Choccolocco Creek Watershed Stream Crossing Report

Prepared for:

Karen Marlowe
Case Manager for Anniston PCB NRDAR
U.S. Fish and Wildlife Service
1875 Century Blvd
Atlanta, Georgia 30345-3319

Prepared – *July 2019* – by:

LGL Limited
9768 Second Street
Sidney, British Columbia V8L 3Y8

and

MacDonald Environmental Sciences Ltd.
Pacific Environmental Research Centre
#24 - 4800 Island Highway North
Nanaimo, British Columbia V9T 1W6

Choccolocco Creek Watershed Stream Crossing Report

Prepared for:

Karen Marlowe
Case Manager for Anniston PCB NRDAR
U.S. Fish and Wildlife Service
1875 Century Blvd
Atlanta, Georgia 30345-3319

Prepared – *July 2019* – by:

J. Kidd[1] and D.D. MacDonald[2]

[1]LGL Limited
9768 Second Street
Sidney, British Columbia V8L 3Y8

[2]MacDonald Environmental Sciences Ltd.
Pacific Environmental Research Centre
#24 - 4800 Island Highway North
Nanaimo, British Columbia V9T 1W6

Table of Contents

List of Figures

List of Tables

List of Acronyms

ARSN	Alabama Rivers and Streams Network
BMP	Best Management Practice
NRCS	Natural Resource Conservation Service
OEPA	Ohio Environmental Protection Agency
SHU	Strategic Habitat Unit
SRI	Sedimentation Risk Index
SRRU	Strategic River Reach Unit
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

1.0 Introduction

The Alabama Rivers and Streams Network (ARSN) is comprised of non-profit organizations, private companies, state and federal agencies, and citizens that work together to maintain healthy waterways in Alabama (ARSN 2018a). Member agencies include the U.S. Fish and Wildlife Service (USFWS), the Alabama Department of Conservation and Natural Resources, and the Geological Survey of Alabama. These agencies have designated watersheds and river reaches in Alabama that provide critical habitat for federally listed and candidate freshwater species as Strategic Habitat Units (SHUs) and Strategic River Reach Units (SRRUs) (Appendix A). These designations guide restoration activities to manage, recover, and restore populations of rare aquatic species (Wynn *et al.* n.d.).

The ARSN assesses the condition of stream crossings in Alabama watersheds to narrow the focus of aquatic habitat restoration activities. Stream crossings pose economic and environmental risks associated with erosion, habitat loss, and barriers to fish migration (Bates *et al.* 2003; Grunewald *et al.* 2017). Erosion contributes to the sedimentation of aquatic habitats and loss of riparian areas, which degrade aquatic habitats and threaten the species that depend on them (Grunewald *et al.* 2017). Increased water velocities scour away spawning substrate and impede small fish movement (Bates *et al.* 2003). Habitat is directly removed when stream channels are realigned during crossing construction (Bates *et al.* 2003). Stream crossings can threaten aquatic organisms by isolating populations and blocking access to spawning, rearing and overwintering habitat (Chilibeck *et al.* 1993). Evaluating the condition of stream crossings and prioritizing restoration activities can mitigate the risks to watersheds associated with stream crossings (Grunewald *et al.* 2017).

The Sedimentation Risk Index (SRI) was developed in 2006 to assess and prioritize stream crossings for unpaved roads in the Choctawhatchee Watershed in southeast Alabama (Grunewald *et al.* 2017). The SRI is now applied by the ARSN in watersheds across Alabama and surrounding states for both paved and unpaved roads (Grunewald *et al.* 2017). The SRI is used to allocate resources to the most impacted sites by ranking stream crossings based on sedimentation risks and by identifying locations where stream connectivity is impaired.

In 2016, the ARSN used the SRI to assess stream crossings in the Choccolocco Creek Watershed. The Choccolocco Creek Watershed is in the Upland region of Alabama within the Alabama River national hydrologic unit sub-region (Wynn *et al.* n.d.). The watershed encompasses 500 square miles in the counties of Calhoun, Clay, Cleburne, and Talladega (CCW 2018). The headwaters are within the Talladega National Forest and flow southwest through agricultural and forested lands towards the confluence with Logan Martin Lake (CCW 2018).

The Choccolocco Creek Watershed contains one SRRU and two SHUs (Figure 1). The Lower Choccolocco Creek SRRU (SRRU 33) is 19 miles long within Talladega County, the Shoal Creek SHU (SHU 35) is 40 square miles within Calhoun and Cleburne countries, and the Cheaha Creek SHU (SHU 34) is 114 square miles within Clay and Talladega counties (ARSN 2018b). The priority species (i.e., federally listed and candidate species, or State of Alabama priority 1 and 2 species) for these strategic habitat and river reach units are listed in Table 1.

2.0 Methods

Stream crossings were evaluated by field personnel using the SRI methods outlined in *The Sedimentation Risk Index (SRI) Manual for Stream Crossing Assessment* (Grunewald *et al.* 2017). Field personnel scored 12 metrics at each stream crossing (Table 2), based on visual observations and measurements of the crossing structure. Each metric was scored into one of three categories, including most-impacted (Score = 1), moderately impacted (Score = 3), and least-impacted (Score = 5). The metric scores were then summed to yield an SRI score between 12 and 60. Stream crossings that scored below 37 were classified as "high risk", 37 to 45 were classified as "moderate risk", and above 45 were classified as "low risk."

Waterway Condition was scored using a method based on the Rosgen's (1996) Level 1 stream classification system. Using this system, three SRI metrics were used to classify waterway condition, including upstream channel morphology, downstream channel morphology, and downstream channel/bank alteration. The observations of upstream and downstream channel morphology were used to develop SRI metric scores based on channel stability. The degree of downstream channel and bank alteration was scored by visually estimating the percentage of bank and channel area that exhibited anthropogenic alterations, including riparian vegetation cover, riprap cover, and dams.

Crossing Structure Condition was scored using three SRI metrics, including the upstream culvert skew angle, the condition of the dominant crossing fill, and the condition of the crossing inlet and outlet. Additional crossing structure information was recorded to inform Best Management Practices (BMPs) and identify fish barriers, but this additional data did not contribute to the score. The type of crossing structure (i.e., culvert, bridge, or ford), the number and type of culverts, and the structure materials were documented at each stream crossing location. The dimensions of the structure were measured (in feet), including length/span, diameter/width, and culvert outfall drop distance.

Four SRI metrics were used to evaluate sedimentation risk based on the conditions of the road surface (i.e., Road Approach I category). These SRI metrics included soil type and erodibility, road approach slope, road approach surface material, and volume of sediment that could potentially be eroded from the road surface. As such, paved road crossings were not assessed and automatically given a combined Road Approaches I score of 20. A tape measure and clinometer were used to measure the length, width, road prism fill, and slope of the left and right road approaches. The potential eroded sediment volume was calculated using the equation: Length x Width x Road Prism Fill x 16.3 (conversion factor). Scoring criteria for each metric differs depending if the crossing is in the Upland or Lowland region. All crossings assessed in this study were scored based on the Upland criteria. The left and right road approach potential eroded volume and slope were averaged to produce the potential eroded sediment volume and road approach slope scores. The soil type and K Factor scores were selected using the United States Department of Agriculture (USDA) soil taxonomy from the USDA Natural Resources Conservation Service (NRCS) web soil survey (USDA NRCS 2017). The K Factor is an index for soil erodibility. The K Factor for road approaches with multiple soil types was generated using an area-weighted average, as described by the Ohio Environmental Protection Agency (OEPA) (2002). Surface material of the road approaches was scored by visually categorizing it as either aggregate, sand/clay, or native soil.

Two SRI metrics were used to evaluate sedimentation risk associated with the condition of the ditches adjacent to the road (i.e., Road Approach II category). More specifically, information on the condition of the four drainage ditch outlets to the stream and on the condition of the four ditches draining into the stream was used to evaluate the condition of the Road Approaches II. These metrics were scored based on visual assessments of the material lining the outlets and ditches, which were classified as vegetated, riprap, synthetic, bare soil, or concrete.

Crossing IDs were obtained from the Alabama Ecological Service Field Office prior to initiating the field work. All stream crossings were defined as either paved or unpaved. Visible threats to stream habitat integrity were documented, including livestock access and fish barriers. GPS coordinates were collected using a hand-held GPS device set to NAD 83 Datum. Photos were taken of the channel facing upstream and downstream, crossing structure, and road approaches. Issues of special concern were noted to further describe the crossing.

3.0 Results and Discussion

From February to May 2016, personnel from the ARSN and the Alabama Field Office of the USFWS visited a total of 669 stream crossings; 668 in the Choccolocco Creek Watershed and one in the Upper Tallapoosa River SHU. SRI assessments were completed at 443 stream crossings, with 374 (84%) on paved roads, and 69 (16%) on unpaved roads (Figure 2; Appendix A). The remaining 226 stream crossings were not quantitatively assessed due to safety concerns, access issues, the crossings being located on private property, or the crossings being associated with ephemeral streams.

A total of 21 (5%) stream crossings were rated as high risk, 119 (27%) were rated as moderate risk, and 303 (68%) were rated as low risk. None of the high-risk stream crossings were in a SHU or SRRU (Table 3; Figure 3). All high-risk stream crossing structures were culverts. The most common sedimentation risks identified at high-risk stream crossings were poor channel morphology upstream and downstream of the crossing, alteration of the channel downstream of the crossing, highly skewed culvert angle (>30°), poor fill condition, and ditches of bare soil or concrete (Table 3). Other sedimentation risks identified at several crossings were blocked culverts, high potential eroded sediment volume, and steep road approach slope.

A total of 119 of the stream crossings were rated as posing moderate risk of sedimentation (Table 4; Figure 4). Of these moderate risk stream crossings, seven were located within a SRRU or SHU (Table 5). The seven moderate-risk stream crossings in a SRRU or SHU were all culverts. The most common sedimentation risks at the moderate risk sites were poor channel morphology upstream and downstream of the crossing, alteration of the channel downstream of the crossing, culverts that were blocked or exhibited scouring and sediment islands, and road approach ditches of bare soil or concrete (Table 5).

Sedimentation risks in the Lower Choccolocco Creek SRRU and the Shoal Creek SHU threaten the priority fish species Blue Shiner (*Cyprinella caerulea*) and Holiday Darter (*Etheostoma brevirostrum*). Both species require clean rocky substrate or woody debris to

lay their eggs (USFWS 2015). Priority mussel and snail species, such as the Finelined Pocketbook (*Hamiota altilis*) and the Painted Rocksnail (*Leptoxis taeniata*), also require clean rocky substrate for feeding and reproduction (USFWS 2005). Erosion and associated increases in sediment transport (i.e., elevated levels of suspended sediments) threaten mussels by decreasing the light penetration required by the algal species that mussels feed on and by decreasing water temperatures, which has been found to stunt growth (Watters 1999). Exposure to fine sediment also has the potential to abrade mussel gill structures and impact the fish hosts that mussels depend on to complete their life cycles. Highly skewed culvert angles increase water velocity by straightening the steam channel, which can remove spawning substrate (Bates *et al.* 2003) and create fish passage challenges, particularly for smaller-bodied fish species.

Barriers to fish passage were identified at 81 stream crossings (Table 6; Figure 5). Of these locations, six were in the Shoal Creek SHU, two were in the Cheaha SHU, and one was in the Lower Choccolocco Creek SRRU (Table 7). Fish barriers are particularly concerning in the Lower Choccolocco Creek SRRU and Shoal Creek SHU that provide critical habitat for the Blue Shiner. Habitat fragmentation has already constrained the Blue Shiner to small isolated populations that are vulnerable to habitat degradation and reduced genetic diversity (USFWS 2015). Fish barriers also threaten the sensitive mussel species in the SHUs and SRRU, as they require fish to host and disperse their larvae (Watters 1999).

The majority (86%) of stream crossings identified as fish barriers had perched culverts with outfall drop heights from 0.16 to 6.00 ft (Table 6). The stream crossings with the most severe outfall drops ($\geq 75^{th}$ percentile of outfall drop values) are listed in Table 8 and presented in Figure 6. Perched culverts reduce stream connectivity in watersheds by preventing aquatic organisms from entering the culvert and accessing the habitat available in upstream areas. Culverts also reduce habitat connectivity when they fill with debris and become blocked. Blocked culverts were noted at 13 (16%) of the stream crossings identified as fish barriers (Table 6). Large culvert skew angles (>30°) were measured at 20 (25%) of the stream crossings identified as fish barriers. Misaligned culverts straighten the natural channel and increase water velocity, which can make the culvert impassible for some aquatic organisms, particularly small-bodied fish with low maximum swimming speeds (Bates *et al.* 2003).

Livestock had access to 66 of the assessed stream crossings (Table 9; Figure 7), including two in the Cheaha Creek SHU and one in the Lower Choccolocco Creek SRRU (Table 10). Livestock that access streams damage riparian area through soil compaction and grazing on riparian vegetation. The loss of riparian vegetation can lead to unstable streambanks

and increased runoff from adjacent fields leading to higher sedimentation and nutrient loading risks (Davies-Colley and Parkyn 2001). Livestock also threaten water quality when they defecate instream, thereby degrading water quality and promoting eutrophic conditions (Davies-Colley and Parkyn 2001). The heavy algal growth spurred by eutrophic conditions covers clean rocky substrates required by many of the sensitive species in the SHUs and SRRU. Algal respiration at night and bacterial degradation of algal biomass can deplete dissolved oxygen to concentrations that harm aquatic species (USFWS 2005; USFWS 2014). The high biological oxygen demand associated with the deposition of fecal matter can also deplete dissolved oxygen (USFWS 2005). The effects of eutrophication can inhibit the feeding, respiration, and reproduction of aquatic snails, including the threatened Painted Rocksnail, Lacy Elimia (*Elimia crenatella*), and Tulotoma Snail (*Tulotoma magnifica*) found in the Lower Choccolocco Creek SRRU (USFWS 2005). The increased water temperature and reduced light penetration caused by eutrophication have negative effects on fish behavior and reproduction (USFWS 2014). Eutrophication is believed to have contributed to the extirpation of Blue Shiner from the Cahaba River (USFWS 2014) and could threaten the populations remaining in the Lower Choccolocco Creek SRRU and Cheaha Creek SHU.

Issues of special concern were documented at 26 stream crossings where problems outside the scope of the SRI were observed or issues require prompt attention (Table 11; Figure 8). One of these stream crossings was in the Lower Choccolocco Creek SRRU, where the issue of concern was a boat launch causing instream sedimentation. Damaged culverts were the concern at two stream crossings in the Shoal Creek SHU. One of these damaged culverts is also noted as a traffic hazard. Many of the issues of special concern related to failed crossing structures that may pose a risk to the road structure and the surrounding environment.

4.0 Conclusions and Recommendations

The 21 stream crossings rated as high risk (Table 3; Figure 3) and the seven stream crossings rated as moderate risk in a SHU or SRRU (Table 5; Figure 4) should be identified as priorities for restoration activities within the Choccolocco Creek watershed. The high-risk stream crossings are threatening aquatic habitat and water quality at a number of locations within the Choccolocco Creek Watershed. Moderate risk stream crossings may be having a significant impact on the critical habitat of sensitive species found in the Lower Choccolocco Creek SRRU, the Shoal Creek SHU, and/or the Cheaha Creek SHU.

BMPs can be used to restore stream crossings identified as sedimentation risks. Bare riparian areas, approach ditches, and crossing fill should be vegetated by planting and seeding with native trees, shrubs, and grasses (BC MFLNRO *et al.* 2012). The re-vegetated area should be mulched or covered with erosion control matting to prevent erosion and allow seeds to germinate (DFO 2007; BC MFLNRO *et al.* 2012). Weirs can be constructed downstream of culvert outlets to reduce scouring and erosion caused by high water velocity (Chilibeck, *et al.* 1993). Where ponded channels were identified, the culvert may be too small and may need to be replaced. Culverts should be at least the width of the natural stream channel (BC MFLNRO *et al.* 2012). Culverts that are highly skewed should be re-oriented to follow the natural channel path as much as possible to reduce the velocity of water exiting the culvert and prevent erosion downstream (BC MFLNRO *et al.* 2012). Bates *et al.* (2003) suggest the downstream flow velocity should not exceed the natural channel velocity by more than 25 percent.

The fish barriers identified at crossings in the Lower Choccolocco Creek SRRU and the SHUs (Table 7; Figure 5) should also be identified as restoration priorities to maintain connectivity where critical habitat for priority species has been identified. Additionally, the stream crossings with the highest outfall drops (Table 8; Figure 6) should be prioritized to improve stream connectivity within the Choccolocco Creek Watershed. Sites with fish barriers should be re-visited to conduct fish habitat assessments to further refine a list of priority stream crossings.

Efforts to remove culvert blockages should occur within the fisheries timing window to prevent harm to sensitive fish life stages (BC MFLNRO *et al.* 2012). Debris should be removed by hand when possible to prevent sediment entering the watercourse, and machinery should only operate on land above the high-water mark (BC MFLNRO *et al.* 2012). The culvert may need to be replaced if the blockage is caused by structural damage.

Culvert modifications can improve fish passage where the outfall drops are not severe. Weirs made of rocks installed downstream of the culvert can raise the tailwater elevation and back-flood the culvert outlet to reduce water velocity and improve fish access (Chilibeck, *et al.* 1993). Weirs should be constructed within 1.5 to 2 channel widths downstream of the outlet (BC MFLNRO *et al.* 2012). Gaps need to be provided between the weir boulders to maintain fish passage (BC MFLNRO *et al.* 2012). Biologists and engineers should be consulted prior to installing any crossing modification to ensure the modification is appropriate for the crossing structure and fish passage is not further impaired (BC MFLNRO *et al.* 2012).

Some fish barriers will likely require culvert replacement. The culverts should be imbedded within the stream channel to a depth of 40% of the culvert diameter and a downstream weir should be installed to prevent the new culvert from becoming perched (BC MFLNRO *et al.* 2012). Large material should be placed inside the culvert to retain the substrate (BC MFLNRO *et al.* 2012), or a bottomless culvert should be installed where substrate is naturally comprised of small material (i.e., fines, gravel and cobble). The culvert opening should encompass the channel width, and the bottom should be lined with natural substrate (BC MFLNRO *et al.* 2012). As crossing replacements can be expensive, fish habitat assessments will be useful to prioritize which crossing replacements to allocate resources to.

Cattle fencing should be repaired or installed where access to livestock was documented (Table 9; Figure 7). Riparian vegetation should also be restored where bare areas are present adjacent to agricultural land to reduce nutrient and sediment loadings. Priority should be given to the three crossings in the Lower Choccolocco Creek SRRU and the Cheaha Creek SHU identified to have livestock access (Table 10). Stream bank restoration will be most effective if farmers are involved in restoration activities and educated as to how they can change their practices for a sustainable riparian area. For example, farmers can provide their livestock with alternate water sources, and plan periods of grazing and rest in certain areas (Fitch *et al.* 2003).

The concerns outside the scope of the SRI (Table 11; Figure 8) should be considered and addressed. Several stream crossings require more immediate attention, such as Crossing 517 where an investigation is required to determine the source of high turbidity, Crossing 467 where trees and debris collected behind the bridge may cause structural damage and fish passage issues, and the damaged culvert at Crossing 1145 that is a traffic hazard.

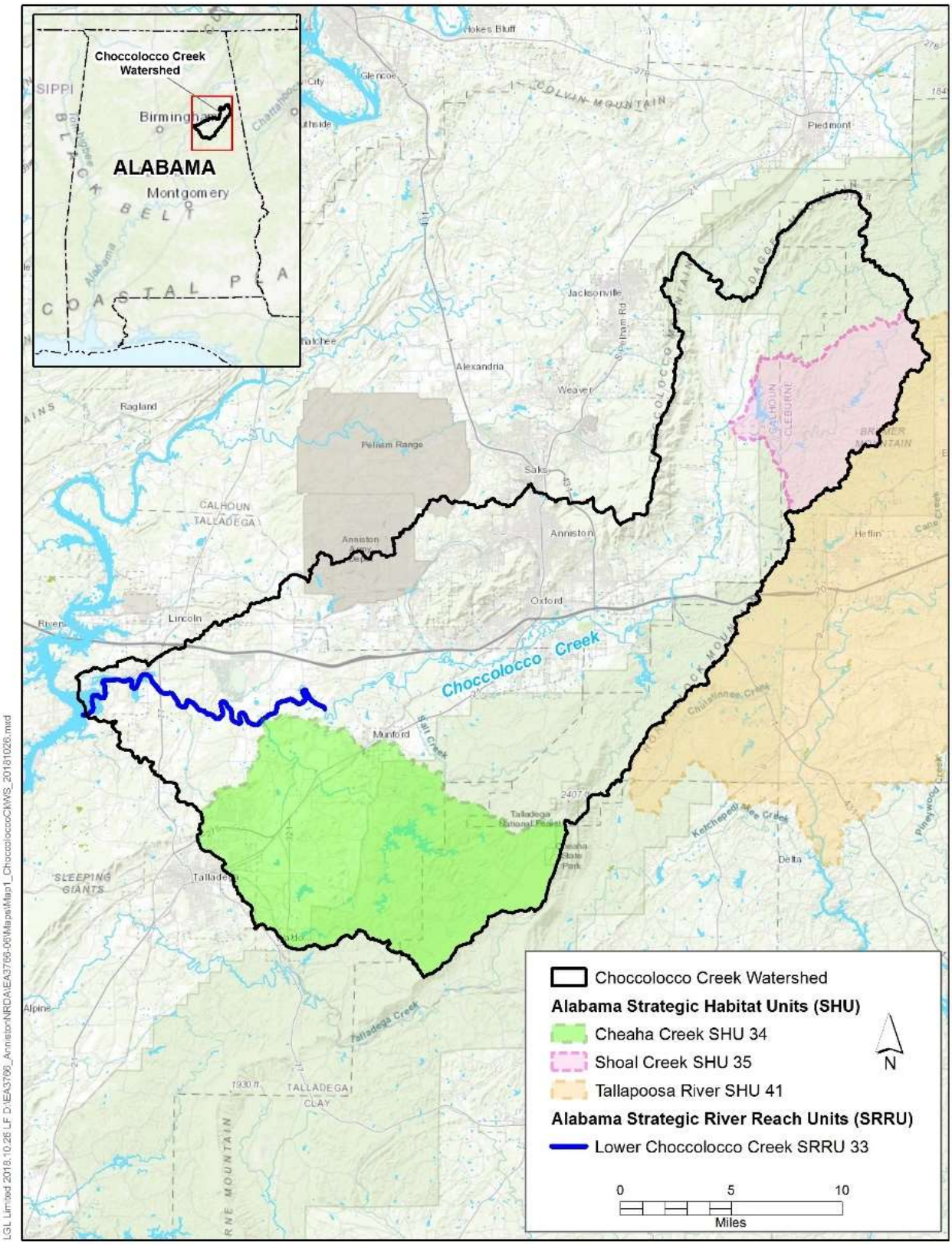


Figure 1. The Choccolocco Creek Watershed.

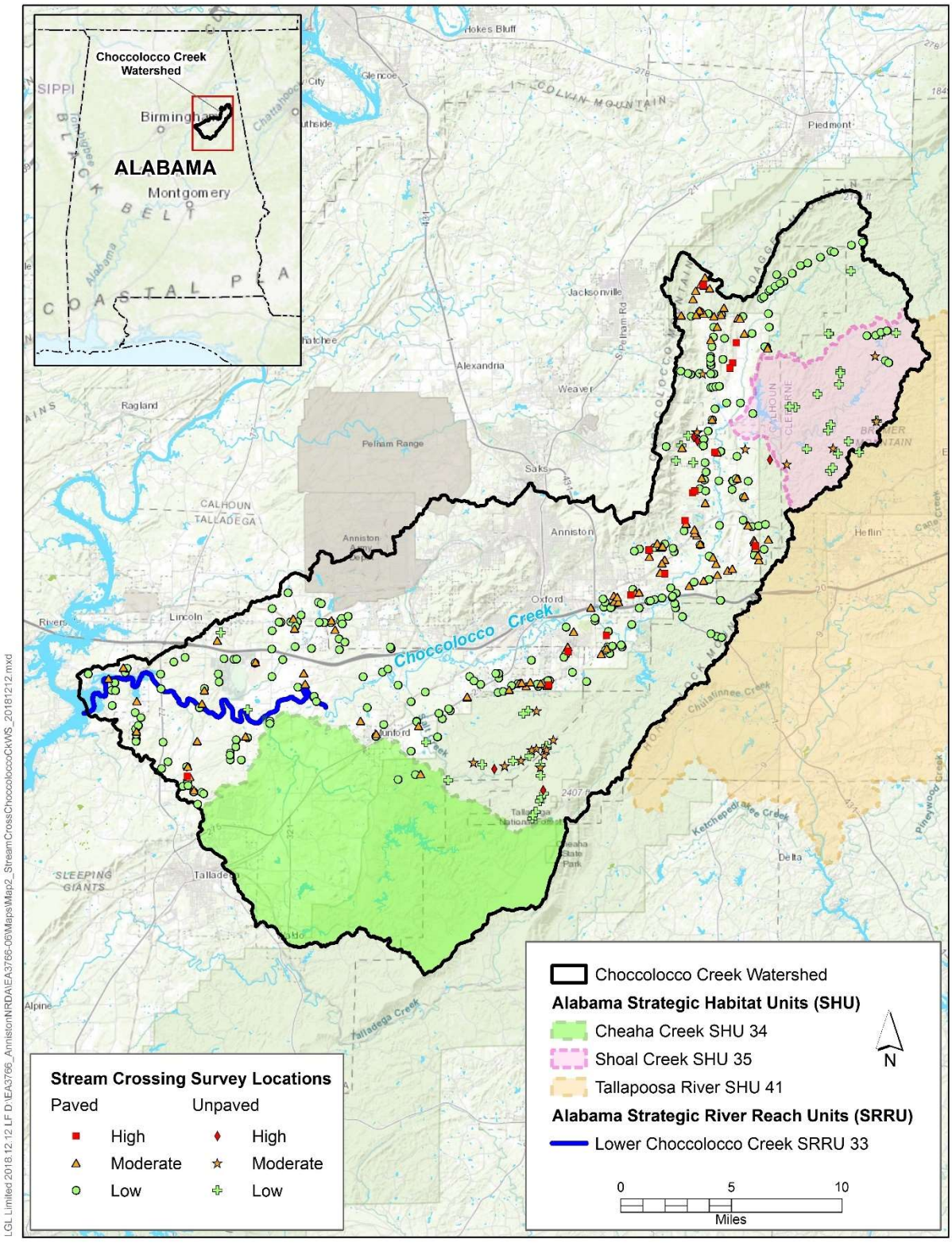


Figure 2. Sedimentation risk level at assessment sites in the Choccolocco Creek Watershed (Note: Sites were classified into three categories, including high, moderate, and low risk, based on Sedimentation Risk Index (SRI) scores.

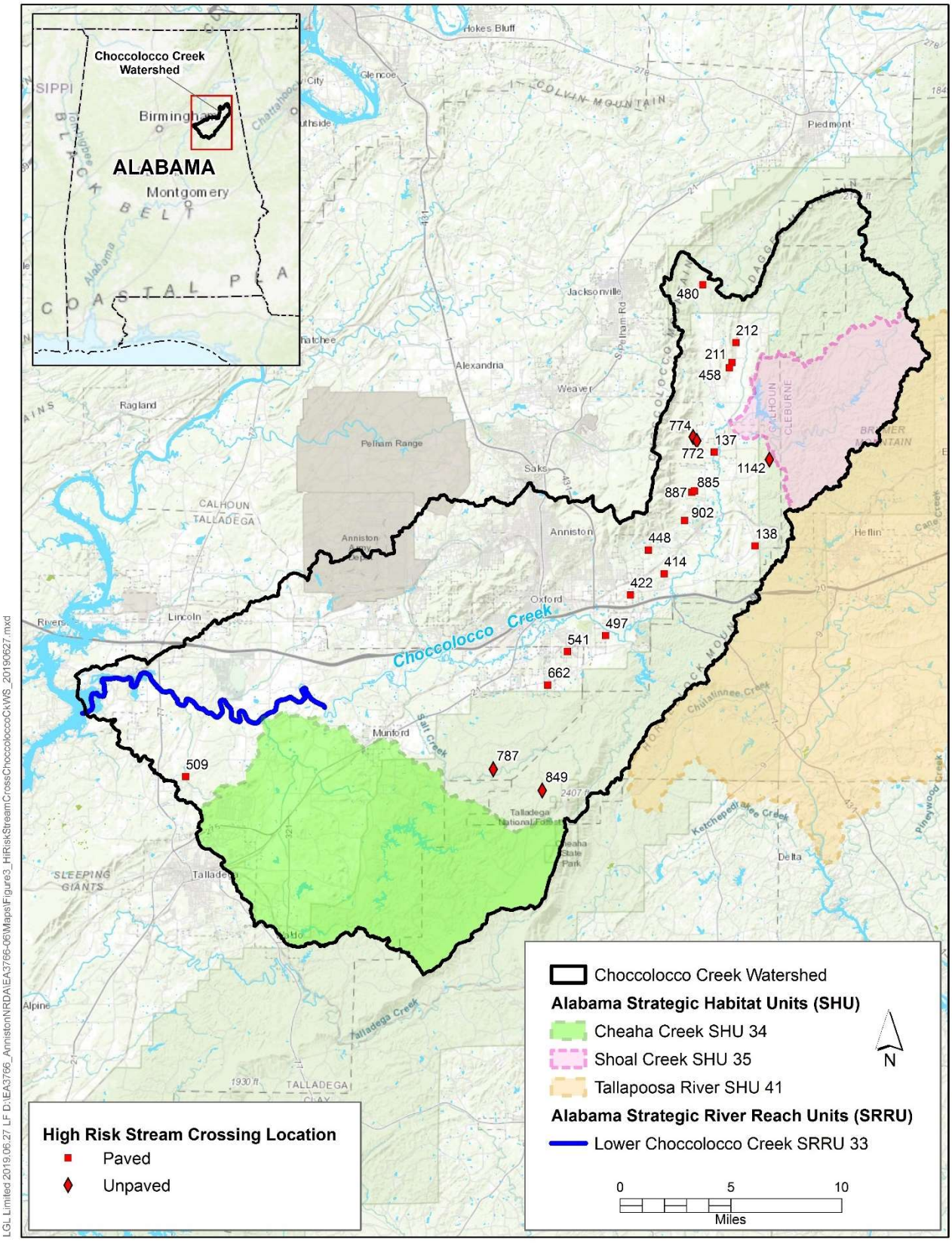


Figure 3. Locations of high-risk stream crossings.

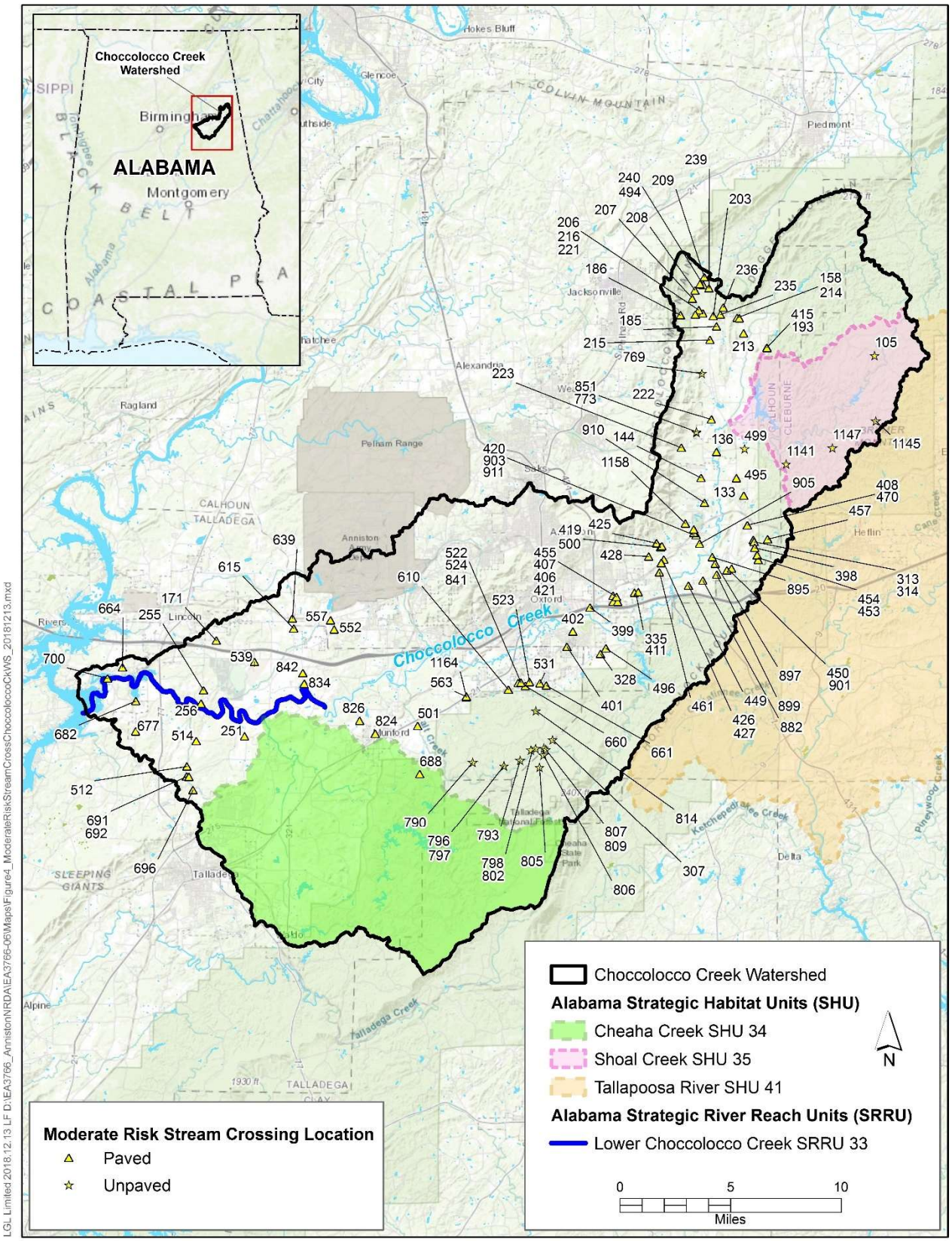


Figure 4. Locations of moderate-risk stream crossings.

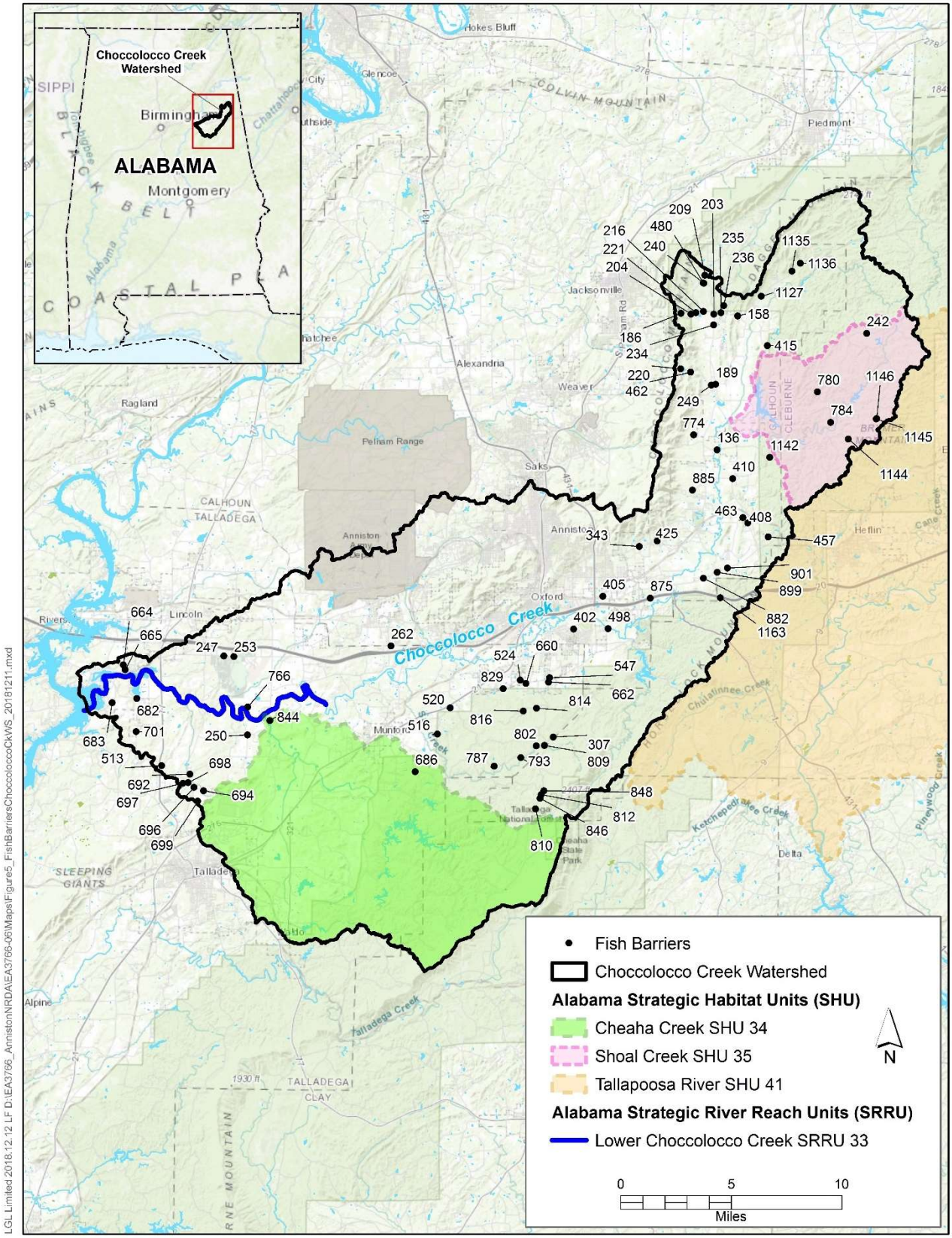


Figure 5. Stream crossings with fish barriers.

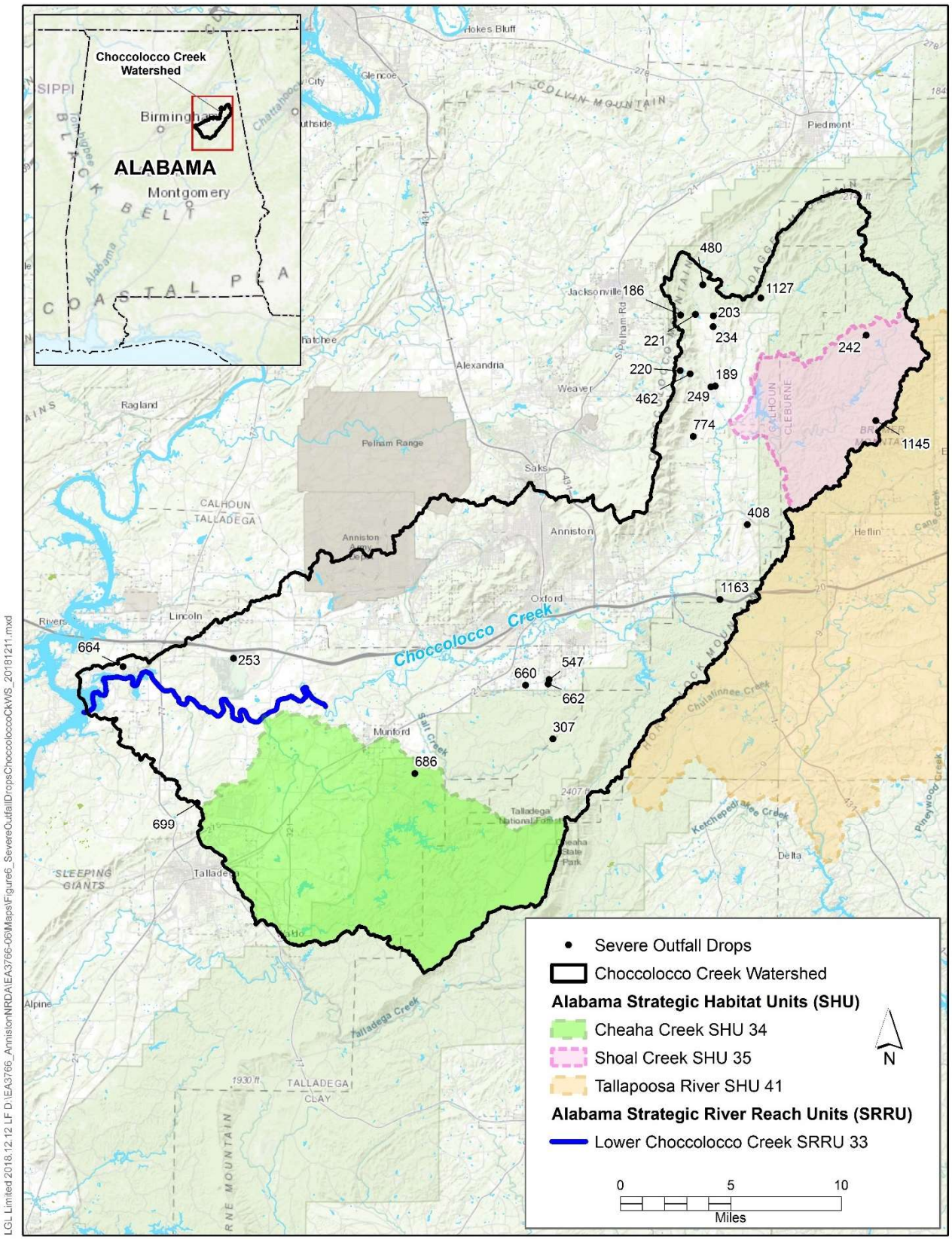


Figure 6. Stream crossings with severe outfall drops.

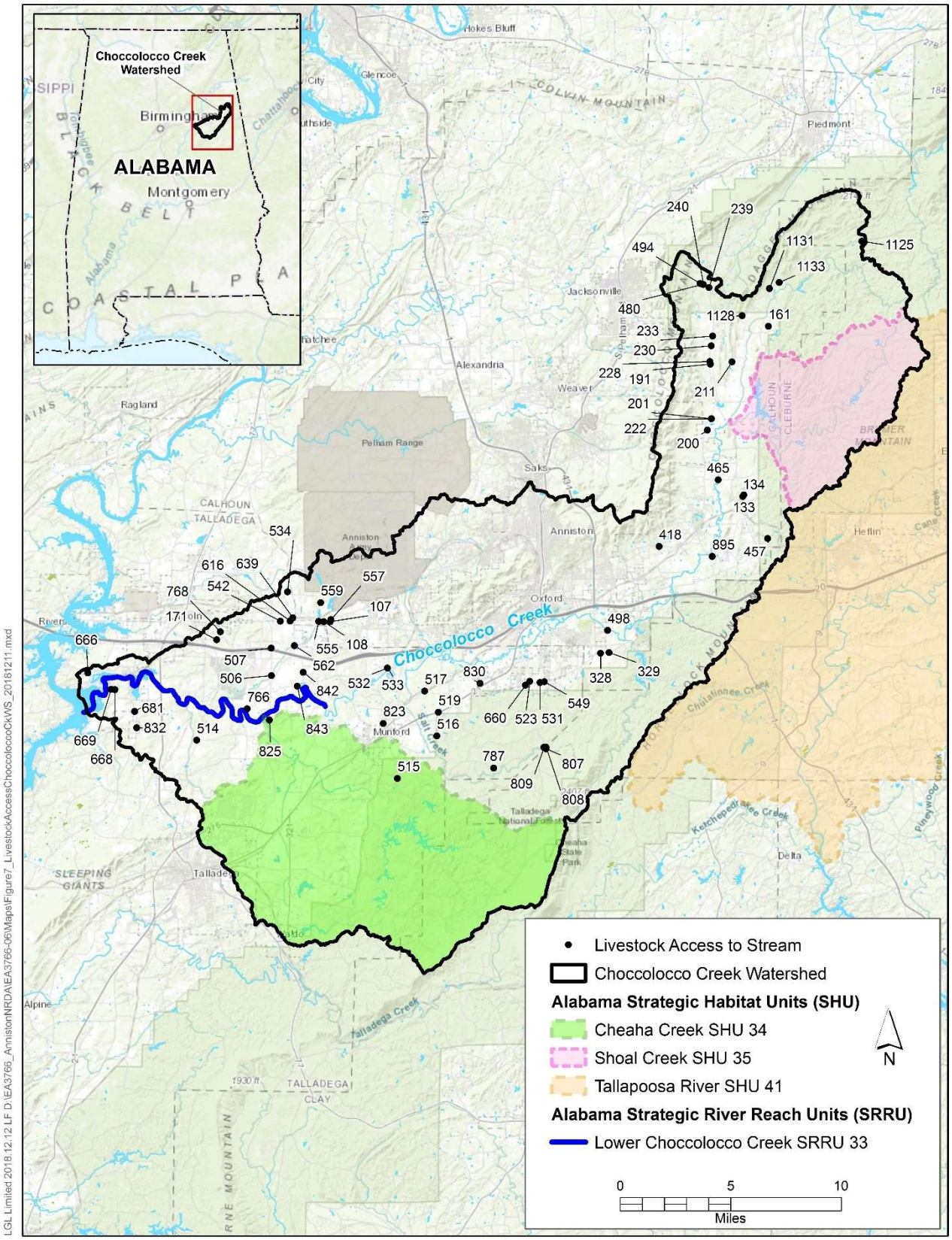


Figure 7. Stream crossings with livestock access.

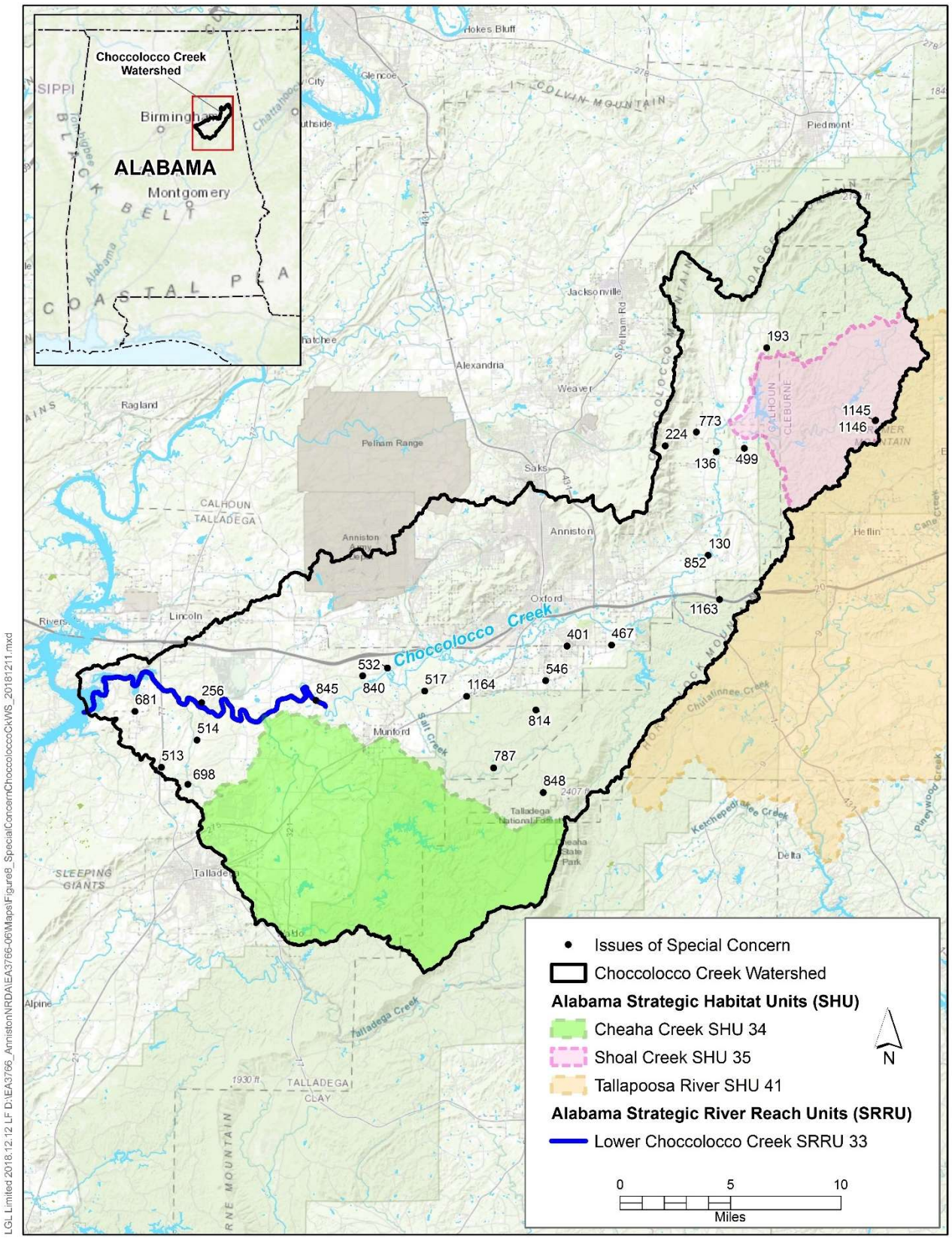


Figure 8. Stream crossings with issues of special concern.

Table 1. Priority species in the Choccolocco Creek Watershed

Fish	**Crayfish**	**Mussels**	**Snails**
Blue Shiner[1,3] (*Cyprinella caerulea*)	Greensaddle Crayfish[1] (*Cambarus manningi*)	Finelined Pocketbook[1,2,3] (*Hamiota altilis*)	Brooch Elimia[1] (*Elimia broccata*)
Holiday Darter[3] (*Etheostoma brevirostrum*)		Southern Clubshell[1] (*Pleurobema decisum*)	Lacey Elimia[1] (*Elimia crenatella*)
		Coosa Creekshell[1,2] (*Villosa umbrans*)	Latticed Elimia[1] (*Elimia mihalcikae*)
		Alabama Moccasinshell[1,3, H] (*Medionidus acutissimus*)	Auger Elimia[1] (*Elimia teretria*)
Salamander Seepage Salamander (*Desmognathus aeneus*)[2, 3]		Coosa Moccasinshell[1] (*Medionidus parvulus*)	Painted Rocksnail[1] (*Leptoxis taeniata*)
		Georgia Pigtoe[1, H] (*Pleurobema hanleyianum*)	Wicker Ancylid[1] (*Rhodacmea filosa*)
		Rayed Kidneyshell[1, H] (*Ptychobranchus foremanianus*)	Interrupted Rocksnail[1, H] (*Leptoxis foremani*)
		Southern Purple Lilliput[1] (*Toxolasma corvunculus*)	Tulotoma[1] (*Tulotoma magnifica*)
		Alabama Creekmussel[2.3] (*Strophitus connasaugaensis*)	
		Southern Pigtoe[3] (*Pleurobema georgianum*)	

Source: ARSN 2018b

[1]Lower Choccolocco Creek SRRU, [2]Cheaha Creek SHU, [3]Shoal Creek SHU, Historic (H)

Table 2. Metrics of the Sedimentation Risk Index (SRI).

SRI Category	SRI Metric
Waterway Condition	Upstream channel morphology
	Downstream channel morphology
	Downstream channel/bank alteration
Crossing Structure Condition	Upstream culvert skew angle
	Crossing fill condition
	Crossing inlet/outlet condition
Road Approaches I	Potential eroded volume of sediment from the road surface
	Soil type and erodibility
	Road approach slope
	Road approach surface material
Road Approaches II	Condition of the four drainage ditch outlets to streams
	Condition of the four ditches draining to streams

Table 3. High-risk stream crossings and the sedimentation issues of concern.

Survey ID	Crossing ID	Location		SRI Score	Road Type	Sedimentation Issues of Concern							
		Latitude	Longitude			Channel Morphology	Channel Alteration	Culvert Skew	Fill Condition	Inlet & Outlet Condition	Potential Eroded volume	Road Approach Slope	Approach Ditches
787	01121-0732	33.506107	-85.866241	28	U	✓	✓		✓		✓	✓	✓
849	01029-0915	33.49186	-85.82829	30	U	✓		✓	✓			✓	✓
885	01015-1135	33.685823	-85.708204	32	P	✓		✓	✓	✓			✓
774	01015-2509	33.722136	-85.706714	34	U	✓			✓			✓	✓
1142	01015-2190	33.706789	-85.647201	34	U	✓	✓	✓	✓	✓		✓	✓
541	01121-0537	33.582622	-85.807303	34	P	✓	✓		✓				✓
422	01015-1353	33.619176	-85.757537	34	P	✓	✓	✓	✓				✓
772	01015-1134	33.719664	-85.70392	34	U	✓			✓			✓	✓
662	01121-0612	33.560889	-85.822931	36	P	✓	✓						✓
480	01015-2994	33.82179	-85.69781	36	P	✓	✓		✓				✓
902	01015-0435	33.667534	-85.714266	36	P	✓	✓		✓				✓
414	01015-1129	33.632896	-85.730817	36	P	✓		✓					✓
211	01015-1841	33.770581	-85.675475	36	P	✓	✓		✓				✓
212	01015-1842	33.783739	-85.672462	36	P	✓	✓	✓					✓
887	01015-1851	33.686904	-85.706388	36	P	✓			✓				✓
448	01015-2989	33.64858	-85.74283	36	P	✓			✓				✓
458	01015-2990	33.7672	-85.677631	36	P	✓	✓	✓					✓
137	01015-2794	33.712117	-85.690365	36	P	✓		✓	✓				
138	01015-2467	33.650347	-85.659373	36	P	✓	✓	✓	✓				
497	01015-2644	33.592895	-85.777215	36	P	✓	✓	✓					
509	01121-0135	33.503368	-86.106886	36	P	✓	✓	✓					

P: paved; U: unpaved.

✓: SRI metrics scored as 1 contributing to the high-risk rating.

Table 4. Moderate-risk stream crossings and the sedimentation issues of concern.

Survey ID	Crossing ID	Location		SRI Score	Road Type	Sedimentation Issues of Concern									
		Latitude	Longitude			Channel Morphology	Channel Alteration	Culvert Skew	Fill Condition	Inlet & Outlet Condition	K Factor	Road Approach Slope	Approach Ditches	Approach Surface Material	Potential Eroded Volume
105	01029-0144[1]	33.773937	-85.563379	44	U			✓	✓	✓	✓	✓			
133	01015-2798	33.683246	-85.667588	44	P	✓	✓	✓		✓			✓		
136	01015-2982	33.71216	-85.68853	42	P	✓	✓		✓	✓			✓		
144	01015-1860	33.6953	-85.700918	42	P		✓	✓	✓	✓			✓		
158	01015-0393	33.799784	-85.67097	44	P	✓	✓	✓	✓				✓		
171	01121-0149	33.592035	-86.082531	42	P	✓	✓		✓	✓			✓		
185	01015-0141	33.794464	-85.687283	42	P	✓	✓	✓		✓			✓		
186	01015-0413	33.80211	-85.715516	38	P	✓	✓		✓	✓			✓		
193	01015-1138	33.77981	-85.64788	44	P	✓	✓	✓	✓	✓			✓		
203	01015-1510	33.801246	-85.689658	44	P	✓	✓		✓	✓			✓		
206	01015-1825	33.805184	-85.701052	38	P	✓	✓	✓	✓	✓			✓		
207	01015-1826	33.812811	-85.705991	42	P	✓	✓	✓	✓	✓			✓		
208	01015-1827	33.818276	-85.703906	40	P	✓	✓	✓	✓	✓			✓		
209	01015-1828	33.82686	-85.696424	44	P	✓	✓		✓	✓			✓		
213	01015-1843	33.789669	-85.666149	38	P	✓	✓	✓	✓	✓			✓		
214	01015-1844	33.799499	-85.669253	44	P		✓	✓	✓	✓			✓		
215	01015-1859	33.7856	-85.692488	38	P	✓	✓		✓	✓			✓		
216	01015-2106	33.803036	-85.697897	38	P	✓	✓	✓	✓	✓			✓		
221	01015-2203	33.802373	-85.703745	42	P	✓	✓		✓	✓			✓		
222	01015-2204	33.733513	-85.692261	42	P	✓	✓	✓	✓				✓		
223	01015-2357	33.71527	-85.716174	40	P	✓	✓	✓	✓	✓			✓		
235	01015-2481	33.802151	-85.684105	44	P	✓	✓	✓	✓	✓			✓		
236	01015-2482	33.806804	-85.681783	38	P	✓	✓	✓	✓	✓			✓		
239	01015-2496	33.819585	-85.69283	44	P	✓	✓			✓			✓		
240	01015-2497	33.821691	-85.697252	38	P	✓	✓		✓	✓			✓		
251	01121-0157	33.52908	-86.060935	44	P	✓	✓		✓				✓		
255	01121-0663	33.559544	-86.092907	44	P	✓	✓	✓	✓				✓		
256	01121-0682[2]	33.550885	-86.094927	38	P	✓	✓		✓				✓		
307	01121-0686	33.524724	-85.819779	44	U		✓		✓	✓		✓	✓	✓	✓
313	01015-0103	33.65293	-85.659871	44	P	✓	✓			✓			✓		

Table 4. Moderate-risk stream crossings and the sedimentation issues of concern (cont.)

Survey ID	Crossing ID	Location		SRI Score	Road Type	Sedimentation Issues of Concern									
		Latitude	Longitude			Channel Morphology	Channel Alteration	Culvert Skew	Fill Condition	Inlet & Outlet Condition	K Factor	Road Approach Slope	Approach Ditches	Approach Surface Material	Potential Eroded Volume
314	01015-2984	33.65406	-85.66055	40	P	✓	✓	✓		✓			✓		
328	01015-0664	33.580603	-85.781509	42	P	✓	✓	✓					✓		
335	01015-0732	33.620886	-85.751314	40	P	✓	✓	✓	✓	✓			✓		
398	01015-0162	33.648996	-85.659524	44	P	✓	✓		✓	✓			✓		
399	01015-0652	33.611186	-85.789211	42	P	✓	✓		✓				✓		
401	01015-1089	33.585551	-85.807654	44	P	✓	✓		✓	✓					
402	01015-1121	33.595492	-85.802869	38	P	✓	✓		✓	✓			✓		
406	01015-2407	33.614704	-85.767433	44	P	✓	✓		✓	✓			✓		
407	01015-2430	33.618799	-85.771126	42	P	✓	✓	✓					✓		
408	01015-2468	33.663924	-85.665144	40	P	✓	✓	✓		✓			✓		
411	01015-1084	33.620425	-85.754227	38	P	✓	✓	✓	✓	✓			✓		
415	01015-2987	33.78013	-85.64799	44	P	✓	✓	✓	✓	✓			✓		
419	01015-2988	33.65023	-85.73324	40	P	✓	✓		✓	✓			✓		
420	01015-1312	33.659219	-85.70714	42	P	✓	✓	✓					✓		
421	01015-1351	33.614835	-85.771	44	P	✓	✓			✓			✓		
425	01015-1514	33.652787	-85.736369	40	P	✓	✓	✓	✓	✓			✓		
426	01015-1515	33.639752	-85.732903	44	P	✓	✓			✓			✓		
427	01015-1516	33.641984	-85.730752	42	P	✓	✓			✓			✓		
428	01015-1518	33.644114	-85.742829	42	P	✓	✓		✓	✓			✓		
449	01015-1519	33.624762	-85.711873	40	P	✓	✓			✓			✓		
450	01015-1524	33.635612	-85.677935	42	P	✓	✓			✓			✓		
453	01015-1534	33.640912	-85.656848	40	P	✓	✓	✓	✓	✓			✓		
454	01015-1535	33.644067	-85.657554	42	P	✓	✓	✓	✓	✓			✓		
455	01015-1698	33.617997	-85.768373	44	P	✓	✓		✓				✓		
457	01015-1833	33.65457	-85.649327	40	P	✓	✓	✓	✓	✓			✓		
461	01015-2176	33.633595	-85.734456	44	P	✓	✓		✓				✓		
470	01015-2992	33.66378	-85.664945	42	P	✓	✓	✓					✓		
494	01015-2995	33.82231	-85.69989	38	P	✓	✓	✓	✓	✓			✓		
495	01015-2501	33.6947	-85.67316	44	P	✓	✓	✓		✓			✓		
496	01015-2643	33.584364	-85.777169	40	P	✓	✓		✓				✓		

Table 4. Moderate-risk stream crossings and the sedimentation issues of concern (cont.)

Survey ID	Crossing ID	Location		SRI Score	Road Type	Sedimentation Issues of Concern									
		Latitude	Longitude			Channel Morphology	Channel Alteration	Culvert Skew	Fill Condition	Inlet & Outlet Condition	K Factor	Road Approach Slope	Approach Ditches	Approach Surface Material	Potential Eroded Volume
499	01015-2796	33.713956	-85.666495	44	U		✓		✓	✓	✓	✓	✓		
500	01015-2996	33.65083	-85.73228	40	P	✓	✓		✓	✓			✓		
501	01121-0022	33.534765	-85.925368	44	P		✓		✓	✓			✓		
512	01121-1635	33.50965	-86.1063	40	P	✓	✓		✓				✓		
514	01121-0143	33.526312	-86.098882	44	P	✓	✓	✓	✓				✓		
522	01121-0256	33.562423	-85.844093	44	P		✓		✓	✓			✓		
523	01121-0259	33.562713	-85.837358	44	P	✓	✓		✓	✓					
524	01121-0260	33.562377	-85.845105	40	P		✓		✓	✓			✓		
531	01121-0262	33.561882	-85.829185	42	P	✓	✓	✓	✓	✓			✓		
539	01121-0296	33.577857	-86.05268	40	P	✓	✓		✓	✓			✓		
552	01015-1436	33.598573	-85.989908	44	P		✓		✓	✓			✓		
557	01015-1758	33.604639	-85.992822	42	P		✓	✓	✓	✓			✓		
563	01121-0249	33.553668	-85.886906	42	P	✓	✓	✓	✓	✓			✓		
610	01121-0253	33.557953	-85.853923	44	P	✓	✓		✓	✓			✓		
615	01121-0285	33.599486	-86.021678	40	P		✓	✓	✓	✓			✓		
639	01121-0289	33.606044	-86.02265	42	P		✓	✓	✓	✓			✓		
660	01121-0602	33.560305	-85.84063	42	P	✓	✓	✓	✓	✓			✓		
661	01121-0611	33.560347	-85.824329	40	P	✓	✓		✓	✓			✓		
664	01121-0644	33.575005	-86.156222	38	P	✓	✓	✓	✓	✓			✓		
677	01121-0301	33.532986	-86.146275	44	P	✓		✓	✓	✓			✓		
682	01121-0299	33.552844	-86.146	44	P	✓	✓			✓			✓		
688	01121-0746[3]	33.50322	-85.924081	40	P	✓	✓	✓	✓	✓			✓		
691	01121-0777	33.503058	-86.106532	40	P	✓	✓	✓		✓			✓		
692	01121-0778	33.50287	-86.104855	42	P	✓	✓	✓	✓	✓			✓		
696	01121-0806	33.494191	-86.10175	42	P	✓	✓	✓	✓	✓			✓		
700	01121-1068	33.567877	-86.168046	42	P	✓	✓		✓				✓		
769	01015-1845	33.763725	-85.699234	42	U		✓	✓	✓			✓	✓		
773	01015-2510	33.72506	-85.704032	38	U		✓		✓	✓	✓	✓	✓	✓	
790	01121-0717	33.51055	-85.88254	38	U		✓	✓	✓	✓	✓	✓	✓		✓
793	01121-1640	33.51156	-85.8454	42	U		✓	✓	✓	✓	✓	✓	✓		

Table 4. Moderate-risk stream crossings and the sedimentation issues of concern (cont.)

Survey ID	Crossing ID	Location		SRI Score	Road Type	Sedimentation Issues of Concern									
		Latitude	Longitude			Channel Morphology	Channel Alteration	Culvert Skew	Fill Condition	Inlet & Outlet Condition	K Factor	Road Approach Slope	Approach Ditches	Approach Surface Material	Potential Eroded Volume
796	01121-0719	33.507961	-85.858146	42	U		✓	✓	✓	✓	✓	✓	✓		
797	01121-0718	33.507972	-85.858032	40	U		✓	✓	✓	✓	✓		✓		
798	01121-0693	33.518245	-85.836785	44	U				✓	✓	✓	✓	✓		
802	01121-0690	33.519081	-85.833056	44	U		✓		✓	✓	✓	✓	✓		✓
805	01029-0910	33.50689	-85.83024	40	U		✓	✓	✓	✓	✓	✓	✓		
806	01029-0178	33.514773	-85.82711	38	U		✓	✓	✓	✓	✓	✓	✓		
807	01029-0109	33.518339	-85.825199	44	U		✓		✓	✓	✓		✓		
809	01121-1642	33.51941	-85.82679	40	U		✓	✓	✓	✓	✓	✓	✓		
814	01121-0653	33.543812	-85.832664	44	U		✓		✓	✓	✓	✓	✓		
824	01121-0691	33.529922	-85.958563	40	P	✓	✓	✓	✓	✓					
826	01121-0674	33.538531	-85.970756	42	P	✓		✓	✓	✓			✓		
834	01121-16432[2]	33.56327	-86.0139	38	P	✓	✓		✓	✓			✓		
841	01121-0257	33.562178	-85.846232	42	P	✓	✓		✓	✓			✓		
842	01121-0239	33.570223	-86.01484	38	P	✓	✓		✓	✓			✓		
851	01015-2999	33.72552	-85.70418	42	U		✓		✓	✓	✓		✓	✓	
882	01015-1521	33.627975	-85.700489	40	P	✓	✓	✓		✓			✓		
895	01015-3002	33.64316	-85.693	42	P	✓	✓			✓			✓		
897	01015-1517	33.638937	-85.690664	42	P	✓	✓		✓	✓			✓		
899	01015-1522	33.63165	-85.689618	42	P	✓	✓	✓	✓	✓			✓		
901	01015-1523	33.63439	-85.681549	42	P	✓	✓		✓	✓			✓		
903	01015-0097	33.657765	-85.705327	42	P	✓	✓		✓	✓			✓		
905	01015-2807	33.652192	-85.702682	38	P	✓	✓	✓	✓	✓			✓		
910	01015-1313	33.678978	-85.698403	44	P	✓	✓			✓			✓		
911	01015-1136	33.661566	-85.707194	44	P	✓	✓	✓	✓	✓			✓		
1141	01029-0916[1]	33.70361	-85.63397	40	U	✓	✓			✓	✓	✓			
1145	01029-0154[1]	33.73097	-85.563246	38	U	✓	✓	✓		✓	✓	✓			
1147	01029-0130[1]	33.713783	-85.597553	44	U		✓	✓		✓	✓	✓			
1158	01015-2801	33.665518	-85.713726	38	P	✓	✓		✓	✓			✓		
1164	01121-1645	33.553348	-85.886906	40	P	✓	✓	✓	✓	✓			✓		

P: paved; U: unpaved.

[1]Shoal Creek SHU, [2]Lower Choccolocco Creek SRRU, [3]Cheaha Creek SHU

✓: SRI metrics scored as 1 or 3 contributing to the moderate-risk rating.

Table 5. Moderate-risk stream crossings in a Strategic Habitat Unit (SHU) or Strategic River Reach Unit (SRRU) and the sedimentation issues of concern.

Survey ID	Crossing ID	Location		SRI Score	Road Type	Sedimentation Issues of Concern							
		Latitude	Longitude			Channel Morphology	Channel Alteration	Culvert Skew	Fill Condition	Inlet & Outlet Condition	K Factor	Road Approach Slope	Approach Ditches
105	01029-0144[1]	33.773937	-85.563379	44	U			✓	✓	✓	✓	✓	
256	01121-0682[2]	33.550885	-86.094927	38	P	✓	✓		✓				✓
688	01121-0746[3]	33.50322	-85.924081	40	P	✓	✓	✓	✓	✓			✓
834	01121-1643[2]	33.56327	-86.0139	38	P	✓	✓		✓	✓			✓
1141	01029-0916[1]	33.70361	-85.63397	40	U	✓	✓			✓	✓	✓	
1145	01029-0154[1]	33.73097	-85.563246	38	U	✓	✓	✓		✓	✓	✓	
1147	01029-0130[1]	33.713783	-85.597553	44	U		✓	✓		✓	✓	✓	

[1]Shoal Creek SHU, [2]Lower Choccolocco Creek SRRU, [3]Cheaha Creek SHU

P: paved, U: unpaved

✓: metrics scored as 1 or 3 contributing to the moderate risk rating

Table 6. Stream crossings with fish barriers.

Survey ID	Crossing ID	Location		Structure Type	Outfall Drop (ft)	Culvert Skew Angle >30°	Blocked
		Latitude	Longitude				
136	01015-2982	33.71216	-85.68853	Culvert	0.00		✓
158	01015-0393	33.799784	-85.67097	Culvert	0.50	✓	
186	01015-0413	33.80211	-85.715516	Culvert	5.00		
189	01015-0800	33.755114	-85.689044	Culvert	2.00		
203	01015-1510	33.801246	-85.689658	Culvert	3.00		✓
204	01015-1532	33.801425	-85.707708	Culvert	0.50		
209	01015-1828	33.82686	-85.696424	Culvert	0.50		
216	01015-2106	33.803036	-85.697897	Culvert	0.30		
220	01015-2184	33.765628	-85.716362	Culvert	1.50		✓
221	01015-2203	33.802373	-85.703745	Culvert	3.00		
234	01015-2480	33.794185	-85.689947	Culvert	1.50		✓
235	01015-2481	33.802151	-85.684105	Culvert	0.30	✓	
236	01015-2482	33.806804	-85.681783	Culvert	1.00	✓	
240	01015-2497	33.821691	-85.697252	Culvert	1.00		
242	01029-0141[1]	33.787187	-85.569716	Culvert	2.00		
247	01121-0147	33.580226	-86.077311	Culvert	0.25		
249	01015-2983	33.75459	-85.69242	Culvert	1.50		
250	01121-0155	33.528342	-86.059452	Culvert	0.50		✓
253	01121-0533	33.579813	-86.069465	Culvert	6.00		
262	01015-2944	33.585809	-85.946154	Culvert	1.00	✓	
307	01121-0686	33.524724	-85.819779	Culvert	2.00		
343	01015-1307	33.649233	-85.750584	Culvert	1.00		
402	01015-1121	33.595492	-85.802869	Culvert	0.33		
405	01015-2374	33.616866	-85.77952	Culvert	0.50		✓
408	01015-2468	33.663924	-85.665144	Culvert	1.50	✓	✓
410	01015-2470	33.693056	-85.676574	Culvert	0.00		
415	01015-2987	33.78013	-85.64799	Culvert	0.50		
425	01015-1514	33.652787	-85.736369	Culvert	1.00		
457	01015-1833	33.65457	-85.649327	Culvert	0.16	✓	
462	01015-2991	33.76336	-85.70852	Culvert	3.00	✓	
463	01015-2188	33.667458	-85.668919	Culvert	0.00		
480	01015-2994	33.82179	-85.69781	Culvert	2.00		
498	01015-2782	33.595557	-85.775685	Culvert	1.00		
513	01121-1636	33.50858	-86.12695	Culvert	0.50	✓	
516	01121-0243	33.527589	-85.910493	Culvert	0.50		
520	01121-0247	33.544785	-85.900192	Culvert	0.00	✓	
524	01121-0260	33.562377	-85.845105	Culvert	1.00		
547	01121-0592	33.563749	-85.822115	Culvert	4.00		
660	01121-0602	33.560305	-85.84063	Culvert	2.50		
662	01121-0612	33.560889	-85.822931	Culvert	2.00		
664	01121-0644	33.575005	-86.156222	Culvert	1.50		
665	01121-0648	33.571767	-86.1548	Culvert	0.00		
682	01121-0299	33.552844	-86.146	Culvert	1.25		
683	01121-0306	33.550202	-86.165303	Culvert	0.30	✓	

Table 6. Stream crossings with fish barriers (cont.)

Survey ID	Crossing ID	Location		Structure Type	Outfall Drop (ft)	Culvert Skew Angle >30°	Blocked
		Latitude	Longitude				
686	01121-0742[2]	33.503078	-85.928237	Ford	2.00	NA	
692	01121-0778	33.50287	-86.104855	Culvert	0.60		
694	01121-0804	33.491784	-86.094169	Culvert	1.00		
696	01121-0806	33.494191	-86.10175	Culvert	0.00		
697	01121-0809	33.496859	-86.11031	Culvert	0.30		
698	01121-0810	33.497237	-86.106363	Culvert	0.50	✓	✓
699	01121-0822	33.485047	-86.098997	Culvert	3.00		
701	01121-0300	33.531014	-86.146711	Culvert	0.50		
766	01121-0684[3]	33.546537	-86.059102	Culvert	0.00		
774	01015-2509	33.722136	-85.706714	Culvert	2.00		✓
780	01029-0126[1]	33.74933	-85.609122	Culvert	0.50	✓	
784	01029-0153[1]	33.729219	-85.599084	Culvert	1.00		
787	01121-0732	33.506107	-85.866241	Culvert	0.00		✓
793	01121-1640	33.51156	-85.8454	Culvert	0.25		
802	01121-0690	33.519081	-85.833056	Culvert	0.50		
809	01121-1642	33.51941	-85.82679	Culvert	1.20	✓	
810	01029-0911	33.47767	-85.83427	Culvert	0.75		
812	01029-0116	33.487055	-85.829707	Culvert	1.00	✓	✓
814	01121-0653	33.543812	-85.832664	Culvert	1.00		
816	01121-0254	33.542071	-85.842954	Culvert	1.00	✓	
829	01121-0635	33.556867	-85.858568	Culvert	0.00		
844	01121-0232[2]	33.537532	-86.041741	Culvert	0.30		
846	01029-0913	33.48467	-85.83073	Culvert	0.25		
848	01029-0914	33.48955	-85.8276	Culvert	0.25		
875	01015-0656	33.615295	-85.74232	Culvert	0.16		
882	01015-1521	33.627975	-85.700489	Culvert	0.50	✓	
885	01015-1135	33.685823	-85.708204	Culvert	0.33	✓	
899	01015-1522	33.63165	-85.689618	Culvert	0.50		
901	01015-1523	33.63439	-85.681549	Culvert	0.33		
1127	01015-0398	33.812613	-85.652261	Culvert	4.00		
1135	01015-0405	33.82878	-85.627824	Culvert	0.00		
1136	01015-0406	33.833893	-85.621199	Culvert	0.50		
1142	01015-2190	33.706789	-85.647201	Culvert	1.20	✓	
1144	01029-0131[1]	33.718001	-85.585274	Culvert	0.80		
1145	01029-0154[1]	33.73097	-85.563246	Culvert	2.00	✓	✓
1146	01029-0132[2]	33.731263	-85.56294	Culvert	0.00		✓
1163	01029-0161	33.615016	-85.687459	Culvert	5.00		

[1]Shoal Creek SHU, [2]Cheaha Creek SHU, [3]Lower Choccolocco Creek SRRU

NA: not applicable

Table 7. Fish barriers at stream crossings in a Strategic Habitat Unit (SHU) or Strategic River Reach Unit (SRRU).

Survey ID	Crossing ID	Location		Structure Type	Outfall drop (ft)	Culvert Skew Angle (°)	Blocked
		Latitude	Longitude				
242	01029-0141[1]	33.787187	-85.569716	Culvert	2.00	<5	
686	01121-0742[2]	33.503078	-85.928237	Ford	2.00	NA	
766	01121-0684[3]	33.546537	-86.059102	Culvert	0	<5	
780	01029-0126[1]	33.74933	-85.609122	Culvert	0.50	>30	
784	01029-0153[1]	33.729219	-85.599084	Culvert	1.00	5 to 30	
844	01121-0232[2]	33.537532	-86.041741	Culvert	0.30	5 to 30	
1144	01029-0131[1]	33.718001	-85.585274	Culvert	0.80	<5	
1145	01029-0154[1]	33.73097	-85.563246	Culvert	2.00	>30	✓
1146	01029-0132[1]	33.731263	-85.56294	Culvert	0	<5	✓

[1]Shoal Creek SHU, [2]Cheaha Creek SHU, [3]Lower Choccolocco Creek SRRU

NA: not applicable

Table 8. Stream crossings with severe outfall drops (>1.4 ft).

Survey ID	Crossing ID	Location		Structure Type	Crossing Material	Outflow Drop (ft)
		Latitude	Longitude			
186	01015-0413	33.80211	-85.715516	Round Culvert	Concrete	5.00
189	01015-0800	33.755114	-85.689044	Trough Box Culvert	Concrete	2.00
203	01015-1510	33.801246	-85.689658	Round Culvert	Concrete	3.00
220	01015-2184	33.765628	-85.716362	Round Culvert	Concrete	1.50
221	01015-2203	33.802373	-85.703745	Round Culvert	Metal	3.00
234	01015-2480	33.794185	-85.689947	Box Culvert	Concrete	1.50
242	01029-0141[1]	33.787187	-85.569716	Round Culvert	Metal	2.00
249	01015-2983	33.75459	-85.69242	Round Culvert	Concrete	1.50
253	01121-0533	33.579813	-86.069465	Box Culvert	Concrete	6.00
307	01121-0686	33.524724	-85.819779	Round Culvert	Metal	2.00
408	01015-2468	33.663924	-85.665144	Trough Box Culvert	Concrete	1.50
462	01015-2991	33.76336	-85.70852	Round Culvert	Metal	3.00
480	01015-2994	33.82179	-85.69781	Round Culvert	Concrete	2.00
547	01121-0592	33.563749	-85.822115	Round Culvert	Metal	4.00
660	01121-0602	33.560305	-85.84063	Round Culvert	Metal	2.50
662	01121-0612	33.560889	-85.822931	Round Culvert	Concrete	2.00
664	01121-0644	33.575005	-86.156222	Round Culvert	Concrete	1.50
686	01121-0742[2]	33.503078	-85.928237	Ford	Concrete	2.00
699	01121-0822	33.485047	-86.098997	Round Culvert	Concrete	3.00
774	01015-2509	33.722136	-85.706714	Round Culvert	Concrete	2.00
1127	01015-0398	33.812613	-85.652261	Round Culvert	Metal	4.00
1145	01029-0154[1]	33.73097	-85.563246	Round Culvert	Metal	2.00
1163	01029-0161	33.615016	-85.687459	Round Culvert	Metal	5.00

[1]Shoal Creek SHU, [2]Cheaha Creek SHU

Table 9. Stream crossings with livestock access.

Survey ID	Crossing ID	Location	
		Latitude	Longitude
134	01015-2797	33.682254	-85.668412
328	01015-0664	33.580603	-85.781509
498	01015-2782	33.595557	-85.775685
523	01121-0259	33.562713	-85.837358
531	01121-0262	33.561882	-85.829185
532	01121-0270	33.572379	-85.948812
559	01015-2378	33.6158	-86.0006
660	01121-0602	33.560305	-85.84063
681	01121-0305	33.545498	-86.14737
787	01121-0732	33.506107	-85.866241
807	01029-0109	33.518339	-85.825199
808	01121-1641	33.51949	-85.82511
823	01121-0696	33.53616	-85.952545
161	01015-0798	33.793636	-85.646541
211	01015-1841	33.770581	-85.675475
230	01015-2478	33.781341	-85.691609
549	01121-0594	33.562365	-85.825761
895	01015-3002	33.64316	-85.693
1125	01029-0137	33.848611	-85.572193
1128	01015-0396	33.800847	-85.667088
1131	01015-0401	33.818407	-85.645222
1133	01015-0403	33.822316	-85.637621
107	01015-1730	33.603211	-85.993329
133	01015-2798	33.683246	-85.667588
171	01121-0149	33.592035	-86.082531
191	01015-0802	33.769382	-85.692406
200	01015-1321	33.726146	-85.695522
201	01015-1322	33.73353	-85.69227
222	01015-2204	33.733513	-85.692261
228	01015-2476	33.771037	-85.692966
233	01015-2479	33.787773	-85.690452
239	01015-2496	33.819585	-85.69283
240	01015-2497	33.821691	-85.697252
329	01015-0665	33.580979	-85.774787
418	01015-1310	33.650143	-85.734569
457	01015-1833	33.65457	-85.649327
465	01015-2192	33.693385	-85.687495
480	01015-2994	33.82179	-85.69781
494	01015-2995	33.82231	-85.69989

Table 9. Stream crossings with livestock access (cont.)

Survey ID	Crossing ID	Location	
		Latitude	Longitude
506	01121-0042	33.568226	-86.039758
507	01121-1632	33.586226	-86.039757
514	01121-0143	33.526312	-86.098882
515	01121-0223[1]	33.499977	-85.941867
516	01121-0243	33.527589	-85.910493
517	01121-0244	33.557058	-85.919736
542	01121-0566	33.603905	-86.032385
555	01015-1713	33.603486	-86.002291
557	01015-1758	33.604639	-85.992822
562	01121-0045	33.58766	-86.021577
616	01121-0288	33.603954	-86.024784
666	01121-0657	33.571012	-86.183835
668	01121-0669	33.559834	-86.162678
669	01121-0670	33.560206	-86.165607
766	01121-0684[2]	33.546537	-86.059102
768	01121-0148	33.597323	-86.079566
809	01121-1642	33.51941	-85.82679
825	01121-0687[1]	33.539096	-86.041661
830	01121-0614	33.561726	-85.876245
842	01121-0239	33.570223	-86.01484
832	01121-0304	33.534732	-86.145857
108	01015-1712	33.603352	-85.998338
519	01121-0246	33.543065	-85.909225
533	01121-0270	33.572379	-85.948812
534	01121-0290	33.623051	-86.026654
639	01121-0289	33.606044	-86.02265
843	01121-0234	33.5611	-86.019576

[1]Cheaha Creek SHU, [2]Lower Choccolocco Creek SRRU

Table 10. Livestock access at stream crossings in a Strategic Habitat Unit (SHU) or Strategic River Reach Unit (SRRU).

Survey ID	Crossing ID	Location	
		Latitude	Longitude
515	01121-0223[1]	33.49998	-85.9419
766	01121-0684[2]	33.54654	-86.0591
825	01121-0687[1]	33.5391	-86.0417

[1]Cheaha Creek SHU, [2]Lower Choccolocco Creek SRRU

Table 11. Stream crossings with issues of special concern.

Survey ID	Crossing ID	Location		Concern
		Latitude	Longitude	
130	01015-2981	33.644	-85.696	Lowhead dam upstream of the crossing has been partially breached.
136	01015-2982	33.71216	-85.68853	The culvert is broken and contains a lot of garbage. Stream is flowing through the bank around the culvert.
193	01015-1138	33.77981	-85.64788	Water flows under the culvert, and the structure support has partially washed away.
224	01015-2359	33.716228	-85.728622	Stream unable to reach floodplain due to built-up road.
256	01121-06821	33.550885	-86.094927	Heavy erosion at outlets with riprap and trees falling into stream.
401	01015-1089	33.585551	-85.807654	Cattle gate hung on the downstream side of the culvert.
467	01015-2339	33.585901	-85.772654	Trees and debris building up behind bridge.
499	01015-2796	33.713956	-85.666495	Culvert falling into the stream.
513	01121-1636	33.50858	-86.12695	Concrete slab at base of culvert.
514	01121-0143	33.526312	-86.098882	Metal gate fallen in culvert opening.
517	01121-0244	33.557058	-85.919736	High turbidity, but source is unknown.
532	01121-0270	33.572379	-85.948812	Stream floods adjacent properties, culvert has been replaced 5 times, significant head cut downstream.
546	01121-0591	33.562987	-85.824768	Upstream channel and downstream channel at different elevations, headcut forming upstream of crossing.
681	01121-0305	33.545498	-86.14737	One culvert is submerged and the other is perched.
698	01121-0810	33.497237	-86.106363	Small rock from road base layer pushed into stream.
773	01015-2510	33.72506	-85.704032	Culvert is sunken and falling in.
787	01121-0732	33.506107	-85.866241	Potential future failure of levee upstream of road.
814	01121-0653	33.543812	-85.832664	Culvert is broken and deteriorating.
840	01121-0276	33.567502	-85.968335	Undersized culvert causing high disturbance downstream.
845	01121-00201[1]	33.551587	-86.00521	Make-shift boat launch causing sedimentation runoff into stream.
848	01029-0914	33.48955	-85.8276	Culvert is failing.
852	01015-3000	33.644	-85.696	Lowhead rock dam upstream of crossing that has been partially breached.
1145	01029-01542[2]	33.73097	-85.5632	Culvert has a hole in the top and is a traffic hazard.
1146	01029-0132[2]	33.731263	-85.56294	Water is flowing under the broken culvert.
1163	01029-0161	33.615016	-85.687459	Concrete culvert extension is being undercut and falling apart.
1164	01121-1645	33.553348	-85.886906	Significant debris buildup in boxes. Primarily flow in 1 box only. Box is oversized.

[1]Lower Choccolocco Creek SRRU, [2]Shoal Creek SHU

5.0 References

ARSN (Alabama Rivers and Streams Network). 2018a. Who we are. Alabama Rivers and Streams Network. Accessed October 16, 2018. www.alh2o.org/partners

ARSN (Alabama Rivers and Streams Network). 2018b. Strategic habitat and river reach units for aquatic species of conservation concern in Alabama and adjoining states. Alabama Rivers and Streams Network. Accessed October 16, 2018. http://www.alh2o.org/shus/

Bates, K., B. Barnard, B. Heiner, J. P. Klavas, and P. D. Powers. 2003. *Design of Road Culverts for Fish Passage*. Washington Department of Fish and Wildlife. Accessed October 18, 2018. https://www.fs.fed.us/biology/nsaec/fishxing/fplibrary/Bates%20and%20others_003_culvert_manual_final.pdf

BC MFLNRO (British Columbia Ministry of Forests, Lands and Natural Resource Operations), BC MOE (British Columbia Ministry of Environment), and DFO (Fisheries and Oceans Canada). 2012. Fish-stream Crossing Guidebook, revised edition. BC Ministry of Forests, Lands and Natural Resource Operations and Fisheries and Oceans Canada, Victoria, BC.

CCW (Choccolocco Creek Watershed). 2018. Watersheds. Choccolocco Creek Watershed. Accessed October 16, 2018. http://www.choccoloccocreek.org/watersheds/

Chilibeck, B., G. Chislett, and G. Norris. 1993. Land Development Guidelines for the Protection of Aquatic Habitat. Habitat Division of the Department of Fisheries and Oceans and the Integrated Management Branch of the Ministry of Environment, Lands and Parks, pp. 129.

Davies-Colley, R., and S. Parkyn. 2001. Effects of livestock on streams and potential benefits of riparian management. Issues and Options in the AucklandRegion. Prepared by NIWA for Auckland Regional Council. ARC Technical Publications 351, pp. 38.

DFO (Fisheries and Oceans Canada). 2007. Culvert maintenance. Fisheries and Oceans Canada Nunavut Operational Statement Ver. 3. Iqaluit, Nunavut.

Fitch, L., B. Adams, and K. O'Shaughnessy. 2003. Caring for the Green Zone: Riparian Areas and Grazing Management – Third Ed. Cows and Fish Program. Lethbridge, Alberta. ISBN No. 0-9688541-2-5.

Grunewald, J., D. Rollman, C. Metcalf, P. O'Neil, A. Wynn, and C. Johnson. 2017. Sedimentation Risk Index (SRI) Manual for Stream Crossing Assessment. Prepared for the Alabama Rivers and Streams Network. Draft Version 1.2, September 2017.

OEPA (Ohio Environmental Protection Agency). 2002. *Development of Watershed Loading Model for the Sugar Creek Basin. In: Total Maximum Daily Loads for the Sugar Creek Basin*. Ohio EPA Division of Surface Water, Columbus, Ohio, pp. 82.

Rosgen, D. L. 1996. *Applied River Morphology*. Wildland Hydrology Books, Colorado, Pagosa Springs, pp. 390.

USDA NRCS (United States Department of Agriculture Natural Resources Conservation Service). 2017. *Web Soil Survey*. https://websoilsurvey.nrcs.usda.gov/app/

USFWS (U.S. Fish and Wildlife Service). 2005. Recovery Plan for 6 Mobile River Basin Aquatic Snails. U.S. Fish and Wildlife Service, Jackson, Mississippi.

USFWS (U.S. Fish and Wildlife Service). 2014. *Blue Shiner (Cyprinella caerulea) 5 Year Review: Summary and Evaluation*. Mississippi Ecological Services Field Office, Jackson, Mississippi, 29 pp. Accessed October 17, 2018. https://ecos.fws.gov/docs/five_year_review/doc4467.pdf

USFWS (U.S. Fish and Wildlife Service). 2015. Biological Opinion (04EA1000-2015-E 02829). Alabama Ecological Services Field Office. Accessed October 17, 2018. https://ecos.fws.gov/tails/pub/document/3621263

Watters, T. G. 1999. Freshwater mussels and water quality: A review of the effects of hydrologic and instream habitat alterations. Proceedings of the First Freshwater Mollusk Conservation Society Symposium, 261-274.

Wynn, E. A., P. E. O'Neil, S. W. McGregor, J. R. Powell, J. M. Pritchett, A. D. Ford, and P. D. Johnson. n.d. Strategic habitat and river reach units for aquatic species of conservation concern in Alabama. Alabama Geological Survey Special Map

248. Accessed October 16, 2018.
http://www.alh2o.org/uploadedFiles/File/SM_248.pdf

Appendix A: Geological Survey of Alabama Special Map 248-B

GEOLOGICAL SURVEY OF ALABAMA — SPECIAL MAP 248-B

Strategic Habitat and River Reach Units for Aquatic Species of Conservation Concern in Alabama and Adjoining States

2016

by

E. Anne Wynn, , Patrick E. O'Neil, Stuart W. McGregor - Geological Survey of Alabama; Jeffery R. Powell, Jennifer P. Grunewald, Anthony D.Ford - United States Fish and Wildlife Service; Paul D. Johnson and Jeffery T. Garner - Alabama Department of Conservation and Natural Resources

Alabama Rivers and Streams Network
www.alh20.org

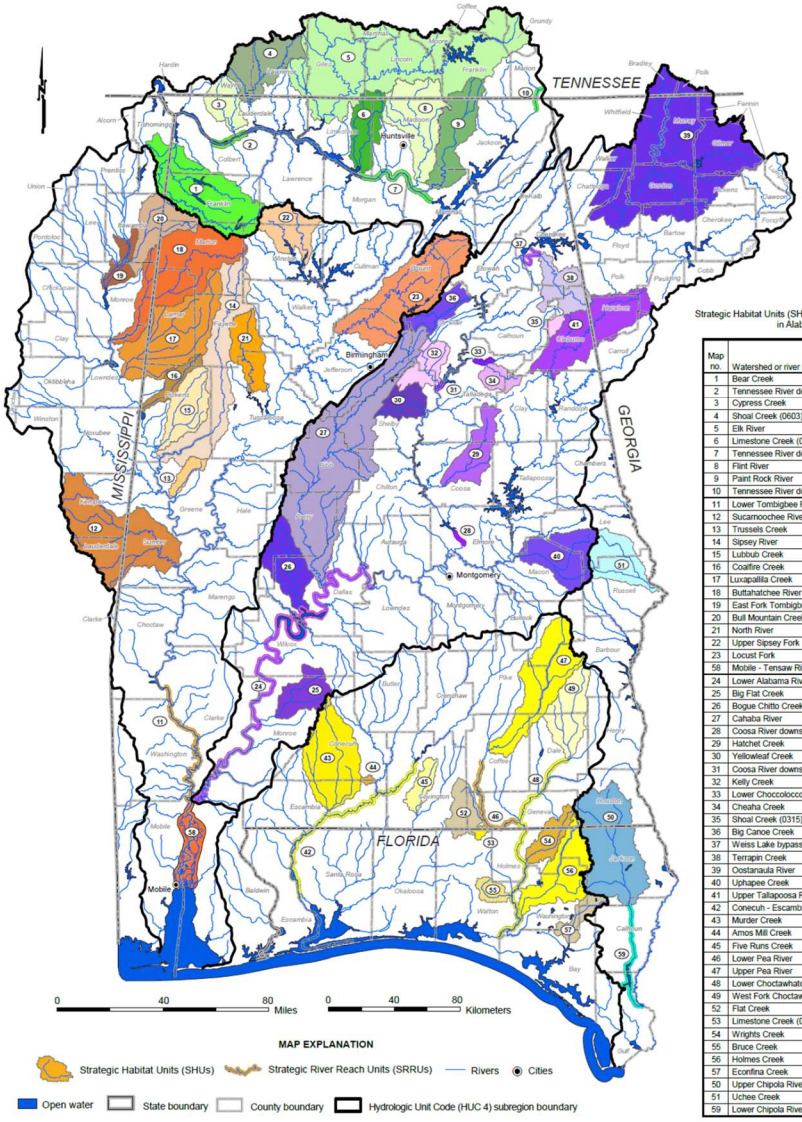
Berry H. (Nick) Tew, Jr.
State Geologist

The Alabama Rivers and Streams Network selected 46 watershed areas and 13 river reaches in Alabama and neighboring states to focus management, recovery, and restoration activities for populations of rare fishes, mussels, snails, and crayfishes. These Strategic Habitat Units (SHUs) and Strategic River Reach Units (SRRUs) were selected based on the presence of federally listed (under the Endangered Species Act) and state imperiled species, essential habitat components required by these species to survive, and the vulnerability of these habitats to potential threats. The SHUs and SRRUs include a substantial part of Alabama's remaining high-quality water courses and reflect the variety of aquatic habitats occupied by these species historically and presently. The map below displays the locations of the 46 SHUs and 13 SRRUs in Alabama and adjoining states. Colored polygons represent the watershed area of each SHU, with the exception of the Mobile-Tensaw River Delta SHU, which drains the entire Mobile River basin. Each SRRU represents the corridor of a major river. Each SHU and SRRU is part of a larger Hydrologic Unit Code (HUC) 4 subregion. The small index map to the right displays the HUC 4 subregions in which the SHUs and SRRUs are found.

National Hydrologic Dataset (NHD)
HUC 4 subregions in
Alabama and adjoining states

HUC 4 code	HUC 4 name	Index map unit
0603	Middle Tennessee - Elk	1
0316	Mobile - Tombigbee	2
0315	Alabama River	3
0314	Choctawhatchee - Escambia	4
0313	Apalachicola	5

Index map of HUC 4 subregions in Alabama and adjacent states



Strategic Habitat Units (SHUs) and Strategic River Reach Units (SRRUs) in Alabama and adjoining states.

Map no.	Watershed or river reach name	SHU	SRRU	Index map unit
1	Bear Creek	X		1
2	Tennessee River downstream of Wilson Dam		X	1
3	Cypress Creek	X		1
4	Shoal Creek (0603)	X		1
5	Elk River	X		1
6	Limestone Creek (0603)	X		1
7	Tennessee River downstream of Guntersville Dam		X	1
8	Flint River	X		1
9	Paint Rock River	X		1
10	Tennessee River downstream of Nickajack Dam		X	1
11	Lower Tombigbee River		X	2
12	Sucarnoochee River	X		2
13	Trussels Creek	X		2
14	Sipsey River	X		2
15	Lubbub Creek	X		2
16	Coalfire Creek	X		2
17	Luxapallila Creek	X		2
18	Buttahatchee River	X		2
19	East Fork Tombigbee River	X		2
20	Bull Mountain Creek	X		2
21	North River	X		2
22	Upper Sipsey Fork	X		2
23	Locust Fork	X		2
58	Mobile - Tensaw River Delta	X		2
24	Lower Alabama River		X	3
25	Big Flat Creek	X		3
26	Bogue Chitto Creek	X		3
27	Cahaba River	X		3
28	Coosa River downstream of Jordan Dam		X	3
29	Hatchet Creek	X		3
30	Yellowleaf Creek	X		3
31	Coosa River downstream of Logan Martin Dam		X	3
32	Kelly Creek	X		3
33	Lower Choccolocco Creek		X	3
34	Cheaha Creek	X		3
35	Shoal Creek (0315)	X		3
36	Big Canoe Creek	X		3
37	Weiss Lake bypass (Old Coosa River)		X	3
38	Terrapin Creek	X		3
39	Oostanaula River	X		3
40	Uphapee Creek	X		3
41	Upper Tallapoosa River	X		3
42	Conecuh - Escambia River		X	4
43	Murder Creek	X		4
44	Amos Mill Creek	X		4
45	Five Runs Creek	X		4
46	Lower Pea River		X	4
47	Upper Pea River	X		4
48	Lower Choctawhatchee River		X	4
49	West Fork Choctawhatchee River	X		4
52	Flat Creek	X		4
53	Limestone Creek (0314)	X		4
54	Wrights Creek	X		4
55	Bruce Creek	X		4
56	Holmes Creek	X		4
57	Econfina Creek	X		4
50	Upper Chipola River	X		5
51	Uchee Creek	X		5
59	Lower Chipola River		X	5

source: http://www.alh2o.org/uploadedFiles/SM248B.pdf

Appendix B: Sedimentation Risk Index (SRI) Assessments Performed

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
787	01121-0732		33.506107	-85.866241	Unpaved	28	High
849	01029-0915		33.49186	-85.82829	Unpaved	30	High
885	01015-1135		33.685823	-85.708204	Paved	32	High
774	01015-2509		33.722136	-85.706714	Unpaved	34	High
1142	01015-2190		33.706789	-85.647201	Unpaved	34	High
541	01121-0537		33.582622	-85.807303	Paved	34	High
422	01015-1353		33.619176	-85.757537	Paved	34	High
772	01015-1134		33.719664	-85.70392	Unpaved	34	High
662	01121-0612		33.560889	-85.822931	Paved	36	High
480	01015-2994		33.82179	-85.69781	Paved	36	High
902	01015-0435		33.667534	-85.714266	Paved	36	High
414	01015-1129		33.632896	-85.730817	Paved	36	High
211	01015-1841		33.770581	-85.675475	Paved	36	High
212	01015-1842		33.783739	-85.672462	Paved	36	High
887	01015-1851		33.686904	-85.706388	Paved	36	High
448	01015-2989		33.64858	-85.74283	Paved	36	High
458	01015-2990		33.7672	-85.677631	Paved	36	High
137	01015-2794		33.712117	-85.690365	Paved	36	High
138	01015-2467		33.650347	-85.659373	Paved	36	High

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
497	01015-2644		33.592895	-85.777215	Paved	36	High
509	01121-0135		33.503368	-86.106886	Paved	36	High
402	01015-1121		33.595492	-85.802869	Paved	38	Moderate
216	01015-2106		33.803036	-85.697897	Paved	38	Moderate
236	01015-2482		33.806804	-85.681783	Paved	38	Moderate
186	01015-0413		33.80211	-85.715516	Paved	38	Moderate
240	01015-2497		33.821691	-85.697252	Paved	38	Moderate
664	01121-0644		33.575005	-86.156222	Paved	38	Moderate
1145	01029-0154	Shoal Creek	33.73097	-85.563246	Unpaved	38	Moderate
213	01015-1843		33.789669	-85.666149	Paved	38	Moderate
1158	01015-2801		33.665518	-85.713726	Paved	38	Moderate
905	01015-2807		33.652192	-85.702682	Paved	38	Moderate
206	01015-1825		33.805184	-85.701052	Paved	38	Moderate
215	01015-1859		33.7856	-85.692488	Paved	38	Moderate
494	01015-2995		33.82231	-85.69989	Paved	38	Moderate
411	01015-1084		33.620425	-85.754227	Paved	38	Moderate
842	01121-0239		33.570223	-86.01484	Paved	38	Moderate
256	01121-0682	LCC	33.550885	-86.094927	Paved	38	Moderate
834	01121-1643	LCC	33.56327	-86.0139	Paved	38	Moderate
773	01015-2510		33.72506	-85.704032	Unpaved	38	Moderate
790	01121-0717		33.51055	-85.88254	Unpaved	38	Moderate
806	01029-0178		33.514773	-85.82711	Unpaved	38	Moderate

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
882	01015-1521		33.627975	-85.700489	Paved	40	Moderate
524	01121-0260		33.562377	-85.845105	Paved	40	Moderate
457	01015-1833		33.65457	-85.649327	Paved	40	Moderate
408	01015-2468		33.663924	-85.665144	Paved	40	Moderate
425	01015-1514		33.652787	-85.736369	Paved	40	Moderate
809	01121-1642		33.51941	-85.82679	Unpaved	40	Moderate
223	01015-2357		33.71527	-85.716174	Paved	40	Moderate
661	01121-0611		33.560347	-85.824329	Paved	40	Moderate
208	01015-1827		33.818276	-85.703906	Paved	40	Moderate
314	01015-2984		33.65406	-85.66055	Paved	40	Moderate
335	01015-0732		33.620886	-85.751314	Paved	40	Moderate
449	01015-1519		33.624762	-85.711873	Paved	40	Moderate
453	01015-1534		33.640912	-85.656848	Paved	40	Moderate
496	01015-2643		33.584364	-85.777169	Paved	40	Moderate
419	01015-2988		33.65023	-85.73324	Paved	40	Moderate
500	01015-2996		33.65083	-85.73228	Paved	40	Moderate
688	01121-0746	Cheaha Creek	33.50322	-85.924081	Paved	40	Moderate
539	01121-0296		33.577857	-86.05268	Paved	40	Moderate
824	01121-0691		33.529922	-85.958563	Paved	40	Moderate
691	01121-0777		33.503058	-86.106532	Paved	40	Moderate
512	01121-1635		33.50965	-86.1063	Paved	40	Moderate
1164	01121-1645		33.553348	-85.886906	Paved	40	Moderate

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
615	01121-0285		33.599486	-86.021678	Paved	40	Moderate
1141	01029-0916	Shoal Creek	33.70361	-85.63397	Unpaved	40	Moderate
797	01121-0718		33.507972	-85.858032	Unpaved	40	Moderate
805	01029-0910		33.50689	-85.83024	Unpaved	40	Moderate
899	01015-1522		33.63165	-85.689618	Paved	42	Moderate
901	01015-1523		33.63439	-85.681549	Paved	42	Moderate
221	01015-2203		33.802373	-85.703745	Paved	42	Moderate
136	01015-2982		33.71216	-85.68853	Paved	42	Moderate
660	01121-0602		33.560305	-85.84063	Paved	42	Moderate
692	01121-0778		33.50287	-86.104855	Paved	42	Moderate
696	01121-0806		33.494191	-86.10175	Paved	42	Moderate
793	01121-1640		33.51156	-85.8454	Unpaved	42	Moderate
144	01015-1860		33.6953	-85.700918	Paved	42	Moderate
222	01015-2204		33.733513	-85.692261	Paved	42	Moderate
407	01015-2430		33.618799	-85.771126	Paved	42	Moderate
903	01015-0097		33.657765	-85.705327	Paved	42	Moderate
399	01015-0652		33.611186	-85.789211	Paved	42	Moderate
420	01015-1312		33.659219	-85.70714	Paved	42	Moderate
427	01015-1516		33.641984	-85.730752	Paved	42	Moderate
897	01015-1517		33.638937	-85.690664	Paved	42	Moderate
428	01015-1518		33.644114	-85.742829	Paved	42	Moderate
450	01015-1524		33.635612	-85.677935	Paved	42	Moderate

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
895	01015-3002		33.64316	-85.693	Paved	42	Moderate
185	01015-0141		33.794464	-85.687283	Paved	42	Moderate
207	01015-1826		33.812811	-85.705991	Paved	42	Moderate
841	01121-0257		33.562178	-85.846232	Paved	42	Moderate
531	01121-0262		33.561882	-85.829185	Paved	42	Moderate
470	01015-2992		33.66378	-85.664945	Paved	42	Moderate
328	01015-0664		33.580603	-85.781509	Paved	42	Moderate
454	01015-1535		33.644067	-85.657554	Paved	42	Moderate
700	01121-1068		33.567877	-86.168046	Paved	42	Moderate
563	01121-0249		33.553668	-85.886906	Paved	42	Moderate
826	01121-0674		33.538531	-85.970756	Paved	42	Moderate
557	01015-1758		33.604639	-85.992822	Paved	42	Moderate
171	01121-0149		33.592035	-86.082531	Paved	42	Moderate
639	01121-0289		33.606044	-86.02265	Paved	42	Moderate
851	01015-2999		33.72552	-85.70418	Unpaved	42	Moderate
769	01015-1845		33.763725	-85.699234	Unpaved	42	Moderate
796	01121-0719		33.507961	-85.858146	Unpaved	42	Moderate
158	01015-0393		33.799784	-85.67097	Paved	44	Moderate
235	01015-2481		33.802151	-85.684105	Paved	44	Moderate
415	01015-2987		33.78013	-85.64799	Paved	44	Moderate
203	01015-1510		33.801246	-85.689658	Paved	44	Moderate
209	01015-1828		33.82686	-85.696424	Paved	44	Moderate

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
682	01121-0299		33.552844	-86.146	Paved	44	Moderate
307	01121-0686		33.524724	-85.819779	Unpaved	44	Moderate
814	01121-0653		33.543812	-85.832664	Unpaved	44	Moderate
802	01121-0690		33.519081	-85.833056	Unpaved	44	Moderate
421	01015-1351		33.614835	-85.771	Paved	44	Moderate
406	01015-2407		33.614704	-85.767433	Paved	44	Moderate
401	01015-1089		33.585551	-85.807654	Paved	44	Moderate
911	01015-1136		33.661566	-85.707194	Paved	44	Moderate
193	01015-1138		33.77981	-85.64788	Paved	44	Moderate
910	01015-1313		33.678978	-85.698403	Paved	44	Moderate
426	01015-1515		33.639752	-85.732903	Paved	44	Moderate
214	01015-1844		33.799499	-85.669253	Paved	44	Moderate
461	01015-2176		33.633595	-85.734456	Paved	44	Moderate
239	01015-2496		33.819585	-85.69283	Paved	44	Moderate
495	01015-2501		33.6947	-85.67316	Paved	44	Moderate
133	01015-2798		33.683246	-85.667588	Paved	44	Moderate
522	01121-0256		33.562423	-85.844093	Paved	44	Moderate
523	01121-0259		33.562713	-85.837358	Paved	44	Moderate
313	01015-0103		33.65293	-85.659871	Paved	44	Moderate
501	01121-0022		33.534765	-85.925368	Paved	44	Moderate
398	01015-0162		33.648996	-85.659524	Paved	44	Moderate
455	01015-1698		33.617997	-85.768373	Paved	44	Moderate

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
610	01121-0253		33.557953	-85.853923	Paved	44	Moderate
552	01015-1436		33.598573	-85.989908	Paved	44	Moderate
514	01121-0143		33.526312	-86.098882	Paved	44	Moderate
251	01121-0157		33.52908	-86.060935	Paved	44	Moderate
677	01121-0301		33.532986	-86.146275	Paved	44	Moderate
255	01121-0663		33.559544	-86.092907	Paved	44	Moderate
105	01029-0144	Shoal Creek	33.773937	-85.563379	Unpaved	44	Moderate
499	01015-2796		33.713956	-85.666495	Unpaved	44	Moderate
1147	01029-0130	Shoal Creek	33.713783	-85.597553	Unpaved	44	Moderate
807	01029-0109		33.518339	-85.825199	Unpaved	44	Moderate
798	01121-0693		33.518245	-85.836785	Unpaved	44	Moderate
204	01015-1532		33.801425	-85.707708	Paved	46	Low
234	01015-2480		33.794185	-85.689947	Paved	46	Low
249	01015-2983		33.75459	-85.69242	Paved	46	Low
343	01015-1307		33.649233	-85.750584	Paved	46	Low
498	01015-2782		33.595557	-85.775685	Paved	46	Low
250	01121-0155		33.528342	-86.059452	Paved	46	Low
780	01029-0126	Shoal Creek	33.74933	-85.609122	Unpaved	46	Low
1146	01029-0132	Shoal Creek	33.731263	-85.56294	Unpaved	46	Low
810	01029-0911		33.47767	-85.83427	Unpaved	46	Low
873	01015-0655		33.614982	-85.743503	Paved	46	Low
876	01015-0657		33.616051	-85.739224	Paved	46	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
893	01015-0658		33.616835	-85.73335	Paved	46	Low
340	01015-1012		33.611513	-85.778963	Paved	46	Low
884	01015-1016		33.61699	-85.7333	Paved	46	Low
199	01015-1320		33.720789	-85.699004	Paved	46	Low
412	01015-2986		33.61151	-85.77896	Paved	46	Low
312	01015-0096		33.647236	-85.7234	Paved	46	Low
891	01015-1852		33.688285	-85.702666	Paved	46	Low
131	01015-2980		33.660809	-85.71534	Paved	46	Low
130	01015-2981		33.644	-85.696	Paved	46	Low
1126	01029-0138		33.84679	-85.580944	Paved	46	Low
190	01015-0801		33.76353	-85.690422	Paved	46	Low
132	01015-2799		33.692906	-85.664549	Paved	46	Low
315	01015-0104		33.663057	-85.662137	Paved	46	Low
187	01015-0417		33.754626	-85.692966	Paved	46	Low
417	01015-1309		33.650165	-85.73872	Paved	46	Low
423	01015-1354		33.623527	-85.726219	Paved	46	Low
452	01015-1526		33.648098	-85.652682	Paved	46	Low
456	01015-1699		33.622884	-85.756158	Paved	46	Low
466	01015-2337		33.585427	-85.776311	Paved	46	Low
365	01029-0119		33.610439	-85.722807	Paved	46	Low
667	01121-0664		33.565061	-86.16314	Paved	46	Low
510	01121-0137		33.492735	-86.095743	Paved	46	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
538	01121-0295		33.577176	-86.05303	Paved	46	Low
545	01121-0587		33.586484	-86.008597	Paved	46	Low
828	01121-0646		33.556238	-85.862768	Paved	46	Low
1150	01015-1714		33.60399	-86.019652	Paved	46	Low
562	01121-0045		33.58766	-86.021577	Paved	46	Low
673	01121-0133		33.578353	-86.116686	Paved	46	Low
246	01121-0146		33.570258	-86.082002	Paved	46	Low
801	01121-0608		33.570481	-85.953033	Paved	46	Low
254	01121-0647		33.565073	-86.081284	Paved	46	Low
560	01015-2666		33.616747	-86.002929	Paved	46	Low
532	01121-0270		33.572379	-85.948812	Paved	46	Low
1160	01029-0136		33.788782	-85.599207	Unpaved	46	Low
1162	01029-0143		33.788792	-85.600042	Unpaved	46	Low
808	01121-1641		33.51949	-85.82511	Unpaved	46	Low
1163	01029-0161		33.615016	-85.687459	Paved	48	Low
665	01121-0648		33.571767	-86.1548	Paved	48	Low
699	01121-0822		33.485047	-86.098997	Paved	48	Low
697	01121-0809		33.496859	-86.11031	Paved	48	Low
513	01121-1636		33.50858	-86.12695	Paved	48	Low
846	01029-0913		33.48467	-85.83073	Unpaved	48	Low
1156	01015-1507	Shoal Creek	33.737255	-85.660105	Paved	48	Low
400	01015-0653		33.611522	-85.772903	Paved	48	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
913	01015-1146		33.628814	-85.696194	Paved	48	Low
194	01015-1139		33.780725	-85.648856	Paved	48	Low
852	01015-3000		33.644	-85.696	Paved	48	Low
543	01121-0570		33.580741	-85.809371	Paved	48	Low
205	01015-1824		33.804505	-85.700882	Paved	48	Low
226	01015-2474		33.763603	-85.692853	Paved	48	Low
227	01015-2475		33.76927	-85.692996	Paved	48	Low
241	01015-2976		33.786739	-85.681689	Paved	48	Low
322	01015-2985		33.69324	-85.6768	Paved	48	Low
321	01015-0420		33.663565	-85.656858	Paved	48	Low
225	01015-2473		33.754911	-85.691442	Paved	48	Low
333	01015-2806		33.652369	-85.730442	Paved	48	Low
830	01121-0614		33.561726	-85.876245	Paved	48	Low
511	01121-0138		33.50962	-86.107265	Paved	48	Low
564	01121-0250		33.566915	-85.88478	Paved	48	Low
542	01121-0566		33.603905	-86.032385	Paved	48	Low
831	01121-0613		33.56414	-85.881535	Paved	48	Low
690	01121-0754		33.512949	-86.121889	Paved	48	Low
693	01121-0788		33.500042	-86.1066	Paved	48	Low
695	01121-0805		33.492995	-86.101836	Paved	48	Low
553	01015-1437		33.60435	-85.985866	Paved	48	Low
107	01015-1730		33.603211	-85.993329	Paved	48	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
533	01121-0270		33.572379	-85.948812	Paved	48	Low
840	01121-0276		33.567502	-85.968335	Paved	48	Low
839	01121-0277		33.585463	-85.986805	Paved	48	Low
678	01121-0741		33.528023	-86.146648	Paved	48	Low
559	01015-2378		33.6158	-86.0006	Paved	48	Low
825	01121-0687	Cheaha Creek	33.539096	-86.041661	Paved	48	Low
776	01029-0146	Shoal Creek	33.764176	-85.591175	Unpaved	48	Low
783	01029-0155	Shoal Creek	33.710151	-85.593747	Unpaved	48	Low
767	01121-0026		33.52411	-85.919723	Unpaved	48	Low
815	01121-0255		33.544087	-85.839336	Unpaved	48	Low
792	01121-0734		33.508924	-85.875702	Unpaved	48	Low
804	01029-0180		33.508516	-85.830285	Unpaved	48	Low
811	01029-0912		33.47316	-85.83688	Unpaved	48	Low
463	01015-2188		33.667458	-85.668919	Paved	50	Low
520	01121-0247		33.544785	-85.900192	Paved	50	Low
189	01015-0800		33.755114	-85.689044	Paved	50	Low
686	01121-0742	Cheaha Creek	33.503078	-85.928237	Paved	50	Low
698	01121-0810		33.497237	-86.106363	Paved	50	Low
784	01029-0153	Shoal Creek	33.729219	-85.599084	Unpaved	50	Low
816	01121-0254		33.542071	-85.842954	Unpaved	50	Low
812	01029-0116		33.487055	-85.829707	Unpaved	50	Low
198	01015-1319		33.716482	-85.69934	Paved	50	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
403	01015-1350		33.614737	-85.778081	Paved	50	Low
243	01029-0142	Shoal Creek	33.787469	-85.562933	Paved	50	Low
912	01015-0114		33.651533	-85.702981	Paved	50	Low
1134	01015-0404		33.823824	-85.634448	Paved	50	Low
1140	01015-0410		33.842978	-85.59706	Paved	50	Low
188	01015-0799		33.802571	-85.646924	Paved	50	Low
1125	01029-0137		33.848611	-85.572193	Paved	50	Low
134	01015-2797		33.682254	-85.668412	Paved	50	Low
504	01121-0024		33.550958	-85.931064	Paved	50	Low
517	01121-0244		33.557058	-85.919736	Paved	50	Low
658	01121-0600		33.560074	-85.831122	Paved	50	Low
1153	01015-1509		33.744293	-85.669813	Paved	50	Low
1154	01015-1509		33.744293	-85.669813	Paved	50	Low
334	01015-2502		33.664465	-85.651441	Paved	50	Low
413	01015-1124		33.620009	-85.722262	Paved	50	Low
418	01015-1310		33.650143	-85.734569	Paved	50	Low
369	01029-0172		33.591462	-85.690614	Paved	50	Low
599	01121-0252		33.56578	-85.86204	Paved	50	Low
605	01121-1637		33.56877	-85.86204	Paved	50	Low
1149	01015-1714		33.60399	-86.019652	Paved	50	Low
537	01121-0293		33.598236	-86.039244	Paved	50	Low
827	01121-0665		33.547285	-85.965307	Paved	50	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
672	01121-1638		33.52239	-86.06866	Paved	50	Low
558	01015-1817		33.592497	-85.987067	Paved	50	Low
252	01121-0158		33.513908	-86.073161	Paved	50	Low
823	01121-0696		33.53616	-85.952545	Paved	50	Low
147	01029-0134	Shoal Creek	33.787808	-85.558868	Unpaved	50	Low
102	01015-0807		33.72324	-85.711262	Unpaved	50	Low
106	01029-0113	Shoal Creek	33.788755	-85.546721	Unpaved	50	Low
771	01015-2202		33.716836	-85.716685	Unpaved	50	Low
1161	01029-0918		33.82958	-85.58154	Unpaved	50	Low
1159	01029-0917	UTR	33.71085	-85.577	Unpaved	50	Low
813	01029-0114		33.475493	-85.836504	Unpaved	50	Low
1136	01015-0406		33.833893	-85.621199	Paved	52	Low
410	01015-2470		33.693056	-85.676574	Paved	52	Low
462	01015-2991		33.76336	-85.70852	Paved	52	Low
829	01121-0635		33.556867	-85.858568	Paved	52	Low
694	01121-0804		33.491784	-86.094169	Paved	52	Low
253	01121-0533		33.579813	-86.069465	Paved	52	Low
1144	01029-0131	Shoal Creek	33.718001	-85.585274	Unpaved	52	Low
766	01121-0684	LCC	33.546537	-86.059102	Unpaved	52	Low
141	01015-1318		33.705365	-85.698163	Paved	52	Low
318	01015-0266		33.614213	-85.768436	Paved	52	Low
339	01015-1011		33.611042	-85.773527	Paved	52	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
224	01015-2359		33.716228	-85.728622	Paved	52	Low
881	01015-3001		33.62714	-85.70809	Paved	52	Low
1128	01015-0396		33.800847	-85.667088	Paved	52	Low
159	01015-0397		33.802161	-85.68385	Paved	52	Low
1130	01015-0400		33.817404	-85.646225	Paved	52	Low
1131	01015-0401		33.818407	-85.645222	Paved	52	Low
1132	01015-0402		33.82049	-85.641452	Paved	52	Low
1137	01015-0407		33.835496	-85.615531	Paved	52	Low
1138	01015-0408		33.839023	-85.605375	Paved	52	Low
161	01015-0798		33.793636	-85.646541	Paved	52	Low
195	01015-1140		33.780884	-85.650013	Paved	52	Low
202	01015-1324		33.740586	-85.689891	Paved	52	Low
546	01121-0591		33.562987	-85.824768	Paved	52	Low
191	01015-0802		33.769382	-85.692406	Paved	52	Low
465	01015-2192		33.693385	-85.687495	Paved	52	Low
409	01015-2469		33.687516	-85.677314	Paved	52	Low
230	01015-2478		33.781341	-85.691609	Paved	52	Low
850	01015-2998		33.69405	-85.673847	Paved	52	Low
502	01121-0023		33.538153	-85.92678	Paved	52	Low
451	01015-1525		33.644355	-85.660514	Paved	52	Low
366	01029-0122		33.613199	-85.723417	Paved	52	Low
324	01015-0266		33.614213	-85.768436	Paved	52	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
368	01029-0171		33.590621	-85.686792	Paved	52	Low
565	01121-0251		33.568777	-85.864351	Paved	52	Low
669	01121-0670		33.560206	-86.165607	Paved	52	Low
554	01015-1438		33.605985	-85.984755	Paved	52	Low
108	01015-1712		33.603352	-85.998338	Paved	52	Low
588	01015-2395		33.607246	-85.979634	Paved	52	Low
245	01121-0145		33.560835	-86.092816	Paved	52	Low
616	01121-0288		33.603954	-86.024784	Paved	52	Low
679	01121-0740		33.526452	-86.146769	Paved	52	Low
244	01121-0065		33.579888	-86.067399	Paved	52	Low
770	01015-1850		33.716625	-85.699836	Unpaved	52	Low
782	01029-0110	Shoal Creek	33.72526	-85.601226	Unpaved	52	Low
775	01029-0129	Shoal Creek	33.69879	-85.600146	Unpaved	52	Low
777	01029-0135	Shoal Creek	33.762852	-85.591035	Unpaved	52	Low
781	01029-0147	Shoal Creek	33.755497	-85.59208	Unpaved	52	Low
786	01029-0157	Shoal Creek	33.700812	-85.598072	Unpaved	52	Low
1143	01029-0127	Shoal Creek	33.713407	-85.61812	Unpaved	52	Low
799	01121-0704		33.514383	-85.838793	Unpaved	52	Low
794	01121-0724		33.511359	-85.851557	Unpaved	52	Low
803	01029-0182		33.501349	-85.829944	Unpaved	52	Low
768	01121-0148		33.597323	-86.079566	Unpaved	52	Low
1127	01015-0398		33.812613	-85.652261	Paved	54	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
1135	01015-0405		33.82878	-85.627824	Paved	54	Low
547	01121-0592		33.563749	-85.822115	Paved	54	Low
262	01015-2944		33.585809	-85.946154	Paved	54	Low
844	01121-0232	Cheaha Creek	33.537532	-86.041741	Paved	54	Low
140	01015-1317		33.699271	-85.697533	Paved	54	Low
877	01015-0411		33.617256	-85.72543	Paved	54	Low
879	01015-0660		33.61777	-85.725081	Paved	54	Low
878	01015-1018		33.617558	-85.725205	Paved	54	Low
880	01015-1127		33.618068	-85.724931	Paved	54	Low
201	01015-1322		33.73353	-85.69227	Paved	54	Low
1139	01015-0409		33.842485	-85.594554	Paved	54	Low
160	01015-0797		33.789684	-85.659971	Paved	54	Low
785	01015-2105		33.80298	-85.694152	Paved	54	Low
540	01121-0525		33.57719	-85.83627	Paved	54	Low
544	01121-0571		33.578994	-85.810696	Paved	54	Low
320	01015-0419		33.664145	-85.687584	Paved	54	Low
464	01015-2191		33.693191	-85.67632	Paved	54	Low
228	01015-2476		33.771037	-85.692966	Paved	54	Low
233	01015-2479		33.787773	-85.690452	Paved	54	Low
518	01121-0245		33.539509	-85.906683	Paved	54	Low
530	01121-0261		33.56192	-85.847244	Paved	54	Low
659	01121-0601		33.561511	-85.831936	Paved	54	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
503	01121-1633		33.53782	-85.92666	Paved	54	Low
1155	01015-1508		33.74435	-85.680617	Paved	54	Low
219	01015-2183		33.764061	-85.710853	Paved	54	Low
416	01015-1308		33.649528	-85.724382	Paved	54	Low
614	01121-0258		33.56074	-85.852051	Paved	54	Low
663	01121-0642		33.574575	-86.153382	Paved	54	Low
666	01121-0657		33.571012	-86.183835	Paved	54	Low
535	01121-0291		33.612861	-86.039146	Paved	54	Low
536	01121-0292		33.603892	-86.033876	Paved	54	Low
179	01121-0546	LCC	33.548244	-86.096827	Paved	54	Low
822	01121-0700		33.528436	-85.958801	Paved	54	Low
685	01121-1639		33.52705	-86.06828	Paved	54	Low
551	01015-1043		33.60111	-86.020877	Paved	54	Low
508	01121-0129		33.581283	-86.107814	Paved	54	Low
674	01121-0130		33.570534	-86.127106	Paved	54	Low
838	01121-0280	LCC	33.554947	-86.006898	Paved	54	Low
681	01121-0305		33.545498	-86.14737	Paved	54	Low
819	01121-1070	LCC	33.560802	-86.126799	Paved	54	Low
143	01015-1530		33.705493	-85.707295	Unpaved	54	Low
779	01029-0151	Shoal Creek	33.740995	-85.626711	Unpaved	54	Low
778	01029-0152	Shoal Creek	33.741277	-85.631312	Unpaved	54	Low
800	01121-0689		33.520795	-85.82525	Unpaved	54	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
220	01015-2184		33.765628	-85.716362	Paved	56	Low
516	01121-0243		33.527589	-85.910493	Paved	56	Low
247	01121-0147		33.580226	-86.077311	Paved	56	Low
683	01121-0306		33.550202	-86.165303	Paved	56	Low
848	01029-0914		33.48955	-85.8276	Unpaved	56	Low
103	01015-1316		33.69399	-85.698832	Paved	56	Low
316	01015-0245		33.602603	-85.786171	Paved	56	Low
200	01015-1321		33.726146	-85.695522	Paved	56	Low
1129	01015-0399		33.813657	-85.650279	Paved	56	Low
1133	01015-0403		33.822316	-85.637621	Paved	56	Low
549	01121-0594		33.562365	-85.825761	Paved	56	Low
319	01015-0370		33.562828	-85.793342	Paved	56	Low
473	01015-2471		33.709224	-85.673121	Paved	56	Low
229	01015-2477		33.775098	-85.692868	Paved	56	Low
474	01015-2993		33.77371	-85.69299	Paved	56	Low
519	01121-0246		33.543065	-85.909225	Paved	56	Low
210	01015-1840		33.75533	-85.686227	Paved	56	Low
330	01015-0666		33.58521	-85.765174	Paved	56	Low
336	01015-0737		33.610517	-85.751182	Paved	56	Low
337	01015-0994		33.599898	-85.757296	Paved	56	Low
367	01029-0123		33.604652	-85.717543	Paved	56	Low
668	01121-0669		33.559834	-86.162678	Paved	56	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
1151	01015-1715		33.60845	-86.016467	Paved	56	Low
515	01121-0223	Cheaha Creek	33.499977	-85.941867	Paved	56	Low
689	01121-0748		33.518405	-86.073045	Paved	56	Low
556	01015-1729		33.602401	-85.984333	Paved	56	Low
845	01121-0020	LCC	33.551587	-86.00521	Paved	56	Low
680	01121-0139		33.525839	-86.1257	Paved	56	Low
555	01015-1713		33.603486	-86.002291	Paved	56	Low
142	01015-1529		33.70685	-85.720912	Unpaved	56	Low
405	01015-2374		33.616866	-85.77952	Paved	58	Low
242	01029-0141	Shoal Creek	33.787187	-85.569716	Paved	58	Low
701	01121-0300		33.531014	-86.146711	Paved	58	Low
139	01015-1314		33.686862	-85.697995	Paved	58	Low
317	01015-0247		33.604407	-85.786196	Paved	58	Low
847	01015-2997		33.773	-85.6831	Paved	58	Low
459	01015-2116		33.598646	-85.808708	Paved	58	Low
1152	01015-2802		33.828162	-85.640081	Paved	58	Low
74	01121-0540		33.568924	-85.804253	Paved	58	Low
548	01121-0593		33.563717	-85.823645	Paved	58	Low
424	01015-1512		33.694697	-85.673858	Paved	58	Low
135	01015-2795		33.712568	-85.685793	Paved	58	Low
521	01121-0248		33.545927	-85.901529	Paved	58	Low
218	01015-2182		33.763906	-85.701646	Paved	58	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
329	01015-0665		33.580979	-85.774787	Paved	58	Low
344	01015-1350		33.614737	-85.778081	Paved	58	Low
467	01015-2339		33.585901	-85.772654	Paved	58	Low
468	01015-2340		33.586517	-85.765831	Paved	58	Low
390	01029-0173		33.593159	-85.695309	Paved	58	Low
671	01121-0710		33.518442	-85.931444	Paved	58	Low
534	01121-0290		33.623051	-86.026654	Paved	58	Low
687	01121-0743		33.51708	-86.07319	Paved	58	Low
550	01015-0728		33.590385	-85.982324	Paved	58	Low
684	01121-0722		33.534683	-86.147115	Paved	58	Low
257	01121-0749		33.513762	-86.064472	Paved	58	Low
460	01015-2140		33.586834	-85.946805	Paved	58	Low
843	01121-0234		33.5611	-86.019576	Paved	58	Low
875	01015-0656		33.615295	-85.74232	Paved	60	Low
146	01029-0133	Shoal Creek	33.789351	-85.558655	Paved	60	Low
100	01029-0112	Shoal Creek	33.770693	-85.555668	Paved	60	Low
104	01029-0140	Shoal Creek	33.790203	-85.553876	Paved	60	Low
101	01029-0145	Shoal Creek	33.769191	-85.552928	Paved	60	Low
342	01015-1306		33.64795	-85.754503	Paved	60	Low
469	01015-2364		33.583249	-85.778108	Paved	60	Low
404	01015-2374		33.616866	-85.77952	Paved	60	Low
561	01121-0021		33.561796	-85.941145	Paved	60	Low

Survey ID	Crossing ID	SRRU/SHU Name	Location		Road type	SRI Score	SRI Rating
			Latitude	Longitude			
505	01121-0041		33.579236	-86.031268	Paved	60	Low
506	01121-0042		33.568226	-86.039758	Paved	60	Low
507	01121-1632		33.586226	-86.039757	Paved	60	Low
676	01121-0302		33.536893	-86.144936	Paved	60	Low
675	01121-0701		33.542187	-86.142819	Paved	60	Low
788	01121-0025		33.498904	-85.902558	Unpaved	60	Low

LCC: Lower Choccolocco Creek, UTR: Upper Tallapoosa River