



# Environmental Assessment

---

Proposed I-575 Bridge over  
the Little River

October 14, 2014

PREPARED FOR -

United States Army Corps of  
Engineers  
Mobile District  
Post Office Box 2288  
Mobile, AL 36628

PREPARED BY -

Georgia Department of  
Transportation  
Office of Innovative Program  
Delivery  
One Georgia Center, 16<sup>th</sup> Floor  
600 W Peachtree St  
Atlanta, GA 30308



ENVIRONMENTAL ASSESSMENT  
PROPOSED I-575 Bridge over the Little River  
Little River  
Cherokee County, Georgia

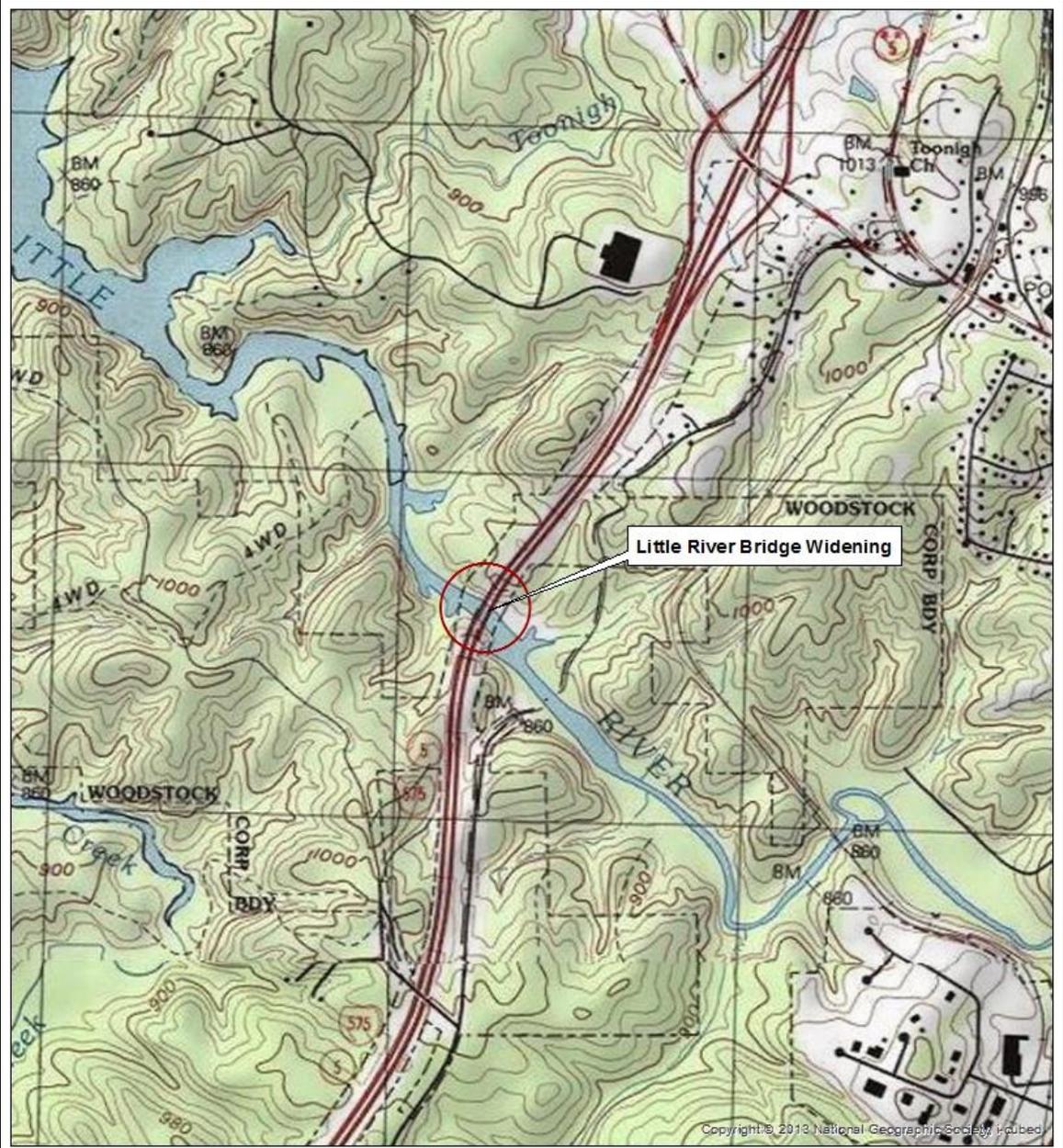
1. INTRODUCTION:

Allatoona is the oldest multipurpose project in the South Atlantic Division (SAD). It was authorized under the Flood Control Acts (FCAs) of August 18, 1941, and December 22, 1944, for the purposes of flood control and hydroelectric generation. The FCA of 1944 also authorized construction of recreation facilities. Allatoona was authorized for flood control, hydroelectric power generation, water supply and water quality, recreation and fish and wildlife management. The U.S. Army Corps of Engineers (USACE) and the Georgia Department of Transportation (GDOT) reached an easement agreement (No.DACW01-2-80-116) for the construction of I-575 northbound and southbound bridges over Little River on April 11, 1980. GDOT was granted an easement for right-of-way for a controlled access highway. This Environmental Assessment (EA) is to address the impacts associated with the improvements to the I-575 bridge across Little River on USACE property.

a. Location:

The project is located where I-575 crosses Little River in Cherokee County, Georgia approximately 2 miles north of the City of Woodstock. This project is a portion of the Northwest Corridor (NWC) Project that passes through several cities and unincorporated areas in Cobb and Cherokee Counties (see Figure 1 Project Location Map).

Figure 1 Project Location Map



Source: National Geographic Society (2013) topographic

	<p>PICKENS CHEROKEE COBB FULTON</p>	<p><b>Project Location Map</b> Little River Bridge Widening Northwest Corridor Project No. C SNG S-0008-00(256) P.I. No. 0008256 Cherokee Co.</p>	
--	---	---	--

b. Proposed Action:

The Proposed Action is the easement amendment to allow the widening of the northbound I-575 bridge over Little River (Subject Bridge) to accommodate the GDOT Project. The Subject Bridge widening would occur between the two existing I-575 bridges. The GDOT Project, which consists of new Managed Lanes, requires the Proposed Action to allow widening of the Subject Bridge in order to accommodate the added travel lanes capacity. The Subject Bridge widening impacts the easement agreement provided under the original construction of I-575.

The Subject Bridge would be comprised of a total of six spans, each 88 feet long. This span arrangement sets the bents in alignment with the existing northbound I-575 bridge over Little River. A total of five intermediate bents will be constructed. Aligning the bents with the existing bents minimizes any reduction in hydraulic opening through this roadway crossing. The Subject Bridge superstructure will be a similar depth to the existing bridge and the low chord<sup>1</sup> will be no lower than the existing bridge which will further minimize any effects on the hydraulics at this stream crossing. Two of the bents, 4 and 5, would be located within Little River. The Subject Bridge bents 4, 5, and 6 will be round which minimizes any effects the substructure will have on the hydraulics. **Attachment A** contains the preliminary plan for the Subject Bridge widening.

The Project will extend the two existing I-75 managed lanes (HOV lanes, one in each direction) that currently terminate at Akers Mill Road south of the I-75/I-285 interchange. Two new managed lanes will extend north to the I-75/I-575 interchange. A single managed lane will continue north on I-75 from the I-75/I-575 interchange to just beyond Hickory Grove Road. Similarly, a single managed lane will continue north on I-575 from the I-75/I-575 interchange to the Sixes Road interchange. The new managed lanes on I-75 and I-575 will be reversible; meaning the directional flow of traffic in the lanes would change during the day. During the morning peak commute period, the lanes will only accommodate southbound traffic towards Atlanta. During the remainder of the day, the directional flow of the traffic will be reversed to accommodate only northbound traffic towards the suburban communities.

Due to the minimal amount of flood storage that would be lost, mitigation would be accomplished through an agreement with the Lake Allatoona Operations Office. The Lake Allatoona Operations Office and GDOT have drafted an agreement to pay \$95,000 for a shoreline stabilization project instead of dredging the additional 44 cubic yards of fill. The Lake Allatoona Operations Office determined that this minimal project fill and mitigation would satisfy the no-net loss of flood storage capacity. The mitigation project location was selected by the Lake Allatoona Operations Office and will occur at an off-site location. The impacts from these mitigation activities will be covered by a categorical exclusion.

---

<sup>1</sup> Low Chord is defined as the bottom horizontal member of a bridge truss.

c. Purpose and Need for the Proposed Action:

The purpose of the Proposed Action is to widen the northbound I-575 Bridge over Little River to accommodate the GDOT Project which adds new Managed Lanes to I-75 and I-575. The GDOT Project is needed to reduce congestion, improve mobility by reducing travel time and increasing reliability, improve access by improving connectivity between regional activity centers, improve safety by reducing existing roadway design deficiencies and congestion-related crashes, reduce vehicle emissions by improving vehicular travel efficiency and increasing the proportion of high capacity vehicles.

d. Authority:

In accordance with 33 U.S. Code (USC) Section 408, any alteration of a U.S. Corps of Engineers (USACE) Public Works project will require USACE review and approval to ensure that the alteration does not adversely impact the USACE Public Works. The proposed action is considered a non-recreational out grant in accordance with ER-1130-2-550, Chapter 17, released 30 September 2013 and in accordance with EC 1165-2-216, Section 408, released 31 July 2014. Therefore, NO ADDITIONAL 408 APPROVAL IS required.

Furthermore, 33 Code of Federal regulations (CFR) Section 230, Procedures for Implementing the National Environmental Policy Act of 1969, as amended (NEPA) (Engineering Regulation 200-2-2), stipulates that a NEPA document must be prepared to address the impacts to the environment as a result of the Federal action. All requests for alterations to a USACE Public Works project are submitted by the non-Federal sponsor, in this instance Georgia Department of Transportation (GDOT).

2. ENVIRONMENTAL SETTING WITHOUT THE PROJECT:

a. General Environmental Setting.

The project is located in Cherokee County, Georgia on Little River. The land immediately adjacent to the project site is undeveloped property owned by the USACE. Part of this property is currently being utilized as sand-gravel operation and another portion is leased as a park to the City of Woodstock. The development of this property is limited due to it being part of a federally authorized flood storage capacity for Allatoona Lake. Beyond the USACE property there is moderate residential and light industrial development.

b. Significant Resource Description.

(1) Waters of the U.S.

Pursuant to Section 404 of the Clean Water Act, Executive Order 11990 (Protected of Wetlands), and Section 10 of the Rivers and Harbors Act, the Subject Bridge area was surveyed for waters of the U.S., including wetlands.

One perennial stream (Stream 60), the Little River, was identified within the Subject Bridge area (See Figures 2 and 3, Waters of the U.S.). The Little River is an entrenched, warm-water perennial tributary to the Etowah River which flows west beneath the existing I-575 bridges to its outfall into Lake Allatoona. The Little River is somewhat impaired due to heavy sediment deposition, degraded riparian buffer conditions, and non-point pollution from I-575. Within the Subject Bridge area, this resource is approximately 100 to 115 feet in width with stable sloping to vertical 4- to 7-foot tall banks. The substrate throughout this reach of the Little River is primarily silt/mud and sand with some gravel and boulder (rip-rap). The channel contains relatively steep banks with unstable sections.

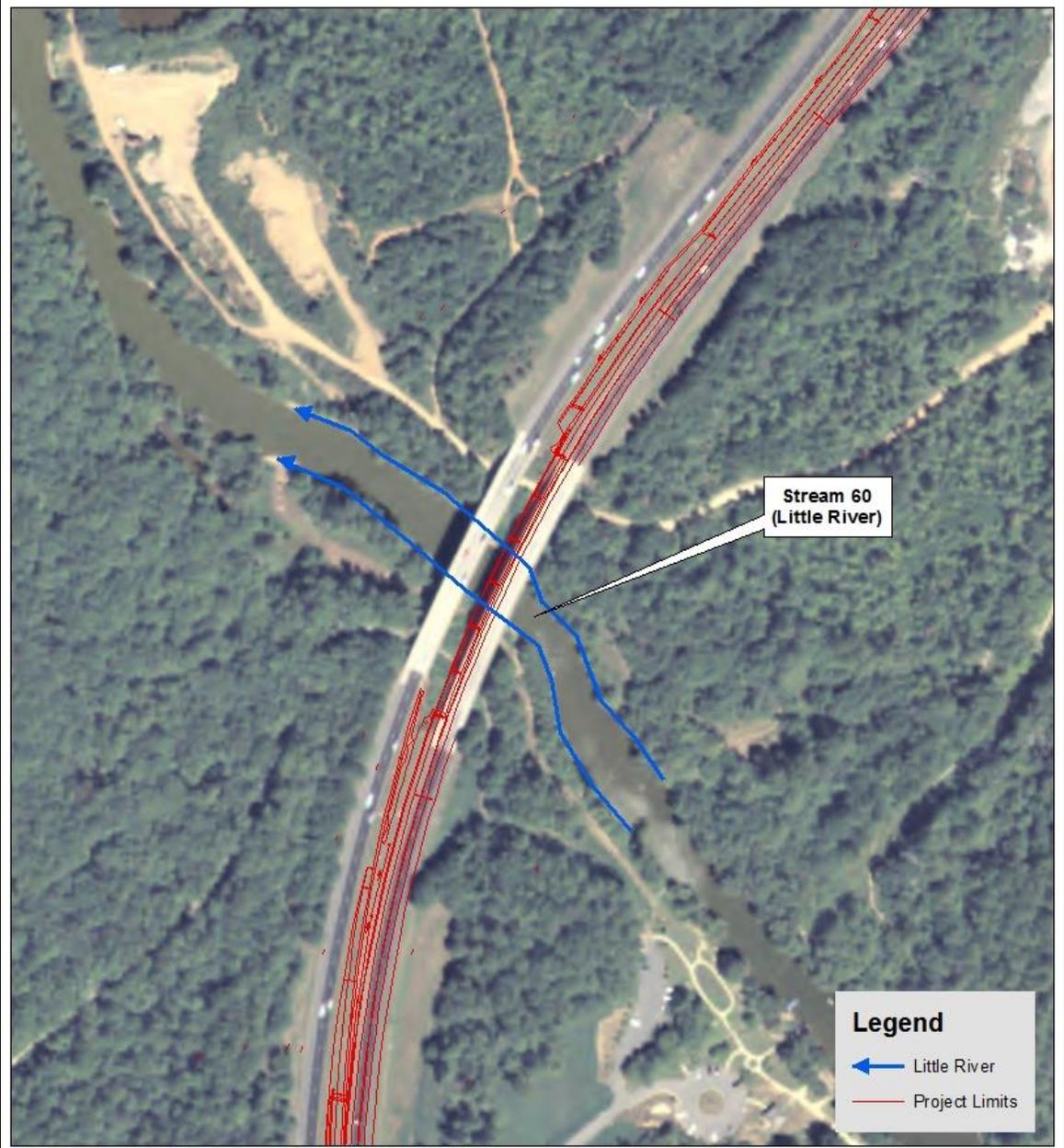
(2) Fishery Resources.

The Georgia Department of Natural Resources (GADNR) Wildlife Resources Division lists the following fish species for the Etowah River, downstream of Lake Allatoona and the Subject Bridge project site: bream, black bass, catfish, and striped bass (<http://www.georgiawildlife.com/Fishing/Etowah>). Fish species collected during the aquatic survey of the Little River (Stream 60) include: spotted bass, bluegill, blacktail shiner, redbreast, green sunfish, black crappie, Etowah chub, bullhead minnow, Mobile logperch, blackbanded darter, and redear. Additionally, a white tubercled crayfish was also collected.

(3) Wildlife Resources.

General wildlife species within and adjacent to the Subject Bridge include various invertebrate, fish, and wildlife species. Species found along the river and within the adjacent park, Old Rope Mill Park, include species commonly found in urban areas as well as species not commonly associated with anthropogenic disturbed areas. Commonly encountered wildlife species generally include squirrels, songbirds (including migratory), fox, whitetail deer, chipmunks, raccoons, rabbits, mice, moles, opossum, skunks, armadillos, coyote, turtles, snakes, wading birds, hawks, owls, and bats. Aquatic species include various fish species (detailed in Section 2 – Fishery Resources), crayfish, and frogs.

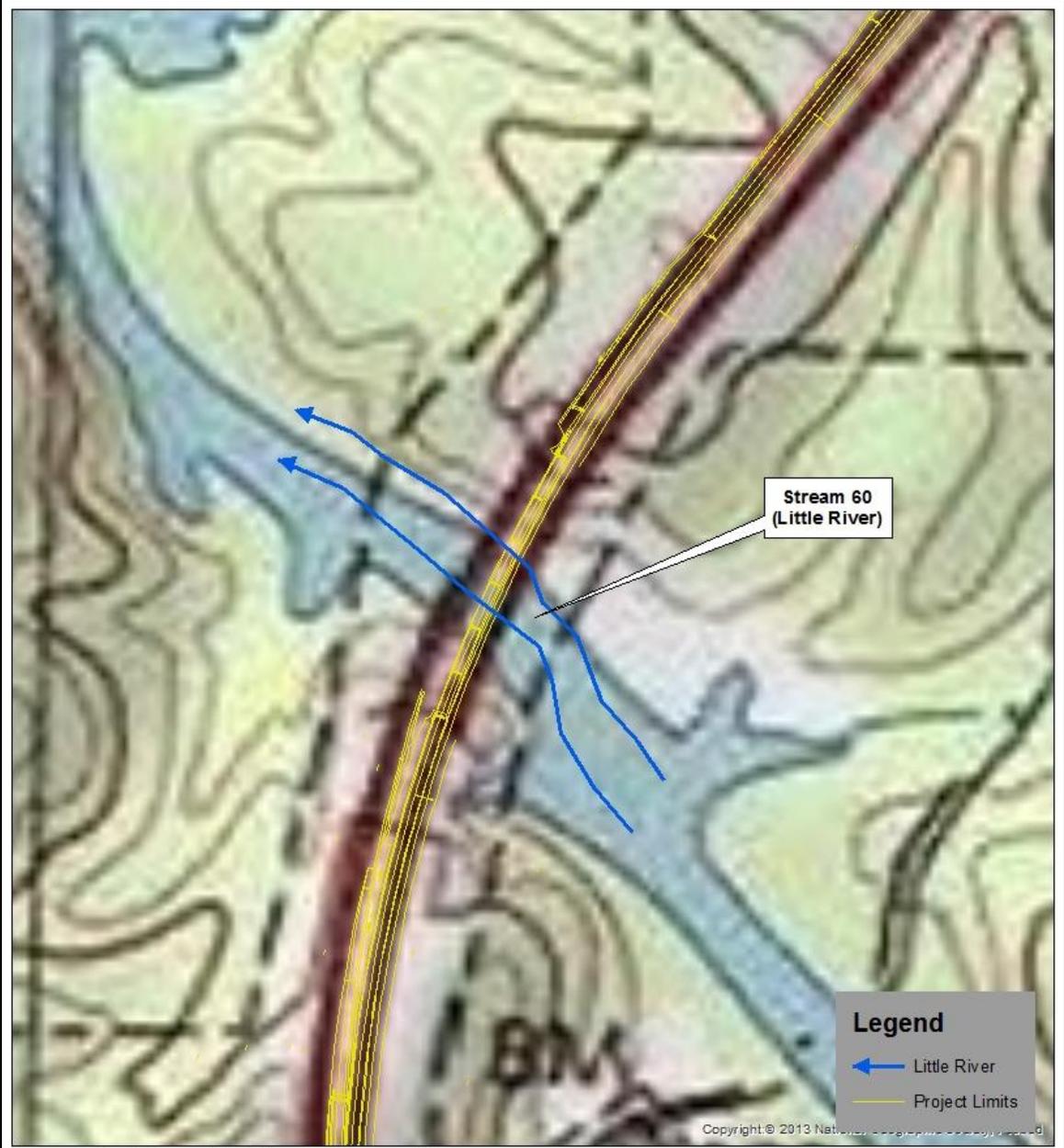
Figure 2 Waters of the U.S. – Aerial Map



Source: National Agriculture Imagery Program (NAIP 2010)

	<p>PICKENS CHEROKEE COBB FULTON</p>	<p><b>Waters of the U.S. Map</b> <b>Little River Bridge Widening</b> <b>Northwest Corridor</b> <b>Project No. C SNG S-0008-00(256)</b> <b>P.I. No. 0008256 Cherokee Co.</b></p>	
--	---	---	--

**Figure 3 Waters of the U.S. – Topographic Map**



Source: National Geographic Society (2013) topographic

		<p><b>Waters of the U.S. Map</b> <b>Little River Bridge Widening Northwest Corridor</b> Project No. CSNG S-0008-00(256) P.I. No. 0008256 Cherokee Co.</p>	
--	--	---	--

(4) Threatened and Endangered Species.

The USFWS Information, Planning, and Conservation (IPaC) System listing for Cherokee County and the GADNR database were reviewed for federally threatened, endangered, and candidate species. In addition, early coordination with the GADNR Nongame Conservation Section (NCS) requested information for protected species within three miles of the Subject Bridge (see **Attachment B, Agency Coordination**). The following table lists those species.

**Table 1 Federally and State Protected Species Possibly Occurring within or near the I-575 Bridge over Little River**

Species Name	Federal Status	State Status
<b>Mollusks</b>		
Finelined pocketbook ( <i>Hamiota altilis</i> )	Threatened	Threatened
Alabama moccasinshell ( <i>Medionidus acutissimus</i> )	Threatened	Threatened
Southern clubshell ( <i>Pleurobema decisum</i> )	Endangered	Endangered
Southern pigtoe ( <i>Pleurobema georgianum</i> )	Endangered	Endangered
Triangular kidneyshell ( <i>Ptychobranthus greenii</i> )	Endangered	Endangered
Cylindrical lioplax ( <i>Lioplax cyclostomaformis</i> )	Endangered	Endangered
<b>Fish</b>		
Cherokee darter ( <i>Etheostoma scotti</i> )	Threatened	Threatened
Amber darter ( <i>Percina antesella</i> )	Endangered	Endangered
Etowah darter ( <i>Etheostoma etowahae</i> )	Endangered	Endangered
<b>Flowering Plants</b>		
Michaux's sumac ( <i>Rhus michauxii</i> )	Endangered	Endangered
<b>Mammals</b>		
Gray bat ( <i>Myotis grisescens</i> )	Endangered	Endangered
Indiana bat ( <i>Myotis sodalis</i> )	Endangered	Endangered
Northern long-eared bat ( <i>Myotis septentrionalis</i> )	Proposed Endangered	Not Listed

The USFWS has concurred with the determination of the federally protected species for the GDOT Project which includes the Subject Bridge (see **Attachment B, Agency Coordination**). Special Provisions (SP) 107.23G will be implemented to protect work within Little River during spawning season for the Cherokee darter (see **Attachment C, Environmental Commitments**).

### **Federally Listed Mollusks**

Federally listed mollusks include the cylindrical lioplax, finelined pocketbook, Alabama moccasinshell, southern clubshell, southern pigtoe and triangular kidneyshell. Cylindrical lioplax is believed to be extirpated in Georgia. The triangular kidneyshell is restricted to the Black Warrior River and Tombigbee River drainages in Alabama.

The remaining mollusks with the exception of the finelined pocketbook are currently known from the Conasauga River system within the Coosa River Basin. Finelined pocketbook mollusks are endemic to the Mobile River Basin; in Georgia, individuals are found in the Coosa and Tallapoosa River systems.

According to the USFWS Critical Habitat Portal, critical habitat has been designated for all the federally listed mollusks listed for Cherokee County within the Oostanaula Complex of Georgia and Tennessee, which is located east of the project site. Little River is not indicated as critical habitat for these five protected mollusks, nor is critical habitat listed within the Cherokee County.

During the aquatic surveys on October 31 and November 9, 2012, none of the federally listed mollusk species were observed in the Subject Bridge area. There is no suitable habitat for any of the federally listed mussels in the Little River.

### **Fish**

#### *Cherokee Darter*

Cherokee darters typically inhabit small- to medium-sized streams with gravel and cobble substrate. This Cherokee darter is not found in streams with moderate or thick deposits of silt and sediment and cannot survive in impoundments. Historically endemic to the Etowah River systems in Georgia, this species is currently known to inhabit an estimated 20 small tributary systems to the Etowah River. The Little River does not provide suitable habitat for the Cherokee darter.

#### *Amber Darter*

Prefers riffle habitats with moderate to swift currents over gravel and cobble and is often associated with patches of sand and riverweed (*Podostemum ceratophyllum*). Rarely found in shallow and low velocity microhabitats or in areas with significant siltation. The amber darter is endemic to the upper Coosa River system and occurs in the mainstreams of the Conasauga and Etowah Rivers and in the downstream reaches of two large tributaries to the Etowah River, Shoal and Sharp Mountain creeks. It was recently collected from the Coosawattee River, downstream of Carter's Lake.

Date Prepared:  
October 2014

### *Etowah Darter*

Preferred habitat for the Etowah darter is riffle areas in moderate to strong current over gravel and cobble substrates. This species is endemic to the Etowah River system upstream from the Allatoona Reservoir (Coosa River system). Etowah darters occur in the main channel of the Etowah River and in large tributaries to the river.

During the aquatic surveys on October 31 and November 9, 2012, none of the federally listed fish species were observed in the Subject Bridge area. There is no suitable habitat for any of the federally listed fish in the Little River.

### **Flowering Plants**

#### *Michaux's Sumac*

Michaux's sumac is a colonial herb that grows in dry, open, rocky, or sandy woodlands and on stream terraces within mature hardwood forests containing mafic bedrock with high levels of calcium, magnesium, or iron. This plant is shade-intolerant and thus prefers forest with an open understory. No suitable habitat exists within the Subject Bridge area.

### **Federally Listed Mammals**

#### *Indiana Bat*

Summer roosting habitat for the Indiana bat consists of mature hardwood forests. Females form maternity colonies that are typically located under the loose bark or in tree cavities of mature hardwoods. Males tend to roost in similar habitats. Foraging habitat includes upland, bottomland, and riparian woodlands, as well as forest and cropland edges, fallow fields, and areas of impounded water.

#### *Gray Bat*

Summer caves are utilized for summer roosting habitat for the gray bat. Summer caves are located within close proximity, usually within 0.6 mile, of a river or reservoir that serves as a foraging site. Foraging habitat typically consists of a river or open water with a forested shoreline. Gray bats require forested areas or corridors to travel from their summer roost to the foraging site.

#### *Northern Long-eared Bat*

Northern long-eared bats roost underneath the bark, in cavities, or in crevices of live, damaged, or dead trees within dense areas of mature forested habitat in the summer. Some bats can be found in caves or mines, and rarely, they are observed roosting in man-made structures, such as barns and sheds. Foraging habitat includes the understory of forested hillsides and ridges.

Potential foraging habitat is present along the channel of Stream 60 (Little River) for the Indiana bat and the gray bat. The river corridor and existing I-575 bridge structures serve as a potential

Date Prepared:  
October 2014

fly corridor for these federally protected bats. Potential roosting habitat for the Indiana bat and gray bat is located outside of the median area between the I-575 bridges. No foraging or roosting habitat is present within the Subject Bridge area for the northern long-eared bat.

(5) Historic and Archeological Resources.

No historic resources were identified in the Subject Bridge construction area.

Three previously identified archaeological sites; Site 9CK409 (a nineteenth century charcoal kiln), Site 9CK505 (a twentieth century house site) and Site 9CK410 (the Little River Mill or Dorn Rope Mill) are located near the proposed project but are not within the construction limits of the Subject Bridge. The mill site is currently located within the Olde Rope Mill Park, a city park of Woodstock. The archaeological report was completed by Southeastern Archaeological Services, Inc. in 1993 and referenced Short Form for Negative Findings of the Phase II Roadway Package NEPA Reevaluation completed by Edwards Pitman Environmental in April 21, 2014.

Site 9CK410 (the Little River Mill or Dorn Rope Mill) is listed as a potentially eligible site in the Georgia State Site files and the USACE Historic Properties Management Plans. The other two sites are not identified as eligible.

(6) Navigation.

Little River is not listed as a navigable water under Section 10 of the Rivers and Harbors Act. Due to the shallowness of Little River, a canoe or kayak may be used as a recreation on the Little River.

(7) Recreation.

There is one recreational resource in proximity to the project location. Olde Rope Mill Park adjoins the project site on both sides of I-575. Currently there is no development for the park on the west side of I-575 northbound.

(8) Aesthetics

Currently, the project site is a developed interstate and bridge. The aesthetics from the previous construction have altered the site aesthetics from their natural condition.

(9) Air Quality

A regional (or mesoscale) analysis determined the GDOT Project's overall impact on regional air quality levels. The GDOT Project is listed in the PLAN 2040 (ARC, 2011b) as the ARC project

Date Prepared:  
October 2014

number AR-ML-930 and GDOT P.I. number 0008256, and is included in the region's air quality conformity analysis. The Project is also included in the approved *FY 2014-2019 Transportation Improvement Program* (FY 2014-2019 TIP) (ARC, 2014). As such, the project is part of a conforming plan and TIP. The conformity analysis conducted by the ARC determined that the project conforms to the air quality goals of the area,

On March 10, 2006, USEPA issued a final rule regarding the localized or "hot-spot" analysis of PM2.5 and PM10 (40 CFR Part 93). This rule requires that PM2.5 and/or PM10 hotspot analysis be performed only for transportation projects with significant diesel traffic in areas not meeting PM2.5 and/or PM10 air quality standards.

The GDOT Project's area is classified as an attainment area for PM10. As such, a PM10 hotspot analysis is not required. However, the project area is classified as a nonattainment area for PM2.5. As such, it must be determined if the project is classified as one of air quality concern, thus requiring a quantitative hot-spot analysis.

The GDOT Project has gone through the required interagency coordination process to determine if it is a project of air quality concern. The interagency coordination group consists of representatives from the USEPA, the FHWA, the GEPD, and the ARC. This group decided that the project is not of air quality concern and a quantitative hot-spot analysis is not required. The USEPA concurred that the proposed project is not a project of air quality concern on February 4, 2013.

#### (10) Water Quality

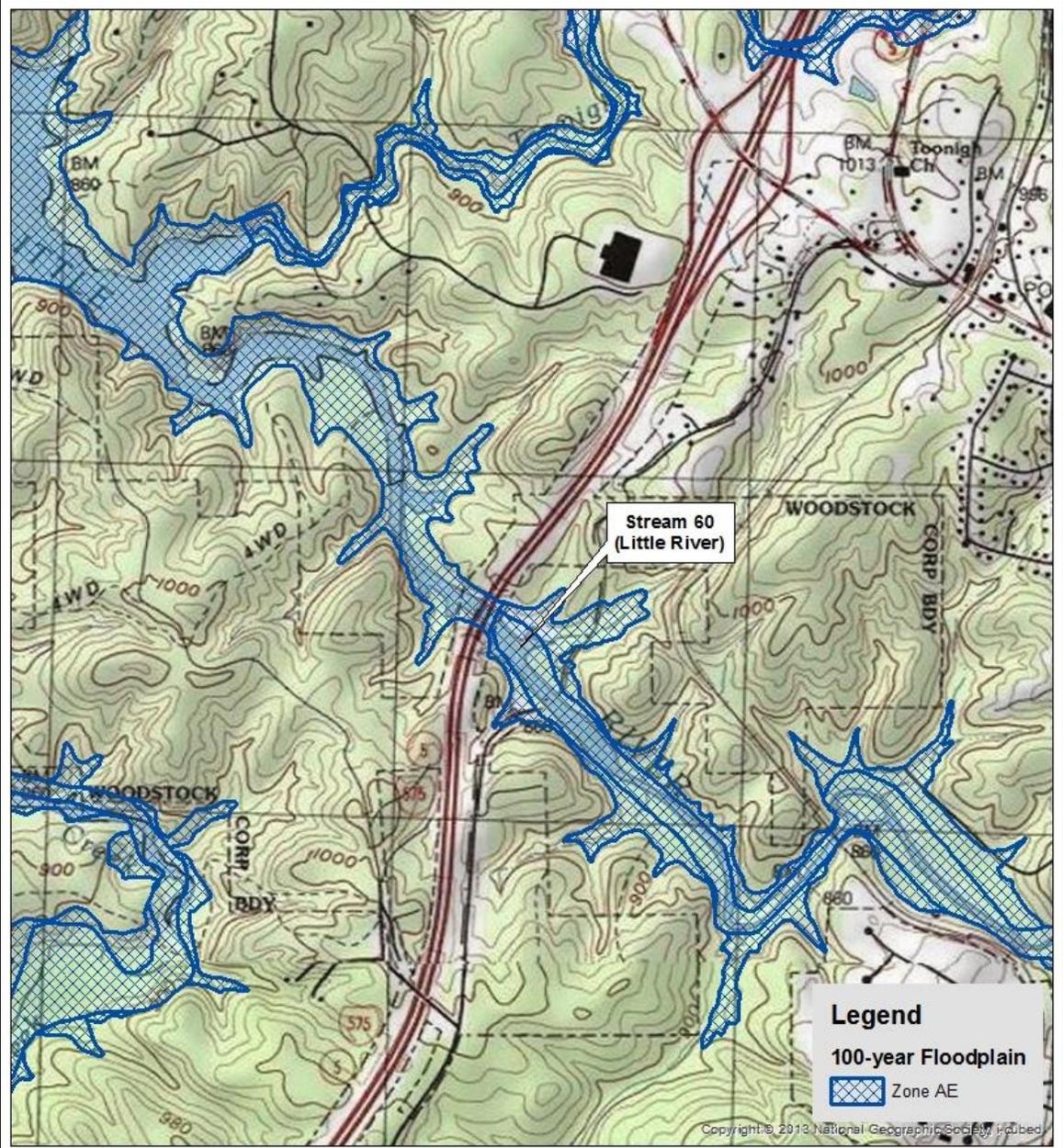
Little River flows under the Subject Bridge. This stream is listed on the Final 2012 Georgia 305(b)/303(d) list for not supporting its designated use of fishing.

- o Little River: violation fecal coliform from nonpoint sources

#### (11) Floodplain

The Cherokee County Flood Insurance Rate Map (FIRM) number 13057C0244D (Effective Date September 29, 2006) was reviewed to determine the presence of floodplains within the Subject Bridge area. The Subject Bridge is located within the Federal Emergency Management Administration (FEMA) designated 100-year floodplain associated with the Little River (see Figure 4). The flood zone for this 100-year floodplain is designated as a special flood hazard area, Zone AE. Detailed base flood elevations have been calculated and a regulatory floodway is established. Construction activity will occur in the vicinity of the northbound I-575 bridge widening over the Little River.

Figure 4 Floodplain Map



Source: National Geographic Society (2013) topographic

	<p>PICKENS CHEROKEE COBB FULTON</p>	<p><b>Floodplain Map</b> Little River Bridge Widening Northwest Corridor Project No. CSNGS-0008-00(256) P.I. No. 0008256 Cherokee Co.</p>	<p>0 0.1 0.2 0.4 Miles</p>
--	---	---	--------------------------------

(12) Socioeconomic

This analysis used U.S. Census Bureau 2010 population data. According to 2010 census data, the Subject Bridge is located at the intersection of three Census Block Groups: Census Tract 91008, Block Group 4; Census Tract 90701, Block Group 3; and Census Tract 91001, Block Group 3. The population and demographics of this area is shown below.

**Table 2: Race and Ethnicity Populations**

Area	Total Population	Minority	Hispanic
Census Tract 91008, Block Group 4	3,694	788	272
Census Tract 90701, Block Group 3	4,819	637	305
Census Tract 91001, Block Group 3	2,465	555	202

**Table 3: Low Income Populations**

Geography	Median household income (dollars)	Percentage of Families and People Whose Income in the Past 12 Month is Below the Poverty Level*
Cherokee Co.	\$67,928	8.4%

Source: 2008-2012 American Community Survey 5-Year Estimates:

\* All people below poverty level

(13) Prime and Unique Farmland

There are no prime or unique farmlands in proximity to the project location.

(14) Hazardous and Toxic Materials

A review of environmental regulatory databases was conducted for the GDOT Project to determine if any known sites producing, storing, and/or disposing of toxic or hazardous materials might affect the GDOT Project. No sites were identified in the Subject Bridge area.

3. DESCRIPTION OF THE RECOMMENDED PLAN:

The I-575 bridge widening over Little River (Subject Bridge) impacts the easement agreement provided under the original construction of I-575. The Subject Bridge would be comprised of a total of six spans, each 88 feet long. This span arrangement sets the bents in alignment with the existing northbound I-575 bridge over Little River. A total of five intermediate bents will be constructed. Aligning the bents with the existing bents minimizes any reduction in hydraulic

Date Prepared:  
October 2014

opening through this roadway crossing. The Subject Bridge superstructure will be a similar depth to the existing bridge and the low chord<sup>2</sup> will be no lower than the existing bridge which will further minimize any effects on the hydraulics at this stream crossing. Two of the bents, 4 and 5, would be located within Little River. The Subject Bridge bents 4, 5, and 6 will be round which minimizes any effects the substructure will have on the hydraulics. **Attachment A** contains the preliminary plans which show the location of the proposed bents.

#### 4. ENVIRONMENTAL IMPACT OF THE RECOMMENDED PLAN:

- a. Biological and Physical Impacts:
  - (1) Waters of the U.S., including Wetlands.

Direct impacts to Little River would occur as a result of the construction the Subject Bridge. Permanent impacts to Little River total 9 linear feet (0.0009 acre) due to the placement of piers in the stream channel. Table 4 lists the anticipated permanent impacts to this feature.

The existing northbound I-575 bridge over Little River would be widened to add an additional managed lane. Subject Bridge structure would consist of seven bents. Two of the bents, 4 and 5, would be placed below the ordinary high water mark (OHWM) and within the floodway of Stream 60 (Little River). These concrete piers (4'6'' in diameter) would cause permanent impacts (9 linear feet, 0.0009 acre) to Stream 60 (Little River). The bents will be aligned with the existing bents of the adjacent I-575 bridge structures to minimize any reduction in hydraulic opening through this roadway crossing. Additionally, bridge bents 4, 5, and 6 would be round to minimize any effects of the substructure on hydraulics.

Construction activities of the GDOT Project would result in permanent impacts within Stream 60 and its associated floodway within the Subject Bridge area.

Figures 2 and 3 illustrate the waters of the U.S. within the Subject Bridge area. According to the USFWS National Wetland Inventory (NWI) map of the Subject Bridge area, there are no wetlands within the Subject Bridge area. As depicted on the map and field verified in 2011 and 2013, no wetlands or open waters are present at the Subject Bridge.

---

<sup>2</sup> Low Chord is defined as the bottom horizontal member of a bridge truss.

**Table 4. Direct Impacts to Little River**

Resource	Resource Type <sup>1</sup>	Coordinates (Lat., Long.)	Length and/or Area of Resource within Subject Bridge Area	Permanent Impact	Impact Type	Structure Dimensions
<i>HUC 03150104 (Etowah watershed)</i>						
Stream 60 (Little River)	P	34°8'3.24"N, 84°31'29.04"W	100 feet	9 feet (0.0009 ac)	Fill	(2) 4'6"- diameter concrete piers placed in the stream channel
Total Impacts in HUC 03150104				9 feet (0.0009 ac)		
<b>Total Impacts for the Project</b>				<b>9 feet</b> (0.0009 ac)		

<sup>1</sup> I = intermittent stream; P = perennial stream; LOW = lacustrine open water; PFO = palustrine forested wetland; PEM = palustrine emergent wetland; PSS = palustrine scrub-shrub wetland

Permanent impacts due to the placement of fill material in waters of the U.S. will be authorized by Section 404 Regional Permit (RP) 96 (SAS-2011-00754). Once approved by the USACE Savannah District, the Section 404 permit will authorize the discharge of dredged or fill material into waters of the U.S. for GDOT Project, including the Subject Bridge area.

The Section 404 RP 96 states that adverse impacts to waters of the U.S. shall be avoided and minimized to the greatest extent practicable through the use of alternatives with the least environmentally damaging impact. Complete avoidance of the Little River would only occur if the proposed project was not constructed. Accordingly, this bridge replacement project was designed to minimize environmental impacts since other site locations and alternatives would not fulfill the purpose and need of the Project. Minimal permanent fill impact would result in the placement of bridge bents in the stream channel. The pier spacing over the Little River matches the arrangement of the existing bridge that is being widened. The new piers are in line with the existing piers. This provides a hydraulic benefit for flood flows. Furthermore, the managed lanes will be constructed at the same grade as the northbound I-575 bridge, which is elevated over the Little River. The elevated lanes require a smaller footprint of soil disturbance than at-grade lanes; thus, impacts to this water resource are minimized by reducing the amount of fill that is needed for construction.

To satisfy the Section 404 permit, compensatory mitigation is proposed for permanent impacts to the Little River. The purchase of 41.85 stream mitigation credits from a USACE-approved bank for Hydrologic Unit Code (HUC) 03150104 would be required.

Date Prepared:  
October 2014

A total of 6,206 square feet (0.14 acre) of upland vegetation under the bridge will be disturbed due to the construction. All land clearing activities will be performed in a manner to minimize turbidity within the streams and wetlands located along the project corridor. Best Management Practices (BMPs) will be developed and implemented to control oils or other pollutants from reaching the streams and wetlands to the maximum extent possible. All work performed during construction will be done so in a manner to prevent interference with any legitimate water uses.

The existing northbound I-575 bridge over Little River will be widened to add an additional lane. During precipitation events the existing bridge deck drains directly into the river through 3"x6" rectangular slots spaced at 10 feet (see attached Detail), located in the bridge barrier, and placed on the low side of the bridge. No drain slots are placed over the end fills. The bridge profile is located in a sag vertical curve with the low point of the curve located on the bridge. The widened portion of the bridge will add approximately 20' of new deck width over the entire bridge length and will tie directly into the existing of the bridge making the bridge deck a contiguous unit. The existing and proposed bridge super elevation is 7% and slopes to the east side of the bridge so that the water can only be drained to the existing northbound general purpose lanes. It is not possible to capture drainage for only the new portion of the deck being constructed since there will be no joint between the existing and widened parts of the bridge when construction is complete. A new closed drainage system will be constructed to capture the first 1.2 inches of rainfall on the bridge (see attached plans). Runoff from larger storm events would exit the system via overflow drains. The existing drains outside of the reconstructed barrier will remain in place and continue to function as they have been.

The design improves the existing conditions by capturing the first flush of runoff from the bridge widening and preventing it from entering directly into Little River. Furthermore, the first flush from the existing bridge deck area is being prevented from entering Little River.

## (2) Fishery Resources.

The Subject Bridge construction would have minimal impact to water flow in the Little River as the new bridge bents would be placed in line with the existing bridge bents. Further, the Subject Bridge bents would be rounded to further minimize impacts to hydraulic components. Since the aquatic species inhabiting the Subject Bridge area have adapted to present conditions and the proposed construction would not significantly alter that condition, any impacts to aquatic wildlife and habitat would be minimal.

Direct impacts could occur to aquatic species, such as fish or mussels, if construction materials fell into the river during construction. Additionally, increased sedimentation and turbidity during bridge construction could impact the survival of aquatic species at the Subject Bridge area and downstream. Appropriate measures, including SP 107.23G, would be taken to restrict work in the Little River as well as to minimize impacts (see **Attachment C, Environmental**

Date Prepared:  
October 2014

**Commitments**). Erosion and sedimentation control measures would be implemented during construction, as appropriate. Specific Special Provision requirements during construction for the protection of aquatic species are included below:

1. In-stream work will not be permitted in the Little River (Stream 60) from March 1<sup>st</sup> through June 31<sup>st</sup> due to potential spawning of the Cherokee darter, lined chub, bluestripe shiner, highscale shiner, delicate spike, and Chattahoochee crayfish. All grading associated with these streams shall be completed between July 1<sup>st</sup> and February 28<sup>th</sup>.
2. The existing channel width and bank height of the stream will be maintained at the crossing to avoid changes in stream velocity after project construction. Channel modifications will not be allowed.
3. Temporary erosion control devices shall be installed before any other work will be allowed to be performed.
4. Construction equipment will not operate in the Little River (Stream 60). All excavation will be conducted from a stable stream bank or road surface.
5. Vegetation removal within the project construction limits and right-of-way will be limited to the absolute minimum necessary to construct the project.
6. Concrete debris, paving materials, litter, bridge falsework, demolition debris, or any other materials shall not be allowed to fall or be placed into the Little River (Stream 60).
7. The Contractor will be required to grade an area to completion once the area is disturbed to minimize the time the area is exposed to potential erosion. All disturbed soil, excavation spoil, and stockpiled materials shall be mulched daily or covered with approved erosion control mats. Stockpiled materials shall be placed to prevent rain runoff from washing the materials into the Little River (Stream 60).
8. All surface water runoff from undisturbed areas shall be diverted to prevent flow across disturbed areas. This may be accomplished through the use of permanent pipes, temporary pipes, or slope drains. The Contractor may propose alternate methods provided prior approval of the Engineer is obtained.
9. All erosion control devices shall be closely monitored and maintained. As maintenance is performed on silt fences, silt gates, slope drains, filtration ponds, and other erosion control devices, the materials removed shall be placed in such a manner to prevent these materials from entry into the Little River (Stream 60).

Date Prepared:  
October 2014

10. The Contractor's worksite erosion control supervisor (WECS) shall monitor all erosion control devices on a daily basis. When a visible increase in turbidity is observed in the Little River (Stream 60), construction shall be stopped until the source can be determined. Immediate corrective measures shall be taken before work will be allowed to continue.
11. The Contractor will be expected to immediately modify the erosion control plan to correct any circumstances that may cause or allow pollutants from the work site to enter or damage habitat associated with the Little River (Stream 60).
12. The Contractor is prohibited from using borrow sites or stockpiling dirt within 200 feet of stream banks.
13. Equipment staging areas and equipment maintenance (including oil changes) areas shall be located at least 200 feet from stream banks to minimize the potential for wash water, petroleum products, or other contaminants from construction equipment entering the Little River (Stream 60).
14. The Contractor shall not use pesticides or herbicides (including those for right-of-way maintenance during construction activities) within 200 feet of the Little River (Stream 60).
15. With regards to the Little River (Stream 60), the Contractor will maintain a buffer of existing vegetation on both stream banks by doing no clearing and grubbing in that zone except as needed to complete construction. The buffer will be twenty-five feet wide. These areas will be labeled "Environmentally Sensitive Areas" on the plans.

### (3) Wildlife Resources.

The corridor under the Subject Bridge currently provided for various wildlife species would be maintained during project construction. Construction activities associated with the Subject Bridge widening will not impact the ability of wildlife species to travel from one side of the existing bridge site to the other. Since the wildlife inhabiting the Subject Bridge area have adapted to present conditions and the proposed construction would not significantly alter that condition, any impacts to wildlife and habitat would be minimal.

#### *Migratory Bird Treaty Act*

Bridge construction will take place outside of the breeding and nesting season of migratory eastern phoebes, cliff swallows and barn swallows, which begins April 1<sup>st</sup> and extends through August 31<sup>st</sup>. Exclusionary barriers may be used as a method to prevent migratory birds from nesting beneath bridges. The GDOT Project ecologist must be notified of the decision to install exclusionary devices prior to the installation. Prior to construction and/or the placement of

Date Prepared:  
October 2014

exclusionary barriers, the bridge will be surveyed for active migratory bird nests to ensure that eggs or birds are not present. If nests are found to be occupied, all construction activities associated with the bridge must be postponed until August 31<sup>st</sup> when the breeding season is complete. During construction, exclusionary netting shall be inspected for holes or other defects that impair the nettings ability to exclude phoebes or swallows from inhabiting the bridge. If migratory birds are discovered entangled and/or entrapped in exclusionary netting, the incident should be reported immediately to GDOT staff. In the event that migratory birds are observed on-site during project construction, adverse impacts would be avoided and appropriate personnel would be contacted.

#### (4) Threatened and Endangered Species.

The federally listed threatened or endangered aquatic species known to occur in Cherokee County consist of fish and mollusk species. Aquatic habitat conditions at the Subject Bridge crossing of the Little River generally were poor with heavy sedimentation, moderate bank stability, and substrate consisting primarily of silt/mud and sand with some gravel and boulder (rip-rap). The stream was made up mostly of shallow runs with some riffles at the sewer line crossing and a few deeper pools (up to 4.5 feet).

No federally protected fish or mussel species were identified during the aquatic surveys. Further, this segment of the Little River does not provide suitable habitat for federally protected aquatic species. No effect to these species or their appropriate habitat is anticipated to occur as a result of the proposed project construction activities.

Federally protected mammals known to occur in Cherokee County include the Indiana bat and gray bat as well as the proposed federally endangered northern long-eared bat. Potential foraging habitat is present along the channel of the Little River for the Indiana bat and the gray bat. Within the Subject Bridge area, the river corridor and existing I-575 bridge structures serve as a potential flying corridor for these federally protected bats. No Indiana bat calls were recorded nor individuals captured during the survey. No gray bats were collected during the survey; however, gray bat calls were recorded. Foraging and roosting habitat are present within the vicinity the Little River for the northern long-eared bat. Due to the presence of potential foraging habitat for the Indiana and gray bats within the GDOT Project area, the proposed project may affect, but is not likely to adversely affect these federally protected bats. Site-specific special provisions would be implemented during construction for the protection of the Indiana and gray bats, which include the following:

1. Preserve surface water quality within the Indiana bat, gray bat, and northern long-eared bat forage areas by minimizing stream crossing impacts.
2. Channel work will be limited to the construction limits.
3. Riprap will extend below the low-water level.

Date Prepared:  
October 2014

4. In order to protect forage areas for the Indiana bat, gray bat, and northern long-eared bat, no equipment will be allowed to operate directly in streams. Staging, refueling and cleanup areas will not be allowed alongside streams. GDOT BMPs will be in place during project construction.

Federally endangered plant Michaux's sumac is known to occur within Cherokee County. However, the Subject Bridge area does not contain suitable habitat for this plant. Therefore, no effect to this species is anticipated as a result of the construction of the proposed project.

(5) Historic and Archeological Resources.

The Subject Bridge does not require the acquisition of additional ROW. Project limits remain within the existing easement of I-575 and would not physically impact the potentially eligible archaeological site, Site 9CK410 (the Little River Mill or Dorn Rope). Since the Subject Bridge will be constructed at the same grade with the existing northbound I-575 bridge and will be located between two existing I-575 bridges, the Subject Bridge will not impact the viewshed of Site 9CK410. There are no National Register eligible historic resources within the viewshed of the Subject Bridge.

(6) Navigation.

Little River is not listed as a navigable water under Section 10 of the Rivers and Harbors Act. The project would not impact or impede recreational activities such as canoeing or kayaking.

(7) Recreation.

Olde Rope Mill Park is located immediately adjacent to the project location. There is no development to the leased area on the west side of I-575 northbound. There will be no impacts to the use of the park as a result of the project.

(8) Aesthetics

The project location's aesthetics will not change from its existing condition. The construction project will incorporate the use of aesthetic finishes, treatments, and landscaping to create a positive change in the corridor. These changes will create a potentially unifying visual element along the highway for views from both the roadway and from adjacent properties and roadways.

(9) Air Quality

The I-575 bridge widening over Little River would not affect air quality. Though the conformity analysis conducted by the ARC determined that the project conforms to the air quality goals of

Date Prepared:  
October 2014

the area, a project-level regional analysis was conducted to estimate the project's impact on regional air quality levels. This analysis is based on VMT and VHT within the region, and estimates daily "pollutant burden" levels with and without the project.

#### (10) Water Quality

During construction, silt fence, hay bales, sediment ponds, and other appropriate best management practices (BMPs) would be used to prevent sediment from leaving the site or entering the surround wetland, open water, and/or stream areas. As a result of the action, minor adverse effects to water quality are expected; however the use of BMPs during construction and the compensatory mitigation for impacts to jurisdictional waters will offset these minor impacts. This would be the result of filling streams, erosion from upland construction activities, and stormwater runoff from construction activities and the placement of impervious surfaces, such as concrete and asphalt. Furthermore, the applicant will be required to obtain a Water Quality Certification pursuant to Section 401 of the Clean Water Act from GAEPD prior to final issuance of a permit. The Subject Bridge project would have a minor adverse effect on water quality concerns.

All necessary water quality management plans will be submitted to GDOT and approved prior to starting construction on the project. The entire permit application will be provided to the Georgia Environmental Protection Division (GAEPD). The applicant will obtain a Section 401 Water Quality Certification prior to the start of construction.

Due to the nature of a roadway project, the Subject Bridge would not contribute appreciable amounts of fecal coliform to the impaired streams or their tributaries.

#### (11) Floodplain Impacts

A hydraulic and hydrologic analysis was performed for the Proposed Action. The Proposed Action would have minimal hydraulic impacts on the Lake Allatoona Reservoir and the hydraulics within the River. There would be minimal reduction in storage capacity.

Executive Order 11988, Floodplain Management, requires federal agencies to avoid and minimize long- and short-term adverse impacts to floodplains to the greatest extent practicable as well as to avoid indirect and direct support of floodplain development wherever there is a practicable alternative. The mitigation for the flood storage will be incorporated with the mitigation for the land disturbance.

The location of the bents and columns will not impact the current lessee's (Blankenship Sand Company) dredging operation. The bridge columns will not affect the lessee's existing access road. Bent 6 is set approximately 36 feet offset from the access road and bent 7 (the bridge end

bent) is approximately 39 feet offset from the access road.

*Floodplain Management Statement:*

The Proposed Action encroaches upon the regulatory floodplain associated with Little River). A Conditional Letters of Map Revisions (CLOMR) will not be required for fill for placing bridge columns in the floodplain (see **Attachment C, Agency Coordination**). The Developer will design the bridge to limit the backwater to no more than a 1-foot increase in the existing base flood elevation, 861 feet. No community or FEMA coordination will be required for the bridge widening.

The Proposed Action would not represent a significant risk to life or property; it would not have a significant impact on natural and beneficial floodplain values; it would not support incompatible floodplain development; and it would not interrupt or terminate a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route. Due to the minimal amount of flood storage that will be lost, mitigation will be accomplished through coordination with the Lake Allatoona Operations Office. The mitigation for the flood storage will be incorporated with the mitigation for the land disturbance as stated in Section 4.1.

(12) Socioeconomic Impacts.

The Proposed Action would not result in any notable impacts on the surrounding community.

(13) Prime and Unique Farmland

The Proposed Action is not on or in proximity to property that is prime or unique farmland.

(14) Hazardous and Toxic Materials

No sites containing Hazardous and Toxic Materials were identified in the area of the Proposed Action. No hazardous waste will be generated on site from the construction of the proposed action.

5. Cumulative Impacts

Cumulative impacts associated with the proposed action are insignificant both individually and cumulatively.

6. Environmental Justice (Executive Order 12898)

The Proposed Action would not impact Environmental Justice populations. There does not

Date Prepared:  
October 2014

appear to be an unfair distribution of benefits or adverse impacts, nor any disproportionately high and adverse impacts on minority or low-income populations associated with the Proposed Action.

7. Protection of Children (Executive Order 13045)

The Proposed Action would not impact the health and safety of children. Barriers, site workman, and other measures would be implemented to provide protection to non-project workers.

8. ANY IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS WHICH WOULD BE INVOLVED SHOULD THE RECOMMENDED PLAN BE IMPLEMENTED.

Any irreversible or irretrievable commitments of resources involved in the proposed action have been considered and are either unanticipated at this time, or have been considered and determined to present minor impacts.

9. ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED.

Any adverse environmental effects which cannot be avoided should the recommended project be implemented are expected to be minor individually and cumulatively.

10. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY.

The proposed project constitutes a short-term use of man's environment and is not anticipated to affect long-term productivity.

11. ALTERNATIVES TO THE RECOMMENDED PLAN.

Due to the purpose of the Proposed Action being a bridge widening as a result of the construction of managed lanes, the geographic region for the study of alternatives was limited. However, alternative were considered to the east of the preferred alternative.

Alternative 1 – Preferred Alternative: The Preferred Alternative is a managed-lane system that was subsequently included in the adopted FY 2008-2013 Transportation Improvement Project (TIP). The reversible managed-lane project also was incorporated in the Atlanta Regional Commission's (ARC) *Plan 2040 Regional Transportation Plan* and its associated FY 2012-2017 TIP, both of which were adopted on July 27, 2011.

The lanes are managed in that a variable-priced tolling system will be used to regulate the

Date Prepared:  
October 2014

number of vehicles that enter the facility. Tolls will be collected electronically. No toll plazas will be constructed. The lanes will primarily serve passenger cars and transit vehicles.

On I-575, access to/from the facility will be provided by a system of slip ramps. The southbound slip ramps will allow vehicles in the general purpose lanes to enter the reversible managed lane system in the AM peak period. The northbound slip ramps will be open the remainder of the day and allow vehicles in the managed lanes to exit to the general purpose system. In the southbound direction, the slip ramps will be located south of Barrett Pkwy, south of Shallowford Road, and south of Sixes Road. In the northbound direction, the slip ramps will be located south of Big Shanty Road, north of Shallowford Road, and south of Sixes Road.

Alternative 2 (No-Build): Alternative 2 includes the highway and transit facilities and services that are likely to exist in 2035 without any additional highway or transit improvements. The highway system network under the No-Build Alternative is assumed to consist of all existing highways defined by the ARC 2008 *Travel Demand Forecasting Model* plus long-range improvements from the *Envision6 2030 Regional Transportation Plan (RTP)*. The transit system network consists of all of the transit services and facilities defined by the ARC existing transit network plus the short-range and long-range transit improvements from the RTP.

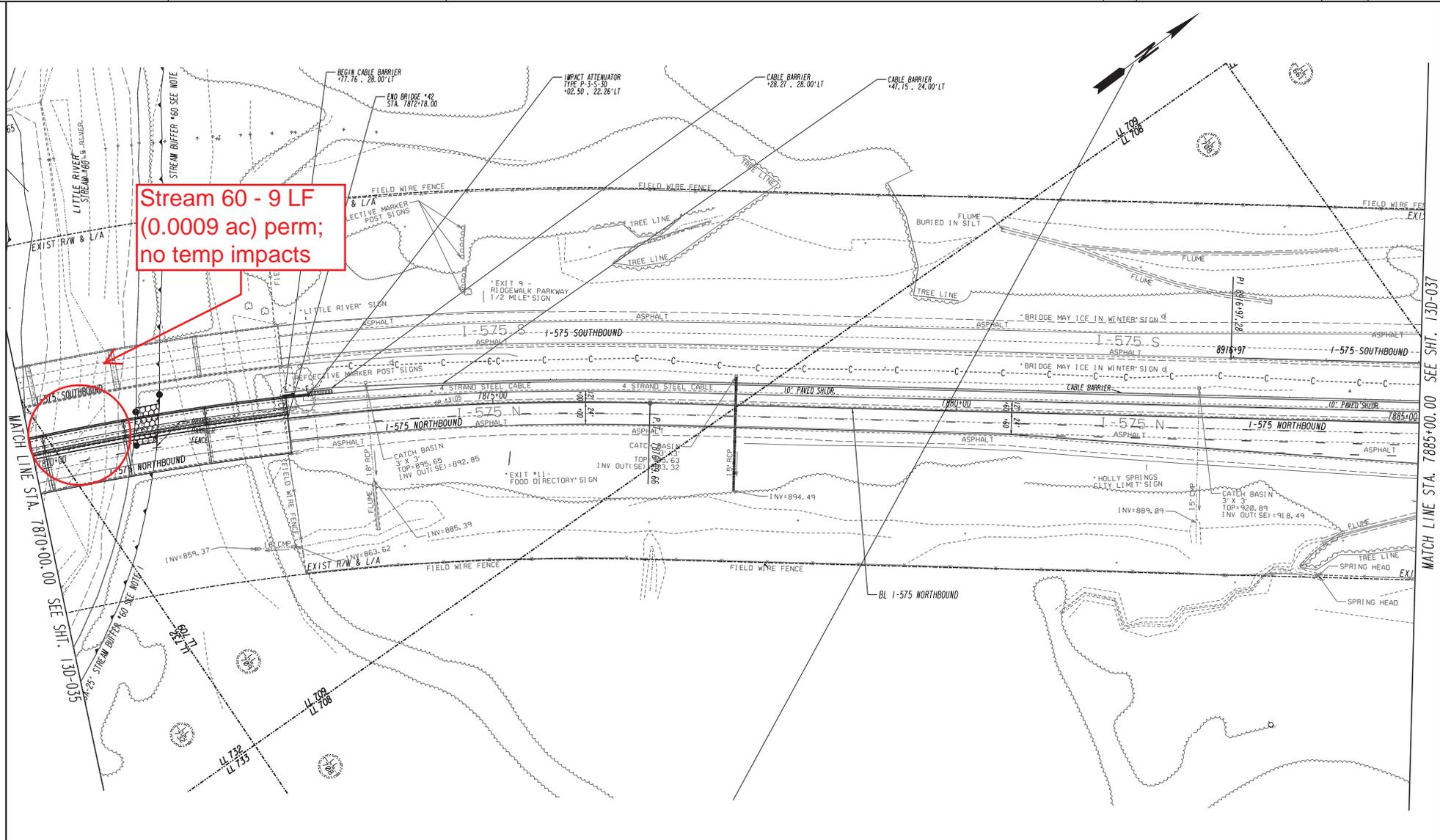
## 12. COORDINATION.

For resource agency coordination, various concurrence letters have been received from agencies including USFWS (see **Attachment B, Agency Coordination**). Also, Project Commitments to protect resources have been signed and approved by the Federal Highway Administration.

# Attachment A

## Preliminary Plans

---



PROPERTY AND EXISTING R/W LINE	---
REQUIRED R/W LINE	---
CONSTRUCTION LIMITS	---
EASEMENT FOR CONSTR	---
& MAINTENANCE OF SLOPES	---
EASEMENT FOR CONSTR OF SLOPES	---
EASEMENT FOR CONSTR OF DRIVES	---

BEGIN LIMIT OF ACCESS... BLA	---
END LIMIT OF ACCESS... ELA	---
LIMIT OF ACCESS	---
REQ'D R/W & LIMIT OF ACCESS	---

NO.	ISSUE RECORD	DATES
A	602 Plans	



**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

SCALE IN FEET  
0 50 100 200

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE DELIVERY  
**MAINLINE PLAN**

1-75/1-575 MANAGED LANES

DRAWING No. **13D-036**

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSNHS-0008-00(256)		

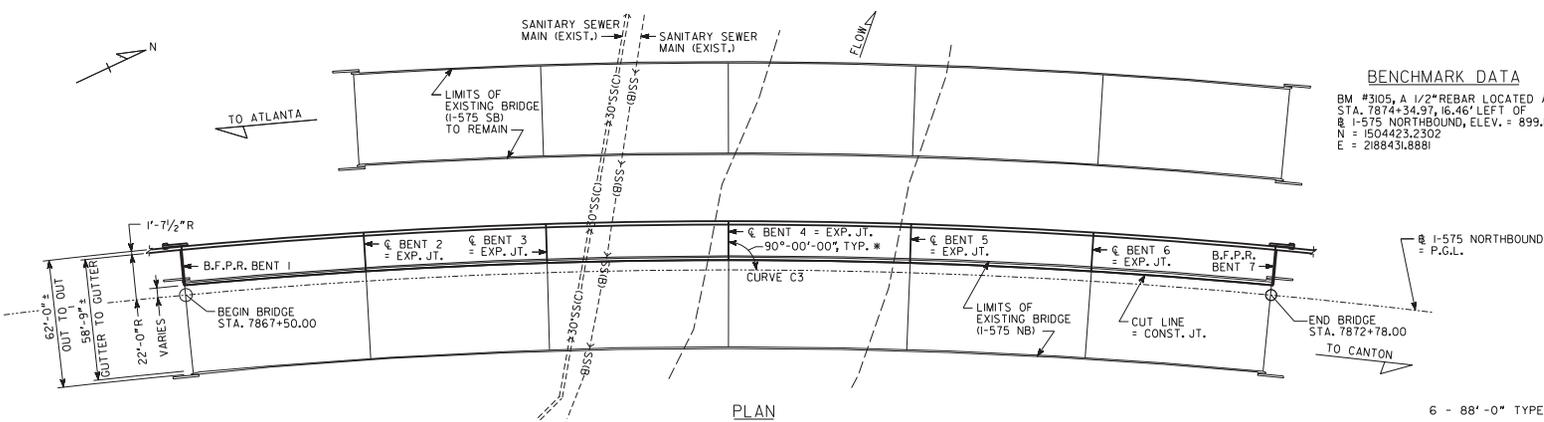
STATION	ELEVATION
7867+00.00	898.34
7867+50.00	897.77
7868+00.00	897.28
7868+50.00	896.80
7869+00.00	896.42
7869+50.00	896.14
7870+00.00	895.96
7870+50.00	895.94
7871+00.00	896.02
7871+50.00	896.30
7872+00.00	896.57
7872+50.00	897.11
7873+00.00	897.59
7873+50.00	898.22

I-575 NB C3  
 P.I.S.T.A. = 7868+24.95  
 P.I.N. = 1503896.62  
 P.I.E. = 2188024.62  
 $\Delta$  = 35'-06"-17" (RT)  
 $D$  = 2°-00'-37"  
 $T$  = 90'.46  
 $L$  = 1746.17  
 $R$  = 2850.00  
 $E$  = 139.17

HORIZONTAL CURVE DATA  
 I-575 NORTHBOUND  
 ALONG P.G.L.

EXISTING GRADE DATA  
 I-575 NORTHBOUND  
 ALONG P.G.L.

**BENCHMARK DATA**  
 BM #3105, A 1/2" REBAR LOCATED AT STA. 7874+34.97, 16.46' LEFT OF I-575 NORTHBOUND, ELEV. = 899.17  
 $N$  = 1504423.2302  
 $E$  = 2188451.8881



**BRIDGE CONSISTS OF**

- 6 - 88'-0" TYPE III PSC BEAM SPANS ----- SPECIAL DESIGN
- 2 - PILE END BENTS ----- SPECIAL DESIGN
- 5 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN

**DESIGN DATA**

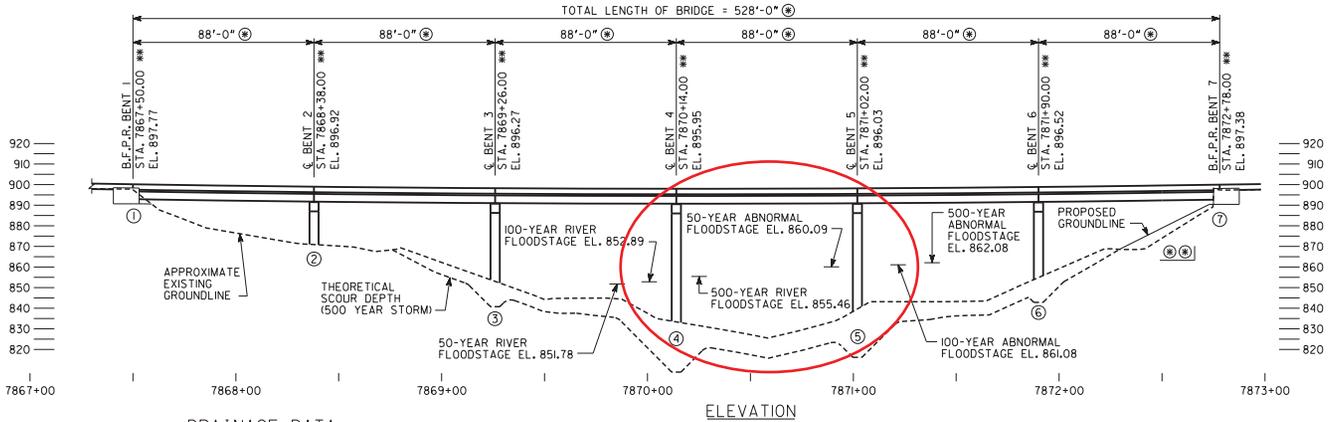
- SPECIFICATIONS ----- AASHTO 17TH EDITION, 2002 (DESIGNED FOR SEISMIC PERFORMANCE CATEGORY B)
- TYPICAL HS20-44 AND/OR MILITARY LOADING ----- IMPACT ALLOWED
- FUTURE PAVING ALLOWANCE ----- 30 LBS PER SQ FT

**TRAFFIC DATA**

- TRAFFIC ----- ADT = 102,600 (2018)  
ADT = 118,600 (2035)
- DESIGN SPEED ----- 65 MPH
- TRUCKS ----- 16 %
- DIRECTIONAL ----- 50 %

**UTILITIES**

NO UTILITIES ON BRIDGE



**DRAINAGE DATA**

DRAINAGE AREA ----- 142 SQ MILES

**(RIVER FLOODSTAGE)**

FLOOD FREQUENCY	TOTAL DISCHARGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER
50 YEAR	12900 CFS	5.02 FPS	2569 SQ FT	0.19 FT
100 YEAR	14700 CFS	5.18 FPS	2836 SQ FT	0.20 FT
500 YEAR	19300 CFS	5.55 FPS	3477 SQ FT	0.22 FT

**(ABNORMAL FLOODSTAGE)**

FLOOD FREQUENCY	TOTAL DISCHARGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER
50 YEAR	12900 CFS	2.78 FPS	4640 SQ FT	0.05 FT
100 YEAR	14700 CFS	3.00 FPS	4906 SQ FT	0.05 FT
500 YEAR	19300 CFS	3.72 FPS	5185 SQ FT	0.10 FT

**THEORETICAL SCOUR DEPTHS (FT)**

BENT LOCATION	100 YEAR STORM			500 YEAR STORM		
	GENERAL	LOCAL	TOTAL	GENERAL	LOCAL	TOTAL
3	2.4	4.8	7.2	5.9	5.6	11.5
4	9.0	13.0	22.0	9.6	14.4	24.0
5	9.0	11.4	20.4	9.6	12.6	22.2
6	2.8	3.7	6.5	6.8	4.3	11.1

**NOTES:**

1. \* - MEASURED TO TANGENT AT I-575 NORTHBOUND AND B.F.P.R. OR C BENT.
2. \*\* - STATIONS AND ELEVATIONS ARE AT INTERSECTION OF PROFILE GRADE LINE AND B.F.P.R. OR CENTERLINE BENT.
3. END BENT PILES NOT SHOWN.
4. ALL BENTS ARE RADIAL TO I-575 NORTHBOUND.
5. THE PROPOSED BRIDGE DECK IS TO BE BUILT ON A CONSTANT CROSS SLOPE OF 7% SLOPING DOWN TO THE RIGHT.
6. THE MINIMUM BOTTOM OF BEAM ELEVATION FOR THE PROPOSED BRIDGE SHALL BE NO LOWER THAN ELEVATION 862.09.
7. THE PROPOSED BRIDGE BOTTOM OF BEAM ELEVATION IS 888.85.
8. R INDICATES RADIAL DIMENSION.
9. Ⓢ - MEASURED ALONG I-575 NORTHBOUND.
10. REPAIR AND REPLACE EXISTING RIPRAP AS NEEDED.
11. SEE ROADWAY PLANS FOR DECK DRAINAGE.
12. TEMPORARY SHORING MAY BE REQUIRED.
13. SEE ROADWAY PLANS FOR COMPLETE STAGING PLANS.
14. ⓈⓈ SLOPE NORMAL TO END BENT. MATCH EXISTING.
15. ELEVATIONS OF EXISTING UTILITIES TO BE DETERMINED, IF POTENTIAL CONFLICTS EXIST.

END BENT	ELEVATION
1 LT.	892.34
7 LT.	891.94

†NOTE: FOR BRIDGE ENDDROLL STAKING PURPOSES ONLY.

**Stream 60, Bridge 42**

EXISTING BRIDGE SERIAL NO. 057-00417D-010,44N  
 EXISTING BRIDGE I.D. NO. 057-0044-0  
 PROJECT P.J. NO. 0008256  
 BRIDGE NO. 42



GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
 ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

PRELIMINARY LAYOUT  
 I-575 NORTHBOUND OVER LITTLE RIVER

CHEROKEE COUNTY CSNHS-0008-00(256)

SCALE: 1" = 30'

MARCH 2014

DRAWING NO.  
 35-BR42-001  
 STRUCTURE SHEET  
 1 OF 2

DESIGNED: GBL	CHECKED: KAK	REVIEWED:
DRAWN: JRL	DESIGN GROUP:	APPROVED:



Photograph 1. Stream 60 (Little River)



Photograph 2. Stream 60

# Attachment B

## Agency Coordination

---



# United States Department of the Interior

Fish and Wildlife Service  
105 Westpark Drive, Suite D  
Athens, Georgia 30606

July 1, 2014

West Georgia Sub Office  
P.O. Box 52560  
Ft. Benning, Georgia 31995-2560

Coastal Sub Office  
4980 Wildlife Drive  
Townsend, Georgia 31331

Mr. Rodney Barry, P.E.  
Division Administrator.  
Federal Highway Administration, Georgia Division  
61 Forsyth Street, SW; Suite 17T100  
Atlanta, Georgia 30303  
ATTN: Ms. Chetna Dixon

RE: USFWS Log# 04EG1000-2014-I-1099, GDOT P.I. No. 0008256

Dear Mr. Barry:

Thank you for your May 12, 2014, electronic mail regarding Georgia Department of Transportation (GDOT) project CSNHS-0008-00(256). We submit the following comments under provisions of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

GDOT proposes to construct reversible, managed lanes on Interstate 75 and Interstate 575 in Cobb and Cherokee Counties, Georgia. Collective transportation improvements are referred to as the Northwest Corridor Project. GDOT modified design plans slightly, as detailed in their May 8, 2014 consultation package.

The project lies within the known range of the threatened Cherokee darter (*Etheostoma scotti*), within the Clark Creek drainage and within the potential summer range of: endangered Indiana myotis (*Myotis sodalis*); endangered gray myotis (*Myotis grisescens*); and proposed endangered northern myotis (*Myotis septentrionalis*).

GDOT committed to implementing special stormwater infiltration measures outlined in the proposed Etowah Habitat Conservation Plan, designed to minimize and avoid indirect effects of the project to downstream Cherokee darter populations in Clark Creek and its tributaries. GDOT will provide our agency with its stormwater control and infiltration plan prior to finalization of the construction plans. No seasonal clearing restrictions are necessary for potential bat roosting and foraging habitat. However, GDOT did include into the project re-vegetation procedures and minimum clearing areas.

We concur with your determination that the project is not likely to adversely affect the Cherokee darter, Indiana myotis, gray myotis, or northern myotis. Your agency satisfied obligations of section 7(a)(2) of the Act and formal consultation is not required. However, obligations under the Act must be reconsidered if: (1) the project is modified in a manner not considered by this assessment; (2) a new species is listed or critical habitat is determined that may be affected by the project; or (3) new information indicates that the project may affect listed species or critical habitat in a manner not previously considered. If you have any questions or require further information, please contact biologist Pete Pattavina, at 706-613-9493.

Sincerely,

Donald W. Imm, Ph.D.  
Field Supervisor

601

cc: Doug Chamblin, GDOT  
file



## WILDLIFE RESOURCES DIVISION

### Known occurrences of special concern plants, animals and natural communities Cherokee County — Fips Code: 13057

Find details for these species at [Georgia Rare Species and Natural Community Data](#) and [NatureServe Explorer](#).

**[US]** indicates species with federal status (Protected or Candidate).  
Species that are federally protected in Georgia are also state protected.  
**[GA]** indicates Georgia protected species.  
 link to species profile on our site (not available for all species).  
 link to report for element on NatureServe Explorer (only available for animals and plants).

#### Animal Occurrences

- *Acipenser fulvescens* (Lake Sturgeon) - fish
- *Cambarus fasciatus* (Etowah Crayfish) **[GA]** - crustacean
- *Etheostoma etowahae* (Etowah Darter) **[US]** - fish
- *Etheostoma rupestre* (Rock Darter) **[GA]** - fish
- *Etheostoma scotti* (Cherokee Darter) **[US]** - fish
- *Haliaeetus leucocephalus* (Bald Eagle) **[GA]** - bird
- *Hybopsis lineapunctata* (Lined Chub) **[GA]** - fish
- *Hybopsis* sp. 9 (Etowah Chub) - fish
- *Macrhybopsis* sp. 1 (Coosa Chub) **[GA]** - fish
- *Noturus munitus* (Frecklebelly Madtom) **[GA]** - fish
- *Noturus nocturnus* (Freckled Madtom) - fish
- *Percina antesella* (Amber Darter) **[US]** - fish
- *Percina lenticula* (Freckled Darter) **[GA]** - fish
- *Pituophis melanoleucus melanoleucus* (Northern Pine Snake) - reptile

#### Community Occurrences

- *Tilia americana* var. *heterophylla* - *Fraxinus americana* - (*Ulmus rubra*) / *Sanguinaria canadensis* - (*Aquilegia canadensis*, *Asplenium rhizophyllum*) Forest (Southern Appalachian Cove Forest)

#### Plant Occurrences

- *Cypripedium parviflorum* (Yellow Ladyslipper) **[GA]**
- *Eurybia jonesiae* (Piedmont Bigleaf Aster)
- *Lygodium palmatum* (Climbing Fern)
- *Lysimachia fraseri* (Fraser's Loosestrife) **[GA]**
- *Nestronia umbellula* (Indian Olive) **[GA]**
- *Prunus virginiana* (Chokecherry)
- *Rhus michauxii* (Dwarf Sumac) **[US]**
- *Schisandra glabra* (Bay Star-vine) **[GA]**
- *Xerophyllum asphodeloides* (Eastern Turkeybeard) **[GA]**

Generated from Georgia DNR's NatureServe Biotics conservation database on October 12, 2011



U.S. Fish and Wildlife Service

## Trust Resources List

**This resource list is to be used for planning purposes only — it is not an official species list.**

**Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:**

**Georgia Ecological Services Field Office**  
105 WESTPARK DRIVE  
WESTPARK CENTER SUITE D  
ATHENS, GA 30606  
(706) 613-9493

***Project Name:***

Northwest Corridor

***Project Counties:***

Cherokee, GA

***Project Type:***

Transportation

***Endangered Species Act Species List ([USFWS Endangered Species Program](#)).***

There are a total of **11** threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

**Species that should be considered in an effects analysis for your project:**

Clams	Status		Has Critical Habitat	Contact
-------	--------	--	----------------------	---------



## Trust Resources List

Alabama moccasinshell ( <i>Medionidus acutissimus</i> ) Population:	Threatened	<a href="#">species info</a>	<a href="#">Final designated critical habitat</a>	Georgia Ecological Services Field Office
finelined pocketbook ( <i>Lampsilis altilis</i> ) Population:	Threatened	<a href="#">species info</a>	<a href="#">Final designated critical habitat</a>	Georgia Ecological Services Field Office
Southern clubshell ( <i>Pleurobema decisum</i> ) Population:	Endangered	<a href="#">species info</a>	<a href="#">Final designated critical habitat</a>	Georgia Ecological Services Field Office
Southern pigtoe ( <i>Pleurobema georgianum</i> ) Population:	Endangered	<a href="#">species info</a>	<a href="#">Final designated critical habitat</a>	Georgia Ecological Services Field Office
Triangular Kidneyshell ( <i>Ptychobranhus greenii</i> ) Population:	Endangered	<a href="#">species info</a>	<a href="#">Final designated critical habitat</a>	Georgia Ecological Services Field Office
<b>Fishes</b>				
Amber darter ( <i>Percina antesella</i> ) Population: Entire	Endangered	<a href="#">species info</a>	<a href="#">Final designated critical habitat</a>	Georgia Ecological Services Field Office
Cherokee darter ( <i>Etheostoma scotti</i> ) Population: Entire	Threatened	<a href="#">species info</a>		Georgia Ecological Services Field Office
Etowah darter ( <i>Etheostoma etowahae</i> ) Population: Entire	Endangered	<a href="#">species info</a>		Georgia Ecological Services Field Office
<b>Mammals</b>				
Gray bat ( <i>Myotis grisescens</i> ) Population: Entire	Endangered	<a href="#">species info</a>		Georgia Ecological Services Field Office
Indiana bat ( <i>Myotis sodalis</i> ) Population: Entire	Endangered	<a href="#">species info</a>		Georgia Ecological Services Field Office
northern long-eared Bat ( <i>Myotis septentrionalis</i> ) Population:	Proposed Endangered	<a href="#">species info</a>		Georgia Ecological Services Field Office



## Trust Resources List

### Critical habitats within your project area:

*There are no critical habitats within your project area.*

### ***FWS National Wildlife Refuges ([USFWS National Wildlife Refuges Program](#)).***

*There are no refuges found within the vicinity of your project.*

### ***FWS Migratory Birds ([USFWS Migratory Bird Program](#)).***

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html>.

### **Migratory birds of concern that may be affected by your project:**

There are 4 birds on your Migratory birds of concern list. The Division of Migratory Bird Management is in the process of populating migratory bird data with an estimated completion date of August 1, 2014; therefore, the list below may not include all the migratory birds of concern in your project area at this time. While this information is being populated, please contact the Field Office for information about migratory birds in your project area.

Species Name	Bird of Conservation Concern (BCC)	Species Profile	Seasonal Occurrence in Project Area
--------------	------------------------------------	-----------------	-------------------------------------



## Trust Resources List

Brown-headed Nuthatch ( <i>Sitta pusilla</i> )	Yes	<a href="#">species info</a>	Year-round
Rusty Blackbird ( <i>Euphagus carolinus</i> )	Yes	<a href="#">species info</a>	Wintering
Wood Thrush ( <i>Hylocichla mustelina</i> )	Yes	<a href="#">species info</a>	Breeding
Worm eating Warbler ( <i>Helmitheros vermivorum</i> )	Yes	<a href="#">species info</a>	Breeding

### ***NWI Wetlands ([USFWS National Wetlands Inventory](#)).***

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

### **Data Limitations, Exclusions and Precautions**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There



## Trust Resources List

may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

**Exclusions** - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

**Precautions** - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

**The following wetland types intersect your project area in one or more locations:**

Wetland Types	NWI Classification Code	Total Acres
Freshwater Emergent Wetland	<a href="#">PEM1Fh</a>	9.5578
Freshwater Emergent Wetland	<a href="#">PEM1F</a>	4.6211
Freshwater Emergent Wetland	<a href="#">PEM1C</a>	2.2599
Freshwater Emergent Wetland	<a href="#">PEM1A</a>	14.838
Freshwater Emergent Wetland	<a href="#">PEM1Ch</a>	13.8315
Freshwater Emergent Wetland	<a href="#">PEM1Ad</a>	1.8927
Freshwater Forested/Shrub Wetland	<a href="#">PSS1Ch</a>	41.891
Freshwater Forested/Shrub Wetland	<a href="#">PFO1Ah</a>	14.1723
Freshwater Forested/Shrub Wetland	<a href="#">PSS1Ad</a>	1.829
Freshwater Forested/Shrub Wetland	<a href="#">PSS1Cd</a>	13.5037
Freshwater Forested/Shrub Wetland	<a href="#">PFO1Ad</a>	6.3454
Freshwater Forested/Shrub Wetland	<a href="#">PSS1Ah</a>	24.8319
Freshwater Forested/Shrub Wetland	<a href="#">PFO1Ch</a>	3.0298



## Trust Resources List

Freshwater Forested/Shrub Wetland	<a href="#">PFO4A</a>	6.4123
Freshwater Forested/Shrub Wetland	<a href="#">PSS1Fh</a>	5.5363
Freshwater Forested/Shrub Wetland	<a href="#">PSS1/3A</a>	12.9857
Freshwater Forested/Shrub Wetland	<a href="#">PSS1/3C</a>	9.1882
Freshwater Forested/Shrub Wetland	<a href="#">PSS1Fd</a>	1.9304
Freshwater Forested/Shrub Wetland	<a href="#">PFO1Bh</a>	1.4421
Freshwater Forested/Shrub Wetland	<a href="#">PFO1/4A</a>	7.8352
Freshwater Forested/Shrub Wetland	<a href="#">PFO1Fh</a>	1.2037
Freshwater Forested/Shrub Wetland	<a href="#">PFO1B</a>	5.8827
Freshwater Forested/Shrub Wetland	<a href="#">PSS1A</a>	256.0195
Freshwater Forested/Shrub Wetland	<a href="#">PFO1C</a>	98.8566
Freshwater Forested/Shrub Wetland	<a href="#">PSS1C</a>	95.9453
Freshwater Forested/Shrub Wetland	<a href="#">PFO1A</a>	593.417
Freshwater Forested/Shrub Wetland	<a href="#">PFO1F</a>	15.2145
Freshwater Pond	<a href="#">PUBFx</a>	0.1648
Freshwater Pond	<a href="#">PUBHx</a>	33.7188
Freshwater Pond	<a href="#">PUBH</a>	0.6972
Freshwater Pond	<a href="#">PUBF</a>	0.2018
Freshwater Pond	<a href="#">PUBHh</a>	1050.1016
Freshwater Pond	<a href="#">PUBHb</a>	0.7409
Freshwater Pond	<a href="#">PUBKx</a>	2.9767
Lake	<a href="#">L1UBH</a>	27.6011
Lake	<a href="#">L1UBHh</a>	10038.9207
Lake	<a href="#">L2UBHh</a>	42.7223
Other	<a href="#">PUSAh</a>	5.7826
Other	<a href="#">PUSCh</a>	0.2111



U.S. Fish and Wildlife Service

## Trust Resources List

Other	<a href="#">PUSAx</a>	1.9895
Riverine	<a href="#">R2UBH</a>	386.935
Riverine	<a href="#">R2USA</a>	2.4211



# United States Department of the Interior

**Fish and Wildlife Service**  
105 Westpark Drive, Suite D  
Athens, Georgia 30606

**July 1, 2014**

West Georgia Sub Office  
P.O. Box 52560  
Ft. Benning, Georgia 31995-2560

Coastal Sub Office  
4980 Wildlife Drive  
Townsend, Georgia 31331

Mr. Rodney Barry, P.E.  
Division Administrator.  
Federal Highway Administration, Georgia Division  
61 Forsyth Street, SW; Suite 17T100  
Atlanta, Georgia 30303  
ATTN: Ms. Chetna Dixon

RE: USFWS Log# 04EG1000-2014-I-1099, GDOT P.I. No. 0008256

Dear Mr. Barry:

Thank you for your May 12, 2014, electronic mail regarding Georgia Department of Transportation (GDOT) project CSNHS-0008-00(256). We submit the following comments under provisions of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

GDOT proposes to construct reversible, managed lanes on Interstate 75 and Interstate 575 in Cobb and Cherokee Counties, Georgia. Collective transportation improvements are referred to as the Northwest Corridor Project. GDOT modified design plans slightly, as detailed in their May 8, 2014 consultation package.

The project lies within the known range of the threatened Cherokee darter (*Etheostoma scotti*), within the Clark Creek drainage and within the potential summer range of: endangered Indiana myotis (*Myotis sodalis*); endangered gray myotis (*Myotis grisescens*); and proposed endangered northern myotis (*Myotis septentrionalis*).

GDOT committed to implementing special stormwater infiltration measures outlined in the proposed Etowah Habitat Conservation Plan, designed to minimize and avoid indirect effects of the project to downstream Cherokee darter populations in Clark Creek and its tributaries. GDOT will provide our agency with its stormwater control and infiltration plan prior to finalization of the construction plans. No seasonal clearing restrictions are necessary for potential bat roosting and foraging habitat. However, GDOT did include into the project re-vegetation procedures and minimum clearing areas.

We concur with your determination that the project is not likely to adversely affect the Cherokee darter, Indiana myotis, gray myotis, or northern myotis. Your agency satisfied obligations of section 7(a)(2) of the Act and formal consultation is not required. However, obligations under the Act must be reconsidered if: (1) the project is modified in a manner not considered by this assessment; (2) a new species is listed or critical habitat is determined that may be affected by the project; or (3) new information indicates that the project may affect listed species or critical habitat in a manner not previously considered. If you have any questions or require further information, please contact biologist Pete Pattavina, at 706-613-9493.

Sincerely,

Donald W. Imm, Ph.D.  
Field Supervisor

601

cc: Doug Chamblin, GDOT  
file

# Attachment C

## Environmental Commitments

---

Date: May 9, 2014

## DEPARTMENT OF TRANSPORTATION

### STATE OF GEORGIA

#### SPECIAL PROVISION

**PROJECT: CSNHS-0008-00(256) COBB and CHEROKEE COUNTIES, PI #  
0008256**

### **Section 107 – Legal Regulations and Responsibility to the Public**

---

*Add the following to Subsection 107.23:*

#### **G. Protection of Environmentally Sensitive Species**

The following conditions are intended as a minimum to protect migratory bird species, the listed federally protected species, and the listed state-protected aquatic species, as well as their habitat during any activities that are in close proximity to the known location(s) of these species. The following paragraphs detail the specific and general special provisions that will be in place for migratory bird species, federally protected species, and the listed state-protected aquatic species as well as the incident reporting requirements.

1. The Contractor shall advise all project personnel employed to work on this Project about the potential presence and appearance of federal protected eastern phoebes (*Sayornis phoebe*), cliff swallows (*Petrochelidon pyrrhonota*) or barn swallows (*Hirundo rustica*), and that there are civil and criminal penalties for harming, harassing, or killing these species, which are protected under the Migratory Bird Treaty Act of 1918. The Contractor shall advise all project personnel employed to work on this project about the potential presence and appearance of the federal endangered Indiana bat (*Myotis sodalis*), gray bat (*Myotis grisescens*), federal threatened Cherokee darter (*Etheostoma scotti*), and proposed federal endangered northern long-eared bat (*Myotis septentrionalis*) which are protected under the Endangered Species Act of 1973 and the Georgia Endangered Wildlife Act of 1973, and that there are civil penalties for capture, killing or selling the Indiana bat, gray bat, and Cherokee darter. Furthermore, the Contractor shall advise all project personnel employed to work on this project about the potential presence and appearance of the state-listed Chattahoochee crayfish (*Cambrus howardii*), highscale shiner (*Notropis hypsilepis*), bluestripe shiner (*Cyprinella callitaenia*), delicate spike (*Elliptio arcata*), and lined chub (*Hybopsis lineapunctata*) and that there are civil and criminal penalties for harming, harassing, or killing these species, which are protected under the Georgia Endangered Wildlife Act of 1973. Pictures and habitat information will be provided to the Contractor at the preconstruction conference.

## ENVIRONMENTAL COMMITMENTS TABLE UPDATE STATUS

<b>Project Information</b>	<b>Project Manager Review</b>	<b>Specialist Review</b>
Project No.: CSNHS-0008-00(256)	<input checked="" type="checkbox"/> I have reviewed these commitments and verified their feasibility.	Air/Noise <u>df</u>
County: Cobb & Cherokee	<input type="checkbox"/> All delineations are marked on the plans.	Archaeology <u>MM via THT email</u>
PI No.: 0008256		Ecology/404 <u>Jensen</u>
Status: ROD Reevaluation		History <u>[Signature]</u>
Date Updated: August 12, 2014	PM Signature	NEPA <u>Ro</u>

NO.	COMMITMENT/REQUIREMENT <i>(Separate out commitments by PI No.)</i>	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS <i>(Yes or No)</i>	REQUIRES A SPECIAL PROVISION <i>(Yes or No)</i>	STATUS <i>(Pre- and Post Construction - Complete or Incomplete; During Construction - Signature Required)</i>
<b>Pre-Construction Commitments</b>							
1	All Waters of the U.S., state waters, and stream/pond buffers will be shown on the plans and appropriately labeled.	Memo to project designer	GDOT District	Negligible	Yes	No	Complete
2	Stream buffer variances will be obtained for Streams 4, 6A, 8, 16, and 28A prior to project implementation.	Ecology Technical Report 2014 Addendum	Office of Environmental Services/P3 Developer	No cost	No	No	Phase I (Stream 28A): Approval of stream buffer variance anticipated 10/6/14, no construction will proceed in the vicinity of Stream 28A until the stream buffer variance is approved.  Phase II (Streams 4, 6a, 8, and 16): Approval of stream buffer variance anticipated 10/6/14.

\*Estimated cost for planning purposes only; in current dollars as of date updated.

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
3	Include Special Provision (SP) 107.23G for the protection of migratory bird species and the protection of the federally endangered Indiana bat ( <i>Myotis sodalis</i> ), gray bat ( <i>Myotis grisescens</i> ), the federally threatened Cherokee darter ( <i>Etheostoma scotti</i> ), the proposed federally endangered northern long-eared bat ( <i>Myotis septentrionalis</i> ), the state-listed Chattahoochee crayfish ( <i>Cambrus howardii</i> ), highscale shiner ( <i>Notropis hypsilepis</i> ), bluestripe shiner ( <i>Cyprinella callitaenia</i> ), delicate spike ( <i>Elliptio arctata</i> ), and lined chub ( <i>Hybopsis lineapunctata</i> ) in the P3 Developer Agreement.	ROD/Ecology Technical Report 2014 Addendum	Office of Innovative Delivery	No cost	No	Yes	Complete
4	Mitigation for the unavoidable 289.5 linear feet of permanent stream impacts and 1,007.7 linear feet of temporary stream impacts (a total of 5,308 stream mitigation credits) will be provided by using an USACE-approved commercial mitigation bank or GDOT-owned bank serving HUC 03130001 and HUC 03150104.	Ecology Technical Report 2014 Addendum	Office of Environmental Services	\$185,780	No	No	Phase I (Stream 28A): Mitigation credits will be purchased prior to construction in this area. Although Stream 28A is located in a Phase I area, construction in stream areas is not schedule to begin until Phase II.  Phase II (Streams 1E, 5, 8, 23, 51, and 60): All credits will be purchased prior to construction in these stream areas.

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
5	A USACE Section 404 Regional Permit will be acquired prior to project implementation within Waters of the U.S. A USACE Section 408 permit to support the amended easement for Stream 60 will also be acquired.	ROD Reevaluation/ Ecology Technical Report 2014 Addendum	Office of Environmental Services/P3 Developer	Negligible	No	No	Phase I: (Streams 1C, 18A): Although these streams are located in Phase I areas, construction in areas with streams is not scheduled to begin until Phase II. The Section 404 permit will be acquired prior to any construction related to Streams 1C and 18 A.  Phase II (Streams 1E, 4, 5, 6A, 8, 16, 23, 28A, 51, 60): Section 404 permit is in process and will be acquired prior to any construction related to the Section 404 permit. The Section 408 permit for Stream 60 is in process and will be acquired prior to any construction at Stream 60.
6	A NPDES permit will be acquired prior to construction.	ROD	Office of Construction/ P3 Developer	Negligible	No	No	Phase I: NPDES permit will be obtained after the Phase I Reevaluation approval but prior to start of construction.  Phase II: Incomplete.

\*Estimated cost for planning purposes only; in current dollars as of date updated.

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
56	A total of 21 stream mitigation credits within the Upper Chattahoochee River HUC 03130001 will be required to offset a portion of the Stream 8 buffer impacts associated with construction of Bridge 17. Stream credits will be purchased from an USACE-approved mitigation bank that serves HUC 03130001.	GA Environmental Protection Division's Buffer Variance.	Office of Environmental Services	\$840	No	No	Phase II: Incomplete
7	Coordination with FEMA, Cobb and Cherokee Counties, and GDNR will be conducted regarding the impacts to regulatory floodways. Rottenwood Creek (Streams 1 and 5B), Sope Creek (Stream 14) and Elizabeth Branch (Stream 18) will require a FEMA no-rise certification. Prior to construction, an approved FEMA CLOMR will be required for Hope Creek (Stream 8) and Rottenwood Creek (Stream 7). Issuance of a LOMR by FEMA will be required after construction is complete. The P3 Developer will prepare the final hydraulic analysis using the most current hydraulic information available.	ROD	Office of Environmental Services/ Office of Innovative Delivery/ P3 Developer	Negligible	No	No	Phase I: Complete. Rottenwood Creek (Stream 1); No-rise certification approved by Cobb County.  Phase II: Rottenwood Creek (Streams 5B and 7); Hope Creek (Stream 8); Sope Creek (Stream 14); Elizabeth Branch (Stream 18); Noonday Creek (Streams 23, 30 and 51); Little River (Stream 60): Incomplete.

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE  
 Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties  
 Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
8	The P3 Developer shall design the project to minimize impacts to floodplains. These features should include bridge structures over streams, increasing the slope ratio at the 100-year floodplain crossings, and placing retaining walls at the 100-year floodplain crossings.	ROD	Office of Environmental Services/ Office of Innovative Delivery	TBD	No	No	Phase I: Complete. Bridging over Rottenwood Creek (Stream 1). 2:1 slopes used at bridge end bents. No-rise certification for Rottenwood Creek (Stream 1) approved by Cobb County.  Phase II: Incomplete
9	A final decision on the installation of sound barriers will be made upon completion of additional detailed noise abatement analysis based on final design and public outreach to affected property owners and dwellers. Coordination with property owners and dwellers regarding the location of potential sound barriers will be conducted prior to the final decision on the installation of the sound barriers. Public involvement will be conducted in accordance with the approved public involvement plan for the project.	ROD/Noise Technical Report	Office of Environmental Services/ P3 Developer	TBD	No	No	Public Outreach Phase I :Complete Phase II: Incomplete Phase III: Pending further analysis/ refinement of barrier design.  Phase I includes walls 1, 2, 3, 4 and 8-9 on I-75.  Phase II includes walls 5, 6, 7, 10-11, 13, 14-15, 18, 19, 20, 21, 22-23-24-25, 26, 27-28-29, 30, 31-32, 34-35, 33, 36, 38 on I-75 and 1, 2, 3, 4, 5, 6, 7, 8, and 9 on I-575.
10	Design features that may aid emergency access will be considered during future stages of project design.	ROD	Office of Innovative Delivery	No cost	No	No	Complete

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
11a	The height of structural walls will be mitigated visually through the use of context-sensitive aesthetic finishes or treatments and, where possible, landscaping. Community outreach to this end will be implemented during final design via coordination with local officials.	ROD	Office of Environmental Services/P3 Developer	\$5,000,000	No	No	The project aesthetic plan will be presented to local officials in mid-September.
11b	The height of sound barriers will be mitigated visually through the use of context-sensitive aesthetic finishes or treatments and, where possible, landscaping. Community outreach to this end will be implemented during final design.	ROD	Office of Environmental Services/P3 Developer		No	No	Public outreach completed June 17 and 19, 2014. Meeting held with Cobb County officials June 10, 2014. Meeting held with City of Marietta officials July 21, 2014. Meeting held with Cherokee County officials May 2, 2014.
12	A detailed financial plan for the Northwest Corridor Project will be developed by GDOT and approved by FHWA. Access to the managed-lane facility by disadvantaged persons will be included in the financial plan. The P3 Developer accounting related to the Northwest Corridor Project will be subject to GDOT audits.	ROD	Office of Financial Management and GDOT Financial Advisor	No cost	No	No	Complete

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
13	Cash-based and cash preferred customer solutions will be implemented to facilitate toll lane access to those who may need or prefer to purchase Peach Pass accounts with cash and in person rather than online and with a credit card. These cash-based and cash-preferred customer solutions will also entail providing additional locations for Peach Pass purchase, including retail outlets. In addition, minimum required initial values and reload amounts for the Peach Pass will occur. Finally, the transaction cost associated with reloading the card will be set to minimize the financial impact to cash-based and cash-preferred customers.	ROD	SRTA/ P3 Developer/ Office of Innovative Delivery	No cost	No	No	Complete
14	A public information and notification plan to provide project information, updates, and construction information to community businesses and residents will be developed and maintained throughout project development. The plan will address the project through design, construction and operations.	ROD/Public Involvement Plan	Office of Environmental Services/Office of Communications P3 Developer	None	No	No	Ongoing
15	The project mailing list initiated during the AA/DEIS will be maintained, updated, and kept current throughout final design and construction activities to ensure all interested citizens will be notified about meetings and project news.	ROD/Public Involvement Plan	Office of Environmental Services/ P3 Developer	\$0.00	No	No	Ongoing
16	The P3 Developer, working collaboratively with GDOT, will furnish facility-related materials in multi-lingual communications not limited to English, Spanish, Portuguese, and other languages.	ROD/P3 Developer Agreement	Office of Environmental Services/ P3 Developer	TBD	No	No	Ongoing

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
17	A detailed construction noise mitigation plan will be developed prior to the initiation of construction.	ROD/Noise Technical Report	Office of Environmental Services/Office of Communications/ P3 Developer	No cost	No	No	Complete
18	A mitigation plan for the extended duration of potential 24-hour effects from construction-related noise, light, glare, and dust will be developed. The plan will be coordinated with neighborhood groups, including residents living in close proximity to the project corridor construction zone and staging areas.	ROD	Office of Innovative Delivery/Office of Communications/ P3 Developer	No cost	No	No	Ongoing
19	Eligible historic boundary for the Marietta and North Georgia Railroad (i.e., the right-of-way of the railroad mainline) and the Dobson Gulf Service Station-Marietta Muffler will be included on all plans. No construction will occur within the historic boundaries.	Email from Chad Carlson , GDOT Historian, dated 8/27/10	Office of Innovative Delivery/P3 Developer	No cost	Yes	No	Complete
20	A Level II contamination assessment will be conducted at all sites where right-of-way is required.	ROD	Office of Innovative Delivery/Office of Materials and Testing/ P3 Developer	No cost	No	No	Complete
21	Prior to construction, GDOT, the P3 Developer, and agencies that provide emergency response will prepare an emergency response plan that addresses coordination with construction activities and emergency responders.	ROD/P3 Developer Agreement	Office of Innovative Delivery/P3 Developer	No cost	No	No	Complete

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
22	Prior to construction, NOAA shall be provided no less than a 90-day notification of planned activities that will disturb or destroy any geodetic control monuments. This will provide time to plan for and execute relocation of geodetic monuments.	Letter from Christopher Harm, NOAA National Geodetic Survey, dated July 10, 2007	Office of Innovative Delivery/P3 Developer	TBD	Yes	No	Complete-Construction will not disturb any geodetic monuments. Monument locations have been noted on plans. Two of the three geodetic monuments were identified as missing or destroyed during a recent field survey. This is noted on the plan sheets.
23	An environmental mitigation plan for the Northwest Corridor Project will be developed and will include mitigation items cited in the FEIS and the ROD.	GDOT	Office of Environmental Services/ Office of Innovative Delivery	No cost	No	No	Complete
24	Meetings will be conducted with the public regarding potential detours. The meetings will be conducted in accordance with GDOT public involvement procedures.	GDOT	Office of Innovative Delivery/P3 Developer	No cost	No	No	Complete-No detours are planned.
25	Placement of advance toll signage will avoid any waters of the U.S.	Advance Toll Signage Technical Report	Office of Innovative Delivery/P3 Developer	No Cost	Yes	No	Complete
49	The US Fish and Wildlife Service (USFWS) will be provided with the stormwater control and infiltration plan prior to finalization of the construction plans. Stormwater infiltration measures will be designed to minimize and avoid indirect effects to downstream Cherokee darter populations in Clark Creek and its tributaries utilizing the Georgia Stormwater Management Manual (GSMM) guidelines.	Environmental Reevaluation/P3 Developer Agreement	Office of Environmental Services/ Office of Innovative Delivery/P3 Developer	No cost	No	No	Phase I: Complete. Stormwater infiltration measures approved by USFWS.  Phase II: None.
51	The reports for Site Nos. 40, 64, and 68 will be forwarded to the EPD UST Management Program (EPD USTMP) and Hazardous Site Response Program (HSRP) for review.	GDOT	Office of Environmental Services/ Office of Innovative Delivery	No cost	No	No	Complete

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
52	A copy of the report for sites 40, 64 and 68 will be forwarded to the respective property owners. The Office of Right-of-Way will note in any purchase agreement that contamination exists at Site Nos. 40, 64 and 68 and any future cleanup will be the responsibility of the current property owner.	GDOT	Office of Environmental Services/ Office of Innovative Delivery	No cost	No	No	Complete
53	The contractor will implement the best possible engineering and management controls to ensure adequate protection of employee safety in accordance with Georgia's Rules for Hazardous Waste Management.	GDOT	Office of Innovative Delivery/ P3 Developer	No cost	No	No	Complete
55	Additional analysis of Sound Barrier 3 on I-75 will be completed to determine whether the sound barrier can be shortened to provide abatement only for the benefited receptors in the single-family residences who desire abatement but not the apartment complexes, which do not want the abatement.	GDOT	Office of Environmental Services/ Office of Innovative Delivery	No cost	No	No	Sound barrier analysis will be conducted based on design refinements during Phase III.

\*Estimated cost for planning purposes only; in current dollars as of date updated.

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
<b>During Construction Commitments</b> <b>Construction or Area Engineer signature required upon the completion of all During Construction Commitments.</b>							
26	Special Provision (SP) 107.23G for the protection of migratory bird species and the protection of the federally endangered Indiana bat ( <i>Myotis sodalis</i> ), gray bat ( <i>Myotis grisescens</i> ), the federally threatened Cherokee darter ( <i>Etheostoma scotti</i> ), the proposed federally endangered northern long-eared bat ( <i>Myotis septentrionalis</i> ), the state-listed Chattahoochee crayfish ( <i>Cambrus howardii</i> ), highscale shiner ( <i>Notropis hypsilepis</i> ), bluestripe shiner ( <i>Cyprinella callitaenia</i> ), delicate spike ( <i>Elliptio arctata</i> ), and lined chub ( <i>Hybopsis lineapunctata</i> ) will be implemented.	ROD Re-evaluation/Ecology Technical Report 2014 Addendum	Office of Innovative Delivery/P3 Developer	No cost	No	Yes	Signature Required

\*Estimated cost for planning purposes only; in current dollars as of date updated.

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
27	Pedestrian and bicycle traffic on the Bob Callan Trail will be maintained by means of an approved traffic control plan during construction of proposed bridges. Conditions to be provided in the Transportation Management Plan (TMP). Precautions will be taken to ensure the safety of the trail users during construction. The trail facility will not be used for construction staging. Construction of the managed lanes over Bob Callan Trail will be of limited duration. Construction of the proposed bridge widening will occur at night when the trail is closed. The trail will remain open during the day during normal operating hours. No change in ownership will take place to any parkland. Any impact to the Bob Callan Trail due to P3 Developer construction activities will be mitigated by restoring the Trail to pre-construction conditions.	ROD	Office of Innovative Delivery/P3 Developer	No cost	Yes	No	Signature Required
28	A public information and notification plan/program to provide project information/ updates/construction information to community businesses and residents during construction and operations will be implemented.	ROD	Office of Innovative Delivery/P3 Developer	None	No	No	Signature Required
29	The project mailing list initiated during the AA/DEIS will be maintained, updated and kept current throughout construction activities to ensure all interested citizens will be notified about meetings and project news.	ROD	Office of Innovative Delivery/P3 Developer	None	No	No	Signature Required

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE  
 Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties  
 Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
30	The P3 Developer, working collaboratively with GDOT, will furnish facility-related materials in multi-lingual communications not limited to English, Spanish, Portuguese, and other languages.	ROD/P3 Developer Agreement	Office of Innovative Delivery/P3 Developer	No costs	No	No	Signature Required
31	Variances, special permits, or approval may be required by Cobb and Cherokee counties or local municipalities, if construction occurs during nighttime hours and/or on Sundays. Any necessary variances to noise ordinances will be obtained prior to construction.	ROD/Noise Technical Report	Office of Innovative Delivery/P3 Developer	No costs	No	No	Signature Required
32	Construction activities will be scheduled so that property access and utility disruptions are anticipated, scheduled in advance, and are as brief as possible. Advance notification for such disruptions will be provided to affected property owners and businesses.	ROD	Office of Innovative Delivery/P3 Developer	No costs	No	No	Signature Required
33	Deliveries of construction materials will be scheduled to minimize disruptions to surrounding land uses.	ROD	Office of Innovative Delivery/P3 Developer	No costs	No	No	Signature Required
34	A mitigation plan for the extended duration of potential 24-hour effects from construction-related noise, light, glare, and dust will be implemented.	ROD	Office of Innovative Delivery/P3 Developer	No costs	No	No	Signature Required
35	No equipment and materials lay down and staging areas will be located within 500 yards of Olde Rope Mill Park.	ROD	Office of Innovative Delivery/P3 Developer	No costs	No	No	Signature Required
36	The P3 Developer shall comply with all state and local sound control and noise level rules, regulations, and ordinances.	ROD/Noise Technical Report	Office of Innovative Delivery/P3 Developer	No costs	No	No	Signature Required

\*Estimated cost for planning purposes only; in current dollars as of date updated.

**NORTHWEST CORRIDOR PROJECT**

ENVIRONMENTAL COMMITMENTS TABLE  
 Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties  
 Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
37	The following noise abatement measures will be implemented during construction: <ul style="list-style-type: none"> <li>• Keep the public informed when work is going to be done;</li> <li>• Keep a telephone log of complaints and how they were resolved</li> <li>• Limit the number and duration of onsite idling equipment;</li> <li>• Maintain all construction equipment in good repair;</li> <li>• Reduce noise from all stationary equipment and facilities by using suitable enclosures;</li> <li>• Schedule truck loading, unloading and handling operations to minimize construction site noise.</li> </ul>	ROD/Noise Technical Report	Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
38	The following standard preventive BMP measures will be implemented during construction to minimize the amount of construction dust generated: <ul style="list-style-type: none"> <li>• Minimize land disturbance;</li> <li>• Use watering trucks to minimize dust;</li> <li>• Cover trucks when hauling dirt;</li> <li>• Stabilize surface of dirt piles if not removed immediately;</li> <li>• Limit vehicular paths and stabilize these temporary roads.</li> </ul>	ROD/Air Quality Technical Report	Office of Innovative Delivery/P3 Developer	No Cost	No	No	Signature Required

\*Estimated cost for planning purposes only; in current dollars as of date updated.

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
39	The following BMP measures will be implemented to the extent practicable to minimize greenhouse gas emissions during construction: <ul style="list-style-type: none"> <li>• Reduce equipment idle time;</li> <li>• Reduce fuel usage through increased fuel efficiency;</li> <li>• Use alternative fuels;</li> <li>• Properly maintain equipment;</li> <li>• Provide driver training to improve operating efficiency;</li> <li>• Use properly sized equipment;</li> <li>• Replace older, less fuel efficient equipment with newer, more efficient equipment;</li> <li>• Reuse/recycle waste construction materials.</li> </ul>	ROD/Air Quality Technical Report	Office of Innovative Delivery/P3 Developer	No Cost	No	No	Signature Required
40	The following BMP measures will be implemented during construction in order to minimize worker exposure to diesel exhaust: <ul style="list-style-type: none"> <li>• Position exhaust pipes so that diesel fumes are directed away from the operator and nearby workers;</li> <li>• Routine inspection and maintenance of filtration devices.</li> </ul>	ROD/Air Quality Technical Report	Office of Innovative Delivery/P3 Developer	No Cost	No	No	Signature Required

\*Estimated cost for planning purposes only; in current dollars as of date updated.

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
41	The following measures will be implemented to the extent practicable to minimize worker exposure to diesel exhaust during construction: <ul style="list-style-type: none"> <li>• Use low-sulphur diesel fuel;</li> <li>• Retrofit engines with exhaust filtration devices to capture diesel particulate matter;</li> <li>• New equipment should be equipped with the most advanced emission control system available.</li> </ul>	ROD/Air Quality Technical Report	Office of Innovative Delivery/P3 Developer	No Cost	No	No	Signature Required
42	Where possible, lane closures will be limited to nighttime periods or on weekends.	ROD/P3 Developer Agreement	Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
43	Where possible, construction on the cross streets and highway ramps will take place during off-peak periods.	ROD	Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
44	A project hotline number will be provided and a field office or mobile trailer will be opened within Cobb County so that any and all members of the public can directly report problems related to construction activities, and ensure problems will be resolved promptly.	ROD	Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
45	The P3 Developer shall comply with the emergency response plan that is created by GDOT, the P3 Developer, and agencies that provide emergency response.	ROD/P3 Developer Agreement	Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
46	Construction and installation activities for the advance toll signage shall avoid impacts to waters of the U.S.	Advance Toll Signage Technical Report	Office of Innovative Delivery/P3 Developer	No cost	Yes	No	Signature Required

\*Estimated cost for planning purposes only; in current dollars as of date updated.

NORTHWEST CORRIDOR PROJECT

ENVIRONMENTAL COMMITMENTS TABLE

Project No. CSNHS-0008-00(256), Cobb and Cherokee Counties

Date Updated August 12, 2014

NO.	COMMITMENT/REQUIREMENT (Separate out commitments by PI No.)	DOCUMENT STIPULATED IN	RESPONSIBLE PARTY	ESTIMATED COST*	PLACE ON PLANS (Yes or No)	REQUIRES A SPECIAL PROVISION (Yes or No)	STATUS (Pre- and Post Construction – Complete or Incomplete; During Construction – Signature Required)
47	A federal and state compliant relocation assistance program will be available to displaced persons and businesses. The program will comply with requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and the Georgia Relocation Assistance and Land Acquisition Policy Act.	ROD	Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
48	A limited due diligence transaction screening investigation (American Society for Testing and Materials [ASTM] E1528) will be conducted for all properties immediately prior to purchase.	ROD	Office of Environmental Services/ Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
54	Any contaminated soil disturbed during construction activities at Site Nos. 39, 40, 64, and 68 will be disposed off-site in accordance with prevailing rules and regulations of EPD, Land Protection Branch, Solid Waste Management Program rules and regulations.	GDOT	Office of Innovative Delivery/P3 Developer	No cost	No	No	Signature Required
<b>Post Construction Commitments</b>							
50	Annual surveys of users over a three-year period will be conducted; dissemination of monitoring information will be provided on the State Road and Tollway Authority (SRTA) and GDOT websites. While the data gathered from these surveys may not enable near-term mitigation with this particular toll project, it will be available to assist in making decisions about any future toll-related projects that might be studied in the future.	ROD	Office of Innovative Delivery	No Cost	No	No	Signature Required
Total Estimated Cost* for all Project Commitments:				TBD			

\*Estimated cost for planning purposes only; in current dollars as of date updated.

**NORTHWEST CORRIDOR PROJECT**

### **Migratory Bird Specific Special Provisions**

2. The extension or removal of existing culvert(s) at STA 325, 389, 584, 987, and 1250, if applicable, shall take place outside of the breeding and nesting season of phoebes and swallows, which begins April 1 and extends through August 31, unless exclusionary barriers are put in place to prevent birds from nesting. For bridges, exclusionary barriers may be netting made of plastic, canvas or other materials proposed by the Contractor and approved by the Project Engineer prior to installation. For box culverts, exclusionary barriers may be overlapping strips of flexible plastic (also called "PVC Strip Doors" or "Strip Curtains") or an alternate material proposed by the Contractor and approved by the Project Engineer prior to installation. Exclusionary barriers must be installed on the bridge(s) and/or box culvert(s) prior to March 1 or after August 31, but in no time in between this period. Exclusionary barriers are not a guaranteed method of preventing migratory birds from nesting beneath bridges and work schedules shall take into account the possibility that barriers will not be successful. If exclusionary barriers are to be used, these steps shall be followed:
  - a. The project ecologist must be notified by phone (404) 631-1100 of the decision to install exclusionary devices under the existing bridges and/or culverts and the date of installation, prior to the installation of any exclusionary devices.
  - b. Prior to the placement of exclusionary netting, the bridges and culverts must be checked to ensure that eggs or birds are not present in the nests nor bats roosting. If the nests are found to be occupied and/or there are roosting bats, all construction activities associated with the bridge or culvert must be postponed until August 31st when the breeding season is complete. If nests are not found or existing nests are unoccupied and/or there are no roosting bats, the installation of exclusionary devices is permissible.
  - c. The exclusionary netting must prevent birds/bats from accessing nesting habitat along the full length of the bridge or culvert until the commencement of work (i.e., removal, replacement, or extension) at the bridge or culvert. If the exclusionary netting fails to prevent nesting (i.e., birds are able to bypass barriers and build nests within the exclusionary netting), all construction activities associated with the bridge or culvert must be postponed until August 31st when the breeding season is complete.
  - d. During construction activities, exclusionary netting shall be inspected for holes or other defects that impair the netting's ability to exclude phoebes, swallows, or bats from inhabiting the bridge or culvert.
  - e. Entanglement and/or entrapment of barn swallows, cliff swallows, and eastern phoebes in exclusionary netting constitutes harm to migratory birds. In the event that entanglement and/or entrapment of migratory birds in the netting occurs, the Contractor shall report the incident immediately to the Project Engineer who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101.

### **Indiana Bat, Gray Bat, and Northern Long-eared Bat Specific Special Provisions**

In Cherokee County these special provisions, if applicable, apply specifically to stream corridors that include Streams 43, 44, 46, 47, 48, 49, 51, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, and 65. In Cobb County these special provisions, if applicable, apply specifically to the moderate quality northern long-eared bat roosting habitat located along Noonday Creek (Stream 23), which is shown on the construction plans as an Environmentally Sensitive Area (ESA).

3. The following special provisions will be implemented for the Indiana bat, gray bat, and northern long-eared bat:
  - a. Minimize tree clearing within construction limits, and limit it to that absolutely necessary to complete the project.
  - b. Revegetate forested land (following Special Provision 702 – Vine, Shrub, and Tree Planting) that has been cleared beyond the limits of the required roadside clear zone with tree species that produce sloughing bark and snags, such as bitternut hickory (*Carya cordiformis*), pignut hickory (*Carya glabra*), shellbark hickory (*Carya laciniosa*), shagbark hickory (*Carya ovata*), mockernut hickory (*Carya tomentosa*), white ash (*Fraxinus americana*), and white oak (*Quercus alba*). If the contractor wishes to use any other species than the aforementioned species, or if these species are not commercially available, it is the contractor's responsibility to consult with the GDOT Office of Environmental Services for approval of selected species to be used for revegetation.
  - c. Preserve surface water quality within the Indiana bat, gray bat, and northern long-eared bat forage areas by minimizing stream crossing impacts.
  - d. Channel work will be limited to the construction limits.
  - e. Riprap will extend below the low-water level.
  - f. In order to protect forage areas for the Indiana bat, gray bat, and northern long-eared bat, no equipment will be allowed to operate directly in streams. Staging, refueling and cleanup areas will not be allowed alongside streams. GDOT BMPs will be in place during project construction.
  - g. Hollow trees, trees with sloughing bark, and other large trees that fall within the project limits will be avoided to the maximum practical extent and delineated by special notes in the plans and delimited using measures such as special fencing during construction.
  - h. Initiate additional Section 7 coordination and consultation with USFWS that may be required as a result of the passage of time or the listing of species/modification of critical habitat.

#### **Aquatic Species Specific Special Provisions**

4. If it becomes necessary to work within Streams 1, 5B, 7 (Rottenwood Creek), or Stream 2 (Poplar Creek), a relocation survey for the Chattahoochee crayfish may be required. Coordination with the GDOT Ecologist shall be conducted prior to construction at these locations to determine if a relocation survey will be required.
5. In-stream work will not be permitted in Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60) from March 1 through June 31 due to potential spawning of the Cherokee darter, lined chub, bluestripe shiner, highscale shiner, delicate spike, and Chattahoochee crayfish. All grading associated with these streams shall be completed between July 1 and February 28.
6. The existing channel width and bank height of each stream will be maintained at the crossings to avoid changes in stream velocity after project construction. Channel modifications will not be allowed beyond the culvert structure and no channel modification will be allowed at streams that do not require culvert replacement/extension.
7. Temporary erosion control devices shall be installed before any other work will be allowed to be performed.
8. Construction equipment will not operate in Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37),

Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60). All excavation will be conducted from a stable stream bank or road surface.

9. Vegetation removal within the project construction limits and right-of-way will be limited to the absolute minimum necessary to construct the project.
10. Concrete debris, paving materials, litter, bridge falsework, demolition debris, or any other materials shall not be allowed to fall or be placed into Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60).
11. The Contractor will be required to grade an area to completion once the area is disturbed to minimize the time the area is exposed to potential erosion. All disturbed soil, excavation spoil, and stockpiled materials shall be mulched daily or covered with approved erosion control mats. Stockpiled materials shall be placed to prevent rain runoff from washing the materials into Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60).
12. All surface water runoff from undisturbed areas shall be diverted to prevent flow across disturbed areas. This may be accomplished through the use of permanent pipes, temporary pipes, or slope drains. The Contractor may propose alternate methods provided prior approval of the Engineer is obtained.
13. All erosion control devices shall be closely monitored and maintained. As maintenance is performed on silt fences, silt gates, slope drains, filtration ponds, and other erosion control devices, the materials removed shall be placed in such a manner to prevent these materials from entry into Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60).
14. The Contractor's worksite erosion control supervisor (WECS) shall monitor all erosion control devices on a daily basis. When a visible increase in turbidity is observed in Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60), construction shall be stopped until the source can be determined. Immediate corrective measures shall be taken before work will be allowed to continue.
15. The Contractor will be expected to immediately modify the erosion control plan to correct any circumstances that may cause or allow pollutants from the work site to enter or damage habitat associated with Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60).
16. The Contractor is prohibited from using borrow sites or stockpiling dirt within 200 feet of stream banks.
17. Equipment staging areas and equipment maintenance (including oil changes) areas shall be located at least 200 feet from stream banks to minimize the potential for wash water, petroleum products, or other contaminants from construction equipment entering Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an

unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60).

18. The Contractor shall not use pesticides or herbicides (including those for right-of-way maintenance during construction activities) within 200 feet of Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60).
19. With regards to Rottenwood Creek (Streams 1, 5B, and 7), unnamed tributaries to Rottenwood Creek (Streams 1A and 5), Sope Creek (Stream 14), an unnamed tributary to Clark Creek (Stream 29), unnamed tributaries to Noonday Creek (Streams 21 and 37), Noonday Creek (Stream 30), Chastain Branch (Stream 34), and the Little River (Stream 60), the Contractor will maintain a buffer of existing vegetation on both stream banks by doing no clearing and grubbing in that zone except as needed to complete construction. The buffer will be twenty-five feet wide. These areas will be labeled "Environmentally Sensitive Areas" on the plans.

#### **Incident Reporting Requirements**

20. In the event any incident occurs that causes harm to Eastern phoebes, cliff swallows, barn swallows, Indiana bat, gray bat, Cherokee darter, northern long-eared bat, Chattahoochee crayfish, highscale shiner, bluestripe shiner, delicate spike, or the lined chub or that could be detrimental to the continued existence of these species along the project corridor, the Contractor shall report the incident immediately to the Project Engineer who in turn will notify:
  - a. US Fish and Wildlife Service, Athens Field Office at (706) 613-9493; and/or the Nongame/Endangered Wildlife Program, Georgia Department of Natural Resources office at (478) 994-1438;
  - b. Federal Highway Administration (FHWA), Georgia Division at (404) 562-3630; and
  - c. Hiral Patel, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101.

In the event of possible harm to Eastern phoebes, cliff swallows, barn swallows, Indiana bat, gray bat, Cherokee darter, Chattahoochee crayfish, highscale shiner, bluestripe shiner, delicate spike, or the lined chub, the above agencies and the Project Engineer shall be notified immediately and all activity shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and/or GDNR/WRD and the lead Federal Agency.

21. Following project completion, a report summarizing any incidents with Eastern phoebes, cliff swallows, barn swallows, Indiana bat, gray bat, Cherokee darter, northern long-eared bat, Chattahoochee crayfish, highscale shiner, bluestripe shiner, delicate spike, or the lined chub shall be submitted by the Contractor to the:
  - a. the Project Engineer;
  - b. US Fish and Wildlife Service, 105 West Park Drive, Suite D, Athens, GA 30606;
  - c. Federal Highway Administration, 61 Forsyth Street, S.W., Suite 17T100, Atlanta, GA 30303;
  - d. Nongame/Endangered Wildlife Program, Georgia Department of Natural Resources, 115 Rum Creek Dr, Forsyth, GA 31029 and;
  - e. Georgia Department of Transportation, Office of Environmental Services, 600 West Peachtree Street N.W., Atlanta, GA 30308.

All costs pertaining to any requirement contained herein shall be included in the overall bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

# PROTECTED SPECIES ON THE PROJECT



Adult Barn Swallow



Barn Swallow nest under a bridge.

## Barn Swallow

### Description

- 6 ¾ inches in length
- Long, deeply forked tail
- Upperside iridescent blue, underparts either cinnamon or white, throat reddish-brown
- Nests in pairs or small colonies



Barn Swallow nest under a bridge.



Immature Barn Swallows in nest.

**There are civil and criminal penalties for harming or killing this animal and its nest or eggs.**

**See Special Provision 107.23 G.**

# PROTECTED SPECIES ON THE PROJECT



Cliff Swallow in flight.



Cliff Swallows at nests.

## Cliff Swallow

### Description

- Body length is 5.5 inches; wingspan is 12 inches
- Pale orange rump and forehead; square tail tip
- Dark blue cap and upperparts; dark brown throat
- Often nest under bridges; distinctively shaped mud nests



Cliff Swallows at nests.



Cliff Swallows drinking from a puddle.

**There are civil and criminal penalties for harming or killing this animal and its nest or eggs.**

**See Special Provision 107.23 G.**

## Protected species on the Project

### Eastern phoebe *Sayornis phoebe*

#### Description

- Approximately 6-7 inches in length
- Dark head with grayish-olive upperparts
- Frequently wags tail
- Often builds nest under bridges, in large culverts, or around buildings near water
- Nest is mud and grass lined with moss and hair; contains up to 5 white eggs
- Song is a clear “fee-bee” or “fee-bit-it” often repeated



Adult Eastern phoebe



Eastern phoebe nest under a bridge

**There are civil and criminal penalties for harming or killing this animal  
and its nest or eggs. See Special Provisions 107.23G**

# Protected Species On This Project



## **Gray Bat (*Myotis grisescens*)**

Photo Credit: Tim Carter

### **Description:**

- \* Adults are small with a body length up to 4 inches and a wing span of 12 inches
- \* Their body is covered with dark gray fur after molting to russet colored in the spring. Dorsal fur is uniformly gray from root to tip.
- \* During spring and summer months bats emerge from caves at dusk and forage until dawn

### **Habitat:**

- \* Highly cave dependent. During spring and summer months within Georgia gray bats utilize summer caves near reservoirs or large rivers. Prime foraging habitat consists of forest edges, forest gaps, stream corridors, and edges of lakes and ponds.

**Harming, harassing or killing this animal can lead to fines or jail time.  
See Special Provision 107.23 G.**

## Protected Species On This Project



### **Indiana Bat (*Myotis sodalis*)**

Photo Credit: Adam Mann

#### **Description:**

- \* Adults are small with a body length up to 2 inches and a wing span of 9 to 11 inches.
- \* Their body is covered with dark brown to black fur.
- \* During spring and summer months bats emerge from roost trees at dusk and forage until dawn.

#### **Habitat:**

During spring and summer months within Georgia Indiana bats utilize forested areas to forage and form maternity colonies. Prime foraging habitat consists of forest edges, forest gaps, stream corridors, and edges of lakes and ponds. Female bats select live or dead trees with excellent sun exposure which exhibit loose, peeling, or shaggy bark in order to form maternity colonies and rear young.

**Harming, harassing or killing this animal can lead to fines or jail time.  
See Special Provision 107.23 G.**

# Protected Species On This Project



## Northern Long-Eared Bat (*Myotis septentrionalis*)

Photo Credit: Al Hicks

### Description:

- \* Adults are medium-sized with a body length of 3 to 3.7 inches and a wing span of 9 to 10 inches.
- \* Fur color can be medium to dark brown on the back and tawny to pale-brown on the underside.
- \* As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*.
- \* During spring and summer months bats emerge from roost trees or structures at dusk and forage until dawn.

### Habitat:

During spring and summer months within Georgia, northern long-eared bats will roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. It has also been found, rarely, roosting in structures like barns and sheds. Prime foraging habitat consists of the understory of forested hillsides and ridges. Northern long-eared bats also feed on insects over vegetation and water surfaces.

**Harming, harassing or killing this animal can lead to fines or jail time.  
See special provision 107.23 G.**

## State Threatened Species on the Project



### Chattahoochee crayfish – *Cambarus howardi*

#### Description

- Bronze and bluish-green on the claws, carapace and abdomen
- Tail fades from green to yellow-brown and the sutures are a darker orange-brown
- Not counting the tail, mature males range in length from  $\frac{3}{4}$  -  $1\frac{1}{4}$  inches and mature females range from  $\frac{1}{16}$  - 1 inch
- Found in clear, free-flowing waters, often in riffle habitat
- Can be found in a range of stream sizes, from smaller tributary streams to the mainstem of the Chattahoochee River

**Harming or harassing *Cambarus howardi* can lead to fines or jail time. See**

**Special Provision 107.23G**

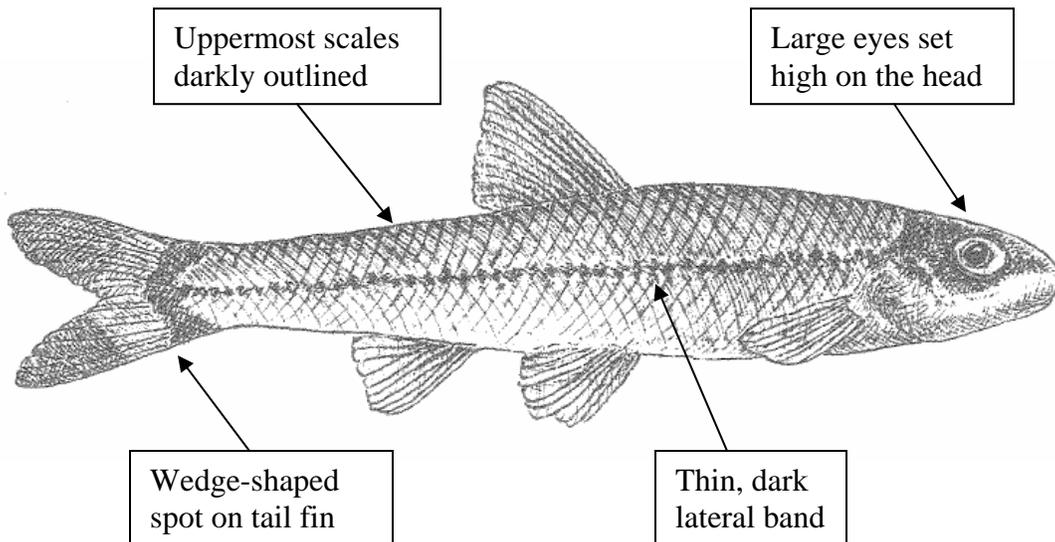
## PROTECTED SPECIES ON THE PROJECT



**HIGHSCALE SHINER** (*Notropis hypsilepis*)

Maximum Length: 2.5 inches

Distinguishing Characteristics:



**Harming, harassing or killing this animal can lead to fines or jail time.**

**See Special Provision 107.23 G.**

## PROTECTED SPECIES ON THE PROJECT



### **LINED CHUB** (*Hybopsis lineapunctata*)

- Maximum length: 2 to 2.6 inches
- The lined chub has a compressed body and a long head. It may be recognized by the dark lateral band, extending from the gill opening to the caudal fin base – narrowing on the peduncle and expanding into a small but distinct caudal spot. The band is interrupted by the eyes but continues around the snout and it is bounded above by a light band. It is characterized by its long, blunt snout, which overhangs a mouth with a single barbell in each corner. Similar species, such as the Coosa shiner (*Notropis xaenocephalus*) and the burrhead shiner (*N. asperifrons*), do not have the mouth barbell.
- This species prefers small or medium-sized flowing streams with pools and riffles over gravel, sand or rubble substrates.

**Capturing, killing or selling this animal can lead to criminal penalties.**

**See Special Provision 107.23 G.**

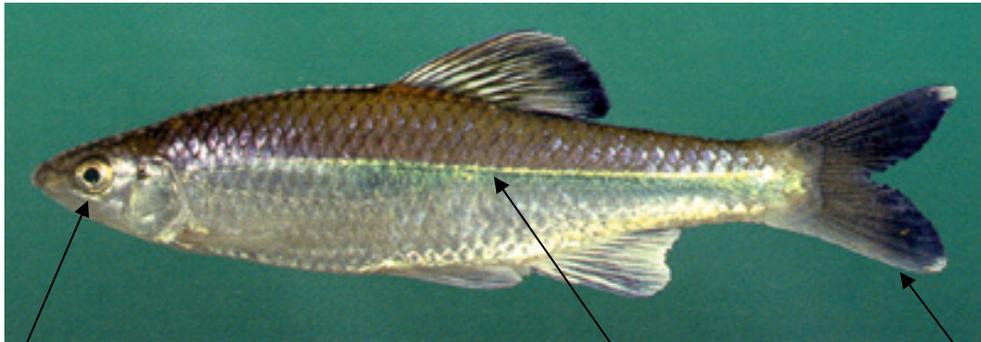
# STATE PROTECTED AQUATIC SPECIES ON THE PROJECT

## DELICATE SPIKE MUSSEL (*Elliptio arcata*)



Description: The delicate spike is a small freshwater mussel that measures less than 80 mm (3.15 inches) in length. The shell is thin and elliptical or oval-shaped. The periostracum (outer shell surface) is dull yellowish green in young specimens and dark brown in older specimens. The surface is often marked with green rays. The nacre (inner surface of shell) is dirty white or purplish in appearance.

## BLUESTRIPE SHINER (*Cyprinella callitaenia*)



Large eyes set  
high on the head

Blue-black lateral  
stripe

Wedge-shaped  
spot on tail fin

Maximum Length: 3.5 inches

Distinguishing Characteristics:

- Head is long and rounded
- Coloration consists of dusky olive shading on its back and silver sides
- Small black spot may be found on front of dorsal fin

**Harming, harassing or killing these animals can lead to fines or jail time.**

**See Special Provision 107.23 G.**