



APPENDIX I

Ecology Supporting Information and Correspondence

Connect
Cobb



Northwest Transit Corridor
Environmental Assessment

Ecology Report

April 2015

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Figure 1. Project Vicinity

Figures 2A through 2H. Water Resources

Appendix

A. Agency Coordination:

USFWS Email (12/15/14)
FTA Letter to USFWS (4/14/15)
USFWS IPAC Cobb County
USFWS IPAC Fulton County
GDNR Element Occurrence Letter
GDNR Cobb County Species List
GDNR Fulton County Species List

B. Special Provision 107.23G

C. Aquatic Species Report

D. Concept Drawings

1.0 Project Overview

1.1 Project Location

The proposed project is located near the Cities of Kennesaw, Marietta and Smyrna in Cobb County, and the City of Atlanta in Fulton County, Georgia. The project midpoint is located at 33.908792° N and 84.492821° W. Almost the entire study area is located within the Southern Inner Piedmont Ecoregion. The existing Metropolitan Atlanta Regional Transit Authority (MARTA) Arts Center Station in the Southern Outer Piedmont Ecoregion. The project area begins in the Etowah River Watershed [Hydrologic Unit Code (HUC) 03150104], which has been designated as a priority watershed by the Environmental Protection Agency (EPA). The project area ends in the Upper Chattahoochee Watershed (HUC 03130001), which has also been designated as a priority watershed by the EPA.

1.2 Project Description

The proposed project includes arterial rapid transit (ART) service and associated improvements on US 41/Cobb Parkway in Cobb County, as described below.

The term ART is descriptive of a system that would operate on arterial roads and is now a common term for similar transit systems. The majority of the ART system would operate on dedicated guideway from the Kennesaw area to Cumberland, would have continuing service to the existing Metropolitan Atlanta Regional Transit Authority (MARTA) Arts Center Station, and would begin at the terminus station at Kennesaw State University (KSU) near the intersection of Chastain Road and Frey Road.

The alignment is routed as follows from Kennesaw State Station:

- Continues north on Frey Road in mixed traffic where it crosses I-75 on Skip Spann Connector to Busbee Drive (construction of Skip Spann Connector is underway and scheduled to be complete in 2016)
- Continues south on Busbee Drive to George Busbee Parkway, where it travels past Town Center and Barrett Parkway
- Continues on the proposed South Barrett Reliever (expected completion in 2019), which includes dedicated guideway (one lane in each direction) for ART vehicles and general purpose lanes (one lane in each direction). The alignment then continues on dedicated guideway on Barrett Lakes Boulevard until US 41/Cobb Parkway
- Transitions to center-running dedicated guideway (one lane in each direction) on US 41/Cobb Parkway between Greers Chapel Road and Cumberland Boulevard
- Continues on Cumberland Boulevard in center-running dedicated guideway, one lane in each direction, between US 41/Cobb Parkway and Akers Mill Road

- Transitions to side-running dedicated guideway on either side of Akers Mill Road from Cumberland Boulevard to I-75
- Accesses I-75 southbound and operates in existing high occupancy vehicle (HOV) lanes, exiting at US 41/Northside Drive. No improvements will be implemented on I-75 as part of the proposed project.
- Operates in mixed traffic on US 41/Northside Drive. No improvements will be made to Northside Drive as part of the proposed project.
- Turns east onto 17th Street and uses the existing side-running dedicated guideway, crossing I-75/I-85 and turning onto Spring Street in mixed traffic. No improvements will be made to 17th Street or Spring Street as part of the proposed project.
- Continues south on Spring Street and turns east onto 14th Street, then north onto West Peachtree Street to the existing MARTA Arts Center Station, all in mixed traffic. No improvements will be made to Spring Street, 14th Street, or West Peachtree Street as part of the proposed project.

In total, the length of the proposed project is 25.3 miles from the Kennesaw area to the existing MARTA Arts Center Station. Of this length, 13.2 miles (52.2 percent) is in dedicated guideway and 12.1 miles (47.8 percent) is in mixed traffic.

Proposed guideway improvements will include some partial right-of-way (ROW) takes adjacent to the roadway ROW in already-developed properties. Larger full parcel takes would occur as a result of proposed stations and may include some previously undisturbed areas, particularly in the area approximately 725 feet north of White Circle Drive NW, US 41/Cobb Parkway and White Road in Marietta (see Sheet 2 in Appendix D).

In addition to the 14 stations to be added for ART, it is anticipated that the existing MARTA Arts Center Station would be modified with the addition of four platforms to accommodate parking of ART vehicles. No new bridges or bridge modifications are currently proposed as part of this project. The proposed project anticipates only extensions of existing culverts.

1.3 Survey Methodology

After reviewing the Alternatives Analysis and displays, and discussing the project with designers, the project study area and the Preliminary Project Limits (PPL) were imported into Geographic Information Systems (GIS) for use in the environmental review and report mapping. The PPL includes 70 feet on each side of the existing centerline. The project study area is shown on the attached figures 2A-2H. Preparatory research included reviewing ecological data such as aerial photographs, topographic maps, soil maps, ecoregion information, protected species lists, protected species suitable habitat requirements, and designated critical habitat.

During June, July, and August 2013, KHA staff completed field surveys of the PPL and study area. The surveys were conducted during appropriate months to identify vegetative communities and habitat which are based on each species' flowering or fruiting season. An aquatic survey was conducted in October and November of 2014, which is within the appropriate season to identify aquatic species. The findings of this report are included in Appendix C.

The field surveys of potential protected species suitable habitat in the PPL included federal endangered, threatened, and candidate species listed at the time of survey. The species included those listed by the United States Fish and Wildlife Service (USFWS) Information, Planning and Conservation System (IPAC) for Cobb and Fulton Counties. Although none of these species were listed as occurring within the study area, a field survey for suitable habitat was included for one federally listed species and four state listed species because these species have current Georgia Department of Natural Resources (GDNR) known occurrences near the project. The additional species include the federal candidate white fringeless orchid (*Platanthera integrilabia*); the non-federally listed but state listed Chattahoochee crayfish (*Cambarus howardi*), sun-loving draba (*Draba aprica*), bay star-vine (*Schisandra glabra*), and Georgia aster (*Symphotrichum georgianum*).

Streams, wetlands, ponds, Georgia stream buffers, and Federal Emergency Management Agency (FEMA) floodplains were identified using existing topographic, aerial, and GIS mapping. Surface water quality information was reviewed, including the GDNR's 2012 305(b)/303(d) listed streams. A field survey was conducted to determine the presence or absence of these resources or new resources with the exception of 100-year floodplains that cannot be confirmed by a pedestrian survey. The field survey included suitable bald eagle (*Haliaeetus leucocephalus*) foraging habitat for any eagle nests identified within a 3-mile radius.

2.0 Existing Conditions

2.1 Habitats and Land Use Areas

The study area is very developed with roadways, sidewalks, residential homes, schools, commercial areas, parking lots, office buildings, and industrial land uses. The study area includes maintained road shoulders and adjacent slopes along the existing paved roads. During the field survey, areas of maintained plant community habitat were observed interspersed with fragmented mixed pine/hardwood communities.

Maintained Plant Communities: The maintained plant community is located within adjacent residential and industrial developed properties and along road shoulders. This community was deemed to be of very low-quality due to the areas being artificially maintained, the presence of

the adjacent roadway, ornamental species, and the likelihood of herbicide application. Most of the area in this community is maintained grass including tall fescue (*Festuca arundinaceae*), bermudagrass (*Cynodon dactylon*), hairy crabgrass (*Digitaria sanguinalis*), dandelion (*Taraxacum officinale*), white clover (*Trifolium repens*), dogfennel (*Eupatorium capillifolium*), wild carrot (*Daucus sp.*), and chickweed (*Stellaria media*).

Mixed Pine/Hardwood Community: The mixed pine/hardwood community was observed along the corridor. This community was deemed to be of low-quality, due to the presence of the adjacent roadway, developed properties, and invasive species. Dominant canopy vegetation is approximately 30 to 60 years old. Dominant canopy species found include short-leaf pine (*Pinus echinata*), loblolly pine (*Pinus taeda*), tulip poplar (*Liriodendron tulipifera*), flowering dogwood (*Cornus florida*), black cherry (*Prunus serotina*), white oak (*Quercus alba*), poison ivy (*Toxicodendron radicans*), red maple (*Acer rubrum*), smooth sumac (*Rhus glabra*), pokeweed (*Phytolacca americana*), muscadine (*Vitis rotundifolia*), round-leaf greenbrier (*Smilax rotundifolia*), blackberry (*Rubus argutus*), bursting-heart (*Euonymus americanus*), Carolina elephantsfoot (*Elephantopus carolinianus*), Virginia creeper (*Parthenocissus quinquefolia*), Christmas fern (*Polystichum acrostichoides*), and trumpet creeper (*Campsis radicans*).

The presence of invasive species has degraded habitat in many unpaved areas, which is definitely not suitable for protected species. Please refer to Section 2.2 for additional descriptions of protected species habitat requirements. Common invasive species include mimosa (*Albizia julibrissin*), autumn olive (*Elaeagnus umbellata*), English ivy (*Hedera helix*), Chinese privet (*Ligustrum sinense*), Japanese honeysuckle (*Lonicera japonica*), kudzu (*Pueraria Montana*), Johnsongrass (*Sorghum halepense*), Chinese wisteria (*Wisteria sinensis*), princess tree (*Paulownia tomentosa*), and Nepalese browntop (*Microstegium vimineum*).

2.2 Protected Species

Information on federally threatened, endangered, candidate, rare, and unusual plants and animals in Cobb County was requested from the GDNR Nongame Conservation Section (NCS) and their response letter is included in Appendix A. The GDNR Cobb County Species List and the United States Fish and Wildlife Service (USFWS) Information, Planning and Conservation System (IPAC) species listing were also referenced and included in Appendix A. **Table 2.2-1** summarizes the federal protected species and **Table 2.2-2** summarizes the federal protected species followed by a species description.

Table 2.2-1 Federal Protected Species

| Species | Common Name | Federal Status | State Status | Project Limits Habitat | Survey Season |
|---------------------------------|--------------------|----------------|--------------|------------------------|----------------|
| <i>Amphianthus pusillus</i> | pool sprite | T | T | Not Observed | March - May |
| <i>Elliptioideus sloatianus</i> | purple bankclimber | E | E | Not Observed | May - November |

| Species | Common Name | Federal Status | State Status | Project Limits Habitat | Survey Season |
|--|-------------------------|----------------|--------------|--|-------------------|
| <i>Etheostoma scotti</i> | Cherokee darter | T | T | Not Observed | May - November |
| <i>Hamiota altilis</i> | finelined pocketbook | T | T | Not Observed | May - November |
| <i>Hamiota subangulata</i> | shinyrayed pocketbook | E | E | Not Observed | May - November |
| <i>Medionidus penicillatus</i> | Gulf moccasinshell | E | E | Not Observed | May - November |
| <i>Myotis septentrionalis</i> ¹ | northern long-eared bat | T | NL | No Cave Habitat Observed, Summer Roosting Habitat Observed | May - August |
| <i>Myotis sodalis</i> | Indiana bat | E | E | No Cave Habitat Observed | May - August |
| <i>Platanthera integrilabia</i> | white fringeless orchid | FC | T | Not Observed | Mid-July - August |
| <i>Pleurobema pyriforme</i> | oval pigtoe | E | E | Not Observed | May - November |
| <i>Rhus michauxii</i> | dwarf sumac | E | E | Not Observed | June - October |

Key: E = Endangered; T = Threatened; Prop. E = Proposed Endangered; FC = Federal Candidate; NL = Not Listed

¹ Surveys and survey data analysis by the USFWS are ongoing to determine the presence or absence of this species in the developed areas of northern metro-Atlanta. Although fragmented, suitable summer roosting habitat needs to be protected.

Source: Georgia Department of Natural Resources, Nongame Conservation Section (updated June 2010) Data and 7/01/13 letter; USFWS IPAC Database, Cobb & Fulton County 2013

2.2.1 FEDERALLY THREATENED AND ENDANGERED SPECIES

In compliance with Section 7 of the Endangered Species Act (ESA), the proposed project must identify the presence of threatened and endangered species and their designated critical habitat as well as evaluating project impacts. The federally listed species known to occur in Cobb County include the pool sprite (*Amphianthus pusillus*), purple bankclimber (*Elliptoideus sloatianus*), Cherokee darter (*Etheostoma scotti*), finelined pocketbook (*Hamiota altilis*), Gulf moccasinshell (*Medionidus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), shinyrayed pocketbook (*Hamiota subangulata*), and dwarf sumac (*Rhus michauxii*). In October 2013 the USFWS extended the survey range for the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) to include Cobb County. According to the July 1, 2013 GDNr response letter, there are no known occurrences of federal threatened, endangered, or candidate species within 0.5 mile of the study area, except one listing for the Cherokee darter in Clarke Creek, which is no longer included in the study area for the proposed project.

Pool sprite (*Amphianthus pusillus*): The pool sprite is a federal and state threatened plant that is found in the piedmont of Georgia, South Carolina, and Alabama. Suitable habitat includes shallow, flat-bottomed depressions on granite outcrops, with thin, gravel soils and winter-spring inundation. Pools must be deep enough to hold water for several weeks and must be in full sun. In Georgia, the pool sprite occurs on seven preserves and parks, with the total acreage of all pools with the pool sprite at less than one acre. Habitat in the project area includes

maintained and mixed pine/hardwood communities. Granite outcrops were not observed during the pedestrian field survey in 2013. Thus, a determination of “no effect” is recommended for this species.

Purple bankclimber (*Elliptoideus sloatianus*): The purple bankclimber is a federal and state threatened mussel that is historically known from the Apalachicola, Chattahoochee, and Flint River basins and Ochlockonee River of Alabama, Florida, and Georgia. Fossil records indicate that the purple bankclimber historically occurred in the Suwannee River in Florida. This species is currently known from the Apalachicola, Flint, Chattahoochee, and Ochlockonee River systems with the best populations likely occurring in the Flint River from Decatur County upstream to approximately Upson County. The purple bankclimber prefers medium sized streams to large rivers with slow to moderate current and stable substrates. Based on the aquatic survey conducted in 2014, no suitable habitat for this species was found within the study area. Thus, a biological determination of “no effect” is recommended for this species.

Cherokee darter (*Etheostoma scotti*): The Cherokee darter is a federal and state threatened fish that is endemic to the Etowah River Watershed within the Upper Coosa River system in Georgia. Currently, the species is known from about 20 small tributaries to the Etowah River. It typically inhabits small to medium sized streams with gravel and cobble bed sediments and also may occur in pools at the head or tail of riffles. It requires clean bed sediments for spawning, and moderate to swiftly flowing streams. The Cherokee darter cannot survive in streams with impoundments, or with moderate to thick deposits of silt and sediment beds. Based on the aquatic survey conducted in 2014, no suitable habitat for this species was found within the study area. Thus, a biological determination of “no effect” is recommended for this species.

Finelined pocketbook (*Hamiota altilis*): The finelined pocketbook is a federal and state threatened mollusk that is endemic to the eastern Mobile basin of Alabama, Georgia, and Tennessee. Currently, the finelined pocketbook appears to be restricted to the Cahaba, Coosa, and Tallapoosa River drainages. In Georgia, this species is currently extant in the Tallapoosa and Conasauga Rivers as well as in several tributaries to the Coosa and Tallapoosa Rivers. The finelined pocketbook typically occupies small streams to large rivers in sandy to muddy sand substrates or gravel shoals with slight to moderate current. Based on the aquatic survey conducted in 2014, no suitable habitat for this species was found within the study area. Thus, a biological determination of “no effect” is recommended for this species.

Gulf moccasinshell (*Medionidus penicillatus*): The Gulf moccasinshell is a federal and state endangered mussel that is endemic to the Apalachicola River basin of Alabama, Georgia, and Florida. It is historically known from the mainstem and tributaries of the Chipola, Chattahoochee, and Flint Rivers. Currently, this species appears to be rare or extirpated outside of the Chattahoochee and Flint River drainages of Georgia and has drastically declined within

these drainages. It typically occupies small streams to large rivers with moderate flow and sandy substrates, but has also been found in gravel and cobble substrates. The project area is outside the known range and it is unlikely to occur this high in the Chattahoochee River drainage. Based on the aquatic survey conducted in 2014, no suitable habitat for this species was found within the study area. Thus, a biological determination of “no effect” is recommended for this species.

Northern long-eared bat (*Myotis septentrionalis*): The northern long-eared bat is a federal threatened bat known to occur along the Atlantic Coast from Maine to North Carolina, westward to eastern Oklahoma, and north through the Dakotas. It has even been documented in eastern Montana and Wyoming. It is distinguished by its long ears when compared with others of its genus, *Myotis*. These bats gather in large groups in suitable caves to hibernate during the winter, typically in large caves or mines with large passages and entrances; constant temperatures; and still air with very high humidity. During the survey, no cave habitat was observed.

Following hibernation the bats will roost singly or in colonies underneath bark and in cavities or crevices of both live and dead trees. Occasionally they may roost in cooler places like caves or mines. Overall the species is opportunistic in its summer roosting using tree species based on its suitability to retain bark or provide cavities or crevices. Most females will give birth during late May to late-July, depending on where they are located within the species’ range. The understory of forested hillsides and ridges provides optimal foraging habitat so that the bat is able to feed on moths, flies, beetles, and motionless insects on vegetation or the surface of the water. This bat’s range includes the State of Georgia. Data is being collected by federal and state agencies to determine this species presence in Georgia.

Suitable summer roosting habitat needs to be protected. With implementation of a special provision for the protection of the northern long-eared bat, tree clearing within suitable hardwood forest habitat will not occur from March 30th to October 15th. Seasonal clearing restrictions will prevent clearing suitable northern long-eared bat habitat during time periods that include spring migration, summer roosting, and raising young in early fall. Based on the implementation of special provisions, a biological determination of “may affect, but not likely to adversely affect” is recommended for this species.

Indiana bat (*Myotis sodalist*): The Indiana bat is a federally endangered species known to be present throughout much of the Midwestern and eastern U.S. with the nearest known maternity colonies occurring in southern Kentucky and Tennessee. Indiana bats gather in large groups in suitable caves to hibernate during the winter; more than 85% of the population is in just nine caves in Indiana, Missouri, and Kentucky. They usually cluster fairly close to the

entrance and awaken periodically throughout the winter. During the survey, no cave habitat was observed.

Widely distributed during the summer, Indiana bats roost in trees, usually under loose, exfoliating bark as found on shagbark hickories and dead hardwoods, or in hollow trees. The roost sites are typically at a woodland edge where the tree is warmed by the sun. Maternity colonies can range between 25 to 100 individuals. While male Indiana bats will forage in the canopy of floodplain forests and wooded hillsides, the females prefer lower in the surrounding riparian and floodplain forest, and sometimes over open areas and water as well. In the spring of 2012 a female Indiana bat was documented in Gilmer County, Georgia. This documented occurrence expanded the summer range in Georgia from the original two extreme northwest counties to thirty northern Georgia counties. Currently the USFWS knows or believes this species to occur in Catoosa, Chattooga, Dade, Gilmer, Murray, Walker, and Whitfield Counties. In October 2013 the USFWS extended the survey range for the Indiana Bat to include Cobb County. Data is being collected by federal and state agencies to determine this species presence in Georgia. During the 2013 pedestrian field survey, no suitable, high-quality hardwood forest habitat was identified. Thus, a biological determination of “no effect” is recommended for this species.

Oval pigtoe (*Pleurobema pyriforme*): The oval pigtoe is a federal and state endangered mussel that is endemic to the Apalachicola River basin of Alabama, Florida, and Georgia. In Georgia, this species is currently restricted to Sawatchee Creek in the Chattahoochee River basin, Spring Creek, and the Flint River and its tributaries upstream to Line Creek near Peachtree City, Georgia. This species typically occupies small streams to large rivers with moderate flow and sand or gravel substrates. Sawatchee Creek is not in the project area. Based on the aquatic survey conducted in 2014, no suitable habitat for this species was found within the study area. Thus, a biological determination of “no effect” is recommended for this species.

Shinyrayed pocketbook (*Hamiota subanquilata*): This federally listed endangered species has a subelliptical shell profile that is rounded anteriorly and broadly rounded to pointed posteriorly. Typically occurring in medium-sized streams to large rivers, this species thrives in sandy to muddy substrates with a slight to moderate current. Endemic to the eastern Gulf Slope of Alabama, Florida, and Georgia the mussel historically did occur in the Chattahoochee River Basin up to Atlanta and to the headwaters of the Flint River. Currently, however, the shinyrayed pocketbook Chattahoochee River Basin population appears to be restricted to Sawatchee and Kirkland Creeks while the species still appears to occur throughout the Flint River and its associated tributaries. Based on the aquatic survey conducted in 2014, no suitable habitat for this species was found within the study area. Thus, a biological determination of “no effect” is recommended for this species.

Dwarf sumac (*Rhus michauxii*): The dwarf sumac is a federal and state endangered shrub that is found on the Piedmont Plateau of Georgia, South Carolina, North Carolina and Virginia, in rocky, open woods, especially in soils high in magnesium. The dwarf sumac is rare throughout its range and has sustained substantial habitat loss, at least in part due to fire suppression. The project area is developed with residential homes and schools. The project area does not contain rocky, open woods with soils high in magnesium. During the 2013 pedestrian field survey, suitable habitat was not observed for this species. Thus, a determination of “no effect” is recommended for this species.

2.2.2 FEDERAL CANDIDATE SPECIES

The only federal candidate listed species that occurs in Cobb County is the white fringeless orchid. According to the July 1, 2013 GDNR response letter, there are no known occurrences of this species within 0.5 mile of the study area.

White fringeless orchid (*Platanthera integrilabia*): The white fringeless orchid is a federal candidate and state threatened herb that is found in Georgia, Alabama, Mississippi, South Carolina, Tennessee, and Kentucky. Populations have been extirpated in North Carolina and Virginia. It is found in seepage sphagnum bogs, springheads, seepy stream banks, and swamps dominated by red maple and black gum (*Nyssa sylvatica*). The white fringeless orchid often grows with primrose-leaved violet (*Viola primulifolia*), green woodland orchid (*Platanthera clavellata*), cowbane (*Oxypolis* sp.), and grass-of-Parnassus (*Parnassia* sp.). Due to drainage and land disturbances, sedimentation, stream channel entrenchment, and dominance by woody species, no suitable habitat was not observed for this species. Thus, a determination of “no effect” is recommended.

2.2.3 STATE THREATENED, ENDANGERED, RARE AND UNUSUAL SPECIES

The Georgia Endangered Wildlife Act prohibits the capture, killing, or selling of protected species and protects the habitat of these species on public lands. Georgia’s Wildflower Preservation Act of 1973 provides for the designation of and protection of plant species that are rare, unusual, or in danger of extinction. According to the July 1, 2013 GDNR response letter, there are known occurrences of one state threatened species and one state rare species within a 0.5 mile of the study area. **Table 2.2-2** summarizes the protected species while a more detailed discussion of each species is below.

Table 2.2-2 State Protected Species

| Species | Common Name | Federal Status | State Status | Project Limits Habitat | Survey Season |
|-------------------------|------------------------|----------------|--------------|------------------------|----------------|
| <i>Cambarus howardi</i> | Chattahoochee crayfish | NL | T | Habitat Observed | May - November |
| <i>Draba aprica</i> | sun-loving draba | NL | E | Not Observed | March - May |

| | | | | | |
|--|------------------|----|---|---------------------------|--------------------|
| <i>Notropis hypsilepis</i> * | highscale shiner | NL | R | Habitat Observed | May - November |
| <i>Schisandra glabra</i> | bay star-vine | NL | T | Marginal Habitat Observed | May - August |
| <i>Symphytotrichum georgianum</i> | Georgia aster | NL | T | Not Observed | October - November |
| Key: E = Endangered; T = Threatened; R = Rare; NL = Not Listed | | | | | |

Source: Georgia Department of Natural Resources, Nongame Conservation Section (updated June 2010) Data and 7/01/13 letter T & E species

*This rare species has been included based on the observed suitable habitat during the 2014 aquatic survey.

Chattahoochee crayfish (*Cambarus howardi*): The Chattahoochee crayfish is a state threatened crayfish that is distributed within the Chattahoochee River system in Cobb, DeKalb, Douglas, Forsyth, Fulton, Hall and Lumpkin Counties in Georgia. It has also been reported in the Halawakee Creek system in Alabama. It is found in clear, free-flowing waters, often in riffle habitat. The Chattahoochee crayfish has been collected in a range of stream sizes, from smaller tributary streams to the main stem of the Chattahoochee River. According to the July 1, 2013 GDNR response letter, there are known occurrences of this species within a 0.5 mile of the study area and within Rottenwood Creek (S-12). During the aquatic survey conducted in 2014, this species was collected in S-15 and S-16 and suitable habitat was present in S-8, S-12, S-13, S-14, S-17, S-18, and S-19. Based on the implementation of special provisions within these streams (i.e., enhanced erosion control), a determination of “no significant adverse effect” is recommended for this species.

Sun-loving draba (*Draba aprica*): The sun-loving draba (*Draba aprica*) is a state endangered species. This species is an annual herb that typically germinates in the fall and overwinters as a rosette of leaves. The hairy fruit produced during the months of April and May is important for plant identification. The sun-loving draba distribution range includes the Georgia and South Carolina piedmont and the Ozark Plateau of Arkansas and Missouri. This species thrives in shallow soils on and/or around granite outcrops, especially those that occur near the edges of clusters of eastern red cedar (*Juniperus virginiana*) trees. It is quickly overwhelmed by other herbs and grasses and as a result only grows in partially shaded areas with thin, dry soils where other plants do not thrive. In the state of Georgia only 10 populations are known, with only four of these located on lands set aside for conservation purposes. During the 2013 pedestrian field survey, suitable habitat was not observed for this species. Thus, a determination of “no effect” is recommended for this species.

Highscale shiner (*Notropis hypsilepis*): The highscale shiner is a state rare species that occurs in the Chattahoochee River and Flint River watersheds of Georgia and Alabama, from the headwaters of these watersheds to just below the Fall Line. It is also found in a tributary of the upper Tallulah River (Savannah River watershed). Highscale shiners are found in tributary streams

near confluences with larger rivers. They inhabit runs and pools over sand and bedrock substrates.

During the aquatic survey conducted in 2014, no highscale shiners were observed; however, suitable habitat was observed at the confluences of S-12/S-13 and S-16/S-17. Suitable habitat was also observed in S-18 due to run and pools over bedrock substrate. Based upon the implementation of special provisions within these streams to include no instream construction from April through June (during the spawning period) and enhanced erosion control, a determination of “no significant adverse effect” is recommended for the highscale shiner.

Bay star-vine (*Schisandra glabra*): This state listed threatened woody vine twines up trees and forms low thickets on the ground. Its bark is gray and bumpy on older vines. The bay star-vine prefers moist, deciduous hardwood forests frequently with beech trees. It usually occurs on lower slopes, stream terraces and floodplains. It can quickly become overwhelmed by invasive species such as Japanese honeysuckle or English ivy. This species can be found in Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Kentucky, Tennessee, South Carolina, North Carolina, and in the Sierra Madre of Mexico. According to the GDNR, there are only approximately 50 known populations in the State of Georgia. During the survey 2013 pedestrian field survey, suitable habitat was not observed for this species. During the survey, marginally suitable habitat was observed for this species. Thus, a determination of “no significant adverse effect” is recommended for this species.

The bay star-vine twines up trees or shrubs and forms low thickets on the ground. Therefore, the area between the cleared vegetation in the maintained plant community and the mixed pine/hardwood plant community were surveyed, where vines were observed. The surrounding development, roadway grading and buried utility line disturbances have increased invasive species infestations includes several vine species. Vines that were observed in this area include Japanese honeysuckle, poison ivy, trumpet creeper, kudzu, muscadine, Virginia creeper, climbing hydrangea (*Decumaria barbara*), Chinese wisteria, crossvine (*Bignonia capreolata*) and English ivy. Climbing hydrangea was distinguished from the bay star-vine by its opposite leaves and the leaves appearing to have a more rounded shape. Virginia creeper has five leaflets from a central point on the leafstalk, which differs from the bay star-vine’s widely-spaced leaves.

No individual bay star-vines or populations of bay star-vine were identified during the field surveys.

Georgia aster (*Symphotrichum georgianum*): The Georgia aster is a federal candidate and state threatened species that is found in Georgia, Alabama, South Carolina, and North Carolina. This species is primarily found in dry habitats, with sunlight being the primary controlling factor that needs to be available. Most remaining populations survive adjacent to roads, along woodland borders, in dry rocky woods, within maintained utility ROW, and other openings

where current land management mimics natural disturbance regimes. The few areas that are forested near the road shoulder do not provide suitable habitat due to several factors including roadway, utility and development grading, routine turf lawn maintenance, and competition from invasive species such as Japanese honeysuckle (*Lonicera japonica*) and English ivy (*Hedera helix*). Canopy closure prevents suitable habitat from being present in forested areas. During the 2013 pedestrian field survey, suitable habitat was not observed for this species. Thus, a determination of “no effect” is recommended for this species.

2.2.4 CRITICAL HABITAT

Critical habitat, as defined under the ESA, identifies specific geographic areas that include physical and biological features essential to the conservation of a federal listed species. Critical habitat has been designated for the Gulf moccasinshell in a stream more than 20 miles away from the project area. No critical habitat has been designated in Cobb County for any protected species described in this report; therefore, the proposed project would have no effect to designated critical habitat.

2.2.5 BALD AND GOLDEN EAGLES

The Bald and Golden Eagle Protection Act of 1940 provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds. There are no known occurrences of bald eagles listed within three miles of the study area. No bald eagle nests were observed within the study area. The proposed project limits contain no suitable foraging or nesting habitat for the bald eagle and the project is not anticipated to result in “take”, as defined under the Bald and Golden Eagle Protection Act. The USFWS is the responsible agency for this Act.

2.2.6 ESSENTIAL FISH HABITAT

In compliance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), the proposed project must identify unavoidable adverse impacts to Essential Fish Habitat (EFH). Congress describes EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (Magnuson-Stevens Act Provisions; Essential Fish Habitat [16 U.S.C. 1802(10)]). In Georgia, EFH has been defined in Camden, Glynn, McIntosh, Liberty, Bryan, and Chatham Counties. The project area is not located within any of these coastal counties of Georgia; therefore, the project is not anticipated to have an impact on EFH. The National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) is the responsible agency for this Act.

2.2.7 MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) and the Executive Order on the Responsibility of Federal Agencies to Protect Migratory Birds (Executive Order 13186), requires the protection of migratory birds and their habitats. Within the PPL, suitable nesting under bridges and within large culverts that would require reconstruction or removal should be checked for migratory bird nests initially and prior to construction. All of the stream crossings include bridges or culverts that provide suitable habitat for migratory bird nests. Based on the implementation of restricted construction timing special provisions, no impacts to migratory birds are anticipated. The USFWS is the responsible agency for this Act.

2.3 Waters of the U.S. and Buffered State Waters

For this document, jurisdictional waters of the U.S. and buffered state waters includes all ponds and streams which are presumed to have either perennial or intermittent base flows.

Jurisdictional waters of the U.S. are defined by 33 CFR Part 328.3(b) and are protected by Section 404 of the Clean Water Act (33 USC 1344). Buffered state waters are defined by the Official Code of Georgia 12-7 and protected by the Georgia Erosion and Sedimentation Control Act of 1975. Wetlands are Jurisdictional Waters of the U.S., but do not have a protected 25-foot buffer; therefore, wetlands are not shown as buffered state waters.

Buffered state waters include a buffer that is defined as “the area of land immediately adjacent to the banks of State waters in its natural state of vegetation, which facilitates the protection of water quality and aquatic habitat.” All state waters have an established 25-foot buffer along their banks, measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action, unless the GDNR Environmental Protection Division (EPD) Director determines to allow a variance that is at least as protective as a 25-foot buffer of natural resources and the environment. For those state waters classified as “trout streams”, the established buffer is 50 feet. None of the identified streams are trout streams; therefore, their buffer is 25 feet.

In the following tables and figures at the end of the report, streams are designated with an “S”, ponds with a “P”, and wetlands with a “W”. Each resource is numbered sequentially from North to South, and is shown on the attached Figures 2A – 2H.

Table 2.3-1 Water Resources

| Resource Label | Stream Name | 100-year FEMA Floodplain | Watershed Hydrologic Unit Code | Coordinates | | Road Name |
|----------------|----------------------------|--------------------------|--------------------------------|--|-----------|---|
| | | | | Lat (°N) | Long (°W) | |
| P-1 | N/A | No | Etowah Watershed | 34.027908 | 84.573483 | I-75 |
| S-1 | N/A | No | HUC 03150104 | 34.026341 | 84.572738 | I-75 |
| S-2 | N/A | No | | 34.003923 | 84.573277 | Shiloh Valley Dr. |
| P-2 | N/A | No | | 34.003694 | 84.571951 | Shiloh Valley Dr. |
| W-1 | N/A | No | | 34.003601 | 84.573247 | Shiloh Valley Dr. |
| S-3 | N/A | No | | 34.002844 | 84.573150 | Shiloh Valley Dr. |
| S-4 | N/A | Yes | | 33.98848 | 84.57488 | Cobb Parkway |
| S-5 | Tributary To Noonday Creek | Yes | | 33.98873 | 84.57471 | Cobb Parkway |
| W-2 | N/A | No | | 33.988157 | 84.571744 | Cobb Parkway |
| S-6 | N/A | No | | 33.987452 | 84.572242 | Cobb Parkway |
| S-7* | N/A | No | | 33.982692 | 84.547363 | Canton Road Connector |
| S-8 | Sope Branch | Yes | | Upper Chattahoochee Watershed HUC 03130001 | 33.963124 | 84.531801 |
| S-9 | Sope Creek | Yes | 33.963312 | | 84.531346 | Cobb Parkway |
| S-10 | N/A | No | 33.956701 | | 84.524319 | Cobb Parkway |
| S-11 | N/A | No | 33.956518 | | 84.524201 | Cobb Parkway |
| S-12 | Rottenwood Creek | Yes | 33.925570 | | 84.506981 | Cobb Parkway |
| S-13 | N/A | Yes | 33.925178 | | 84.507220 | Cobb Parkway |
| S-14 | Poorhouse Creek | Yes | 33.908796 | | 84.492840 | Cobb Parkway |
| S-15 | N/A | No | 33.898224 | | 84.483428 | Cobb Parkway |
| P-3 | N/A | No | 33.897567 | | 84.483014 | Cobb Parkway |
| S-16 | Poplar Creek | Yes | 33.894284 | | 84.479397 | Cobb Parkway |
| S-17 | N/A | Yes | 33.893874 | | 84.479419 | Cobb Parkway |
| P-4 | N/A | No | | 33.878531 | 84.462213 | Silver Comet Trail/ Cumberland Connector |

Source: GDNR Environmental Protection Division and GIS Mapping including FEMA 2008 100 year floodplain data

*This resource is no longer included in the study area for the proposed project.

2.4 Floodplains

Executive Order 11988 requires federal agencies to avoid, to the extent possible, the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, agencies provide leadership and take action to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.

AFFECTED ENVIRONMENT

FEMA 100-year floodplains were identified using existing topographic, aerial, and GIS mapping. These locations are shown in Figures 2B-2H. The project area streams that are located within a 100-year floodplain are:

- S-4: intersects White Circle Road then parallels US 41/Cobb Parkway
- S-5: tributary to Noonday Creek
- S-8: Sope Branch
- S-9: Sope Creek
- S-12: Rottenwood Creek
- S-13: US 41/Cobb Parkway near Cobb Drive
- S-14: Poorhouse Creek
- S-16: Poplar Creek
- S-17: tributary to Poplar Creek

2.5 Water Quality

303(d) Listed Waters: The term "303(d) list" is a list of impaired and threatened waters (stream/river segments, lakes) that the Clean Water Act requires all states to submit for EPA approval every two years on even-numbered years. The proposed project design is on roads that cross three streams on the Georgia 303(d) list of impaired waters.

Table 2.5-1 Streams

| Reach Name | Resource Label | Designated Use | Violation Criterion | Source | TMDL Completion Date |
|------------------|----------------|----------------|---------------------|--------|----------------------|
| Noonday Creek | S-5 | Fishing | Bio F | NP | 2009 |
| Sope Creek | S-10 | Fishing | FC | UR | 2003 |
| Rottenwood Creek | S-12 | Fishing | FC, Bio M | UR | 2003 (FC) |

Key: Bio F = Biota Impacted (Fish Community); FC = Fecal Coliform Bacteria; Bio M = Biota Impacted (Macroinvertebrate Community); NP = Nonpoint Sources/Unknown Sources; UR = Urban Runoff/Urban Effects
Source: 2012 Georgia 303(d) List of "Not Supporting" Impaired Waters

States identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards, and establish priorities for development of a Total Maximum Daily Load (TMDL) based on the severity of the pollution and the sensitivity of the uses to be made of the waters. A TMDL is a calculation of the maximum amount of a pollutant that waters can receive and still meet water quality standards and an allocation of that load among the various sources of that pollutant.

Traditionally, stormwater management has been the responsibility of local municipalities. Implementation of the Clean Water Act has resulted in new local water quality regulations that deal with stormwater (see **Table 2.5-2**).

Clean Water Act (CWA): Because of the CWA, there is a federal-state partnership for water quality, where federal guidelines, objectives and limits are to be set under the authority of the EPA, while states, territories, and authorized tribes would largely administer and enforce the CWA programs, with significant federal technical and financial assistance. Prior to 1987, CWA programs were primarily directed at point source pollution. CWA Section 319 created a new federal program that provides money to states, tribes, and territories for the development of programs to reduce pollution from unregulated, diffuse sources, including stormwater.

Every two years on even-numbered years, the CWA requires all states to submit to the EPA for approval a list of impaired and threatened waters (stream/river segments, lakes), called the 303(d) list. **National Pollutant Discharge Elimination System (NPDES) and Municipal Separate Storm Water Systems (MS4):** To address water quality concerns that might occur as a result of stormwater runoff, an amendment to the CWA in 1987 and subsequent Georgia legislation requires local communities to address stormwater quality. One of the primary regulations is Georgia's Municipal NPDES MS4 Stormwater Permit Program which is overseen by the DNR EPD. Construction-related erosion and sedimentation impacts would be addressed through conformance with the applicable NPDES Construction Permit.

Georgia Stormwater Management Manual: The Georgia Stormwater Management Manual provides guidance on stormwater management policy, technical design standards, and pollution prevention. This manual is used by many Georgia communities, including those in the corridor, for setting stormwater management and mitigation requirements. **Table 2.5-2** includes a summary of the local regulatory requirements.

Table 2.5-2. Local Stormwater Requirements

| Jurisdiction | Detention Requirements | Infiltration Requirements |
|-------------------------|--|---|
| City of Smyrna | <p>More stringent requirements than Georgia Stormwater Management Manual (Blue Book):</p> <p>Overbank flooding protection: Post development peak discharge rate to be at least 10% less than the pre-development rate for the 2-year, 10-year, and 25-year 24-hour return frequency storm events</p> <p>Extreme flooding protection: Post development peak discharge rate to be at least 10% less than the pre-development rate for both the 50-year and 100-year, 24-hour return frequency storm events</p> | Georgia Stormwater Management Manual (Blue Book) requirements |
| City of Marietta | Georgia Stormwater Management Manual (Blue Book) requirements | Georgia Stormwater Management Manual (Blue Book) requirements |
| City of Atlanta | <p>Work within public ROW is exempt from post-development stormwater management requirements</p> <p>Georgia Stormwater Management Manual (Blue Book) requirements</p> | <p>Georgia Stormwater Management Manual (Blue Book) requirements, except:</p> <p>Stormwater Runoff Quality: Projects must treat the first 1.0" of Stormwater runoff with green infrastructure</p> |

AFFECTED ENVIRONMENT

The study area is generally urbanized and highly altered as compared to natural conditions, and characterized by commercial, industrial, and institutional development. The intensity of development ranges from suburban to urban.

The proposed project crosses three municipalities that have MS4 permits: Cobb County (GAS000108), Marietta (GAS000125), and Smyrna (GAS000132).

The alignment of the proposed project is on roads that cross three streams on the Georgia 303(d) list of impaired waters (see **Table 2.5-3**). States identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards, and establish priorities for development of a Total Maximum Daily Load (TMDL). A TMDL is a

calculation of the maximum amount of a pollutant that waters can receive and still meet water quality standards and an allocation of that load among the various sources of that pollutant. TMDL requirements must be considered when evaluating potential runoff from a project.

Table 2.5-3. 303(d) List Impaired Waters in the Connect Cobb Corridor

| Reach Name | Resource Label | Designated Use | Violation Criterion | Source | TMDL Completion Date | Reason Designated Use is Not Supported |
|------------------|----------------|----------------|---------------------|--------|----------------------|--|
| Noonday Creek | S-5 | Fishing | Bio F | NP | 2009 | Nonpoint or unknown sources |
| Sope Creek | S-10 | Fishing | FC | UR | 2003 | Urban runoff |
| Rottenwood Creek | S-12 | Fishing | FC, Bio M | UR | 2003 (FC) | Urban runoff |

Key: Bio F = Biota Impacted (Fish Community); FC = Fecal Coliform Bacteria; Bio M = Biota Impacted (Macroinvertebrate Community); NP = Nonpoint Sources/Unknown Sources; UR = Urban Runoff/Urban Effects

Source: 2012 Georgia 303(d) List of "Not Supporting" Impaired Waters

POTENTIAL IMPACTS

No Build Alternative

No impacts to stormwater would be anticipated under this alternative.

Proposed Project

The project would result in an increase in the impervious area approximately 25 percent for guideway construction and between 25 and 50 percent for each park-and-ride facility construction, depending on the number of parking spaces provided. Walk-up stations would also add impervious surface, but at a lesser degree than park-and-ride facilities.

Table 2.5-4. Percent Increase in Impervious Area for Project Alignment

| Corridor Type | Quantity (route-feet) | Percent Increase in Impervious Area |
|--|-----------------------|-------------------------------------|
| Mixed Traffic Length | 23,400 | 0% |
| Guideway Construction Within Existing Median | 3,900 | 50% |
| Guideway Construction With Road Reconstruction (Rural) | 5,400 | 35% |
| Guideway Construction With Road Reconstruction (Urban) | 48,900 | 35% |
| Guideway Construction (Akers Mill Rd) | 3,900 | 40% |

Table 2.5-5. Percent Increase in Impervious Area for Proposed Station Areas

| Station Location | Park-and-Ride Type | Number of Parking Stalls Provided | % Increase in Impervious Area |
|--------------------------|--------------------|-----------------------------------|-------------------------------|
| Kennesaw State | N/A | N/A | 0% |
| Town Center | Existing Surface | 1,000 | 0% |
| Barrett Lakes Boulevard | Surface | 50 | 25% |
| White Circle | Surface | 50 | 15% |
| Battlefield | Surface | 200 | 45% |
| WellStar Kennestone | Structured | 300 | 55% |
| Allgood Road | N/A | N/A | 0% |
| North Loop/White Water | Surface | 300 | 70% |
| Big Chicken | N/A | N/A | 0% |
| University | N/A | N/A | 0% |
| Dobbins Air Reserve Base | N/A | N/A | 0% |
| Windy Hill Road | Existing Surface | 175 | 30% |
| Cumberland North | Structured | 300 | 40% |
| Cumberland South | Structured | 1,000 | 50% |

The proposed project will not affect water quality impairment for the 303(d) listed waters. This project will encourage the use of transit and more efficient transportation. The use of the ART system could result in fewer cars traveling along this corridor, which would lessen the amount of runoff materials associated with cars.

3.0 Environmental Consequences

3.1 Avoidance and Minimization

The current design is conceptual. The conceptual studies have been initiated to support the planning process and are based on an analysis of existing available information.

Table 3.1-1 Affected Resources

| Resources | Resource Affected? | | Anticipated Severity | | |
|------------------------|--------------------|---------|----------------------|--------|-------|
| | No | Assumed | Minor | Median | Major |
| Protected Species | X | | | | |
| Critical Habitat | X | | | | |
| Bald and Golden Eagles | X | | | | |
| Essential Fish Habitat | X | | | | |
| Migratory Birds | | X | X | | |
| Streams | | X | X | | |
| Wetlands | | X | X | | |
| Ponds | | X | X | | |
| State Water Buffers | | X | X | | |
| Floodplains | | X | X | | |
| Water Quality | | X | X | | |

Table 3.1-2 Estimated Stream Piping, and Pond and Wetland Fills

| Water ID | Quantity Acres (ac)/ Linear Feet (lf) | GDOT Structure ID | Assumed Impact Estimate in PPL | | Assumed Buffer Variance |
|----------|---|--------------------------------|-----------------------------------|------------------|-------------------------------|
| | | | Type | Length (feet) | |
| P-1 | 0.44 ac | N/A | None | N/A | None |
| S-1 | 13 lf | N/A | None | N/A | None |
| S-2 | 482 lf | N/A | None | N/A | None |
| P-2 | 0.59 ac | N/A | None | N/A | None |
| W-1 | 0.34 ac | N/A | None | N/A | N/A |
| S-3 | 478 lf | N/A | Culvert Extension | 364 | None |
| S-4 | 254 lf | N/A | None | N/A | Yes |
| S-5 | 304 lf | N/A | Culvert Extension | 70 | None |
| W-2 | 1.25 ac | N/A | None | N/A | N/A |
| S-6 | 545 lf | N/A | None | N/A | Yes |
| S-7* | N/A | N/A | N/A | 0 | None |
| S-8 | 146 lf | N/A | None | N/A | Yes |
| S-9 | 404 lf | N/A | Culvert Extension | 70 | None |
| S-10 | 213 lf | N/A | Culvert Extension | 143 | Yes |
| S-11 | 429 lf | N/A | Culvert Extension | 61 | Yes |
| S-12 | 210 lf | 067-0015 Triple 10'x10' Box | Culvert Extension | 115 | Yes |
| S-13 | 351 lf | N/A | Culvert Extension | 35 | Yes |
| S-14 | 366 lf | 067-0012 Double 10'x10' Box | Culvert Extension | 35 | None |
| S-15 | 364 lf | N/A | None | N/A | Yes |
| P-3 | 0.4 | N/A | None | N/A | Yes |
| S-16 | 500 lf | 067-0011 Double 10'x10' Box | Culvert Extension Assumed | 70 | None |
| S-17 | 1524 lf | N/A | None | N/A | Yes |

| Water ID | Quantity Acres (ac)/ Linear Feet (lf) | GDOT Structure ID | Assumed Impact Estimate in PPL | | Assumed Buffer Variance |
|----------|---------------------------------------|-------------------|--------------------------------|---------------|-------------------------|
| | | | Type | Length (feet) | |
| P-4 | 0.23 ac | N/A | None | N/A | None |
| | | | TOTAL | 963 | |

Source: Kimley-Horn and Associates, Inc. 2013. Quantities were measured using GIS software. Structure types were obtained from GDOT Bridge Inspection Reports obtained from the Georgia Department of Transportation online GeoTraqs online mapping tool. Stream impacts shown as 70 feet in length are assumed to receive a 35-foot culvert extension on each side of the culvert. Stream impacts shown as 35 feet in length are assumed to have only side of the culvert extended. Streams with different impact lengths are due to the stream’s geometry. All streams located outside of the preliminary project limits are not considered for impacts.

*This resource is no longer included in the study area for the proposed project.

The project area contains nine impacted streams with an assumed total impact of 963 feet of streams. For multiple streams, assumed impacts of 70 feet are based on an assumed 35 culvert extension on each side of roadway. The assumed stream buffer variance and impact lengths listed as greater than 70 feet are based upon a review of the stream geometry within the PPL. Assumed impact lengths listed as 35 feet were made based on the stream already being in a culvert within the PPL on one side of the road.

4.0 Mitigation Measures

Potential mitigation measures were identified and developed in coordination with Cobb County, the Federal Transit Administration (FTA), and the USFWS. Waters impacts would need to be in compliance with the Clean Water Act Section 404 Compensatory Mitigation Requirements and the following list of mitigation measures could be implemented to avoid or minimize adverse environmental effects to natural resources:

Protected Species

In correspondence from December 2014, USFWS remarked on the following points (see Appendix A). Notations of how the USFWS points (in italics) were addressed follow each bullet below. The mitigation measures will be implemented to prevent direct, indirect, or cumulative impacts.

Measures to protect water quality from direct and indirect impacts should be considered

- During the construction phase, Cobb County will ensure that all practicable enhanced erosion control measures are taken within the construction limits. This includes, but is not limited to: hydro-seeding, street sweeping, dust control, vehicle covers on sediment transport vehicles, and concrete washouts. In addition, Cobb County could use wet ponds, stormwater infiltration or detention facilities, and bio-retention to filter stormwater runoff from impervious surfaces of the proposed park-and-ride facilities. When practical,

Cobb County could also utilize impervious surfaces to mirror predevelopment hydrologic conditions in order to encourage infiltration and filtering during the construction phase within project limits. Cobb County will also preserve existing landscaped areas to encourage stormwater infiltration and nutrient filtering.

If the proposed project would directly or indirectly affect hardwood forests, the habitat would need to be assessed for its suitability as foraging or roosting habitat for northern long-eared bats and a determination made if bat surveys may be necessary

- The project would directly affect hardwood forests by the clearing of trees during the construction phase in the area approximately 725 feet north of White Circle Drive NW, US 41/Cobb Parkway and White Road in Marietta. There is also a small area of hardwood forest that could be impacted by the parcel acquired for the North Loop/Whitewater station at Marietta Parkway (Sheet 3 of Appendix D). Locations of suitable roosting habitat will be labeled on the construction plans. Cobb County will include a special provision in the contract documents for the protection of the northern long-eared bat, which will stipulate that tree clearing within suitable hardwood forest habitat will not occur from March 30 to October 15. This will prevent clearing of suitable habitat for roosting northern long-eared bats during time periods that include spring migration, summer roosting, and raising young in the early fall. If northern long-eared bats are found in suitable roosting habitat, the construction contractor will notify the Cobb County Department of Transportation to provide information.

The proposed project is within the potential range of the dwarf sumac, monkeyface orchid, and Georgia aster

- Within the project limits, no suitable habitat was identified for the dwarf sumac, monkeyface orchid, or Georgia aster during the pedestrian field surveys conducted in 2013.

If the proposed project would modify bridges or culverts, inspections of all bridges/culverts would need to be completed to determine if there is evidence of migratory bird species using the structure for nesting and to determine if it is being utilized as a roost by bats.

- Cobb County will conduct surveys during the nesting season and common bat roosting season and prior to construction to determine if these structures are used by migratory birds and bats. If birds and bats are observed nesting or roosting in culverts or bridges, Cobb County will ensure that measures to survey and protect migratory birds and bat use would be implemented through the use of a special provision. Cobb County will include a special provision in the contract documents that will utilize netting to prevent birds and bats from nesting or roosting, and/or limit construction timing to avoid the breeding season of migratory birds and use by roosting bats from March 30 to October 15.

For new culverts, culvert suitability for passage of aquatic fauna would need to be assessed

- In the event that new culverts or wholly replaced culverts are included in the project, Cobb County will ensure that they are designed under the specified fish passage guidelines for new culverts included in Section E of the U.S. Army Corps of Engineers (USACE) Savannah District's Regional Conditions for Nationwide Permits. These guidelines dictate culvert dimension design, bank-full flow accommodations, culvert embedding, culvert slope, flooding design, and stormwater management considerations. Per the USACE Savannah District's Regional Conditions for Nationwide Permits and prior to construction, Cobb County will evaluate the use of bottomless culverts to determine if they may be a good alternative for fish passage, where foundation conditions allow their construction and width criteria can be met. This requirement applies to new culverts for perennial streams only. Culvert design options, including box culverts that allow for the natural embedment of stream material as well as bottomless culverts, will also be evaluated to determine the appropriate design for fish passage, constructability, and meeting of hydraulic criteria

Additional Construction Phase Mitigation Measures for Protected Species

- The following are mitigation measures that will be implemented during construction:
 - Cobb County will include special provisions in the contract documents for enhanced erosion control in streams containing suitable habitat for the Chattahoochee crayfish.
 - Cobb County will include special provisions in the contract documents for seasonal restrictions (no in-stream construction during the spawning season from April to June) and enhanced erosion control in streams containing suitable habitat for the highscale shiner.
 - Cobb County will utilize construction timing restrictions, construction monitoring, and habitat replacement and/or enhancement.
 - Cobb County will locate staging areas away from environmentally sensitive areas where mature vegetation and potential fish and wildlife habitats are present (no new staging areas are identified at this time)
 - Where applicable, Cobb County will provide educational materials to construction personnel for awareness of protected species and their habitats.
 - Cobb County will ensure that the design plans include the locations of Environmentally Sensitive Areas.

Streams, Wetlands, Ponds

- The project will utilize a phased construction schedule to limit the extent of land disturbance activities, use Orange Barrier Fencing to prevent construction staging in the vicinity of water resources and buffers
- The construction contractor will be required to have trained personnel responsible for BMP installation and maintenance

State Water Buffers

- The project will limit the amount of clearing and grubbing areas to minimize habitat disturbance and preserve existing vegetation.
- As soon as possible during or after construction activities, the project will remove any temporary fill and construction debris and restore disturbed areas to pre-project conditions using native vegetation replanting. Native riparian plant species will be species that are adapted to riparian forests or stream edges in Georgia and the Southeast.

Floodplains

The proposed project will follow applicable local and state stormwater management requirements. A stormwater analysis will determine the appropriate water quality BMPs for affected stormwater outfalls. Mitigation measures will include using structures to cross floodplains instead of fill material, providing adequate flow circulation, reducing grading requirements and preserving natural drainage.

Water Quality

Long-term mitigation measures, to be determined by CCDOT, would include the design and construction of permanent BMPs, such as detention and infiltration facilities, which would control and treat stormwater runoff caused by an increase in impervious surfaces as a result of the project.

Mitigation measures that will be used for stormwater impacts include:

- Minimize soil compaction in landscaped areas by techniques such as scarification and incorporate appropriate amendments to improve soil quality/water holding capacity and foster healthy vegetation.
- When practical, utilize impervious surfaces to mirror predevelopment hydrologic conditions in order to encourage infiltration and filtering.
- Preserve existing landscaped areas to encourage stormwater infiltration and nutrient filtering.
- Enhanced erosion control measures including supplemental hydroseeding, street sweeping/vacuuming, stabilized construction access points and sediment stockpiles, dust control, sediment transport vehicle covers, and concrete washouts.
- Filter impervious surface stormwater runoff through the use of wet ponds, stormwater infiltration or detention facilities, and bio-retention BMPs for proposed park-and-ride facilities.
- BMPs that are compatible with linear corridors would be used to the extent possible without the need to purchase additional right of way. These BMPs will include ponds and infiltration areas, to meet the appropriate rate control, volume control and water quality requirements.

5.0 Protected Species Effect Determination Summary

5.1 FEDERALLY LISTED SPECIES

Table 5.1-1 Federally Protected Species Effect Determinations

| Species | Common Name | Federal Status | Project Limits Habitat | Effect Determination |
|---------------------------------|-------------------------|----------------|--|--|
| <i>Amphianthus pusillus</i> | pool sprite | T | Not Observed | No Effect |
| <i>Elliptoideus sloatianus</i> | purple bankclimber | E | Not Observed | No Effect |
| <i>Etheostoma scotti</i> | Cherokee darter | T | Not Observed | No Effect |
| <i>Hamiota altilis</i> | finelined pocketbook | T | Not Observed | No Effect |
| <i>Hamiota subangulata</i> | shinyrayed pocketbook | E | Not Observed | No Effect |
| <i>Medionidus penicillatus</i> | Gulf moccasinshell | E | Not Observed | No Effect |
| <i>Myotis septentrionalis</i> | northern long-eared bat | T | No Cave Habitat Observed, Summer Roosting Habitat Observed | May Affect, but Not Likely to Adversely Affect |
| <i>Myotis sodalis</i> | Indiana bat | E | No Cave Habitat Observed | No Effect |
| <i>Platanthera integrilabia</i> | white fringeless orchid | FC | Not Observed | No Effect |
| <i>Pleurobema pyriforme</i> | oval pigtoe | E | Not Observed | No Effect |
| <i>Rhus michauxii</i> | dwarf sumac | E | Not Observed | No Effect |

Key: E = Endangered; T = Threatened; Prop. FC = Federal Candidate

5.2 STATE LISTED SPECIES

Table 5.2-1 Federally Protected Species Effect Determinations

| Species | Common Name | State Status | Project Limits Habitat | Effect Determination |
|---------------------------------|------------------------|--------------|---------------------------|--------------------------------|
| <i>Cambarus howardi</i> | Chattahoochee crayfish | T | Habitat Observed | No Significant Adverse Effect* |
| <i>Draba aprica</i> | sun-loving draba | E | Not Observed | No Effect |
| <i>Notropis hypsilepsis</i> | highscale shiner | R | Habitat Observed | No Significant Adverse Effect* |
| <i>Schisandra glabra</i> | bay star-vine | T | Marginal Habitat Observed | No Significant Adverse Effect |
| <i>Symphotrichum georgianum</i> | Georgia aster | T | Not Observed | No Effect |

Key: E = Endangered; T = Threatened; R = Rare

*Based on the implementations of special provisions.

Figure 1. Project Location Map

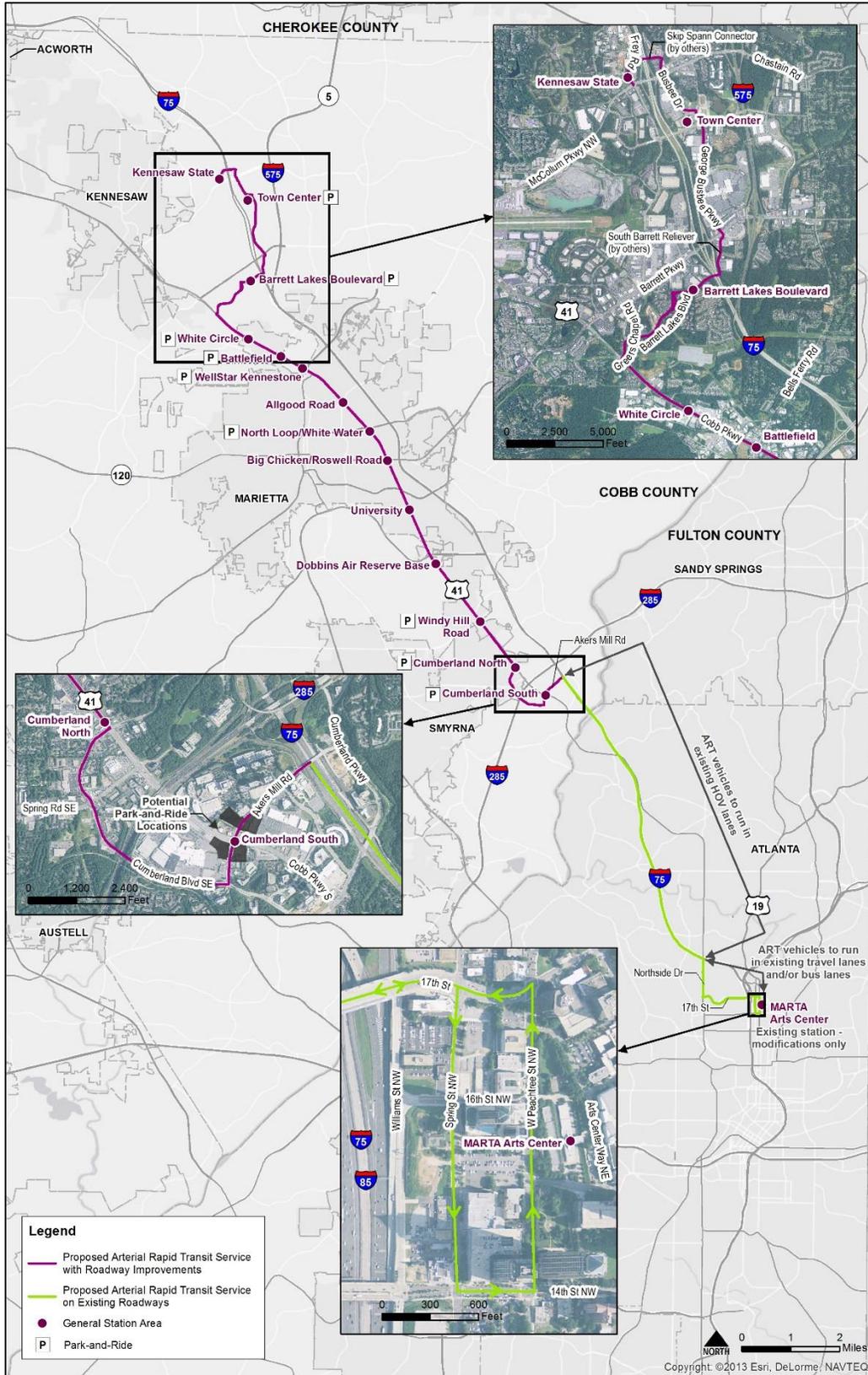


Figure 2B. Water Resources Map

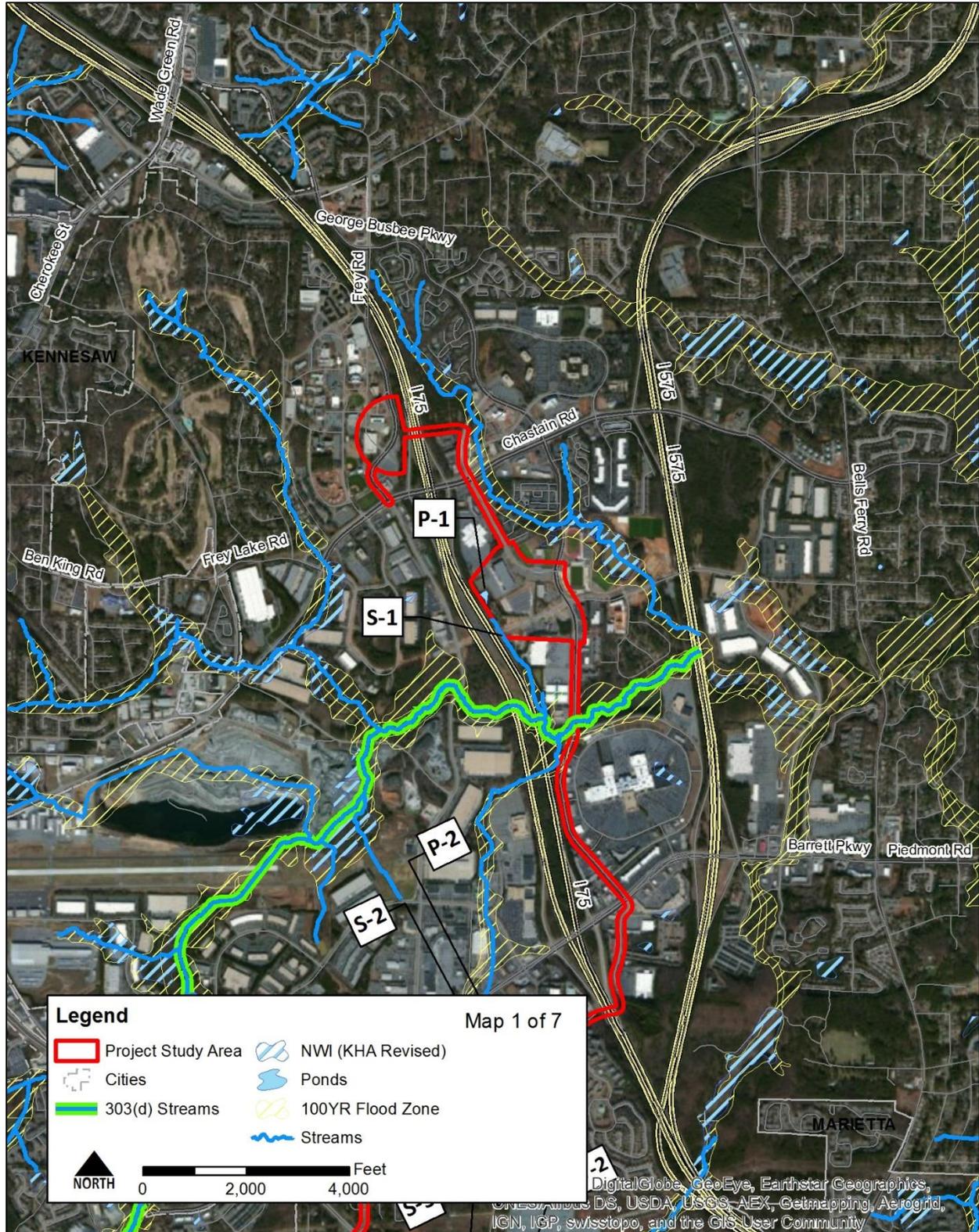


Figure 2C. Water Resources Map

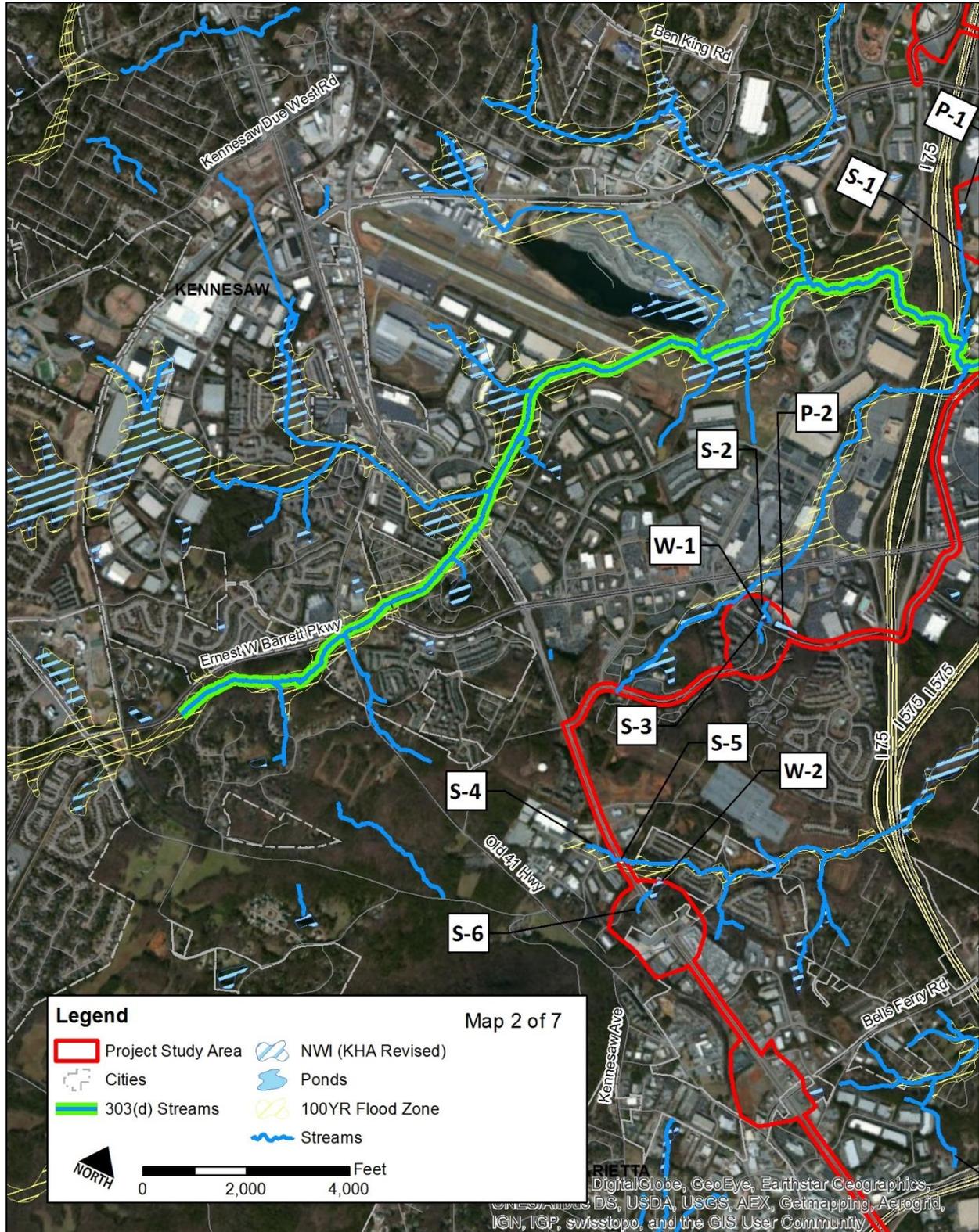


Figure 2D. Water Resources Map

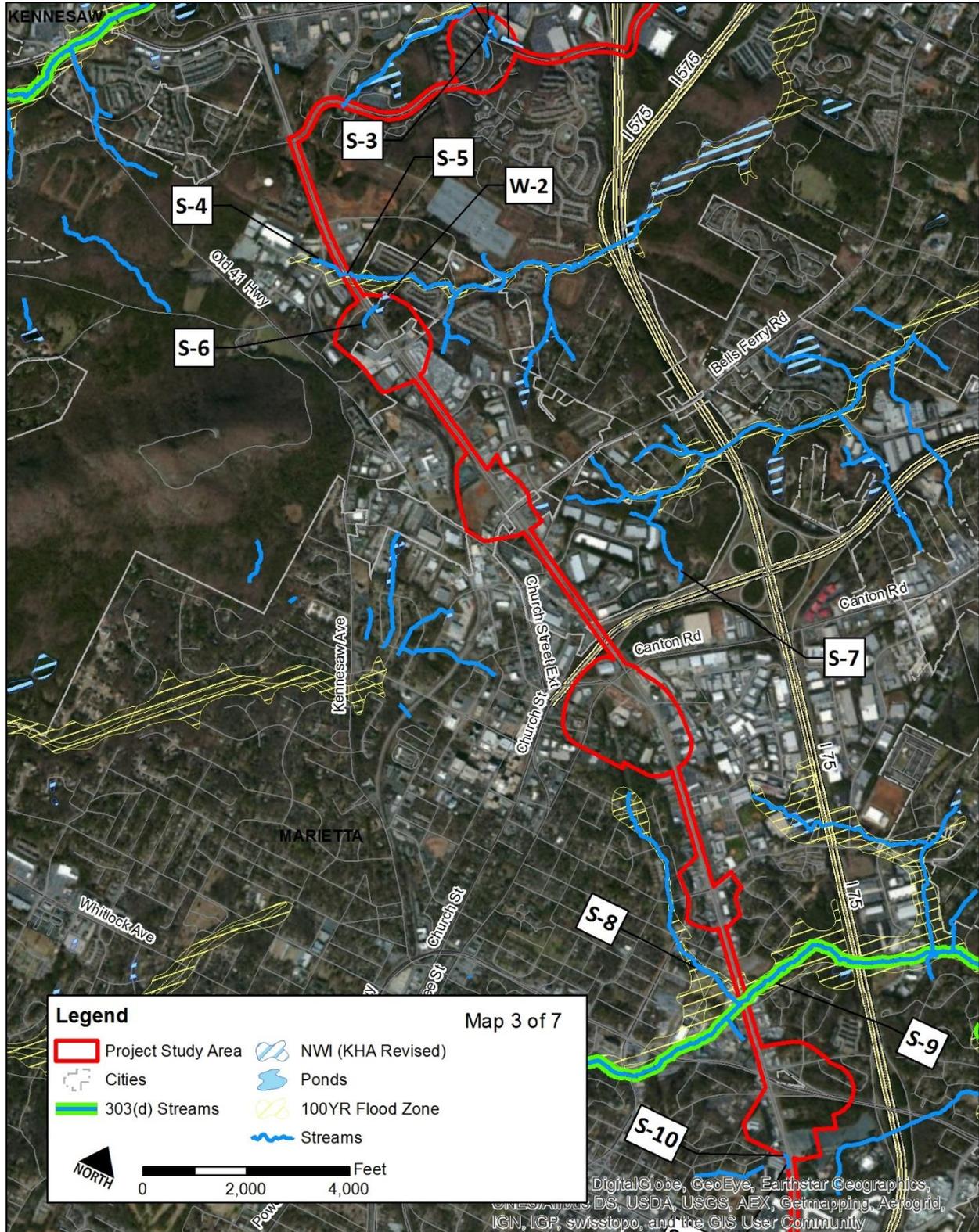


Figure 2E. Water Resources Map

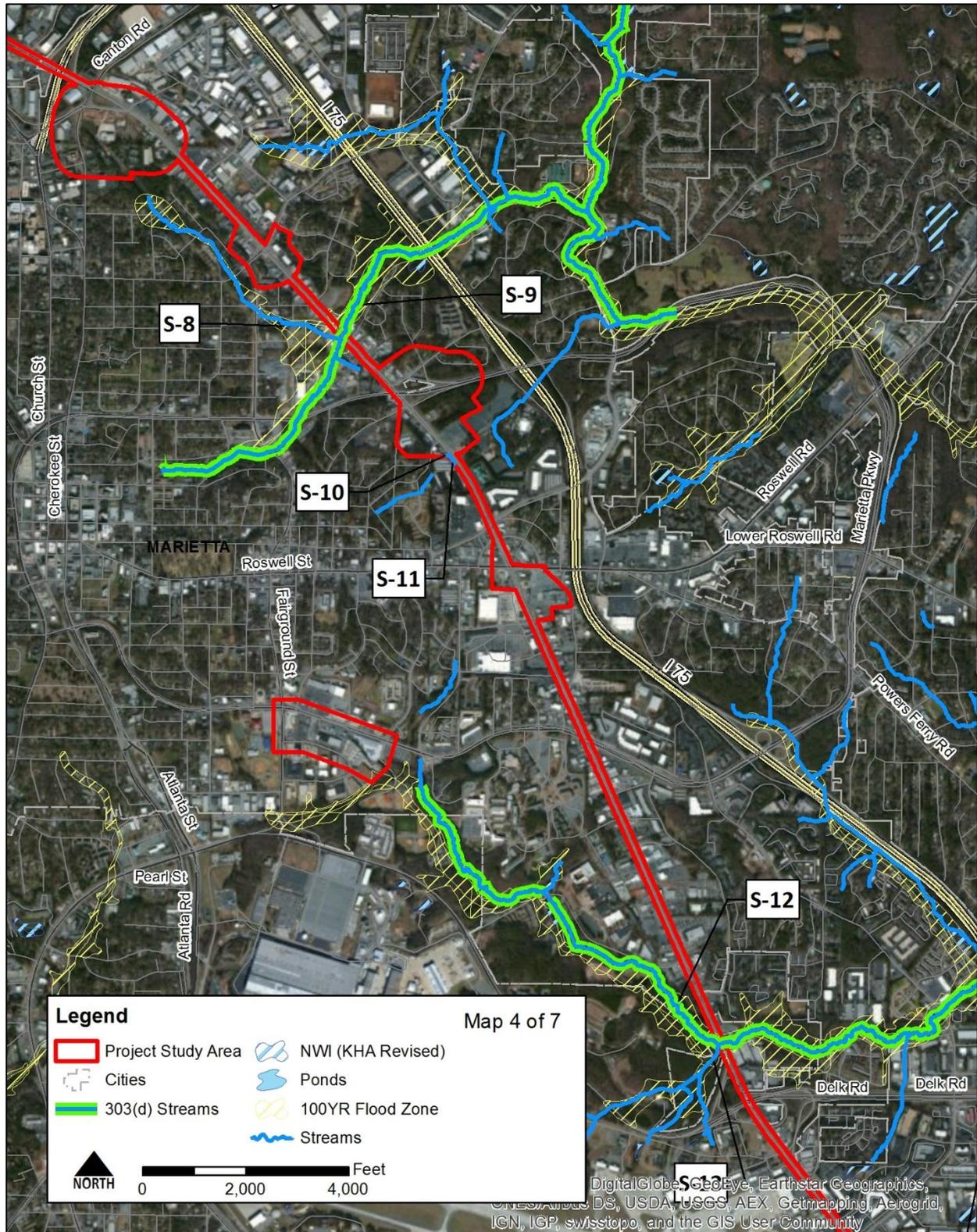


Figure 2F. Water Resources Map

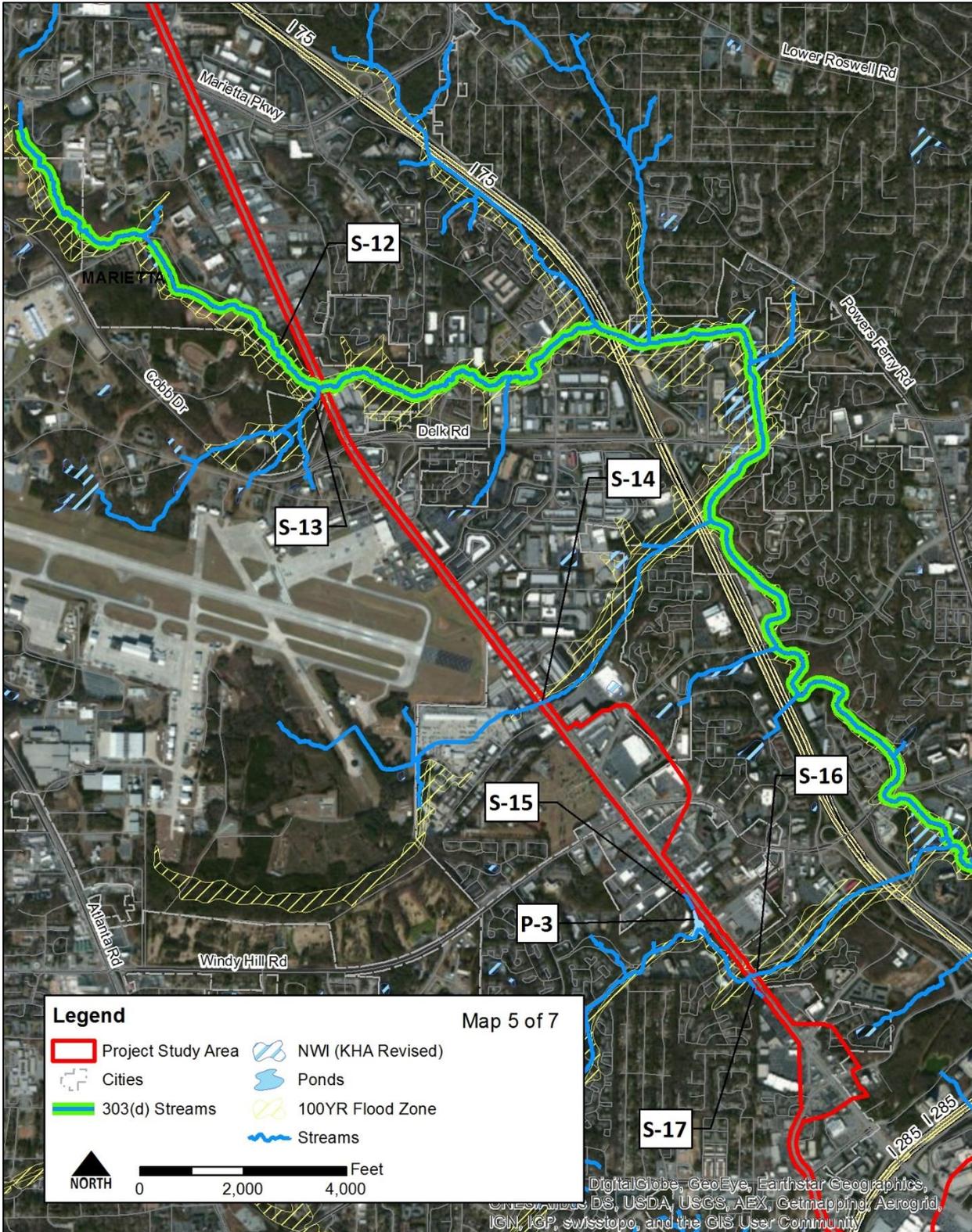


Figure 2G. Water Resources Map

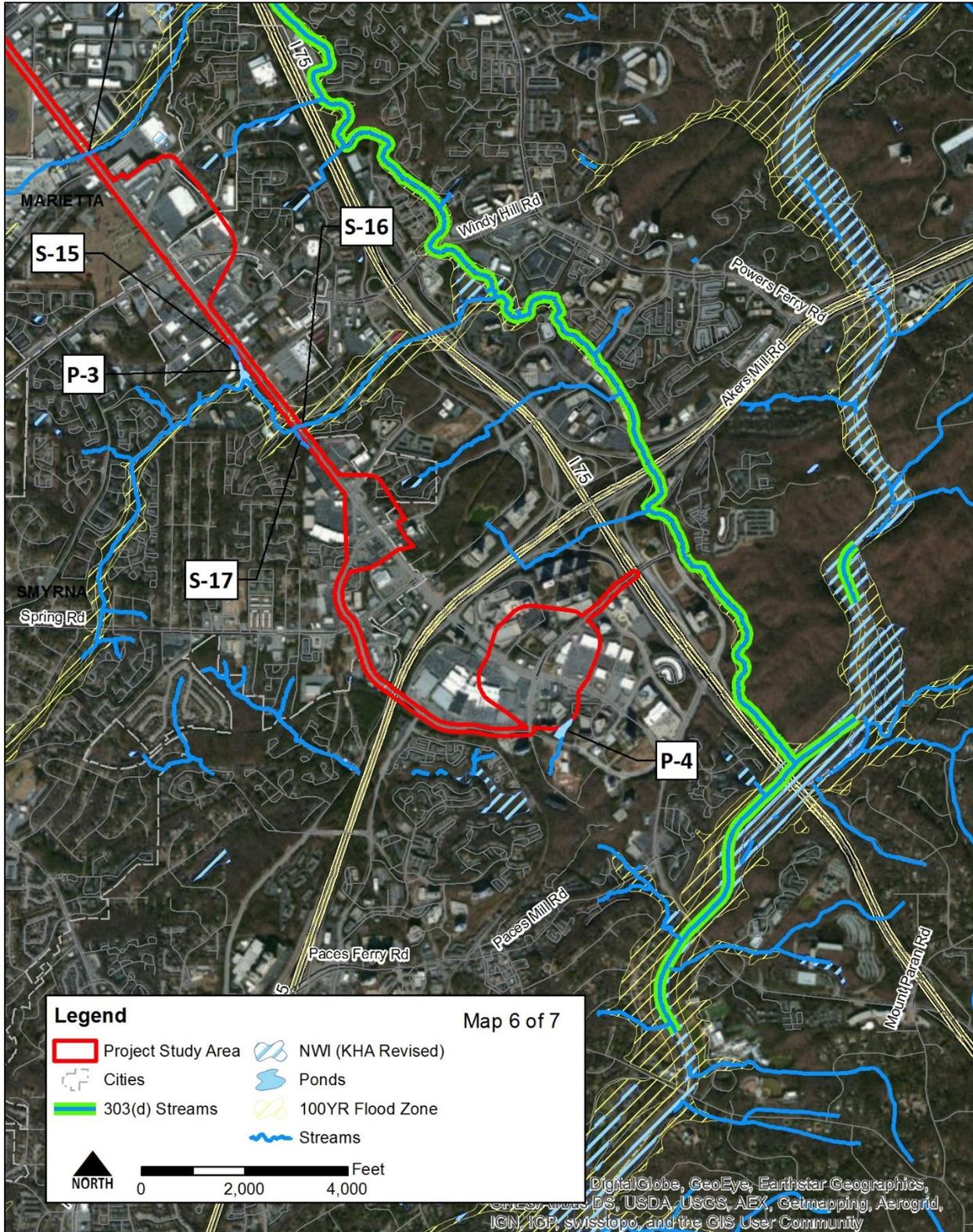
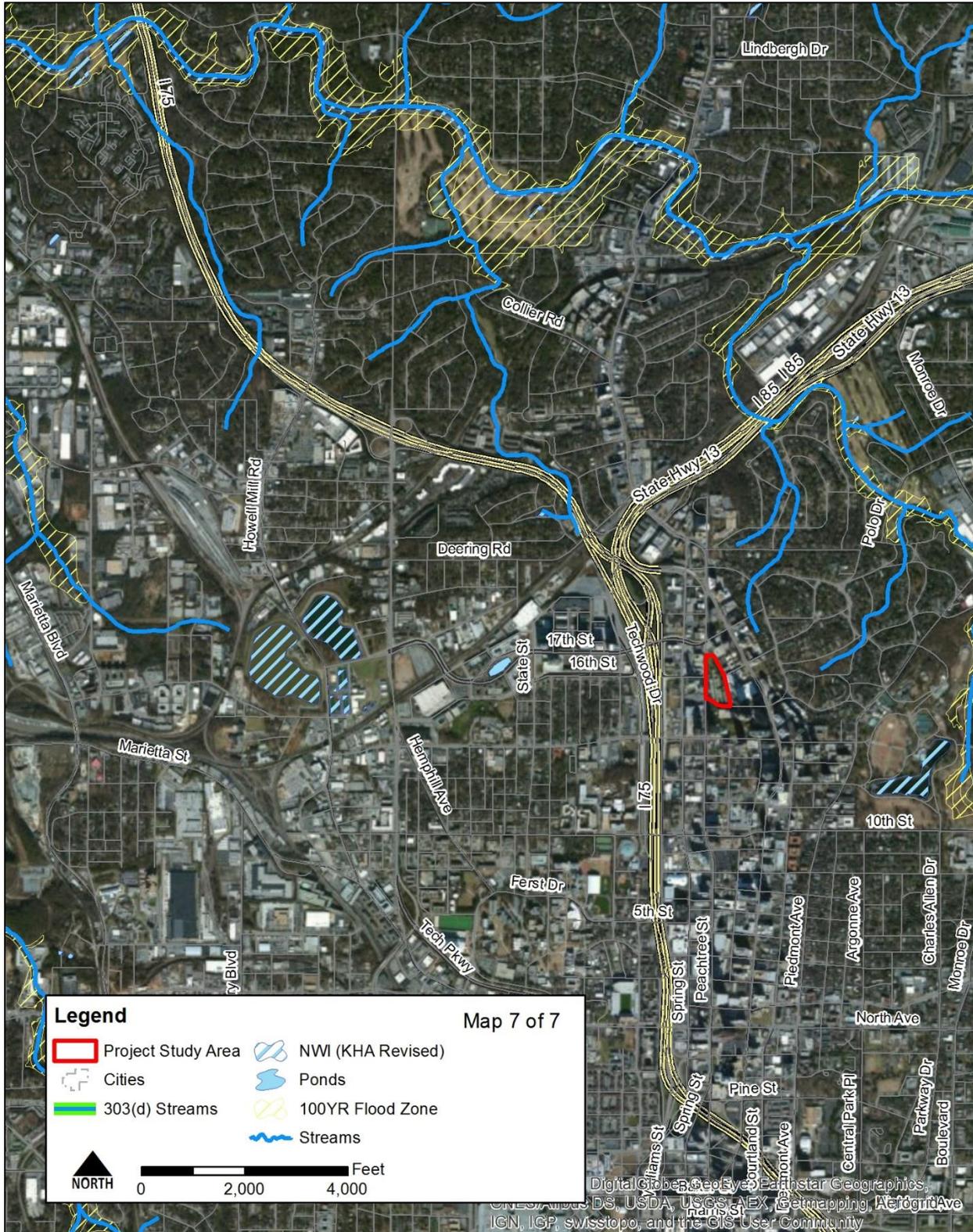


Figure 2H. Water Resources Map





Appendix A

Agency Coordination

USFWS Email (12/15/14)

FTA Letter to USFWS (4/14/15)

USFWS IPAC Cobb County

USFWS IPAC Fulton County

GDNR Element Occurrence Letter

GDNR Cobb County Species List

GDNR Fulton County Species List

Martin, Eric

From: Straight, Carrie <carrie_straight@fws.gov>
Sent: Monday, December 15, 2014 9:57 AM
To: Martin, Eric
Cc: Ashworth, Dan; Wilson, Debbie; Chamblin, Douglas
Subject: Re: Connect Cobb Northwest Transit Corridor

Eric,

I received your request for information for the Connect Cobb Northwest Corridor Transit project, Cobb and Fulton Counties, Georgia dated 12 December 2014.

The upper portion of the project area occurs in the Etowah River watershed and the lower portion of the project occurs in the Upper Chattahoochee River watershed. The Etowah portion lies in the Noonday Creek / Little River subwatershed where listed species occur downstream of the project area. Measures to protect water quality from direct and indirect impacts of the project work or run-off from the future project area should be considered. There are no federally listed aquatic species within the Upper Chattahoochee River watershed portion of the project.

The project is within the range of the proposed endangered Northern Long-eared Bat (*Myotis septentrionalis*). If your project will directly or indirectly affect hardwood forests, please assess the habitat for the suitability of use as foraging or roosting habitat for Northern Long-eared Bats and to determine if bat surveys may be necessary.

The project is within the potential range of endangered Dwarf Sumac (*Rhus michauxii*). If appropriate habitat for Dwarf Sumac was identified in vegetative surveys, additional surveys specifically for Dwarf Sumac should be conducted during flowering (June through August) or fruiting (August through October).

The candidate species Monkeyface Orchid (*Platanthera integrilabia*) also occurs in Cobb County, if seeps, springheads, seepy streambanks, or other swampy habitat were identified in project area, surveys for this species would be required during flowering (mid-July through August).

Your project does lie within the range of species of interest Georgia Aster (*Symphotrichum georgianum*). Please note any suitable habitat or occurrences of this species in your ecology assessment.

If the project will modify bridges or culverts, please complete inspections of all bridges/culverts to determine if there is evidence of migratory bird species using the structure for nesting and to determine if it is being utilized as a roost by bats. Survey culverts, bridge joints and crevices between the inclusive dates of May 15-August 15, please include indications of bat presence (guano and staining) even if bats are not present at the time of the survey. If road widening is part of the project, please inspect all culverts and assess their suitability for passage of aquatic fauna.

Thank you for the opportunity to provide comments.

Carrie

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Carrie A. Straight, PhD

Fish and Wildlife Biologist
U.S. Fish & Wildlife Service
Georgia Ecological Services
105 Westpark Drive, Suite D
Athens, GA 30606

706.613.9493 x226
Fax 706.613.6059

On Fri, Dec 12, 2014 at 10:00 AM, <eric.martin@kimley-horn.com> wrote:

Carrie,

Please advise us of any concerns regarding protected species for the Connect Cobb Northwest Corridor Transit project. Please see the attached project description and location map. The Federal Transit Administration is the lead federal agency for the project. The proposed project includes Arterial Rapid Transit (ART) service and associated improvements on US 41/Cobb Parkway in Cobb County. The majority of the ART system would operate on fixed guideway (from Kennesaw to Cumberland), would have continuing service to the existing MARTA Arts Center Station on existing roads, and would begin at the terminus station at KSU near the intersection of Chastain Road and Frey Road. The center of the project is located at approximately 33.908792 N, 84.492821 W.

The project area is heavily developed with a combination of commercial retail and residential properties, schools, office buildings and industrial land uses in Cobb and Fulton Counties, Georgia. More than 50 percent of the parcels immediately bounding the proposed project are designated for commercial use with pockets of industrial, office, and public institutional uses. Farther from US-41/Cobb Parkway within the survey area, residential land uses dominate. The majority of the project (approximately 79 percent) is located in incorporated

cities. The project area is predominantly comprised of maintained road shoulders and adjacent slopes along the existing paved roads and to paved areas including parking lots, sidewalks, road shoulders and intersections.

Project corridor field surveys were conducted in June, July, and August of 2013 to identify vegetative communities and suitable habitat for potential protected species as identified by the United States Fish and Wildlife Service Information, Planning, and Conservation System for Cobb and Fulton Counties. An aquatic survey was conducted in October and November of 2014. Field surveys included areas beyond anticipated project limits in both maintained vegetative communities and adjoining mixed pine/hardwood communities. Habitat within the maintained vegetative communities are very low-quality due to the presence of the adjacent roadway, turf grasses, ornamental trees and shrubs, exotic invasive species and the likelihood of herbicide application. Habitat within the mixed pine/hardwood communities are low-quality due to high fragmentation and the adjacent roadway, developed properties, and areas including multiple exotic invasive species infestations.

For terrestrial and aquatic species, no suitable habitat was identified for federally protected species and suitable habitat was identified for three state-listed aquatic species. The state-listed species with suitable habitat include the Chattahoochee crayfish (*Cambarus howardi*), bluestripe shiner (*Cyprinella callitaenia*), and highscale shiner (*Notropis hypsilepis*).

Thanks,



Eric Martin, PWS

Kimley-Horn | 2 Sun Court, Suite 450, Peachtree Corners GA 30092
Direct: 678-533-3947 | Main: 770 825 0744

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Kentucky, Mississippi,
North Carolina, Puerto
Rico, South Carolina,
Tennessee, Virgin Islands

230 Peachtree St.
N.W., Suite 1400
Atlanta, GA 30303
404-865-5600

Carrie Straight, Ph.D.
Fish and Wildlife Biologist
U.S. Fish & Wildlife Service
Georgia Ecological Services
105 Westpark Drive, Suite D
Athens, GA 30606

APR 14 2015

Re: Connect Cobb Northwest Corridor Transit Environmental Coordination and Transmittal of Ecology Report/Biological Assessment, Section 7 Consultation, US41/Cobb Parkway and I-75, Cobb County and Fulton County, GA

Dear Dr. Straight:

The Federal Transit Administration (FTA) is the federal lead agency for the Connect Cobb Northwest Corridor Transit project, while Cobb County Department of Transportation (CCDOT) is the local lead agency for the proposed project. As the federal lead agency, FTA is requesting continuation of Section 7 Consultation on the project. The project description and species information is included below for your use. FTA has completed the Environmental Assessment (EA) for the proposed Connect Cobb Northwest Corridor Transit project. CCDOT has prepared the attached Ecology Report describing existing conditions, proposed impacts, and mitigation measures to be taken by CCDOT. FTA is submitting this report as a Biological Assessment and will attach it to the EA as an appendix.

The proposed project includes Arterial Rapid Transit (ART) service and associated improvements on US 41/Cobb Parkway in Cobb County, as shown in the Project Location Map (Figure 1 in Section 6.0 of the attached Ecology Report). Most of the ART system would operate on dedicated guideway from Kennesaw State University to the Cumberland area and would then run from the Cumberland area to the MARTA Arts Center Station in mixed traffic. The total length of the proposed project is 25.3 miles from the Kennesaw area to the existing MARTA Arts Center Station. Of this length, 13.2 miles (52.2 percent) is in dedicated guideway and 12.1 miles (47.8 percent) is in mixed traffic. A total of 14 stations will be added for ART, and the existing MARTA Arts Center Station in Atlanta would be modified with the addition of four bus platforms to accommodate ART vehicles. No new bridges or bridge modifications are currently proposed as part of this project. The proposed project anticipates only extensions of existing culverts.

Areas that would be acquired as a result of the proposed project are illustrated in the attached concept plan drawings. Proposed guideway improvements will include some partial right-of-way takes adjacent to the roadway right-of-way, in already developed properties. Larger full

Re: Connect Cobb Northwest Corridor Transit Environmental Coordination and Transmittal of Ecology Report/Biological Assessment, Section 7 Consultation, US41/Cobb Parkway and I-75, Cobb County and Fulton County, GA

parcel takes would occur as a result of proposed stations and may include some previously undisturbed areas, particularly in the area approximately 725 feet north of White Circle Drive NW, US 41/Cobb Parkway, and White Road in Marietta (see Sheet 2 of the attached concept drawings).

The federally listed species known to occur in Cobb County include the pool sprite (*Amphianthus pusillus*), purple bankclimber (*Elliptoideus sloatianus*), Cherokee darter (*Etheostoma scotti*), finelined pocketbook (*Hamiota altilis*), Gulf moccasinshell (*Medionidus penicillatus*), Northern long-eared bat (*Myotis septentrionalis*), Indiana bat (*Myotis sodalists*), oval pigtoe (*Pleurobema pyriforme*), shinyrayed pocketbook (*Hamiota subangulata*), and dwarf sumac (*Rhus michauxii*). One federal candidate listed species, the white fringeless orchid, occurs in Cobb County. According to the U.S. Fish and Wildlife Service (USFWS) critical habitat database, no critical habitat for protected species exists within 20 miles of the project area (it is noted that due to its very recent listing on April 1, 2015, critical habitat has not yet been designated for the northern long eared bat).

Project corridor terrestrial field surveys were conducted in June, July, and August of 2013. The surveys were conducted during appropriate months to identify vegetative communities and habitat which are based on each species' flowering or fruiting season. An aquatic survey was conducted in October and November of 2014, which is within the appropriate season to identify aquatic species. The Ecology Report presents findings of the 2013 field surveys for terrestrial species, and the findings of the 2014 aquatic survey are included in the Aquatic Species Report in Appendix C of the Ecology Report.

Previous Section 7 coordination was initiated with USFWS in an e-mail sent to you on December 12, 2014. Your December 15, 2014 reply included questions and requests for additional information. Each of those comments and requests are listed below, followed by responses which include mitigation measures that will be implemented by Cobb County to protect fish and wildlife.

- *Measures to protect water quality from direct and indirect impacts should be considered*

During the construction phase, Cobb County will ensure that all practicable enhanced erosion control measures are taken within the construction limits. This includes, but is not limited to: hydro-seeding, street sweeping, dust control, vehicle covers on sediment transport vehicles, and concrete washouts. In addition, Cobb County could use wet ponds, stormwater infiltration or detention facilities, and bio-retention to filter stormwater runoff from the impervious surfaces of the proposed park-and-ride facilities. When practical, Cobb County could also utilize impervious surfaces to mirror predevelopment hydrologic conditions in order to encourage infiltration and filtering during the construction phase within project limits. Cobb County will also preserve existing landscaped areas to encourage stormwater infiltration and nutrient filtering.

Re: Connect Cobb Northwest Corridor Transit Environmental Coordination and Transmittal of Ecology Report/Biological Assessment, Section 7 Consultation, US41/Cobb Parkway and I-75, Cobb County and Fulton County, GA

- *If the proposed project would directly or indirectly affect hardwood forests, the habitat would need to be assessed for its suitability as foraging or roosting habitat for northern long-eared bats and a determination made if bat surveys may be necessary*

The attached concept drawings illustrate areas of hardwood forests in relation to the proposed project limits. The project will directly affect hardwood forests by the clearing of trees during the construction phase in the area approximately 725 feet southwest of the southernmost intersection of White Circle Drive NW and US 41/Cobb Parkway in Marietta (see Sheet 2 of the concept drawings). There is also a small area of hardwood forest that could be impacted by the parcel acquired for the North Loop/Whitewater station at Marietta Parkway (see Sheet 3 of the concept drawings). Locations of suitable roosting habitat will be labeled on the construction plans. Cobb County will include a special provision in the contract documents for the protection of the northern long-eared bat (*Myotis septentrionalis*), which will stipulate that tree clearing within suitable hardwood forest habitat will not occur from March 30th to October 15th. This will prevent clearing of suitable habitat for roosting northern long-eared bats during time periods that include spring migration, summer roosting, and raising young in early fall. If northern long-eared bats are found in suitable roosting habitat, the construction Contractor will notify the Project Engineer who in turn will notify the Deputy Director of the Cobb County Department of Transportation to provide information.

- *The proposed project is within the potential range of the dwarf sumac, monkeyface orchid, and Georgia aster*

As outlined in Sections 2.2.1 to 2.2.3 in the Ecology Report, no suitable habitat was identified for the dwarf sumac (*Rhus michauxii*), monkeyface orchid (*Platanthera integrilabia*), or Georgia aster (*Symphyotrichum georgianum*) during the pedestrian field surveys conducted in 2013.

- *If the proposed project would modify bridges or culverts, inspections of all bridges/culverts would need to be completed to determine if there is evidence of migratory bird species using the structure for nesting and to determine if it is being utilized as a roost by bats*

Cobb County will conduct surveys during the nesting and common bat roosting season (March 30th to October 15th) and prior to construction to determine if these structures are used by migratory birds and bats. If birds and bats are observed nesting or roosting in culverts or bridges, Cobb County will ensure that measures to survey and protect migratory birds and bat use will be implemented through the use of a special provision. Cobb County will include a special provision in the contract documents that will utilize netting to prevent birds and bats from nesting or roosting, and/or limit construction timing to avoid the breeding season of migratory birds and use by roosting bats, from March 30th to October 15th. Existing culvert and bridge locations are labeled on the attached concept drawings.

Re: Connect Cobb Northwest Corridor Transit Environmental Coordination and Transmittal of Ecology Report/Biological Assessment, Section 7 Consultation, US41/Cobb Parkway and I-75, Cobb County and Fulton County, GA

- *For new culverts, culvert suitability for passage of aquatic fauna would need to be assessed*

In the event that new or wholly replaced culverts are included in the project, Cobb County will ensure that they are designed under the specified fish passage guidelines for new culverts included in Section E of the U.S. Army Corps of Engineers (USACE) Savannah District's Regional Conditions for Nationwide Permits. These guidelines dictate culvert dimension design, bank-full flow accommodations, culvert embedding, culvert slope, flooding design, and stormwater management considerations. Per the USACE Savannah District's Regional Conditions for Nationwide Permits and prior to construction, Cobb County will evaluate the use of bottomless culverts to determine if they may be a good alternative for fish passage, where foundation conditions allow their construction and width criteria can be met. This requirement applies to proposed new culverts for perennial streams only. Culvert design options, including box culverts that allow for the natural embedment of stream material as well as bottomless culverts, will also be evaluated to determine the appropriate design for fish passage, constructability, and meeting of hydraulic criteria.

Cobb County will implement the following additional construction phase mitigation measures along the project corridor:

- Cobb County will include special provisions in the contract documents for enhanced erosion control in streams containing suitable habitat for the Chattahoochee crayfish (*Cambarus howardi*). Enhanced erosion control measures are outlined in Section 4.0 of the attached Ecology Report and are necessary to prevent sedimentation of streams with suitable habitat for aquatic species.
- Cobb County will include special provisions in the contract documents for seasonal restrictions (no in-stream construction during the spawning season from April to June) and enhanced erosion control in streams containing suitable habitat for the highscale shiner (*Notropis hypsilepis*) (see page 12 and Figures 2A through 2H in Section 6.0 of the Ecology Report).
- Cobb County will utilize construction timing restrictions, construction monitoring, and habitat replacement and/or enhancement.
- Cobb County will locate staging areas away from environmentally sensitive areas where mature vegetation and potential fish and wildlife habitats are present (no new staging areas are identified at this time).
- Where applicable, Cobb County will provide educational materials to construction personnel for awareness of protected species and their habitats.
- Cobb County will ensure that the design plans include the locations of Environmentally Sensitive Areas.

Re: Connect Cobb Northwest Corridor Transit Environmental Coordination and Transmittal of Ecology Report/Biological Assessment, Section 7 Consultation, US41/Cobb Parkway and I-75, Cobb County and Fulton County, GA

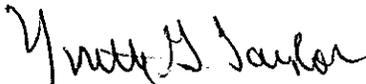
As a result of implementation of seasonal clearing restrictions, the FTA determines that the proposed project "may affect, but not likely to adversely affect" the northern long-eared bat. The project would have "no effect" to other federally listed species.

The proposed project would have no effect to designated critical habitat. The project is not anticipated to result in a "take" as defined in the Bald and Golden Eagle Protection Act. The project will not have an impact on Essential Fish Habitat. No impacts to migratory birds are anticipated with implementation of restricted construction timing measures.

For the state listed Chattahoochee crayfish and the highscale shiner, Cobb County will implement special provisions for work in streams containing suitable habitat; the proposed project would have "no significant adverse effect" to these species. Because no state listed bay star-vines (*Schisandra glabra*) were identified, the project will have "no significant adverse effect" to the bay star-vine. The project would have "no effect" to other two state listed species, the sun-loving draba (*Draba aprica*) and the Georgia aster (*Symphyotrichum georgianum*).

FTA is requesting your concurrence with our biological effect determinations for federal species and critical habitat. If you have any questions or need additional information, please contact Stan Mitchell at 404-865-5643 or email at stanley.a.mitchell@dot.gov, or Amy Zaref at 801-918-4139 or email at amy.zaref.ctr@dot.gov.

Sincerely,



Yvette G. Taylor, Ph.D.
Regional Administrator

Encl: 1) *Ecology Report*
2) *Concept Drawings*

cc: Will Smith, GA EPD
Marty Sewell, Cobb County DOT



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:

Connect Cobb

Project Counties:

Cobb, GA

Project Type:

Transportation

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

There are a total of 3 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:

| Fishes | Status | | Has Critical Habitat | Contact |
|--------|--------|--|----------------------|---------|
|--------|--------|--|----------------------|---------|



Trust Resources List

| | | | | |
|---|------------------------|------------------------------|--|--|
| Cherokee darter (<i>Etheostoma scotti</i>) Population: Entire | Threatened | species info | | Georgia Ecological Services Field Office |
| Flowering Plants | | | | |
| Little amphianthus (<i>Amphianthus pusillus</i>) | Threatened | species info | | Georgia Ecological Services Field Office |
| Mammals | | | | |
| northern long-eared Bat (<i>Myotis septentrionalis</i>) Population: | Proposed Endangered | species info | | Georgia Ecological Services Field Office |

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



Trust Resources List

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>.

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tool links in the Bird Conservation Tools section at: <http://www.fws.gov/migratorybirds/CCMB2.htm>.

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/migratorybirds/CCMB2.htm>.

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

There are **14** birds on your Migratory birds of concern list. The underlying data layers used to generate the migratory bird list of concern will continue to be updated regularly as new and better information is obtained. User feedback is one method of identifying any needed improvements. Therefore, users are encouraged to submit comments about any questions regarding species ranges (e.g., a bird on the USFWS BCC list you know does not occur in the specified location appears on the list, or a BCC species that you know does occur there is not appearing on the list). Comments should be sent to [the ECOS Help Desk](#).

| Species Name | Bird of Conservation Concern (BCC) | Species Profile | Seasonal Occurrence in Project Area |
|--|------------------------------------|------------------------------|-------------------------------------|
| American bittern (<i>Botaurus lentiginosus</i>) | Yes | species info | Wintering |
| Bald eagle (<i>Haliaeetus leucocephalus</i>) | Yes | species info | Year-round |
| Blue-winged Warbler (<i>Vermivora pinus</i>) | Yes | species info | Breeding |
| Brown-headed Nuthatch (<i>Sitta pusilla</i>) | Yes | species info | Year-round |
| Chuck-will's-widow (<i>Caprimulgus carolinensis</i>) | Yes | species info | Breeding |
| Fox Sparrow (<i>Passerella iliaca</i>) | Yes | species info | Wintering |
| Kentucky Warbler (<i>Oporornis formosus</i>) | Yes | species info | Breeding |
| Loggerhead Shrike (<i>Lanius ludovicianus</i>) | Yes | species info | Year-round |



Trust Resources List

| | | | |
|---|-----|------------------------------|------------|
| Prairie Warbler (<i>Dendroica discolor</i>) | Yes | species info | Breeding |
| Prothonotary Warbler (<i>Protonotaria citrea</i>) | Yes | species info | Breeding |
| Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) | Yes | species info | Year-round |
| Rusty Blackbird (<i>Euphagus carolinus</i>) | Yes | species info | Wintering |
| Wood Thrush (<i>Hylocichla mustelina</i>) | Yes | species info | Breeding |
| Worm eating Warbler (<i>Helmitheros vermivorum</i>) | Yes | species info | 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.



Trust Resources List

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There 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 | PEM1Ah | 7.3887 |
| Freshwater Emergent Wetland | PEM1Fb | 2.075 |
| Freshwater Emergent Wetland | PEM1Fh | 12.4184 |
| Freshwater Emergent Wetland | PEM1F | 50.8563 |
| Freshwater Emergent Wetland | PEM1C | 9.1114 |
| Freshwater Emergent Wetland | PEM1A | 14.26 |
| Freshwater Emergent Wetland | PEM1Fx | 0.7849 |
| Freshwater Emergent Wetland | PEM1Ch | 13.3295 |
| Freshwater Emergent Wetland | PEM1Ad | 4.4582 |
| Freshwater Emergent Wetland | PEM1Cd | 8.2275 |
| Freshwater Forested/Shrub Wetland | PSS1Ch | 15.1238 |
| Freshwater Forested/Shrub Wetland | PFO1Ah | 14.8236 |



Trust Resources List

| | | |
|-----------------------------------|---------------------------|-----------|
| Freshwater Forested/Shrub Wetland | PSS1/4A | 2.3822 |
| Freshwater Forested/Shrub Wetland | PSS1Fx | 1.5523 |
| Freshwater Forested/Shrub Wetland | PSS1Ah | 23.8785 |
| Freshwater Forested/Shrub Wetland | PFO1Cd | 5.6949 |
| Freshwater Forested/Shrub Wetland | PFO1Ch | 1.8021 |
| Freshwater Forested/Shrub Wetland | PSS1Fh | 3.6959 |
| Freshwater Forested/Shrub Wetland | PFO1/4A | 8.1039 |
| Freshwater Forested/Shrub Wetland | PFO5G | 1.3304 |
| Freshwater Forested/Shrub Wetland | PFO1/SS1C | 7.8903 |
| Freshwater Forested/Shrub Wetland | PFO1B | 3.5298 |
| Freshwater Forested/Shrub Wetland | PFO1C | 335.5281 |
| Freshwater Forested/Shrub Wetland | PSS1A | 226.647 |
| Freshwater Forested/Shrub Wetland | PFO1A | 885.5472 |
| Freshwater Forested/Shrub Wetland | PSS1C | 42.8554 |
| Freshwater Forested/Shrub Wetland | PFO1F | 14.12 |
| Freshwater Forested/Shrub Wetland | PSS1F | 60.033 |
| Freshwater Pond | PUBFx | 1.1969 |
| Freshwater Pond | PUBHx | 103.4749 |
| Freshwater Pond | PAB3Fh | 0.8362 |
| Freshwater Pond | PUBGh | 2.6306 |
| Freshwater Pond | PUBGx | 4.8979 |
| Freshwater Pond | PUBH | 18.5837 |
| Freshwater Pond | PAB4Gx | 0.419 |
| Freshwater Pond | PUBHh | 1191.1912 |
| Freshwater Pond | PUBFh | 2.0529 |
| Lake | L1UBHh | 2601.0307 |



U.S. Fish and Wildlife Service

Trust Resources List

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|----------|------------------------|----------|
| Lake | L2USCh | 3.8206 |
| Other | PUSAh | 17.5736 |
| Other | PUSCx | 1.0598 |
| Riverine | R2UBH | 307.3679 |
| Riverine | R2USA | 2.0828 |



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:

Connect Cobb

Project Counties:

Cobb, GA | Fulton, GA

Project Type:

Transportation

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

There are a total of 7 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

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|---|------------------------|------------------------------|---|--|
| Gulf moccasinshell (<i>Medionidus penicillatus</i>) | Endangered | species info | Final designated critical habitat | Georgia Ecological Services Field Office |
| Oval pigtoe (<i>Pleurobema pyriforme</i>) | Endangered | species info | Final designated critical habitat | Georgia Ecological Services Field Office |
| Purple bankclimber (<i>Elliptioideus sloatianus</i>) | Threatened | species info | Final designated critical habitat | Georgia Ecological Services Field Office |
| Shinyrayed pocketbook (<i>Lampsilis subangulata</i>) | Endangered | species info | Final designated critical habitat | Georgia Ecological Services Field Office |
| Fishes | | | | |
| Cherokee darter (<i>Etheostoma scotti</i>) Population: Entire | Threatened | species info | | Georgia Ecological Services Field Office |
| Flowering Plants | | | | |
| Little amphianthus (<i>Amphianthus pusillus</i>) | Threatened | species info | | Georgia Ecological Services Field Office |
| Mammals | | | | |
| northern long-eared Bat (<i>Myotis septentrionalis</i>) Population: | Proposed Endangered | species info | | Georgia Ecological Services Field Office |

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,



Trust Resources List

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>.

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tool links in the Bird Conservation Tools section at: <http://www.fws.gov/migratorybirds/CCMB2.htm>.

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/migratorybirds/CCMB2.htm>.

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

There are **14** birds on your Migratory birds of concern list. The underlying data layers used to generate the migratory bird list of concern will continue to be updated regularly as new and better information is obtained. User feedback is one method of identifying any needed improvements. Therefore, users are encouraged to submit comments about any questions regarding species ranges (e.g., a bird on the USFWS BCC list you know does not occur in the specified location appears on the list, or a BCC species that you know does occur there is not appearing on the list). Comments should be sent to [the ECOS Help Desk](#).

| Species Name | Bird of Conservation Concern (BCC) | Species Profile | Seasonal Occurrence in Project Area |
|---|------------------------------------|------------------------------|-------------------------------------|
| American bittern (<i>Botaurus lentiginosus</i>) | Yes | species info | Wintering |
| Bald eagle (<i>Haliaeetus leucocephalus</i>) | Yes | species info | Year-round |
| Blue-winged Warbler (<i>Vermivora pinus</i>) | Yes | species info | Breeding |



Trust Resources List

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|---|-----|------------------------------|----------------------|
| Brown-headed Nuthatch (<i>Sitta pusilla</i>) | Yes | species info | Year-round |
| Chuck-will's-widow (<i>Caprimulgus carolinensis</i>) | Yes | species info | Breeding |
| Fox Sparrow (<i>Passerella liaca</i>) | Yes | species info | Wintering |
| Kentucky Warbler (<i>Oporornis formosus</i>) | Yes | species info | Breeding |
| Loggerhead Shrike (<i>Lanius ludovicianus</i>) | Yes | species info | Year-round |
| Prairie Warbler (<i>Dendroica discolor</i>) | Yes | species info | Breeding |
| Prothonotary Warbler (<i>Protonotaria citrea</i>) | Yes | species info | Breeding |
| Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) | Yes | species info | Year-round, Breeding |
| Rusty Blackbird (<i>Euphagus carolinus</i>) | Yes | species info | Wintering |
| Wood Thrush (<i>Hylocichla mustelina</i>) | Yes | species info | Breeding |
| Worm eating Warbler (<i>Helmitheros vermivorum</i>) | Yes | species info | 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



Trust Resources List

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 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 | PEM1Cx | 1.1127 |
| Freshwater Emergent Wetland | PEM1Ah | 6.9256 |
| Freshwater Emergent Wetland | PEM1Fb | 2.075 |
| Freshwater Emergent Wetland | PEM1Fh | 28.0481 |
| Freshwater Emergent Wetland | PEM1F | 30.4132 |
| Freshwater Emergent Wetland | PEM1C | 32.5428 |



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|-----------------------------------|---------------------------|-----------|
| Freshwater Emergent Wetland | PEM1A | 14.5111 |
| Freshwater Emergent Wetland | PEM1Ex | 0.7849 |
| Freshwater Emergent Wetland | PEM1Ch | 19.435 |
| Freshwater Emergent Wetland | PEM1Ad | 3.3954 |
| Freshwater Emergent Wetland | PEM1Cd | 2.8535 |
| Freshwater Forested/Shrub Wetland | PSS1Ch | 14.9585 |
| Freshwater Forested/Shrub Wetland | PFO1Ah | 3.6873 |
| Freshwater Forested/Shrub Wetland | PSS1Cd | 1.63 |
| Freshwater Forested/Shrub Wetland | PFO1Cd | 5.6949 |
| Freshwater Forested/Shrub Wetland | PSS1Ah | 7.9099 |
| Freshwater Forested/Shrub Wetland | PFO1Ch | 4.404 |
| Freshwater Forested/Shrub Wetland | PSS1Cx | 1.2342 |
| Freshwater Forested/Shrub Wetland | PSS1Fh | 61.2737 |
| Freshwater Forested/Shrub Wetland | PSS1/3A | 1.8271 |
| Freshwater Forested/Shrub Wetland | PSS1/3C | 9.1882 |
| Freshwater Forested/Shrub Wetland | PSS1Fb | 1.7973 |
| Freshwater Forested/Shrub Wetland | PFO1/4A | 13.182 |
| Freshwater Forested/Shrub Wetland | PFO1/SS1C | 7.8903 |
| Freshwater Forested/Shrub Wetland | PFO1/EM1A | 12.45 |
| Freshwater Forested/Shrub Wetland | PFO1B | 10.0854 |
| Freshwater Forested/Shrub Wetland | PFO1C | 505.2533 |
| Freshwater Forested/Shrub Wetland | PSS1A | 323.4412 |
| Freshwater Forested/Shrub Wetland | PFO1A | 1149.9934 |
| Freshwater Forested/Shrub Wetland | PSS1C | 72.9161 |
| Freshwater Forested/Shrub Wetland | PSS1F | 50.3223 |
| Freshwater Forested/Shrub Wetland | PFO1F | 48.8351 |



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|-----------------|-------------------------|-----------|
| Freshwater Pond | PUBFx | 0.5709 |
| Freshwater Pond | PUBHx | 93.8666 |
| Freshwater Pond | PUBGh | 1.6704 |
| Freshwater Pond | PUBGx | 5.2493 |
| Freshwater Pond | PUBH | 9.3574 |
| Freshwater Pond | PUBF | 0.6578 |
| Freshwater Pond | PUBHh | 1202.0392 |
| Freshwater Pond | PUBFh | 2.2936 |
| Lake | L1UBHx | 28.2382 |
| Lake | L2AB3Hh | 69.2862 |
| Lake | L1UBHh | 2248.5015 |
| Lake | L2USCh | 3.8206 |
| Other | PUSAh | 18.6905 |
| Other | PUSCh | 2.3715 |
| Other | PUSCx | 2.4686 |
| Riverine | R2UBH | 11.6089 |
| Riverine | R2USA | 1.1314 |



MARK WILLIAMS
COMMISSIONER

DAN FORSTER
DIRECTOR

July 1, 2013

Abigail Moleta
Kimley-Horn and Associates, Inc.
2 Sun Court
Suite 450
Norcross, GA 30092

Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near Connect Cobb/ Northwest Atlantic Corridor, Fulton County and Cobb County, Georgia

Dear Ms. Moleta:

This is in response to your request of May 17, 2013. According to our records, within a three-mile radius of the project area, there are the following Natural Heritage Database occurrences:

Point 1 (-84.65443, 34.07970; NAD27):

- US *Etheostoma scotti* (Cherokee Darter) approx. 1.0 mi. N of site in Clarke Creek and Unnamed Tributaries
- US *Etheostoma scotti* (Cherokee Darter) approx. 1.0 mi. NE of site in Clarke Creek and Unnamed Tributaries
- US *Etheostoma scotti* (Cherokee Darter) approx. 1.0 mi. NW of site in Clarke Creek and Unnamed Tributaries
- US *Etheostoma scotti* (Cherokee Darter) approx. 1.5 mi. W of site in Tanyard Creek
- US *Etheostoma scotti* (Cherokee Darter) approx. 2.0 mi. S of site in Proctor Creek
- US *Etheostoma scotti* (Cherokee Darter) [HISTORIC] approx. 2.0 mi. NW of site in Clarke Creek
- Greenspace [Cobb County] approx. 1.0 mi. SW of site

Point 2 (-84.60951, 34.06682; NAD27):

- US *Etheostoma scotti* (Cherokee Darter) 0.2 mi. NW of site in Clarke Creek and Unnamed Tributaries
- US *Etheostoma scotti* (Cherokee Darter) approx. 1.0 mi. N of site in Clarke Creek and Unnamed Tributaries
- US *Etheostoma scotti* (Cherokee Darter) approx. 1.0 mi. NW of site in Clarke Creek and Unnamed Tributaries
- US *Etheostoma scotti* (Cherokee Darter) approx. 1.5 mi. SW of site in Proctor Creek
- US *Etheostoma scotti* (Cherokee Darter) approx. 3.0 mi. N of site in Kellogg Creek and Unnamed Tributaries

Point 3 (-84.58956, 34.05149; NAD27),
No Natural Heritage Database occurrences.

Point 4 (-84.60920, 34.01121; NAD27):

- Calystegia catesbeiana* ssp. *sericata* (Silky Bindweed) approx. 1.5 mi. SE of site
- US *Etheostoma scotti* (Cherokee Darter) approx. 2.0 mi. W of site in Butler Creek
- US *Etheostoma scotti* (Cherokee Darter) approx. 2.5 mi. NW of site in Butler Creek Unnamed Tributary

Point 5 (-84.56096, 33.99779; NAD27)

- Arabis missouriensis* (Missouri Rockcress) approx. 2.5 mi. SW of site
- GA *Draba aprica* (Sun-loving Draba) approx. 2.5 mi. SW of site
- Plethodon websteri* (Webster's Salamander) approx. 2.0 mi. SW of site
- Pycnanthemum curvipes* (Stone Mountain Mint) approx. 2.0 mi. SW of site
- US *Symphotrichum georgianum* (Georgia Aster) [EXTIRPATED?] approx. 1.5 mi. W of site
- Zanthoxylum americanum* (Northern Prickly-ash) approx. 1.5 mi. SW of site
- KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK [NATIONAL PARK SERVICE] approx. 1.0 mi. SW of site

Point 6 (-84.52327, 33.96550; NAD27):

- GA *Cambarus howardi* (Chattahoochee Crayfish) [HISTORIC?] 0.4 mi. E of site in Sope Creek
- US *Platanthera integrilabia* (Monkeyface Orchid) [EXTIRPATED] approx. 2.0 mi. NE of site
- Greenspace [Cobb County] 0.5 mi. N of site

Point 7 (-84.49706, 33.93674; NAD27):

- Pituophis melanoleucus melanoleucus* (Northern Pine Snake) approx. 1.5 mi. W of site
- Greenspace [Cobb County] approx. 0.5 mi. S of site

Point 8 (-84.46715, 33.88042; NAD27):

- GA *Ammodramus henslowii* (Henslow's Sparrow) approx. 1.5 mi. N of site
- GA *Cambarus howardi* (Chattahoochee Crayfish) in Rottenwood Creek
- GA *Cambarus howardi* (Chattahoochee Crayfish) approx. 1.0 mi. SE of site in the Chattahoochee River
- GA *Cambarus howardi* (Chattahoochee Crayfish) in Rottenwood Creek
- GA *Elliptio arcata* (Delicate Spike) [HISTORIC] approx. 1.0 mi. SE of site in the Chattahoochee River
- GA *Fothergilla major* (Mountain Witch-alder) approx. 2.0 mi. NE of site
- Melanthium latifolium* (Broadleaf Bunchflower) [EXTIRPATED?] approx. 0.5 mi. S of site
- GA *Nestronia umbellula* (Indian Olive) approx. 1.5 mi. NE of site
- GA *Nestronia umbellula* (Indian Olive) [HISTORIC] approx. 0.5 mi. S of site
- Nyctanassa violacea* (Yellow-crowned Night-heron) [2001-05-12] approx. 1.0 mi. N of site

Quadrula infucata (Sculptured Pigtoe) [HISTORIC] approx. 1.0 mi. SE of site in the
Chattahoochee River

GA *Schisandra glabra* (Bay Star-vine) approx. 1.0 mi. E of site

GA *Schisandra glabra* (Bay Star-vine) approx. 1.5 mi. SE of site

GA *Schisandra glabra* (Bay Star-vine) approx. 1.0 mi. NE of site

GA *Schisandra glabra* (Bay Star-vine) "X" [EXTIRPATED] approx. 2.0 mi. NE of site

Greenspace [Cobb County] approx. 2.0 mi. SW of site

CHATTAHOOCHEE RIVER NATIONAL RECREATION AREA [NATIONAL PARK
SERVICE] approx. 1.0 mi. E of site

Point 9 (-84.43023, 33.84654; NAD27):

GA *Schisandra glabra* (Bay Star-vine) approx. 1.5 mi. SW of site

US *Symphyotrichum georgianum* (Georgia Aster) [HISTORIC?] approx. 3.0 mi. SW of site

Point 10 (-84.38883, 33.79237; NAD27):

GA *Falco peregrinus* (Peregrine Falcon) approx. 2.0 mi. S of site

GA *Schisandra glabra* (Bay Star-vine) approx. 1.0 mi. E of site

GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. E of site

Greenspace [Fulton County] approx. 2.0 mi. NE of site

* Entries above proceeded by "US" indicates species with federal status (Protected, Candidate or Partial Status). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

Recommendations:

We have no records of high priority species or habitats within the project area. Recent surveys have confirmed the presence of the federally listed fish species, *Etheostoma scotti* (Cherokee Darter) in several creeks near the project site. Historically, there was also known to have been the federally listed plant, *Symphyotrichum georgianum* (Georgia Aster) within three miles of the proposed project. The Endangered Species Act states that taking or harming of a listed species is prohibited. We recommend all requestors with projects located near federally protected species consult with the United States Fish and Wildlife Service. For southeast Georgia, please contact Strant Colwell (912-265-9336, ext.30 or Strant_Colwell@fws.gov). In southwest Georgia, please contact John Doesky (706-544-6030 or John_Doesky@fws.gov). In north Georgia, please contact Robin Goodloe (706-613-9493, ext.221 or Robin_Goodloe@fws.gov).

We are concerned about streams and other habitats that could be impacted by the proposed road improvement project. We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the water during or after construction.

These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

Disclaimer:

Please keep in mind the limitations of our database. The data collected by the Nongame Conservation Section comes from a variety of sources, including museum and herbarium records, literature, and reports from individuals and organizations, as well as field surveys by our staff biologists. In most cases the information is not the result of a recent on-site survey by our staff. Many areas of Georgia have never been surveyed thoroughly. Therefore, the Nongame Conservation Section can only occasionally provide definitive information on the presence or absence of rare species on a given site. Our files are updated constantly as new information is received. **Thus, information provided by our program represents the existing data in our files at the time of the request and should not be considered a final statement on the species or area under consideration.**

If you know of populations of highest priority species that are not in our database, please fill out the appropriate data collection form and send it to our office. Forms can be obtained through our web site (<http://www.georgiawildlife.com/node/1376>) or by contacting our office. If I can be of further assistance, please let me know.

Sincerely,



Katrina Morris
Environmental Review Coordinator

Data Available on the Nongame Conservation Section Website

- Georgia protected plant and animal profiles are available on our website. These accounts cover basics like descriptions and life history, as well as threats, management recommendations and conservation status. Visit <http://www.georgiawildlife.com/node/2721>.
- Rare species and natural community information can be viewed by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at: <http://www.georgiawildlife.com/conservation/species-of-concern?cat=conservation>.
- Downloadable files of rare species and natural community data by quarter quad and county are also available. They can be downloaded from: <http://www.georgiawildlife.com/node/1370>.



WILDLIFE RESOURCES DIVISION

Known occurrences of special concern plants, animals and natural communities
Cobb County — Fips Code: 13067

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

- *Ammodramus henslowii* (Henslow's Sparrow) **[GA]**   - bird
- *Cambarus howardi* (Chattahoochee Crayfish) **[GA]**   - crustacean
- *Cyprinella callitaenia* (Bluestripe Shiner) **[GA]**   - fish
- *Elliptio arctata* (Delicate Spike) **[GA]**   - mollusk
- *Etheostoma scotti* (Cherokee Darter) **[US]**   - fish
- *Hemidactylium scutatum* (Four-toed Salamander)  - amphibian
- *Hybopsis sp. 9* (Etowah Chub)  - fish
- *Medionidus penicillatus* (Gulf Moccasinshell) **[US]**   - mollusk
- *Micropterus cataractae* (Shoal Bass)  - fish
- *Notropis hypsilepis* (Highscale Shiner) **[GA]**   - fish
- *Nyctanassa violacea* (Yellow-crowned Night-heron)  - bird
- *Pituophis melanoleucus melanoleucus* (Northern Pine Snake)  - reptile
- *Plethodon websteri* (Webster's Salamander)  - amphibian
- *Quadrula infucata* (Sculptured Pigtoe)  - mollusk

Plant Occurrences

- *Arabis missouriensis* (Missouri Rockcress) 
- *Calystegia catesbeiana ssp. sericata* (Silky Bindweed) 
- *Cypripedium acaule* (Pink Ladyslipper) **[GA]**  
- *Draba aprica* (Sun-loving Draba) **[GA]**  
- *Melanthium latifolium* (Broadleaf Bunchflower) 
- *Nestronia umbellula* (Indian Olive) **[GA]**  
- *Platanthera integrilabia* (Monkeyface Orchid) **[US]**  
- *Pycnanthemum curvipes* (Stone Mountain Mint) 
- *Rhus michauxii* (Dwarf Sumac) **[US]**  
- *Schisandra glabra* (Bay Star-vine) **[GA]**  
- *Symphyotrichum georgianum* (Georgia Aster) **[US]**  
- *Trillium lancifolium* (Lanceleaf Trillium) 
- *Zanthoxylum americanum* (Northern Prickly-ash) 

Generated from Georgia DNR's NatureServe Biotics conservation database on December 28, 2014



WILDLIFE RESOURCES DIVISION

Known occurrences of special concern plants, animals and natural communities
Fulton County — Fips Code: 13121

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

- *Ammodramus henslowii* (Henslow's Sparrow) [GA]   - bird
- *Cambarus howardi* (Chattahoochee Crayfish) [GA]   - crustacean
- *Cyprinella callitaenia* (Bluestripe Shiner) [GA]   - fish
- *Elliptio arctata* (Delicate Spike) [GA]   - mollusk
- *Etheostoma scotti* (Cherokee Darter) [US]   - fish
- *Falco peregrinus* (Peregrine Falcon) [GA]   - bird
- *Hamiota subangulata* (Shinyrayed Pocketbook) [US]   - mollusk
- *Hemidactylium scutatum* (Four-toed Salamander)  - amphibian
- *Medionidus penicillatus* (Gulf Moccasinshell) [US]   - mollusk
- *Micropterus cataractae* (Shoal Bass)  - fish
- *Notropis hypsilepis* (Highscale Shiner) [GA]   - fish
- *Nyctanassa violacea* (Yellow-crowned Night-heron)  - bird
- *Peucaea aestivalis* (Bachman's Sparrow) [GA]   - bird
- *Pituophis melanoleucus melanoleucus* (Northern Pine Snake)  - reptile
- *Quadrula infucata* (Sculptured Pigtoe)  - mollusk

Plant Occurrences

- *Cypripedium acaule* (Pink Ladyslipper) [GA]  
- *Cypripedium parviflorum* (Yellow Ladyslipper) [GA]  
- *Dryopteris celsa* (Log Fern) 
- *Fothergilla major* (Mountain Witch-alder) [GA]  
- *Hexastylis shuttleworthii* var. *harperi* (Harper Wild Ginger) 
- *Listera australis* (Southern Twayblade) 
- *Melanthium latifolium* (Broadleaf Bunchflower) 
- *Monotropsis odorata* (Sweet Pinesap) [GA]  
- *Nestronia umbellula* (Indian Olive) [GA]  
- *Panax quinquefolius* (American Ginseng) 
- *Rhus michauxii* (Dwarf Sumac) [US]  
- *Schisandra glabra* (Bay Star-vine) [GA]  
- *Symphotrichum georgianum* (Georgia Aster) [US]  
- *Waldsteinia lobata* (Barren Strawberry) [GA]  

Generated from Georgia DNR's NatureServe Biotics conservation database on December 28, 2014

Connect
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Northwest Transit Corridor
Environmental Assessment

Appendix B

Special Provision 107.23G

COBB COUNTY DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

CONNECT COBB

Section 107 – Legal Regulations and Responsibility to the Public

Add the following to Subsection 107.23:

G. Protection of Federally and State Protected Species

The following conditions are intended as a minimum to protect these species and their habitat during any activities that are in close proximity to the known location(s) of this species. When there is a conflict between the General Provisions and the Special Provisions, these Special Provisions will govern the work.

1. The Contractor shall advise all Project personnel employed to work on this Project about the potential presence and appearance of the federally protected northern long-eared bat (*Myotis septentrionalis*), barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), and eastern phoebe (*Sayornis phoebe*). All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing the aforementioned bat species, which is protected under the Endangered Species Act of 1973. All personnel shall be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting the aforementioned bird species in knowing violation of the Migratory Bird Treaty Act of 1918. The law protects adults, fledglings, nestlings, eggs, and active nests. The Contractor shall also advise all Project personnel employed to work on this Project about the presence and appearance of the state-protected Chattahoochee crayfish (*Cambarus howardi*) and highscale shiner (*Notropis hypsilepis*). All personnel shall be advised that there are penalties for capturing, killing, or selling protected species under the Georgia Endangered Wildlife Act of 1973. Suitable habitat for the aforementioned bird species occurs within the project area under bridges and box culverts. Pictures and habitat information are attached and shall be posted in a conspicuous location in the Project field office until such time that Project construction has been completed and time charges have stopped.
2. Due to the potential for summer foraging of the northern long-eared bat within forested areas of the Project limits, clearing of suitable hardwood forested areas shall not be allowed between March 30 and October 15.
3. The Contractor shall ensure that no work shall take place on bridges or box culverts during the breeding and nesting season of swallows and eastern phoebes, which typically begins April 1st and extends through August 31st, unless exclusionary devices are placed outside of this period. Exclusionary devices in the form of netting made of plastic, canvas or other materials that are proposed by the Contractor may be installed on the bridge(s) or box culverts prior to March 1st, but after August 31st. The following requirements must be met in order for exclusionary netting to be considered appropriate:
 - a. The Deputy Director of the Cobb County Department of Transportation shall be notified by phone (770) 528-1635 of the decision to install exclusionary barriers and the date of the proposed installation prior to the installation of any exclusionary devices.
 - b. The structure(s) shall be checked for nests prior to the placement of exclusionary barriers. If nests are present, they shall be inspected to ensure that eggs or birds are not present. If the nests are found to be occupied, construction activities associated with the bridge shall be postponed until after August 31 when the breeding season is complete.
 - c. Exclusionary barriers shall be installed along the full length of the bridge(s) or box culverts. Barriers shall be installed prior to March 1 and left in place until August 31 or until the bridge demolition is complete. If the exclusionary netting fails to prevent nesting (i.e., birds are able to bypass barriers and build nests), construction activities associated with the structure shall be postponed until after August 31.

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- d. During construction activities, exclusionary barriers shall be inspected daily for holes or other defects that impair its ability to exclude migratory birds from nesting beneath the structure. Any holes or defects shall be repaired immediately.
 - 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 Deputy Director of the Cobb County Department of Transportation to provide information.
 4. The Contractor will be required to grade an area to completion within, whenever possible, once the area is disturbed to minimize the time the area is exposed to potential erosion. All disturbed soil producing sediments flowing into S-8, S-12, S-13, S-14, S-16, S-17, S-18, S-19 or any tributaries to these waters located within the Project corridor shall be mulched daily or covered with approved erosion control mats within 200 feet of these streams.
 5. Equipment staging areas and equipment maintenance areas (particularly for oil changes) 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 S-8, S-12, S-13, S-14, S-16, S-17, S-18, S-19 or any tributaries to these waters.
 6. The Contractor shall not use pesticides or herbicides within 200 feet of S-8, S-12, S-13, S-14, S-16, S-17, S-18, S-19 or any tributaries to these waters located within the Project corridor. Fertilizer shall only be used while grassing graded areas to achieve site stabilization.
 7. 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.
 8. In the event any incident occurs that causes harm or injury to the northern long-eared bat, barn swallow, cliff swallow, eastern phoebe, northern long-eared bat, Chattahoochee crayfish, or highscale shiner within the Project corridor, the Contractor shall report the incident immediately to the Project Engineer who in turn will notify the Deputy Director of the Cobb County Department of Transportation to provide information. All activity shall cease pending consultation the by the U.S. Fish and Wildlife Service and the Federal Transit Administration.
 9. The Contractor shall keep a log detailing any incidents that cause harm or injury to the northern long-eared bat, barn swallow, cliff swallow, eastern phoebe, Chattahoochee crayfish, or highscale shiner in the Project until such time that project construction has been completed and time charges have stopped. Following project completion, the log and a report summarizing any incidents involving species shall be submitted by the Contractor to Deputy Director of the Cobb County Department of Transportation to provide information. The Deputy Director of the Cobb County Department of Transportation in turn will provide copies of the report to the U.S. Fish and Wildlife Service, the Georgia Department of Natural Resources Wildlife Resources Division, and the Federal Transit Administration.