727.4	0.7
D	3,664	58	212	3.5	733.0	733.0	733.8	0.8
E	4,631	29	123	4.3	738.0	738.0	738.4	0.4
F	5,021	26	99	5.4	742.6	742.6	742.9	0.3
G	5,399	52	137	3.9	744.7	744.7	744.7	0.0
H	5,983	75	197	2.7	746.5	746.5	746.5	0.0
I	6,440	34	96	5.0	749.6	749.6	749.6	0.0
J	7,234	82	906	0.5	761.1	761.1	761.3	0.2
K	7,775	33	24	5.8	765.2	765.2	765.2	0.0
L	8,077	19	79	1.8	772.1	772.1	772.1	0.0
M	8,457	23	66	5.2	774.5	774.5	774.5	0.0
N	8,785	23	39	5.2	777.0	777.0	777.0	0.0
O	9,266	36	84	2.4	783.9	783.9	783.9	0.0
P	9,677	12	33	6.0	791.3	791.3	791.5	0.2
Q	10,244	19	38	5.3	800.1	800.1	800.1	0.0
R	10,489	30	88	2.3	809.7	809.7	809.7	0.0
S	10,625	30	39	5.2	809.9	809.9	810.0	0.1

[1] Feet above confluence Snow Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL AND INCORPORATED AREAS

FLOODWAY DATA

WEST BRANCH

The area between the floodway and 1-percent annual floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 1-percent annual flood by more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

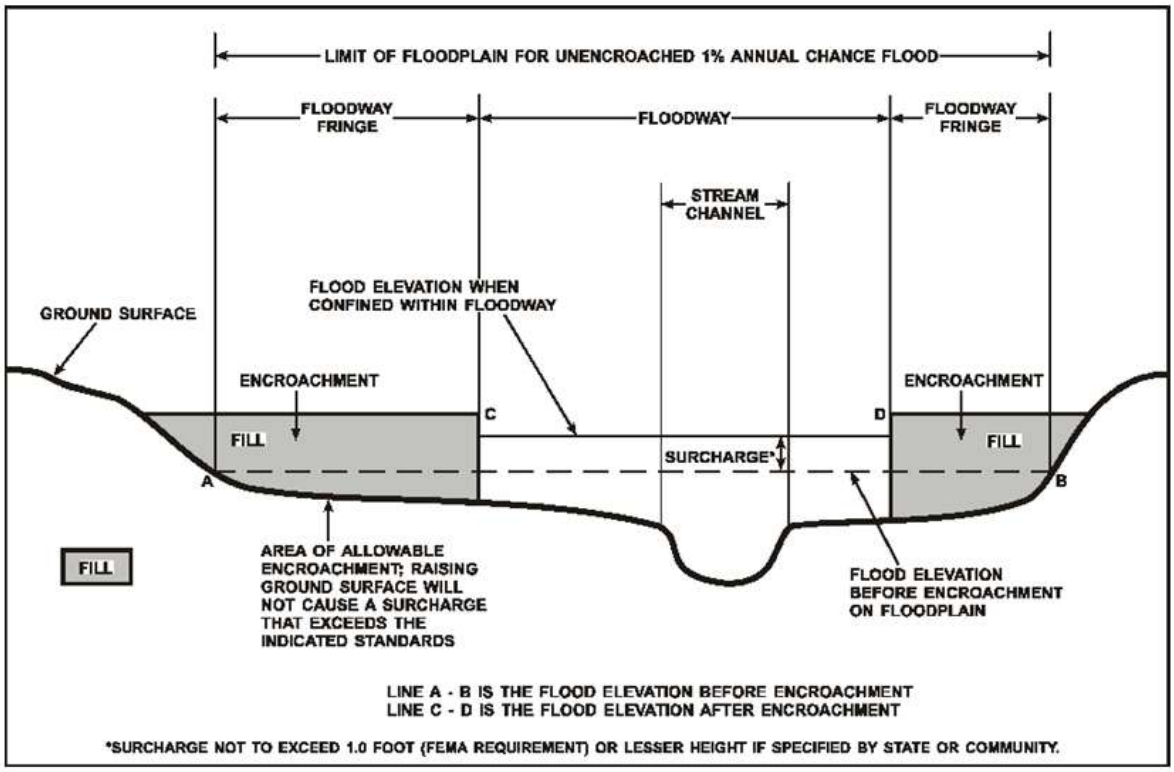

FIGURE 1 - FLOODWAY SCHEMATIC

5.0 INSURANCE APPLICATION

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 rate 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 base flood elevations or depths are shown within this zone.

Zone AE

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

Zone AO

Zone AO is the flood insurance rate zone that corresponds to the areas with 1-percent-annual-chance sheet flow, ponding, or shallow flooding where average depths are between 1 and 3 feet. 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 rate zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, 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 base flood elevations or depths are shown within this zone.

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 rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use zones and BFEs 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 tints, screens, and symbols, the 1- and 0.2-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 Calhoun 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 (FBFMs), where applicable. Historical data relating to the maps prepared for each community are presented in Table 8, "Community Map History."

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Anniston, City of	December 17, 1973	December 19, 1975	September 15, 1983	February 3, 1993
Calhoun County, Unincorporated Areas	November 29, 1974	March 24, 1978	September 15, 1983	February 3, 1993
Hobson City, Town of	May 17, 1974	March 5, 1976	September 30, 1983	
Jacksonville, City of	May 17, 1974	January 9, 1976	July 5, 1982	
Ohatchee, Town of*	January 31, 1975		September 28, 2007	
Oxford, City of	May 17, 1974	January 2, 1976	January 18, 1984	February 3, 1993
Piedmont, City of	June 7, 1974	December 26, 1975	June 15, 1984	
Weaver, City of	November 30, 1973	January 9, 1976	September 30, 1983	

*Community did not have FIRM prior to the first countywide FIRM for Calhoun County.

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

CALHOUN COUNTY, AL
AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

The Flood Insurance Studies published for Talladega County, City of Weaver, and Town of Hobson City, Alabama (References 31, 33, and 34) agree with this study.

The revision in progress to the published Flood Insurance Studies for the Cities of Anniston and Oxford, Alabama (References 35 and 36) agree with this study.

This FIS supersedes the previously published FIS for the Unincorporated Areas of Calhoun County, Alabama (Reference 37).

A drainage study prepared for the City of Anniston in 1975 contains 1-percent-annual-chance flood information for portions of Snow Creek. The discharge estimates from this study compare well with the estimates from that study, but the computed water-surface elevations were somewhat lower in this study. This could be attributed, at least partially, to a change in cross-section geometry or to a different choice of cross-section locations.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting Federal Insurance and Mitigation Division, FEMA Region IV, Koger-Center — Rutgers Building, 3003 Chamblee Tucker Road, Atlanta, GA 30341.

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