

SUMMARY OF ENVIRONMENTAL DUE DILIGENCE FOR LITTLE CANOE CREEK INDUSTRIAL PARK

Various levels of environmental analysis were conducted in 5 different sections. Below is a description for each section.

1. Little Canoe Creek Industrial Park (approximately 670 acres) – Main site. GMC conducted a full Waters of the U.S. Delineation (wetlands and streams), an Endangered and Threatened Species survey with USFWS concurrence, and a Cultural Resources survey with SHPO concurrence. Phase I ESA for this property was done by others (652 acres).

2. Little Canoe Creek Additional 320 Acres (320 acres) – North of main site. Etowah County only purchased approximately 240 acres of the 320 acre site; therefore 80 acres were studied that are not within the current park site boundary. GMC conducted a Phase I ESA, a full Waters of the U.S. Delineation (wetlands and streams), an Endangered and Threatened Species survey with USFWS concurrence, and a Cultural Resources survey.

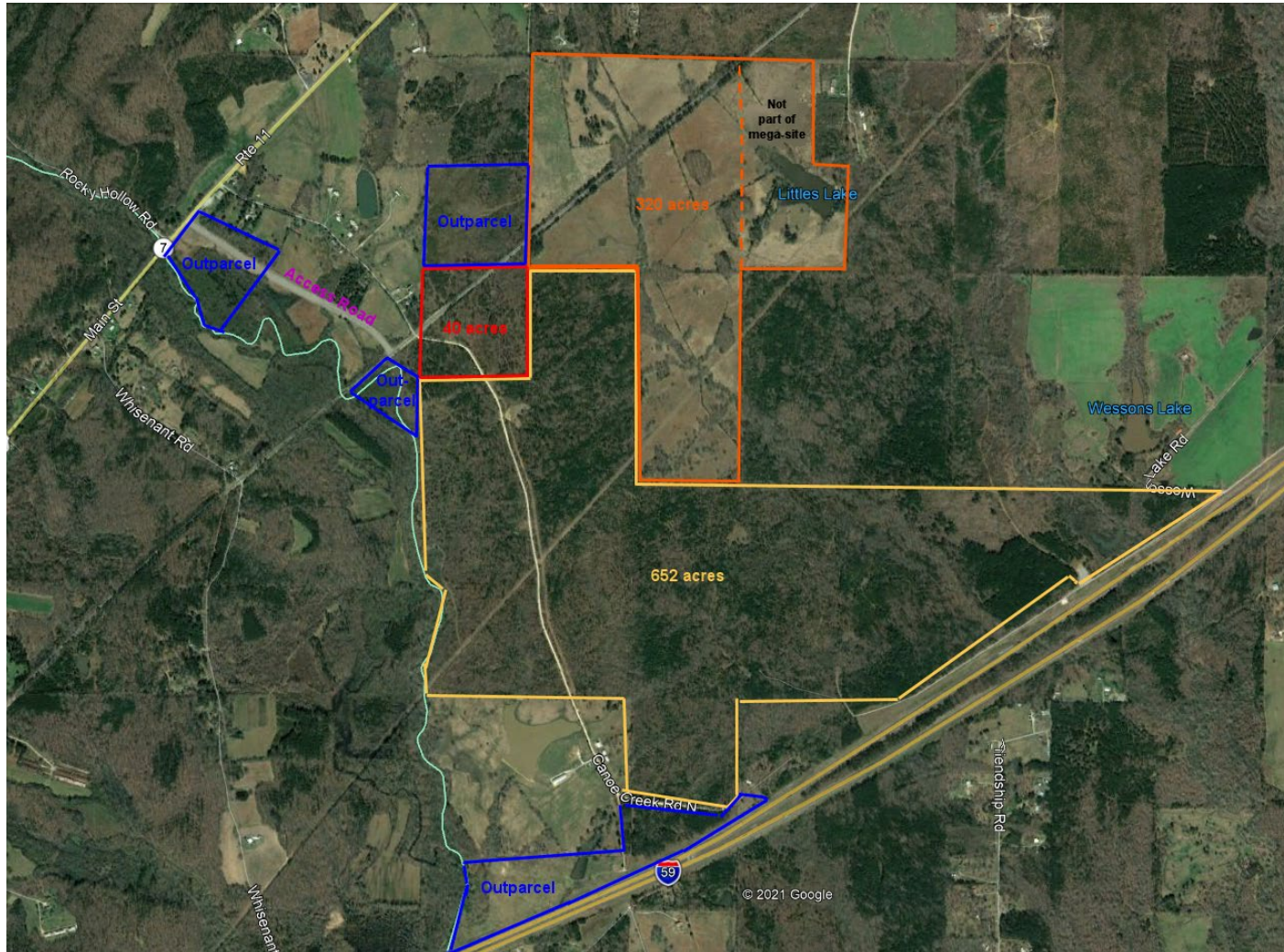
3. Little Canoe Creek Industrial Access Road – Access road built from Highway 11 into the park boundary. GMC conducted a full Waters of the U.S. Delineation (wetlands and streams), an Endangered and Threatened Species survey with USFWS concurrence, and a Cultural Resources survey with concurrence. In addition, GMC assisted in the acquisition of a wetland permit for the road construction. A Phase I ESA was not conducted by GMC on the access road.

4. Little Canoe Creek 40 Acres Tract (40 acres) – Located on the northwest corner of the main. GMC conducted a Phase I ESA, a full Waters of the U.S. Delineation (wetlands and streams), an Endangered and Threatened Species survey with USFWS concurrence, and a Cultural Resources survey with SHPO concurrence.

5. Little Canoe Creek Outparcels – Located on the south end and the northwest corner of the main site. GMC conducted a Phase I ESA, a full Waters of the U.S. Delineation (wetlands and streams), an Endangered and Threatened Species survey with USFWS concurrence, and a Cultural Resources survey with SHPO concurrence.

Little Canoe Creek @dvantageSite MEGA-SITE

Phase 1 Environmental Studies Identification of Parcels



2009-TA-0184

GOODWYN, MILLS AND CAWOOD, INC.

January 6, 2008

Mr. William Pearson
U.S. Department of the Interior, Fish and Wildlife Service
1208 B. Main Street
Daphne, Alabama 36526



RE: **Little Canoe Creek Industrial Park**
T-12-S, R-5-E, Sec. 29, 30, and 31
T-12-S, R-4-E, Sec. 25
Etowah County, Alabama

Post-it® Fax Note	7671	Date	2/12/09	# of pages	3
To	S. A. Blackwell				
Co./Dept.	G M + C				
Phone #					
Fax #	205-879-4493				
FROM:	Sandy M				
Co.:	USFWS				
Phone #:	251-441-5184				
Fax #:	251-441-6222				

Dear Mr. Pearson:

The Etowah County Commission, with the assistance of Goodwyn, Mills & Cawood, Inc. is in the process of conducting an environmental assessment including a wetland delineation and correspondence with USFWS (Endangered and Threatened Species) and SHPO (cultural resources). The purpose of the project is to provide land for the development of a commercial/industrial park near Attalla in Etowah County, Alabama. The proposed site encompasses 650± acres with portions of the site currently being utilized for siccultural practices (western portion) and portions remaining forested (eastern portion). It was determined that there is approximately 49.8 acres of jurisdictional wetlands and 13,898 linear feet of Relatively Permanent Waters (RPW) located on the property. Enclosed please find a site location map (Figure 1), a USGS quadrangle map with wetlands and waters delineation overlay (Figure 2), an aerial showing the clearcut and forested areas (Figure 3), Web Soil Survey physical soil properties, and photographs of the site.

In addition to bald eagles (*Haliaeetus leucocephalus*) and red-cockaded woodpeckers (*Picoides borealis*), which may occur in any county, the following species are listed on the federally protected list for Etowah County, Alabama.

- T - Flattened musk turtle *Sternotherus depressus*
- T - Mohr's Barbara's buttons *Marshallia mohrii*
- E - Green pitcher plant *Sarracenia oreophila*
- E - Alabama leather flower *Clematis socialis*
- E - Southern clubshell mussel *Pleurobema decisum*
- T - Fine-lined pocketbook mussel *Hamiota (= Lampsilis) attilis*
- E - Triangular kidneyshell mussel *Ptychobranthus greenii*
- E - Southern pigtoe mussel *Pleurobema georgianum*
- E - Ovate clubshell mussel *Pleurobema perovatum*
- C - Rush darter *Etheostoma phytophilum*

GMC conducted a site survey to determine the presence of these E&T species and the habitat conditions that could potentially support these species. Below is a description of the above species habitat requirements and observations noted on the site visit:

BALD EAGLE / RCW

The bald eagle diet consists of almost exclusively fish, making large bodies of water the ideal habitat. The subject site does not appear to contain the necessary water source to support a breeding pair of bald eagles. Because of these habitat conditions and because no bald eagle

nests were discovered during the site visit, it is in our professional opinion that the subject site does not contain suitable habitat for bald eagles. The red-cockaded woodpecker (RCW) typically only nest in pine stands greater than 60 years old. In addition, prescribed burning or thinned understory typically is required to promote and support RCW habitat. The site has previously been under silviculture operations and the forested areas do not contain pines greater than 60 years old or thinned understory conditions. No RCWs were observed on the date of the site visit. Because of these habitat conditions, it is our professional opinion that the subject site does not contain habitat to support RCWs.

FLATTENED MUSK TURTLE

This species is historically restricted to upper Black Warrior River system in northern Alabama, upstream from the Fall Line. The subject site is located in the Middle Coosa watershed. In addition, this species requires streambed habitat with high water quality generally in medium to large rivers for sustainability and to insure survival. Little Canoe Creek forms the extreme western boundary of the property and may be considered potential habitat for these species. However, this stream will not be impacted during development of the property due to its existence on the property line. The listed species was not noted during the site visit and the remaining stream habitat on the property is incapable of supporting this species.

MUSSELS / DARTERS

The listed aquatic species (darters and mussels) are found in streambed habitat and require high water quality large generally in medium to large rivers for sustainability and to insure survival. There are two RPW's located on the property. Little Canoe Creek forms the extreme western boundary of the property and does have some potential to be adequate habitat for these species. However, this stream will not be impacted during development of the property due to its existence on the property line. All tributaries draining into Little Canoe Creek are 1st order seasonal RPW's. These streams do not have continuous flowing water and cannot support the mussel and darter species. In addition, these streams exhibit poor water quality due to recent silvicultural operations (clear-cut) prior to Etowah County Commission purchase of the property. On the eastern portion of the property, there is a stream that is a UT to Rook Creek. This stream is a 2nd order stream and was dry during the site visit. This stream and the tributaries to this stream are incapable of supporting the above referenced aquatic species. In summary, none of the listed species were noted during the site visit and the stream habitat on the property is incapable of supporting these species. The only stream habitat found on site capable of supporting the listed species is in Little Canoe Creek. Since this stream serves as the western property line, it will not be impacted during development of the property. Therefore, there are no anticipated impacts.

PLANT SPECIES

Mohr's Barbara's Buttons commonly inhabits moist to wet openings in sandy clay soils in prairie-like meadows or woodlands and shale-bedded streams. It grows in association with sedges and grasses and prefers direct sunlight or partial shade. The soils on this property are composed of silt loams and outcroppings (see attached soils information), which do not meet the soil requirements for this species. In addition, no evidence of this species was noted during the site visits.

2009-11-11

The green pitcher plant is found in three distinct habitat types including sandstone streambanks, mixed oak or pine flatwoods, and seepage bogs. The soils in all of these habitats are sandy and highly acidic and exhibit generally moist soil conditions. Appropriate habitat for the green pitcher plant has apparently been naturally maintained through a combination of harsh environmental conditions which discourage competing plants, and periodic disturbance events. Fire is likely important in maintaining open woodland habitats, while violent winter flooding may impede succession and eliminate competing species along mountain stream banks. As indicated in the attached soil reports from the USDA Web Soil Survey, the soils on this site are comprised mostly of clays which do not meet the soil requirements for this species. There is one area on the eastern portion of the property that is swamp like in nature and may be considered a bog habitat. However, the soils are clay and loamy in nature and furthermore, this area will not be disturbed during construction. Little Canoe Creek is located on the western boundary of the property, but will also not be disturbed during construction. Remaining wetland and moist areas have been disturbed by silvicultural operations and are void of vegetation (see attached Figure 3 and photos). These areas do not exhibit appropriate soil conditions and do not provide the appropriate habitat for this species. No evidence of this species was noted during the E&T survey of the site.

The habitat for the Alabama leather flower is in bottomland hardwood forest where there are canopy gaps. As previously mentioned the western and southern portions of the property have been subject to heavy silvicultural operations and do not provide appropriate habitat (see Figure 3 and photos). The eastern portion of the property remains forested with a 24-acre swamp and a few access roads providing the only canopy gaps. The swamp area will not be impacted during development. GMC biologist surveyed all access roads and surrounding areas throughout the forested areas and this species was not noted.

It is our opinion that the protected species and critical habitat is not present for any of the listed species in the county due to the majority of the site being completely cleared for silvicultural purposes and the remainder of the site not meeting habitat requirements and/or soil requirements for the species. Based on the above information and attachments, we are requesting concurrence for the project and/or any present concerns you may have related to the possible effects of the project, as well as any other wildlife concerns.

We would appreciate a response as soon as possible. If you need any further information or wish to discuss our project, please contact me.

Sincerely,

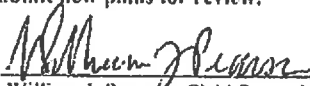


Stuart A. Blackwell
Biologist



U.S. Fish and Wildlife Service
1208-B - Daphne, Alabama 36526
Phone: 251-441-5181 Fax: 251-441-6222

Based upon our records and the information provided in your letter, we agree with your findings that no federally listed species/critical habitat occur in the project area. If project design changes are made, please submit new plans for review.



William J. Pearson, Field Supervisor

2/11/09

Date

46

January 25, 2012

U.S. Department of the Interior, Fish and Wildlife Service
 1208B Main Street
 Daphne, Alabama 36526

**RE: Request for Concurrence
 Little Canoe Creek Additional 320 Acres
 Etowah County, Alabama**

To Whom It May Concern:

The Etowah County Commission, with the assistance of Goodwyn, Mills & Cawood, Inc. (GMC) is seeking concurrence on the subject parcel located to the northeast of Steele, Alabama off of Fitzhugh Meeks Road in Etowah County, Alabama. The proposed site encompasses 320± acres with the entire site currently being utilized for agricultural purposes (cattle farm). There are several small 1st order intermittent streams located on the property. These streams have been straightened for agricultural purposes and contain little to no riparian buffer. GMC is currently conducting a jurisdictional waters determination for future permitting considerations. Enclosed are the following figures that depict the subject site:

- Figure 1: Site Location Map
- Figure 2: USGS Quadrangle Map
- Figure 3: Aerial Photograph
- Figure 4: Etowah County Soils Map

In addition to bald eagles (*Haliaeetus leucocephalus*) and red-cockaded woodpeckers (*Picoides borealis*), which occur in any county, the following species are listed for Etowah County, Alabama.

AMPHIBIANS

Black Warrior Waterdog (*Necturus alabamensis*) Candidate

CLAMS

- Orangenacre mucket (*Lampsilis perovalis*) Threatened
- Upland combshell (*Epioblasma metastrata*) Endangered
- Fine-lined pocketbook (*Lampsilis altilis*) Threatened
- Ovate clubshell (*Pleurobema perovatum*) Endangered
- Southern clubshell (*Pleurobema decisum*) Endangered
- Triangular Kidneyshell (*Ptychobranchius greenii*) Endangered
- Alabama moccasinshell (*Medionidus acutissimus*) Threatened
- Southern pigtoe (*Pleurobema georgianum*) Endangered



FISHES

Rush Darter (*Etheostoma phytophilum*) Endangered

FLOWERING PLANTS

Mohr's Barbara button (*Marshallia mohrii*) Threatened
Green pitcher-plant (*Sarracenia oreophila*) Endangered
Alabama leather flower (*Clematis socialis*) Endangered
Georgia aster (*Synphyotrichum georgianum*) Candidate

MAMMALS

Gray bat (*Myotis grisescens*) Endangered
Indiana bat (*Myotis sodalists*) Endangered

REPTILES

Flattened musk turtle (*Sternotherus depressus*) Threatened

GMC conducted a site survey to determine the presence of these E&T species and the habitat conditions that could potentially support these species. Below is a description of the above species habitat requirements and observations noted on the site visit:

BALD EAGLE/RCW

The bald eagle diet consists of almost exclusively fish, making large bodies of water the ideal habitat. The subject site does not appear to contain the necessary water source to support a breeding pair of bald eagles. Because of these habitat conditions and because no bald eagle nests were discovered during the site visit, it is in our professional opinion that the subject site does not contain suitable habitat for bald eagles. The red-cockaded woodpecker (RCW) typically only nest in pine stands greater than 60 years old. In addition, prescribed burning or thinned understory typically is required to promote and support RCW habitat. The site has previously been under agricultural operations and is devoid of overstory/midstory vegetation. The site does not contain pines greater than 60 years old or thinned understory conditions. No RCWs were observed on the date of the site visit. Because of these habitat conditions, it is our professional opinion that the subject site does not contain habitat to support RCWs.

BLACK WARRIOR WATERDOG

Although this species is a candidate species and not listed as endangered or threatened, GMC reviewed the habitat conditions for this species. This species is historically restricted to upper portions of the Black Warrior River system in northern Alabama. This species is found in medium and big rivers with moderate to high gradient and require riffle habitat. This species was not observed during the site visit. As previously noted the area in question contains 1st Order streams and contains low water quality due to cattle

agricultural operations. Based on habitat conditions and low water quality, there are no anticipated impacts.

CLAM SPECIES

The listed aquatic species (mussels) are found in streambed habitat and require high water quality generally in medium to large rivers for sustainability and to insure survival. All of the listed mussel species require high water quality to support their life history. These species were not observed during the site visit. As previously noted the area in question contains 1st Order streams and contains low water quality due to cattle agricultural operations. Based on habitat conditions and low water quality, there are no anticipated impacts.

FISH SPECIES

Rush darters appear to prefer relatively low gradient small streams, with a variety of habitats including streams with silt, sand, sand and silt, muck and sand or some gravel with sand, and bedrock. The streams located onsite do exhibit low gradient characteristics. However, these streams are heavily impacted due to the alteration of the channels, entrenchment, erosion, no riparian buffers and especially ongoing cattle operations. This species was not noted during the site visits. Based on habitat conditions and low water quality, there are no anticipated impacts.

PLANT SPECIES

Mohr's Barbara's Buttons commonly inhabits moist to wet openings in sandy clay soils in prairie-like meadows or woodlands and shale-bedded streams. It grows in association with sedges and grasses and prefers direct sunlight or partial shade. The green pitcher plant is found in three distinct habitat types including sandstone streambanks, mixed oak or pine flatwoods, and seepage bogs. Appropriate habitat for the green pitcher plant has apparently been naturally maintained through a combination of harsh environmental conditions which discourage competing plants, and periodic disturbance events. Fire is likely important in maintaining open woodland habitats, while violent winter flooding may impede succession and eliminate competing species along mountain stream banks. The habitat for the Alabama leather flower is in bottomland hardwood forest where there are canopy gaps. The Georgia aster is a candidate species and is found in dry open woods, roadsides, and other openings. Probably a relict species of the post oak (*Quercus stellata*)-savanna communities that existed in the region prior to fire suppression and the eradication of large native grazing animals. As previously mentioned, this property is devoid of overstory and midstory vegetation. The understory is dominated by planted grass species for the existing cattle operation on the property. GMC biologist surveyed all access roads and surrounding areas throughout the forested areas and these species were not noted. This site does not appear to exhibit appropriate soil conditions and do not provide the appropriate habitat for these species. No evidence of this species was noted during the E&T survey of the site.



FLATTENED MUSK TURTLE

This species is historically restricted to upper Black Warrior River system in northern Alabama, upstream from the Fall Line. The subject site is located in the Cahaba watershed. In addition, this species requires streambed habitat with high water quality generally in medium to large rivers for sustainability and to insure survival. These species were not observed during the site visit. As previously noted the area in question contains 1st Order streams and contains low water quality due to cattle agricultural operations. Based on habitat conditions and low water quality, there are no anticipated impacts.

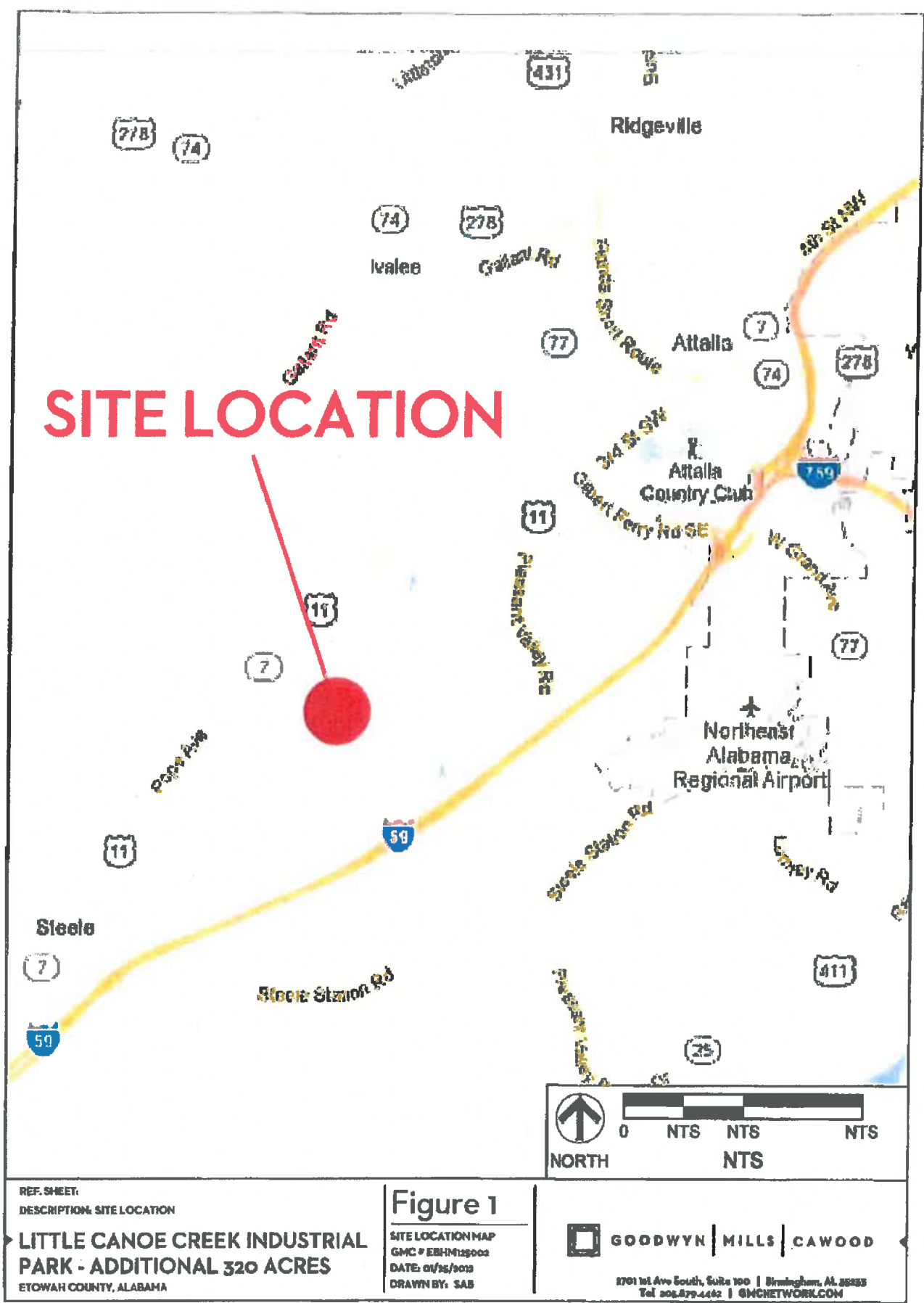
There is no critical habitat located on the subject site and none of the above listed species were observed during site visit. In GMC's opinion the proposed project does not contain suitable habitat for the above listed species. Please advise us of any present concerns you may have related to the subject site with the above listed species or critical habitat, as well as any other wildlife concerns. Thank you for your help on this and future projects. Please contact me at 205-879-4462 if you have any questions or need additional information.

Sincerely,

Stuart Blackwell, PWS
Biologist

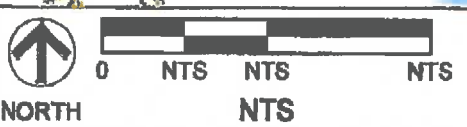
Enclosures

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORT

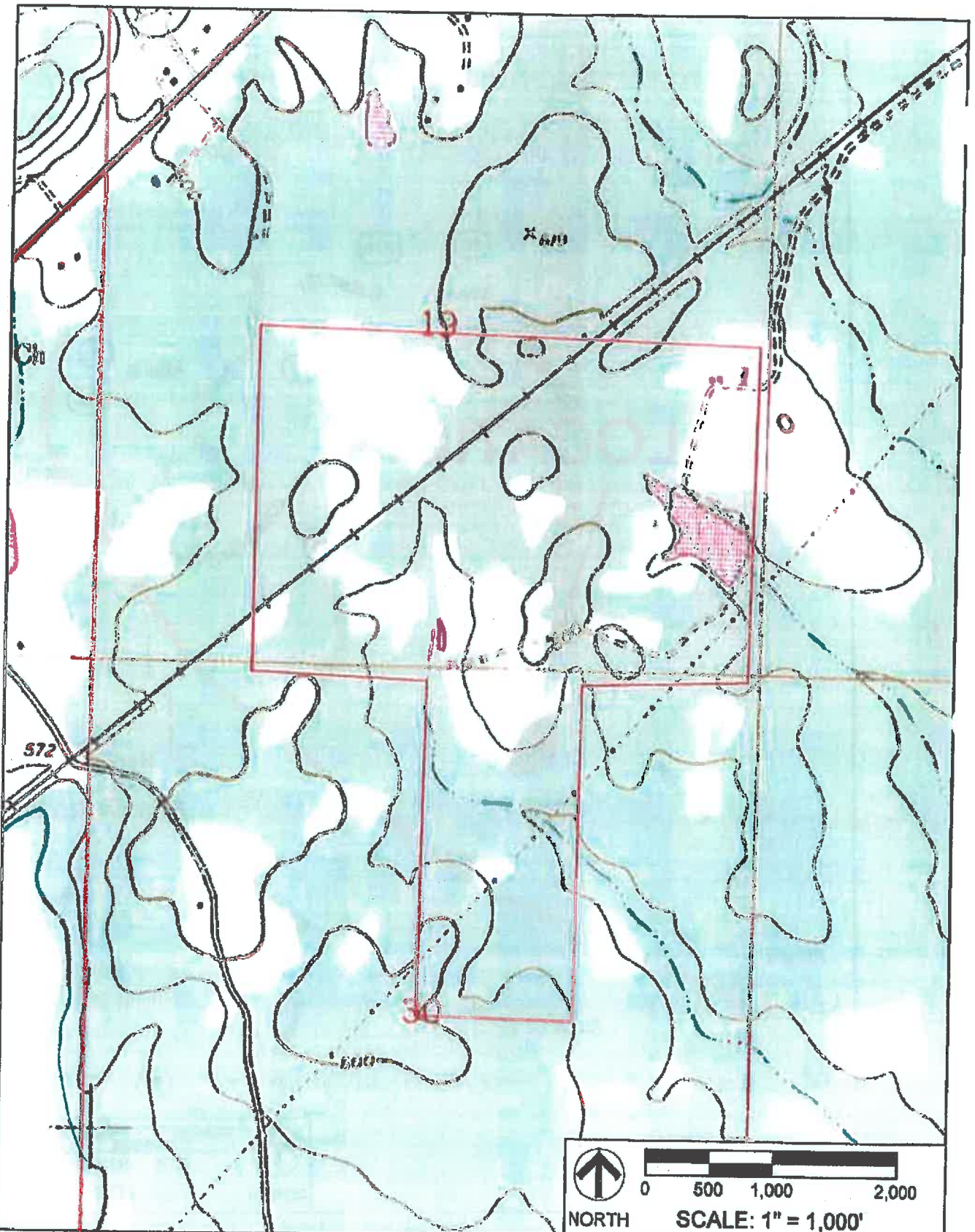


REF. SHEET:
 DESCRIPTION: SITE LOCATION
**LITTLE CANOE CREEK INDUSTRIAL
 PARK - ADDITIONAL 320 ACRES**
 ETOWAH COUNTY, ALABAMA

Figure 1
 SITE LOCATION MAP
 GMC # EBH1129002
 DATE: 01/25/2013
 DRAWN BY: SAB

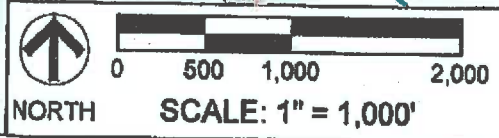


GOODWYN | MILLS | CAWOOD
 1701 1st Ave South, Suite 100 | Birmingham, AL 35223
 Tel 205.879.4462 | GNCNETWORK.COM

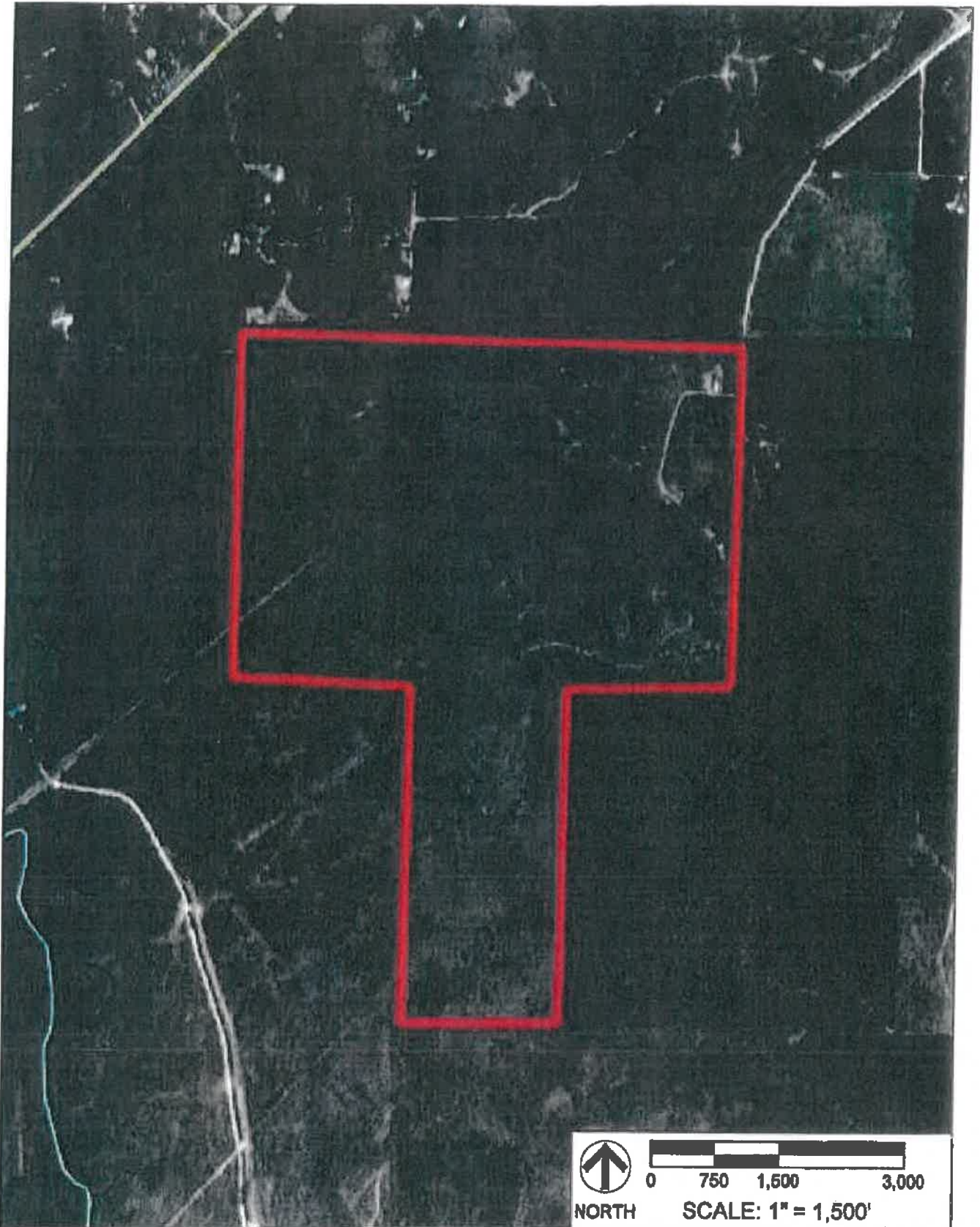



REF. SHEET:
 DESCRIPTION: TOPOGRAPHIC MAP
**LITTLE CANOE CREEK INDUSTRIAL
 PARK - ADDITIONAL 320 ACRES**
 ETOWAH COUNTY, ALABAMA

Figure 2
 USGS QUADRANGLE MAP
 GMC # EBH1125002
 DATE: 01/22/2012
 DRAWN BY: SAB



GOODWYN | MILLS | CAWOOD
 2701 1st Ave South, Suite 100 | Birmingham, AL 35285
 Tel 205.879.4462 | GMCNETWORK.COM



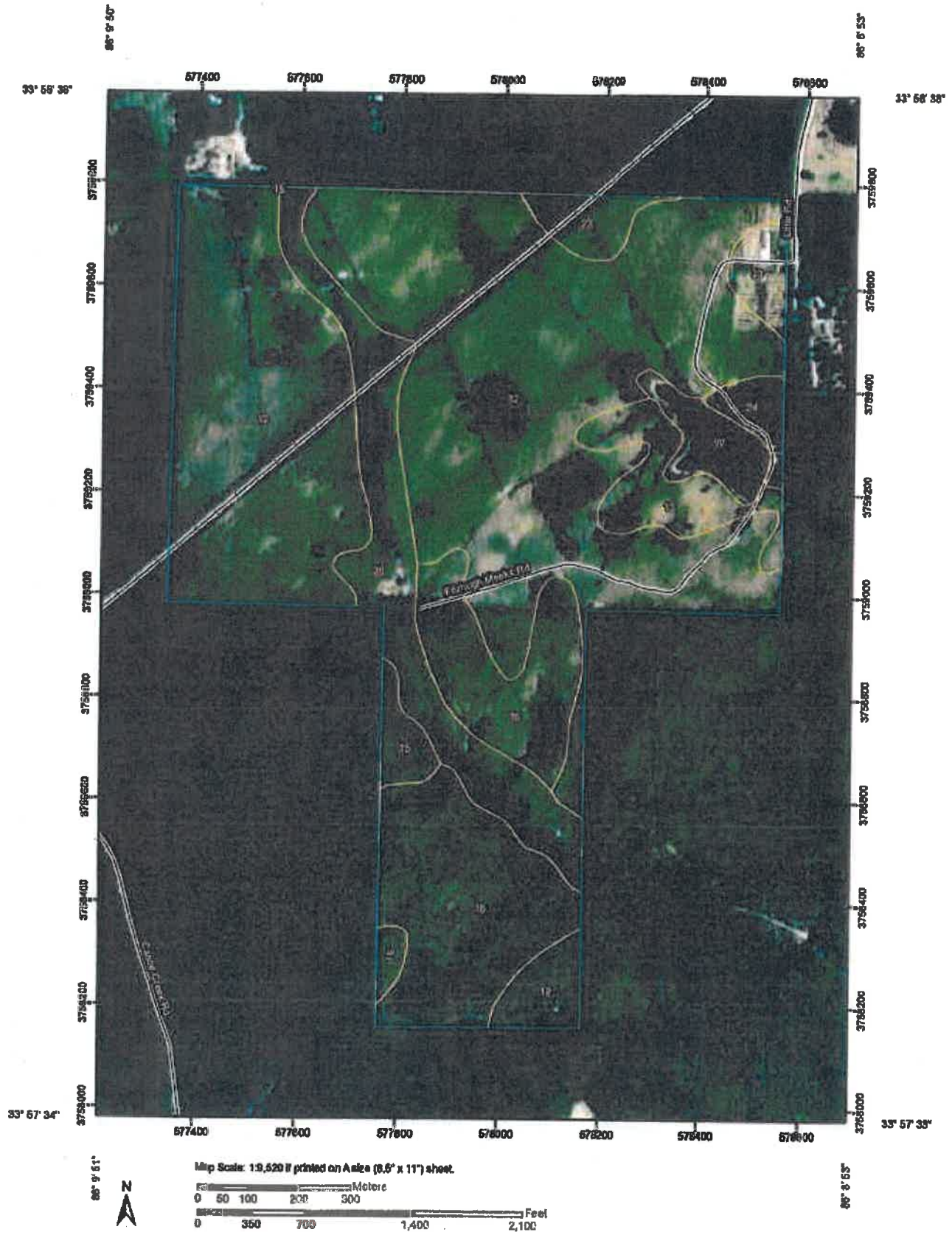
 0 750 1,500 3,000
NORTH SCALE: 1" = 1,500'

REF. SHEET:
DESCRIPTION: AERIAL PHOTOGRAPH
▶ **LITTLE CANOE CREEK INDUSTRIAL
PARK - ADDITIONAL 320 ACRES**
ETOWAH COUNTY, ALABAMA











































Figure 3
AERIAL PHOTOGRAPH
GMC # EBHM115002
DATE: 01/15/2012
DRAWN BY: SAB

 **GOODWYN | MILLS | CAWOOD**
3701 1st Ave South, Suite 100 | Birmingham, AL 35233
Tel 205.879.4462 | GMCNETWORK.COM

Soil Map—Etowah County, Alabama



MAP LEGEND

- | | | | |
|---|------------------------|---|-----------------------|
|  | Area of Interest (AOI) |  | Very Stony Spot |
|  | Area of Interest (AOI) |  | Wet Spot |
|  | Soils |  | Other |
|  | Soil Map Units |  | Special Line Features |
|  | Special Point Features |  | Gully |
|  | Blowout |  | Short Steep Slope |
|  | Borrow Pit |  | Other |
|  | Clay Spot |  | Political Features |
|  | Closed Depression |  | Cities |
|  | Gravel Pit |  | Water Features |
|  | Gravelly Spot |  | Streams and Canals |
|  | Landfill |  | Transportation |
|  | Lava Flow |  | Rails |
|  | Marsh or swamp |  | Interstate Highways |
|  | Mine or Quarry |  | US Routes |
|  | Miscellaneous Water |  | Major Roads |
|  | Perennial Water |  | Local Roads |
|  | Rock Outcrop | | |
|  | Saline Spot | | |
|  | Sandy Spot | | |
|  | Severely Erodible Spot | | |
|  | Sinkhole | | |
|  | Slide or Slip | | |
|  | Sodic Spot | | |
|  | Spot Area | | |
|  | Stony Spot | | |

MAP INFORMATION

Map Scale: 1:9,520 if printed on A size (8.5" x 11") sheet.
 The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Etowah County, Alabama
 Survey Area Date: Version 4, Nov 18, 2009

Date(s) aerial images were photographed: 6/21/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Etowah County, Alabama (AL055)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12	Conasauga loam, 1 to 5 percent slopes	197.6	61.2%
13	Conasauga loam, 5 to 15 percent slopes	12.6	3.9%
15	Conasauga-Rock outcrop complex, 2 to 6 percent slopes	6.6	1.7%
16	Conasauga-Rock outcrop complex, 6 to 25 percent slopes	54.3	16.8%
23	Firestone loam, 2 to 6 percent slopes	10.1	3.1%
24	Firestone silt loam, 6 to 15 percent slopes	3.6	1.1%
26	Gaylesville silt loam	31.6	9.8%
W	Water	7.6	2.3%
Totals for Area of Interest		323.0	100.0%



January 25, 2012

U.S. Department of the Interior, Fish and Wildlife Service
1208B Main Street
Daphne, Alabama 36526

RE: Request for Concurrence
Little Canoe Creek Additional 320 Acres
Etowah County, Alabama

Post-It® Fax Note	7671	Date	2-14-2012	# of pages	▶
To	Stuart Blackwell	From	USFWS		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	205-879-4493	Fax #			

To Whom It May Concern:

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- Figure 1: Site Location Map
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- Figure 4: Etowah County Soils Map

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AMPHIBIANS

Black Warrior Waterdog (*Necturus alabamensis*) Candidate

CLAMS

- Orangeface mucket (*Lampsilis perovalls*) Threatened
- Upland combshell (*Epioblasma metastriata*) Endangered
- Fine-lined pocketbook (*Lampsilis altilia*) Threatened
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- Alabama moccasinshell (*Medionidus acutissimus*) Threatened
- Southern pigtoe (*Pleurobema georgianum*) Endangered

GOODWYN, MILLS AND CAWOOD, INC.
2708 1st Avenue South, Suite 100
Birmingham, AL 35235
Tel: 205.879.4462 Fax: 205.879.4493
GMCNETWORK.COM

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION



FISHES

Rush Darter (*Etheostoma phytophilum*) Endangered

FLOWERING PLANTS

Mohr's Barbara button (*Marshallia mohrlii*) Threatened
 Green pitcher-plant (*Sarracenia oreophila*) Endangered
 Alabama leather flower (*Clematis socialis*) Endangered
 Georgia aster (*Symphoricarpon georgianum*) Candidate

MAMMALS

Gray bat (*Myotis grisescens*) Endangered
 Indiana bat (*Myotis sodalis*) Endangered

REPTILES

Flattened musk turtle (*Sternotherus depressus*) Threatened

GMC conducted a site survey to determine the presence of these E&T species and the habitat conditions that could potentially support these species. Below is a description of the above species habitat requirements and observations noted on the site visit:

BALD EAGLE/RCW

The bald eagle diet consists of almost exclusively fish, making large bodies of water the ideal habitat. The subject site does not appear to contain the necessary water source to support a breeding pair of bald eagles. Because of these habitat conditions and because no bald eagle nests were discovered during the site visit, it is in our professional opinion that the subject site does not contain suitable habitat for bald eagles. The red-cockaded woodpecker (RCW) typically only nest in pine stands greater than 60 years old. In addition, prescribed burning or thinned understory typically is required to promote and support RCW habitat. The site has previously been under agricultural operations and is devoid of overstory/midstory vegetation. The site does not contain pines greater than 60 years old or thinned understory conditions. No RCWs were observed on the date of the site visit. Because of these habitat conditions, it is our professional opinion that the subject site does not contain habitat to support RCWs.

BLACK WARRIOR WATERDOG

Although this species is a candidate species and not listed as endangered or threatened, GMC reviewed the habitat conditions for this species. This species is historically restricted to upper portions of the Black Warrior River system in northern Alabama. This species is found in medium and big rivers with moderate to high gradient and require riffle habitat. This species was not observed during the site visit. As previously noted the area in question contains 1st Order streams and contains low water quality due to cattle

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION



agricultural operations. Based on habitat conditions and low water quality, there are no anticipated impacts.

CLAM SPECIES

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FISH SPECIES

Rush darters appear to prefer relatively low gradient small streams, with a variety of habitats including streams with silt, sand, sand and silt, muck and sand or some gravel with sand, and bedrock. The streams located onsite do exhibit low gradient characteristics. However, these streams are heavily impacted due to the alteration of the channels, entrenchment, erosion, no riparian buffers and especially ongoing cattle operations. This species was not noted during the site visits. Based on habitat conditions and low water quality, there are no anticipated impacts.

PLANT SPECIES

Mohr's Barbara's Buttons commonly inhabits moist to wet openings in sandy clay soils in prairie-like meadows or woodlands and shale-bedded streams. It grows in association with sedges and grasses and prefers direct sunlight or partial shade. The green pitcher plant is found in three distinct habitat types including sandstone streambanks, mixed oak or pine flatwoods, and seepage bogs. Appropriate habitat for the green pitcher plant has apparently been naturally maintained through a combination of harsh environmental conditions which discourage competing plants, and periodic disturbance events. Fire is likely important in maintaining open woodland habitats, while violent winter flooding may impede succession and eliminate competing species along mountain stream banks. The habitat for the Alabama leather flower is in bottomland hardwood forest where there are canopy gaps. The Georgia aster is a candidate species and is found in dry open woods, roadsides, and other openings. Probably a relict species of the post oak (*Quercus stellata*)-savanna communities that existed in the region prior to fire suppression and the eradication of large native grazing animals. As previously mentioned, this property is devoid of overstory and midstory vegetation. The understory is dominated by planted grass species for the existing cattle operation on the property. GMC biologist surveyed all access roads and surrounding areas throughout the forested areas and these species were not noted. This site does not appear to exhibit appropriate soil conditions and do not provide the appropriate habitat for these species. No evidence of this species was noted during the E&T survey of the site.

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION



FLATTENED MUSK TURTLE

This species is historically restricted to upper Black Warrior River system in northern Alabama, upstream from the Fall Line. The subject site is located in the Cahaba watershed. In addition, this species requires streambed habitat with high water quality generally in medium to large rivers for sustainability and to insure survival. These species were not observed during the site visit. As previously noted the area in question contains 1st Order streams and contains low water quality due to cattle agricultural operations. Based on habitat conditions and low water quality, there are no anticipated impacts.

There is no critical habitat located on the subject site and none of the above listed species were observed during site visit. In GMC's opinion the proposed project does not contain suitable habitat for the above listed species. Please advise us of any present concerns you may have related to the subject site with the above listed species or critical habitat, as well as any other wildlife concerns. Thank you for your help on this and future projects. Please contact me at 205-879-4462 if you have any questions or need additional information.

Sincerely,

Stuart Blackwell, PWS
Biologist

Enclosures



U.S. Fish and Wildlife Service
1208-B - Daphno, Alabama 36526
Phone: 251-441-5181 Fax: 251-441-6222

Based upon our records and the information provided in your letter, we agree with your findings that no federally listed species/critical habitat occur in the project area. If project design changes are made, please submit new plans for review.

William J. Pearson, Field Supervisor

2-14-2012
Date WJ

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION

March 24, 2014

U.S. Department of the Interior, Fish and Wildlife Service
1206B Main Street
Daphne, Alabama 36526

**RE: Request for Concurrence
Little Canoe Creek Industrial Access Road
Etowah County, Alabama**

To Whom It May Concern:

The Etowah County Commission, with the assistance of Goodwyn, Mills & Cawood, Inc. (GMC) is seeking concurrence on the subject parcel located to the northeast of Steele, Alabama near Canoe Creek Road in Etowah County, Alabama. The proposed project encompasses 10.35 acres for a proposed industrial access road to an industrial park. The property is currently partially undeveloped and forested and partially being utilized for agricultural purposes. There are two proposed stream crossings that will be impacted as part of the project. One stream is a 1st order intermittent stream approximately 3 feet in width and only flows a portion of the year. The second stream is a 2nd order perennial stream approximately 5 feet in width. This perennial stream is located in an agricultural setting and has previously been impacted (altered) and is currently being impacted (cattle farming). GMC is currently in the process of requesting coverage under Nationwide Permit 14 with the Corps of Engineers. Enclosed are the following figures that depict the subject site:

- Figure 1: Site Location Map
- Figure 2: USGS Quadrangle Map showing Industrial Park
- Figure 3: USGS Quadrangle Map showing stream crossings
- Figure 4: Aerial Photograph showing stream crossings
- Figure 5: Etowah County Soils Map

In addition to bald eagles (*Haliaeetus leucocephalus*) and red-cockaded woodpeckers (*Picoides borealis*), which occur in any county, the following species are listed for Etowah County, Alabama.

CLAMS

- Orangenacre mucket (*Lampsilis perovalis*) Threatened
- Upland combshell (*Epioblasma metastrata*) Endangered
- Finelined pocketbook (*Lampsilis altitilis*) Threatened
- Ovate clubshell (*Pleurobema perovatium*) Endangered
- Southern clubshell (*Pleurobema decisum*) Endangered
- Triangular Kidneyshell (*Ptychobranchus greenii*) Endangered
- Alabama moccasinshell (*Medionidus acutissimus*) Threatened

Southern pigtoe (*Pleurobema georgianum*) Endangered

FISHES

Rush Darter (*Etheostoma phytophilum*) Endangered

FLOWERING PLANTS

Mohr's Barbara button (*Marshallia mohrii*) Threatened

Green pitcher-plant (*Sarracenia oreophila*) Endangered

Alabama leather flower (*Clematis socialis*) Endangered

Georgia aster (*Symphotrichum georgianum*) Candidate

MAMMALS

Gray bat (*Myotis grisescens*) Endangered

Indiana bat (*Myotis sodalists*) Endangered

REPTILES

Flattened musk turtle (*Sternotherus depressus*) Threatened

GMC conducted a site survey to determine the presence of these E&T species and the habitat conditions that could potentially support these species. Below is a description of the above species habitat requirements and observations noted on the site visit:

BALD EAGLE / RCW

The bald eagle diet consists of almost exclusively fish, making large bodies of water the ideal habitat. The subject site does not appear to contain the necessary water source to support a breeding pair of bald eagles. In addition, since the project is linear in nature, any potential bald eagle habitats in the vicinity of the project should not be affected. Because of these habitat conditions and because no bald eagle nests were discovered during the site visit, it is in our professional opinion that the subject site does not contain suitable habitat for bald eagles. The red-cockaded woodpecker (RCW) typically only nest in pine stands greater than 60 years old. In addition, prescribed burning or thinned understory typically is required to promote and support RCW habitat. The site is currently forested/undeveloped and utilized for agricultural purposes. The site does not contain pines greater than 60 years old or thinned understory conditions. No RCWs were observed on the date of the site visit. Because of these habitat conditions, it is our professional opinion that the subject site does not contain habitat to support RCWs.

CLAM SPECIES

The listed aquatic species (mussels) are found in streambed habitat and require high water quality generally in medium to large rivers for sustainability and to insure survival. All of the listed mussel species require

high water quality to support their life history. These species were not observed during the site visit. As previously noted, there are is one intermittent and perennial stream in the project area. However, the size and nature of these streams do not appear to support habitat for the listed clam species. Based on habitat conditions and low water quality, there are no anticipated impacts.

FISH SPECIES

Rush darters appear to prefer relatively low gradient small streams, with a variety of habitats including streams with silt, sand, sand and silt, muck and sand or some gravel with sand, and bedrock. As previously noted, there are is one intermittent and perennial stream in the project area. However, these streams have been previously and are currently impacted by agricultural activities. Based on the quality of water these streams do not appear to support habitat for the listed fish species and there are no anticipated impacts.

PLANT SPECIES

Mohr's Barbara's Buttons commonly inhabits moist to wet openings in sandy clay soils in prairie-like meadows or woodlands and shale-bedded streams. It grows in association with sedges and grasses and prefers direct sunlight or partial shade. The green pitcher plant is found in three distinct habitat types including sandstone streambanks, mixed oak or pine flatwoods, and seepage bogs. Appropriate habitat for the green pitcher plant has apparently been naturally maintained through a combination of harsh environmental conditions which discourage competing plants, and periodic disturbance events. Fire is likely important in maintaining open woodland habitats, while violent winter flooding may impede succession and eliminate competing species along mountain stream banks. The habitat for the Alabama leather flower is in bottomland hardwood forest where there are canopy gaps. The Georgia aster is a candidate species and is found in dry open woods, roadsides, and other openings. Probably a relict species of the post oak (*Quercus stellata*)-savanna communities that existed in the region prior to fire suppression and the eradication of large native grazing animals.

GMC biologist surveyed the entire corridor of the proposed project to determine if the listed species were present. No evidence of this species was noted during the E&T survey of the site.

MAMMAL SPECIES

No caves or cave like structures were observed on the date of the site visit. GMC surveyed the entire site and there were no direct observations of the Indiana bat or the Gray bat on the date of the site visit. In addition, since the project is linear in nature, it unlikely to have an effect on bat habitats. Due to the lack of habitat on the site and no direct observations of these species, it is our professional opinion that the subject site does not contain habitat to support these species.

GOODY & MILES FIRM
1001 ...
Birmingham, AL 35203
Tel: 205 978-1111 Fax: 205 978-1111

FLATTENED MUSK TURTLE

This species is historically restricted to upper Black Warrior River system in northern Alabama, upstream from the Fall Line. The subject site is located in the Cahaba watershed. In addition, this species requires streambed habitat with high water quality generally in medium to large rivers for sustainability and to insure survival. These species were not observed during the site visit. As previously noted the area in question contains no high quality medium to large rivers on the project site. Based on habitat conditions and low water quality, there are no anticipated impacts.

There is no critical habitat located on the subject site and none of the above listed species were observed during site visit. In GMC's opinion the proposed project does not contain suitable habitat for the above listed species. Please advise us of any present concerns you may have related to the subject site with the above listed species or critical habitat, as well as any other wildlife concerns. Thank you for your help on this and future projects. Please contact me at 205-879-4462 if you have any questions or need additional information.

Sincerely,



**Stuart Blackwell, PWS
Biologist**

Enclosures

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING CONSULTATION



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO:

2009-TA-0184

APR 30 2014

Mr. Stuart Blackwell
Goodwyn, Mills, and Cawood, Inc.
2701 1st Avenue South, Suite 100
Birmingham, AL 35233

Dear Mr. Blackwell:

Thank you for your March 17 and 24, 2014, letters requesting comments on potential impacts to threatened and endangered species as a result of a proposed 40-acre industrial development site and 10.35-acre access road in Etowah County, Alabama. These two proposed sites are to be added to an adjacent 700+-acre site. The proposed industrial development site and access road are located at approximately 33° 58' 00.89" N, 86° 9' 54.21" W and 33° 58' 10.022" N, 86° 10' 39.942" W, respectfully. The proposed access road will involve two stream crossings. We are providing the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) (ESA).

Endangered, Threatened, Proposed and Candidate Species

The following endangered, threatened, proposed and candidate species may occur in the proposed project area:

- ✓ Coosa moccasinshell, *Medionidus parvulus* - Endangered
- ✓ Finelined pocketbook, *Hamiota (=Lampsilis) altilis* - Threatened
- Georgia aster, *Symphyotrichum georgianum* - Candidate¹
- Gray bat, *Myotis grisescens* - Endangered
- Indiana bat, *Myotis sodalis* - Endangered
- Northern long-eared bat, *Myotis septentrionalis* - Proposed
- ✓ Ovate clubshell, *Pleurobema perovatum* - Endangered
- ✓ Southern clubshell, *Pleurobema decisum* - Endangered
- ✓ Southern pigtoe, *Pleurobema georgianum* - Endangered
- ✓ Triangular kidneyshell, *Ptychobranthus greenii* - Endangered
- ✓ Upland combshell, *Epioblasma metastriata* - Endangered

¹ Candidate species are afforded no protection under the ESA. Surveys for this species in any appropriate habitat are recommended, but not required. This information is being provided to alert you that the species could be listed in the future. Therefore, if the proposed work is not carried out in the next year, it would be prudent to contact this office to determine if any changes have occurred to the status of this species.

Although you indicate in your correspondence that you do not believe the perennial stream on the proposed site would support any of the aquatic species listed above, no focused surveys were conducted. We recommend that surveys for these federally protected species be conducted by a qualified biologist with a current collecting permit(s) from the U.S. Fish and Wildlife Service (Service). Prior experience with each of these particular species is strongly recommended for the consultant undertaking the survey. Please provide the name of the surveyor, his/her credentials, and a thorough description of survey methods and habitats present. If it can be demonstrated that no suitable habitat exists for any of these species within the impacted areas through a detailed description of the habitat and/or site photographs showing unsuitable habitat throughout the entire project area, a species survey is unnecessary (although we would appreciate notification of habitat suitability survey results).

In addition, while you have indicated that there are no caves or cave-like structures on the project site, you did not include a habitat assessment to indicate whether or not there may be suitable habitat for summering Indiana bats (and northern long-eared bats). The northern long-eared bat is proposed as endangered and, unless projects are likely to jeopardize the continued existence of the species, conferencing under section 7 of the ESA is not required. In this case, your proposed project does not rise to the level of "likely to jeopardize"; therefore, no section 7 conferencing is recommended for the northern long-eared bat.

To avoid impacts to spring/summer roosting and maternity colonies of the Indiana bat in the State of Alabama, all proposed projects that may impact suitable Indiana bat habitat should follow the procedures outlined in the [Range-wide Indiana Bat Protection and Enhancement Plan Guidelines](#) (July 2009), which were developed by a team comprised of the U.S. Fish and Wildlife Service, Office of Surface Mining, and a group of Regulatory Authorities representing the Interstate Mining Compact Commission. While the purpose of these guidelines is to aid coal mining applicants in understanding the options and protocols associated with assuring compliance with the 1996 Biological Opinion on implementation of the Surface Mining Control and Reclamation Act (SMCRA), they are equally applicable to other land-clearing projects within the State. In accordance with that guidance, when project areas contain potential summer habitat, tree clearing should occur from October 15 to March 31.

If all tree removal for this project occurs between October 15 and March 31, we will concur with your assertion that the proposed project is not likely to adversely affect the Indiana bat. If this timing is not achievable and no other measures to avoid adverse effects are possible, then we recommend that you proceed to acoustic and/or mist-netting surveys to determine presence or probable absence of Indiana bats at the project site in accordance with the 2014 Range-wide Indiana Bat Summer Survey Guidelines (January 2014) (<http://www.fws.gov/midwest/endangered/mammals/inba/surveys/pdf/2014IBatSummerSurveyGuidelines13Jan2014.pdf>).

If it can be demonstrated that no suitable habitat exists for any of these species within the impacted areas through a detailed description of the habitat and/or site photographs showing unsuitable habitat throughout the entire project area, a species survey is unnecessary (although

June 4, 2014

U.S. Department of the Interior, Fish and Wildlife Service
Attn: Karen Marlowe
1208B Main Street
Daphne, Alabama 36526

RE: Request for Concurrence
Little Canoe Creek Industrial Access Road
2009-TA-0184
Etowah County, Alabama

Ms. Marlowe:

Thank you for your comments on the aforementioned site in your letter received on April 30, 2014. Please let this letter and attachments serve as a response and updated information regarding your comments in the letter. In your review of the project, the following protected species were listed as species that could occur on the project site:

Coosa moccasinshell (*Medionidius parvulus*) - Endangered
Finelined pocketbook (*Hamiota (=Lampsilis) altilis*) - Threatened
Georgla aster (*Symphyotrichum georgianum*) - Candidate
Gray bat (*Myotis grisescens*) - Endangered
Indiana bat (*Myotis sodalists*) - Endangered
Northern long-eared bat (*Myotis septentrionalis*) - Proposed
Ovate clubshell (*Pleurobema perovatum*) - Endangered
Southern clubshell (*Pleurobema decisum*) - Endangered
Southern pigtoe (*Pleurobema georgianum*) - Endangered
Triangular kidneyshell (*Ptychobranchius geeni*) - Endangered
Upland combshell (*Epioblasma metustata*) - Endangered

It should be noted that this site includes two separate areas to be considered, including a 40-acre parcel that was recently purchased as part of the industrial park and a 10.35-acre access road to the proposed industrial site. Below is a description of planned activities and survey results for each of the two areas.

40-ACRE PARCEL

GMC conducted a jurisdictional determination of the 40-acre parcel in March 2014. The results of the jurisdictional determination indicate that there are approximately 239 acres of jurisdictional forested wetlands located on the northern portion of the property and one first order ephemeral stream (45 linear feet) and one first order intermittent stream (606 linear feet) on the southeast portion of the property (see attached Figures). The wetlands are groundwater driven wetlands and the determination was based on the

soil characteristics, hydrology, and vegetation in the area. There was no standing water located in the wetland area. The intermittent stream was approximately 2 feet wide and 1 foot deep. On the date of the site visit, the intermittent stream, although channelized and containing pockets of water, did not have flowing water. The aquatic species listed generally require perennial flowing streams and medium to large rivers. Therefore, it is our opinion that this property does not contain appropriate habitat for the listed aquatic species. In reference to the bat species, there are no current plans for development or clearing of this property at this time. If proposed future development of this area occurs, the 40 acres will only be cleared from October 15th to March 31st in accordance with the "Range-wide Indiana Bat Protection and Enhancement Plan Guidelines". Therefore, based on site conditions, site observations, and the planned timing of clearing activities, we are requesting concurrence on the 40-acre parcel.

10.35-ACRE ACCESS ROAD

With respect to the three bat species, GMC revisited the site to determine the presence or absence of appropriate summer habitat in regards to the listed species. Please note that as indicated in your letter, the northern long-eared bat does not rise to the level of "likely to jeopardize" and therefore Section 7 consultation is not required. However, the survey for the gray and Indiana bat included the presence or absence of potential karst features on site. Below is a description of the survey results conducted for each of the species listed above (excluding the northern long-eared bat and candidate species Georgia Aster).

- **Gray Bat** - GMC surveyed the proposed site for potential suitable winter habitat for the gray bat. The survey included a visual survey of the property for the presence of caves, underground mine workings, rock shelters, bridges, tunnels, dams, and other underground openings or karst features. None of these features were noted on the initial March 2014 survey. GMC revisited the site in June 2014 and none of these features were noted. In addition, GMC reviewed the Geological Survey of Alabama interactive sinkhole map to determine if there are any known sink holes on the subject property. The interactive map indicates that there are no known sink holes. Based on the lack of karst features noted on site, it is our opinion that habitat for the gray bat will not be impacted for the proposed project and we are requesting concurrence with this finding.
- **Indiana Bat** - GMC surveyed the proposed site for potential suitable winter habitat for the Indiana bat. The survey included a visual survey of the property for the presence of caves, underground mine workings, rock shelters, bridges, tunnels, dams, and other underground openings or karst features. . None of these features were noted on the initial March 2014 survey. GMC revisited the site in June 2014 and none of these features were noted. In addition, GMC reviewed the Geological Survey of Alabama interactive sinkhole map to determine if there are any known sink holes on the subject property. The interactive map indicates that there are no known sink holes. Based on the lack of karst features noted on site, it is our opinion that suitable winter habitat for the Indiana bat will not be impacted for the proposed project.

As recommended in your letter, GMC also conducted a survey to determine the presence of suitable summer habitat for the Indiana bat utilizing the "Range-wide Indiana Bat Protection and

Enhancement Plan Guidelines" developed in 2009. The survey consisted of identification of trees with an equal to or greater than five (5) inch diameter at breast height (dbh) that contains exfoliating bark conditions. The survey was a walking survey along the entire length of the proposed project right of way. GMC noted that of the 10.35 acres of proposed development, 5.05 acres is located in open fields with no overstory (agricultural). GMC noted a total of four (4) isolated trees within the agriculture fields (near the railroad) with one of those trees having a diameter at breast height (dbh) greater than 5 inches and containing exfoliating bark. No eligible trees were noted in the remaining field areas. In addition, GMC surveyed the 5.3 acres of property that was forested. Several eligible trees were noted in proximity to the proposed access road, but no trees containing greater than 5-inch dbh with exfoliating bark was noted.

GMC is requesting concurrence that the project will not impact suitable summer habitat for the Indiana bat based on the following items:

1. Results of the survey indicate that approximately half of the area being impacted is located in fields that contain no to limited overstory. There were four (4) isolated trees near the railroad track that appeared to be in place as shade trees for cattle and horses located on the property. Only one of these trees meets the eligibility requirements for summer Indiana bat habitat. No other eligible trees were noted within the proposed right of way for the access road (forested and non-forested areas). Based on the lack of suitable habitat observed and the one tree identified being isolated in the middle of a field, it is our opinion that suitable summer habitat does not exist on this site.
 2. The site qualifies as a potential exemption (Section 2.2.3 - Range-wide Indiana Bat Protection and Enhancement Plan Guidelines) due to the size of the clearing being less than 40 acres. Of the 10.35 acres that is being disturbed, only 5.3 acres are forested in nature with the remaining areas being open fields. An exemption for this site is also supported by the fact that suitable habitat likely exists to the south and west of the proposed project.
- Aquatic Species - GMC conducted habitat suitability survey for listed aquatic species in March 2014. After receiving your letter, GMC revisited the site to further document the perennial stream crossing located on the property. The perennial stream itself is a small 2nd order stream with small drainage acreage (0.35 square miles). It is approximately 8 feet wide and is entrenched at the area of the crossing due to the agricultural use of the site. It is our opinion that the stream exhibits very low water quality due to use of the property for cattle and horses. The stream itself has historically been utilized by cattle as a water source and as a crossing as part of the pasture. The property has been leased for many years for cattle which were only recently removed in 2013. Currently, the property is still utilized by horses with the stream being used for their water source. In addition, on the date of the site visit, the stream exhibited very low flows in the area of the crossing (1-2 inches).

GMC is requesting concurrence that the project will not impact suitable habitat for the listed aquatic species based on the following items:

1. The stream is second order in nature and exhibits a small drainage area (0.35 square miles).
2. The stream exhibited low flows on the date of the site visit.
3. The stream exhibits poor water quality due to being historically impacted by cattle farming up until 2013. The cattle crossed upstream and downstream of the impact area and used the stream as a water source.
4. The stream continues to exhibit poor water quality due to the current use of the property for horses. The horses cross upstream and downstream of the impact area and use the stream as a water source.
5. The proposed impact only affects 100 linear feet of the stream and is temporary in nature. The below grade culvert installed will be sized appropriately and will allow for normal flows of the stream. The remaining portion of the stream (upstream and downstream) will not be impacted.

In summary, we are requesting project concurrence for the 40-acre parcel due to 1.) the lack of suitable habitat (perennial stream) for the aquatic species and 2.) the property not being developed at this time with the condition that tree clearing will only occur during the appropriate time discussed above. In addition, we are requesting project concurrence on the 10.35 acre portion of the site based on 1.) the lack of suitable summer Indiana bat habitat located on site and 2.) the small nature, poor quality, and limited scope of the project (temporary 100LF impact) in this area.

Based on the information provide above and in the attachments, it is GMC's opinion that the proposed project does not contain suitable habitat for the above listed species. Please advise us of any present concerns you may have related to the subject site with the above listed species or critical habitat, as well as any other wildlife concerns. Thank you for your help on this and future projects. Please contact me at 205-879-4462 if you have any questions or need additional information.

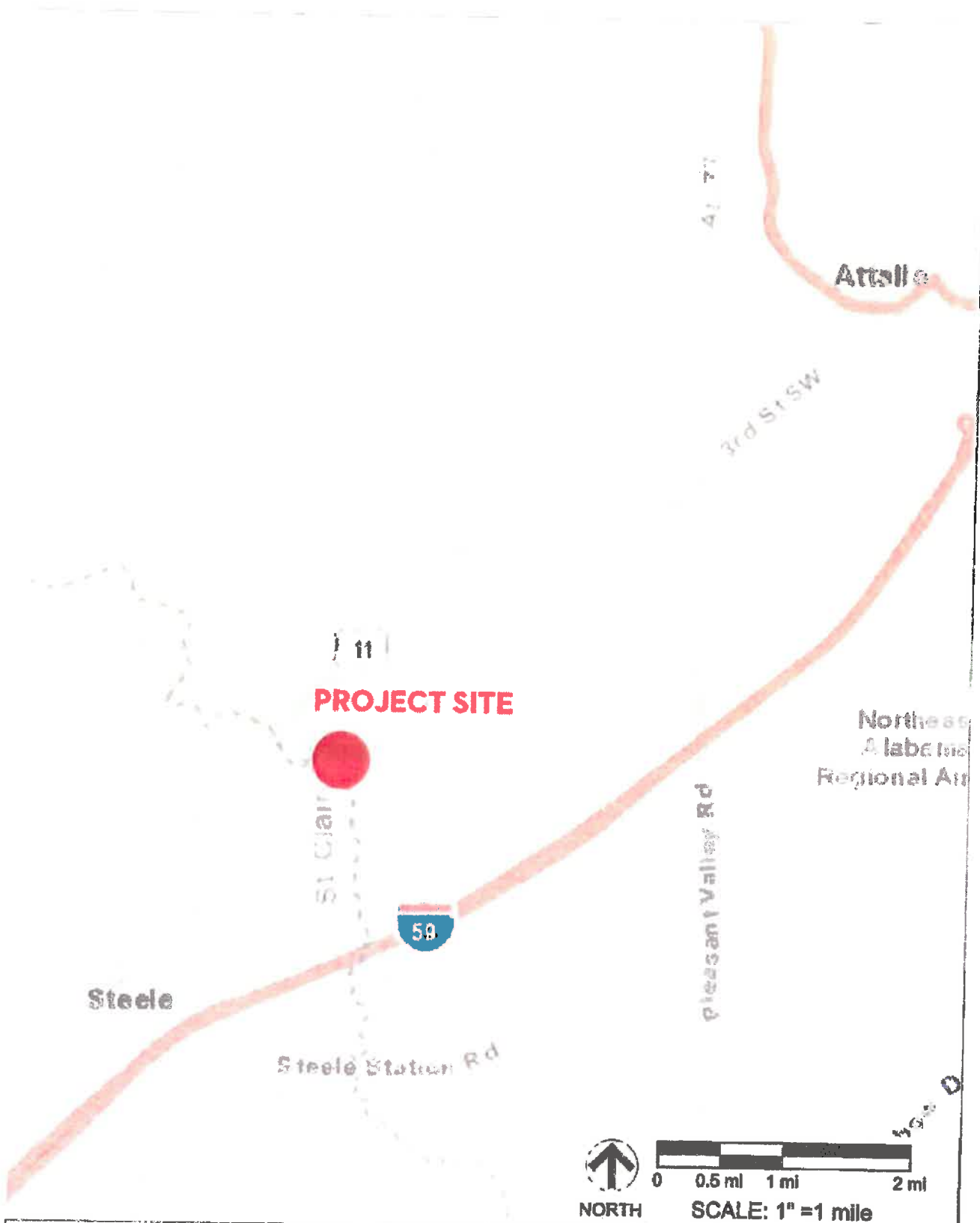
Sincerely,



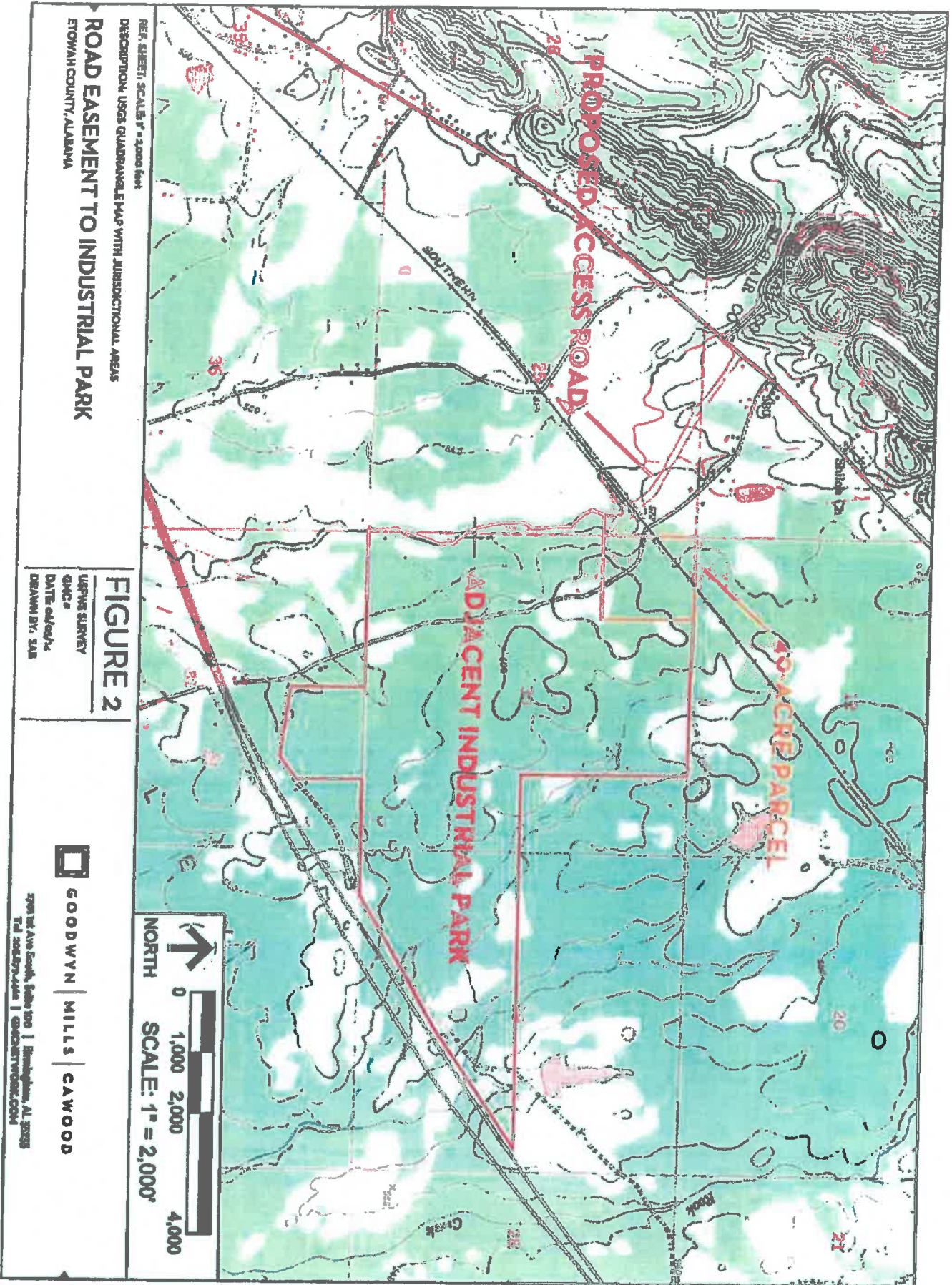
Stuart Blackwell, PWS
Biologist

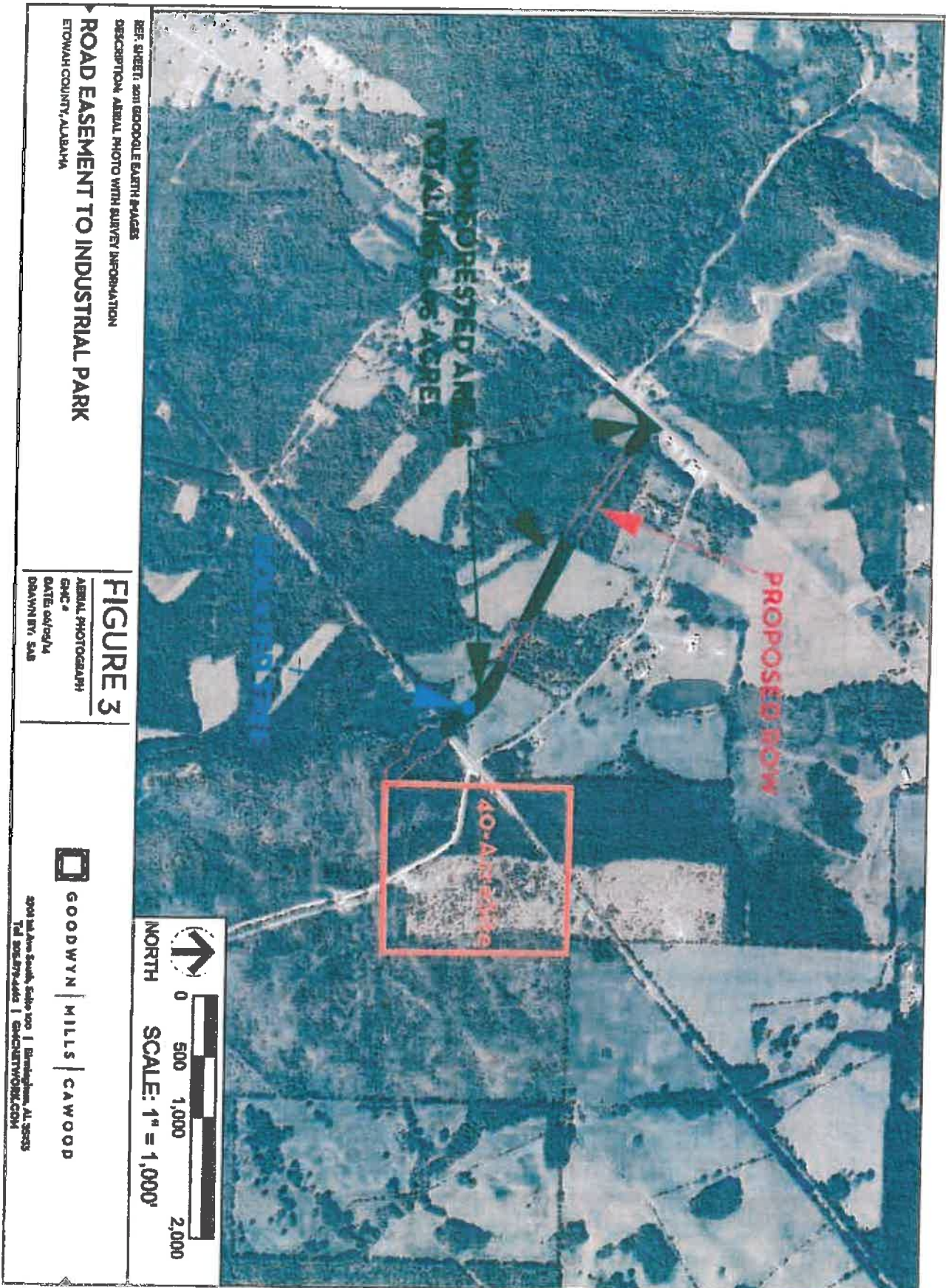
Enclosures

ATTACHMENT I
FIGURES



<p>REF. SHEET: 2009 MICROSOFT VIRTUAL EARTH ROADS DESCRIPTION: COGENERAL LOCATION MAP INDUSTRIAL ACCESS ROAD ETOWAH COUNTY, ALABAMA</p>	<p>FIGURE 1 GENERAL LOCATION MAP GMC # DATE: 12/14/2015 DRAWN BY: SAB</p>	<p>GOODWYN MILLS CAWOOD 2460 East Chase Lane, Suite 200 Montgomery, AL 36117 Tel 334.371.3200 GMCNETWORK.COM</p>
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**ATTACHMENT II
PHOTOGRAPHS**

P-1



View of the railroad easement on the southern portion of the access road

P-2



View of area where access road meets the railroad easement

 **GOODWYN | MILLS | CAWOOD**

P-3



**View of area where access road
meets the railroad easement**

P-4



**View behind strip of forested area
between railroad and open field**



GOODWYN | MILLS | CAWOOD

P-5



View of open field where access road will go. Note: Horses are in the field

P-6



View of area approaching perennial stream from the south

 **GOODWYN | MILLS | CAWOOD**

P-7



View of access road location in wooded area south of the stream.

P-8



View of access road location in wooded area south of the stream.

P-9



View of stream bottom with low flows.

P-10



Eligible tree located south of stream and outside the proposed ROW

 **GOODWYN | MILLS | CAWOOD**

P-11



Eligible tree located in northern wooded section and outside the proposed ROW

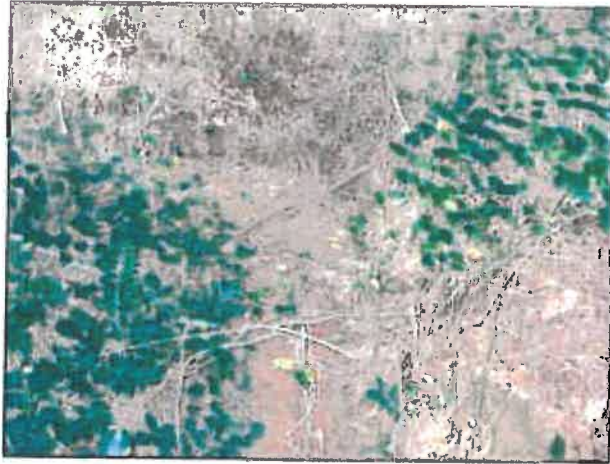
P-12



View of upper portion of intermittent stream on the 40-Acre parcel

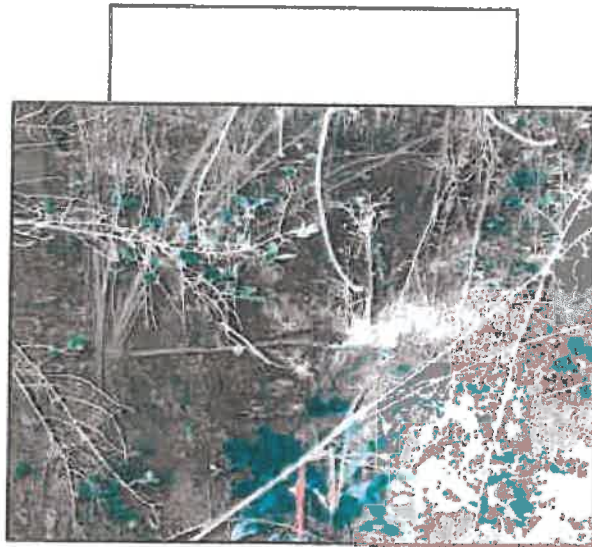
 **GOODWYN | MILLS | CAWOOD**

P-13



View of lower portion of intermittent stream on 40-Acre parcel

P-14



View of lower portion of intermittent stream on 40-Acre parcel

**ATTACHMENT III
GMC QUALIFICATIONS**

RESUMES

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION



Stuart Blackwell, PWS
Project Manager / Biologist

CAREER SUMMARY

With extensive certifications and training in the fields of Biology and Environmental Science, Stuart Blackwell's background includes stream assessment, erosion and sediment control, wetland delineation, wetland permitting, wetland mitigation, endangered and threatened species surveys, biological assessments, and Phase I Environmental Site Assessments. In addition he has performed numerous National Environmental Policy Act (NEPA) studies for multiple Federal and State Agencies including the Federal Highway Administration, United States Department of Agriculture, Housing and Urban Development, Federal Aviation Administration, Environmental Protection Agency, and Alabama Department of Transportation. As a Biologist with GMC, Stuart is responsible for project management, wetland delineation/permitting/mitigation, storm water management, restoration and mitigation plans, site assessments, bio-assessments and technical document preparation.

EDUCATION

- o B.S. Wildlife Biology - Auburn University

PROFESSIONAL LICENSE

- o Professional Wetland Scientist #2002

ADDITIONAL CERTIFICATION & TRAINING

- o Erosion and Sediment Control and Stormwater Management, 2003
- o Hazardous Waste Operations and Emergency Response, 2004-2005
- o Lead Inspector, 2004-2006
- o Asbestos Contractor/Supervisor, 2004-2007
- o Asbestos Inspector 2005-2007
- o Lead Risk Assessor, 2005-2006
- o Certified Professional in Erosion and Sediment Control (In-Training), 2005
- o Environmental Health and Safety Training "Phase I Environmental Site Assessments", 2006
- o Qualified Credentialed Inspector for Construction Site Stormwater Management, QCI #46475, 2006-2010
- o Project Management Boot Camp I, 2007
- o Introduction to Stream Restoration using Natural Channel Design, 2007
- o Vegetation for Stream Restoration, 2008
- o Wetland Delineation and Management Training, 2009
- o Stream Identification Training Course, 2010
- o TDEC: Fundamentals of Erosion Prevention and Sediment Control - Level 1, 2011

PUBLICATIONS

- o Co-author of "Intraguild Predation of Beneficial Arthropods by Red Imported Fire Ants in Cotton". Published in Environ. Entomol. 31(6) in 2002.

NEPA/ENVIRONMENTAL ASSESSMENTS

- o Rex Lake Road Widening (FHWA)
- o Huntsville Northern Bypass East (FHWA)
- o Jasper Industrial Park Access Road (HUD)
- o N.W. Shoals Community College (SBA)
- o City of Sheffield - Second St. Improvement (ALDOT)

RESUMES

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION

- o Wallace State (HUD)
- o Cullman Airport Runway Extension (FAA)
- o City of York (USDA)

WETLANDS

- o Leeds Nature Park
- o Hyundai Motor Manufacturing of Alabama
- o Oxford Recreation Park
- o Magnolia Ridge Subdivision
- o Ohatchee Industrial Park
- o Atmore Industrial Park
- o Federal Bureau of Prisons - Aliceville, AL
- o Winfield Industrial Access Road
- o Rex Lake Road Widening
- o U.S. Steel Cahaba River Study

STREAM ASSESSMENT/RESTORATION

- o Cahaba River Mitigation Bank - Brent, AL
- o Little Shades Creek Stream Restoration - Vestavia Hills, AL
- o Gamble Park Stream Restoration - Jasper, AL
- o Hartselle High School Stream Restoration - Hartselle, AL
- o Midcreeks Mitigation Bank - Eufaula, AL
- o Wolf Run Mitigation Bank - Pearl River County, MS

EROSION AND SEDIMENT CONTROL

- o Lincoln City Hall and Fire Station - Lincoln, AL
- o Oxford Exchange - Oxford, AL
- o Gadsden Water Treatment Plant, Gadsden, AL
- o Hyundai Motor Manufacturing of Alabama - Montgomery, AL
- o Bass Pro Shops - Leeds, AL
- o Huffman High School - Huffman, AL
- o Auburn Sewall Hall and Parking Deck - Auburn, AL
- o Cullman Airport Hangar - Cullman, AL
- o Oxmoor Ridge Subdivision - Birmingham, AL
- o Little Shades Creek Stream Restoration - Vestavia Hills, AL

WETLANDS (DELINEATION, PERMITTING, MITIGATION)

- o Leeds Nature Park - Leeds, AL
- o Hyundai Motor Manufacturing of Alabama - Montgomery, AL
- o Oxford Recreation Park - Oxford, AL
- o Little Canoe Creek Industrial Park - Etowah County, AL
- o Ohatchee Industrial Park - Ohatchee, AL
- o Blake Commercial Properties - Madison County, AL
- o Federal Bureau of Prisons - Aliceville, AL

PHASE I ENVIRONMENTAL SITE ASSESSMENTS

- o American Village - Montevallo, AL
- o Villas at Moore Farm - Huntsville, AL
- o Prince Property - Jackson County, AL
- o Bass Pro Shops - Leeds, AL
- o Birmingham Wholesale Furniture - Birmingham, AL
- o Little Canoe Creek Industrial Park - Etowah County, AL
- o Indian Head Cotton Mill - Cordova, AL
- o Clay County Airport - Clay County, AL
- o Ooltawah Urgent Care Center - Ooltawah, TN
- o Russell Properties - Alexander City, AL
- o Dollar General Distribution Center - Birmingham, AL
- o Hibbett Sporting Goods Distribution Center - Shelby County, AL
- o Hyundai Manufacturing Facility - Montgomery, AL
- o Meridianville Urgent Care Center - Meridianville, AL

RESUMES

ARCHITECTURE ENGINEERING ENVIRONMENTAL RESOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION



Jennie Agerton Senior Environmental Scientist

CAREER SUMMARY

With extensive experience and training in the fields of Environmental Science and Ecology, Jennie Agerton's background includes numerous National Environmental Policy Act (NEPA) studies, wetland and stream delineation and evaluation, protected species surveys, Section 404 permitting, and biological assessments. She has worked with numerous Federal and State Agencies including the Federal Highway Administration, Federal Emergency Management Agency, Housing and Urban Development, Department of Defense, Federal Transit Authority, MARTA, Tennessee National Guard, Alabama Department of Transportation and the Georgia Department of Transportation. As an Environmental Scientist with GM&C, Jennie is responsible for NEPA documentation, project management, wetland delineations and permitting, ecological surveys, technical document preparation, and QC/QA.

EDUCATION

- Master's Degree in Environmental Analysis and Management, Troy State University, 1999
- Bachelor of Science in Environmental Science, Troy State University, 1996

PROFESSIONAL LICENSE

- 2007-13/GSWCC Level II Certified Plan Reviewer #0000044432

CONTINUING EDUCATION AND TRAINING

- 2000/Wetland Plant Identification Course
- 2000/Plant ID: Wetlands and their Borders
- 2000/United States Corps of Engineers Wetland Delineation Course Certification
- 2000/Highway Traffic Noise Analysis Short Course
- 2000/ASTM Risk Based Corrective Action Applied at Petroleum Release Sites, NGWA
- 2002/Implementing ARBCA Process, In-Depth Hands-on Training Program
- 2004/Stream Restoration Using Natural Channel Design
- 2004-2005/Natural Stream Channel Design
- 2005/Coordinating Environmental & Historic Preservation Compliance, FEMA
- 2006/GDOT Plan Development Process Training
- 2006/Wetland Plant Identification
- 2007/Georgia Soil and Water Conservation Commission Level II
- 2008/Georgia Wetland and Water Law
- 2008/Stream Identification
- 2011/Indirect and Cumulative Impact Analysis
- 2011/US Army Corps of Engineers Regional Supplement Workshop
- 2012/Introduction to NEPA and Transportation Decision Making
- 2012/Endangered Species Act Overview

WETLAND & STREAM IDENTIFICATION AND DELINEATION PROJECTS

- I-85 Managed Lanes (FHWA/GDOT)*
- Wetland 25 Refinement (Robins AFB)*
- SR 92 Widening and Improvements (FHWA/GDOT)*
- Turner Lake Road Roundabout (FHWA/GDOT)*
- Baldwin County Stabilization (FEMA)*
- Skelton Road Extension and Expansion (FHWA/GDOT)*

RESUMES

ARCHITECTURE ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING TRANSPORTATION

- Fishing Creek Bridge Replacement (FHWA/SCDOT)*
- Road "C" (FHWA/SCDOT)*
- Mobile County Roadway Improvements (FHWA/ALDOT)*
Elevation Grant Program and Small Rental Assistance (MDA/HUD)*
- SR 9 ATMS Upgrade (FHWA/GDOT)*
- Corridor V (FHWA/GDOT)*
- Oakley Industrial Boulevard Widening (FHWA/GDOT)*
- SR 92 Widening and Improvements - Lake Allatoona (FHWA/GDOT)*
- SR 92 Widening and Improvements (FHWA/GDOT)*
- SR 92 Widening and Improvements - Douglas/Paulding (FHWA/GDOT)*
- US 411 Bypass (FHWA/GDOT)*
- Lauderdale County Bridge Replacement (FHWA/ALDOT)*
- Buffalo Creek Multi-use Path (FHWA/GDOT)*
- MARTA C-Loop (MARTA/FTA)*
- I-75 Interchange Upgrades (FHWA/GDOT)*
- Cherokee County Bridge Replacement (FHWA/ALDOT)*
- SR 100 Bridge Replacements (FHWA/GDOT)*
- Green Street Bridge Replacement (FHWA/GDOT)*
- Harris County Bridge Replacements - Multiple sites (FHWA/GDOT)*
- SR 85 over CSX Bridge Replacement (FHWA/GDOT)*
- Social Circle Bridge Replacement (FHWA/GDOT)*
- Big Creek Bridge Replacement (FHWA/GDOT)*
- Flint River Bridge Replacement (FHWA/GDOT)*
- South River Bridge Replacement (FHWA/GDOT)*

STREAM RESTORATION PROJECTS

- Laurel Creek Stream Restoration (City of Greenville, SC)

* Completed while with another firm

July 1, 2014

U.S. Department of the Interior, Fish and Wildlife Service
 Attn: Karen Marlowe
 1206B Main Street
 Daphne, Alabama 36526

RE: Request for Concurrence
Little Canoe Creek Industrial Access Road
2009-TA-0184
Etowah County, Alabama

Ms. Marlowe:

Thank you for your comments on the aforementioned site in your letter received on April 30, 2014 and our recent follow-up conversation. It is our understanding that there is still some concern related to the aquatic species and the road crossing that is being developed as part of the industrial access. Based on our conversation, you have requested additional information on the perennial stream located on property, including photos, description, and BMPs that will be implemented on site. Please let this letter and attachments serve as the information requested. The aquatic species that are listed in your letter received on April 30, 2014 are as follows:

- Coosa moccasinshell (*Medionidus parvulus*) Endangered
- Upland combshell (*Epioblasma metastrata*) Endangered
- Finelined pocketbook (*Lampsilis altilis*) Threatened
- Ovate clubshell (*Pleurobema perovatum*) Endangered
- Southern clubshell (*Pleurobema decisum*) Endangered
- Triangular Kidneyshell (*Ptychobranthus greenii*) Endangered
- Southern pigtoe (*Pleurobema georgianum*) Endangered
- Rush Darter (*Etheostoma phytophilum*) Endangered

GMC revisited the site to conduct a habitat suitability survey for listed aquatic species. As previously noted, the perennial stream itself is a small 2nd order stream with small drainage acreage (0.35 square miles). It is approximately 8 feet wide and is entrenched at the area of the crossing due to the agricultural use of the site. Site observations indicate that the water appears stagnant in portions of the channel with some water slowly flowing in other portions. The flowing portion of the channel exhibits an approximate 2 feet wide base flow and it appears that the stream may be intermittent during dry periods. There is limited to no riparian buffer in the area of the crossing and the channel exhibits evidence of erosion in these areas. In addition, as previously stated the stream exhibits low water quality due to use of the property for cattle and horses. The stream is currently used by horses as a crossing and the sole water source on this property. Please review the

TRANSPORTATION
 SURVEYING
 PLANNING
 LANDSCAPE
 INTERIOR DESIGN
 GEOTECHNICAL
 ENVIRONMENTAL
 ENGINEERING
 ARCHITECTURE

attached photos of the stream showing the nature of the stream along with the erosional issues and use of the stream as a crossing and water source for horses.

GMC is requesting concurrence that the project will not impact suitable habitat for the listed aquatic species above. The following is a description of each species listed above and the habitat requirements for each species.

COOSA MOCCASINSHELL

The habitat requirements for the listed Coosa moccasinshell include high gradient creeks and the riffles of moderate gradient springs/spring brook. It has been located in sand and gravel in highly oxygenated, clear streams with moderate to strong flow in streams and small rivers (Doug Shelton, pers. obs. 1997; USFWS, 2000). The small stream located on site does not exhibit the above characteristics. The stream located on site has a low gradient with the majority of the creek with stagnant and/or slow flowing water. Lastly, the stream located on site is of low quality due to the active use of the crossing area acting as a crossing and water source for horses. Therefore it is our opinion that the stream located on site does not meet the habitat requirements for this species.

UPLAND COMBSHELL

The habitat requirements for the listed upland combshell include high gradient creeks and the riffles of moderate gradient medium rivers. It has been located in shoals in rivers and large streams, above the fall line, on stable substrates in moderate to swift currents (USFWS, 1997; 2000). The small stream located on site does not exhibit the above characteristics. The drainage area and base flow for the proposed stream would not classify as a medium river. In addition, the stream located on site has a low gradient with the majority of the creek with stagnant and/or slow flowing water. Lastly, the stream located on site is of low quality due to the active use of the crossing area acting as a crossing and water source for horses. Therefore it is our opinion that the stream located on site does not meet the habitat requirements for this species.

FINELINED POCKETBOOK

The habitat requirements for the listed ovate clubshell include high and low gradient creeks and in riffles of moderate gradient medium rivers. This species has been found associated with swift flowing riffles and gravel-cobble substrates in the Conasauga River. Recently, it has been found in stable sand and in gravel in small streams above the Fall Line (USFWS, 2000). The small stream located on site does not exhibit flowing riffles with gravel/cobble substrates. The drainage area and base flow for the proposed stream would not classify as a medium river. In addition, the stream located on site has a low gradient with the majority of the creek with stagnant and/or slow flowing water. Lastly, the stream located on site is of low quality due to the active use of the crossing area acting as a crossing and water source for horses. Therefore it is our opinion that the stream located on site does not meet the habitat requirements for this species.

OVATE CLUBSHELL

The habitat requirements for the listed ovate clubshell include high gradient big rivers/creeks and in pools and riffles of moderate gradient medium rivers. This species occupies sand/gravel shoals and runs of small

rivers and large streams (USFWS, 2000). Parmalee and Bogan (1998) list habitat in Tennessee as a sand and fine gravel substrate in stretches of river with moderate current and typically at a depth of less than three feet. The small stream located on site does not exhibit the above characteristics. The drainage area and base flow for the proposed stream would not classify as a medium river. In addition, the stream located on site has a low gradient with the majority of the creek with stagnant and/or slow flowing water. Lastly, the stream located on site is of low quality due to the active use of the crossing area acting as a crossing and water source for horses. Therefore it is our opinion that the stream located on site does not meet the habitat requirements for this species.

SOUTHERN CLUBSHELL

The habitat requirements for the listed southern clubshell include high and low gradient big rivers/creeks and in pools and riffles of moderate gradient medium rivers. This species is usually found in highly oxygenated streams with sand and gravel substrate in shoals of large rivers to small streams; may be found in sand and gravel in the center of the stream or in sand along the margins of the stream (Doug Shelton, pers. obs. 1995; USFWS, 2000). The small stream located on site does not exhibit the above characteristics. The drainage area and base flow for the proposed stream would not classify as a big or medium river. In addition, the stream located on site has a low gradient with the majority of the creek with stagnant and/or slow flowing water (not highly oxygenated). Lastly, the stream located on site is of low quality due to the active use of the crossing area acting as a crossing and water source for horses. Therefore it is our opinion that the stream located on site does not meet the habitat requirements for this species.

TRIANGULAR KIDNEYSHELL

The habitat requirements for the listed triangular kidneyshell include high big rivers/creeks and in pools and riffles of moderate gradient medium rivers. This species appears most prevalent in sections of river three feet in depth and having a good current and a firm substrate as opposed to coarse gravel and sand (Parmalee and Bogan, 1998) in shoals and runs of small rivers and large streams (USFWS, 2000). The small stream located on site does not exhibit the above characteristics. The drainage area and base flow for the proposed stream would not classify as a big or medium river. In addition, the stream located on site has a low gradient and is shallow in nature. Lastly, the stream located on site is of low quality due to the active use of the crossing area acting as a crossing and water source for horses. Therefore it is our opinion that the stream located on site does not meet the habitat requirements for this species.

SOUTHERN PIGTOE

The habitat requirements for the listed southern pigtoe include the riffles of big rivers, creeks and medium rivers. This species inhabits high quality rivers (small rivers to large streams) in shoals and runs with stable gravel and sandy-gravel substrates (USFWS, 2000). The small stream located on site does not exhibit the above characteristics. The drainage area and base flow for the proposed stream would not classify as a small to large river. In addition, the stream located on site has a low gradient with the majority of the creek with stagnant and/or slow flowing water (not highly oxygenated). Lastly, the stream located on site is of low quality due to the active use of the crossing area acting as a crossing and water source for horses. Therefore it is our opinion that the stream located on site does not meet the habitat requirements for this species.

GMC is requesting concurrence that the project will not impact suitable habitat for the listed aquatic species based on the following general items:

1. The stream is second order in nature and exhibits a small drainage area (0.35 square miles) and low base flow. Portions of the stream in the area of the crossing have low to no flow and appear to sit stagnant at times.
2. The stream exhibited low flows on the date of the site visit and appears to become intermittent during dry periods.
3. The stream exhibits poor water quality due to being historically impacted by cattle farming up until 2013. The cattle crossed upstream and downstream of the impact area and used the stream as a water source.
4. The stream continues to exhibit poor water quality due to the current use of the property for horses. The horses cross upstream and downstream of the impact area and use the stream as a water source.
5. The proposed impact only affects 100 linear feet of the stream and is temporary in nature. The below grade culvert installed will be sized appropriately and will allow for normal flows of the stream. The remaining portion of the stream (upstream and downstream) will not be impacted.

In summary, we are requesting project concurrence based on information above and the small nature of the stream (intermittent during dry periods, poor quality due to agricultural activities, and the limited scope of the project (temporary 100LF impact) in this area. The erosion control plan for the proposed crossing has also been included for your review. This plan is in accordance with ALDOT specifications for BMP implementation and illustrates the steps to be taken to minimize potential impact to the downstream confluence with Little Canoe Creek. Appropriate construction stormwater permits will be obtained prior to construction activities. Based on the information provided above and in the attachments, it is GMC's opinion that the proposed project does not contain suitable habitat for the above listed species. Please advise us of any present concerns you may have related to the subject site with the above listed species or critical habitat, as well as any other wildlife concerns. Thank you for your help on this and future projects. Please contact me at 205-879-4462 if you have any questions or need additional information.

Sincerely,



Stuart Blackwell, PWS
Biologist

Enclosures

3000 W 5th St, Suite 1000 Birmingham, AL 35201

2701 St. Avig. 44, 35298

Birmingham, AL 35253

tel: 205-879-4162 Fax: 205-879-4163

www.blackwellinc.com

P-1



View of the stream at crossing exhibiting stagnant to low flows.

P-2



View of the stream at crossing exhibiting stagnant water at the crossing and low flows just downstream (2 foot wide).

 **GOODWYN | MILLS | CAWOOD**

P-3



View of stream exhibiting low flow near proposed crossing and at horse/cattle access point

P-4



View of the stream downstream of crossing exhibiting a 2 foot wide base flow at horse/cattle crossing.



GOODWYN | MILLS | CAWOOD

P-5



View of cattle/horse trail leading to the stream just downstream of proposed crossing

P-6



View of second cattle/horse trail leading to the stream just downstream of proposed crossing



GOODWYN | MILLS | CAWOOD

P-7



Evidence of cattle/horse access point just downstream of proposed crossing (northern bank)

P-8



Evidence of cattle/horse access point just downstream of proposed crossing (southern bank)

P-9



Evidence of use of the stream by horses as a crossing point and water source

P-10



Evidence of use of the stream by horses as a crossing point and water source

P-11



Evidence of trash and debris in the stream just downstream of the proposed crossing

P-12



Evidence of trash and debris (55-gallon drum) in the stream at the proposed crossing

REFERENCE PROJECT NO	010055
FISCAL YEAR	2011
SHEET NO	38

EROSION AND SEDIMENT CONTROL PLANS LEGEND

BEST MANAGEMENT PRACTICES (BMP's)

TEMPORARY SLOPE DRAIN PIPE WITH ROCK DITCH CHECK AND SUMP EXCAVATION		INLET PROTECTION (Geotextiles, Netting, Manufactured or Sand Bags)	
TEMPORARY EARTH BERM		STABILIZED CONSTRUCTION ENTRANCE	
BRUSH BARRIER		TEMPORARY ROLLED EROSION CONTROL PRODUCTS	
SILT FENCE SEDIMENT BARRIER		SLOPE DRAIN	
FLOATING BASIN BOOM		STORM WATER DISCHARGE POINT	
HAY BALE DITCH CHECK		TEMPORARY EARTH BERM WITH POLYETHYLENE	
SILT FENCE DITCH CHECK		DREDGE FILL	
SAND BAG DITCH CHECK			
WATTLE DITCH CHECK			
SILT DIBBLE DITCH CHECK			
ROCK DITCH CHECK			
ROCK DITCH CHECK WITH SUMP EXCAVATION			

-SPECIFICATIONS-
CORROD ALUMINUM DEPARTMENT OF TRANSPORTATION

THE ABOVE SPECIFICATIONS ARE TO BE USED IN CONNECTION WITH THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS AND BRIDGES IN ALABAMA, 2008 EDITION, AS AMENDED BY THE ALABAMA DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE LATEST EDITION OF THE STANDARD SPECIFICATIONS AND FOR OBTAINING THE LATEST EDITION OF THE ALABAMA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS AND BRIDGES IN ALABAMA, 2008 EDITION, AS AMENDED BY THE ALABAMA DEPARTMENT OF TRANSPORTATION.



ALABAMA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION DIVISION

DESIGN: OFFICE OF CIVIL ENGINEERING

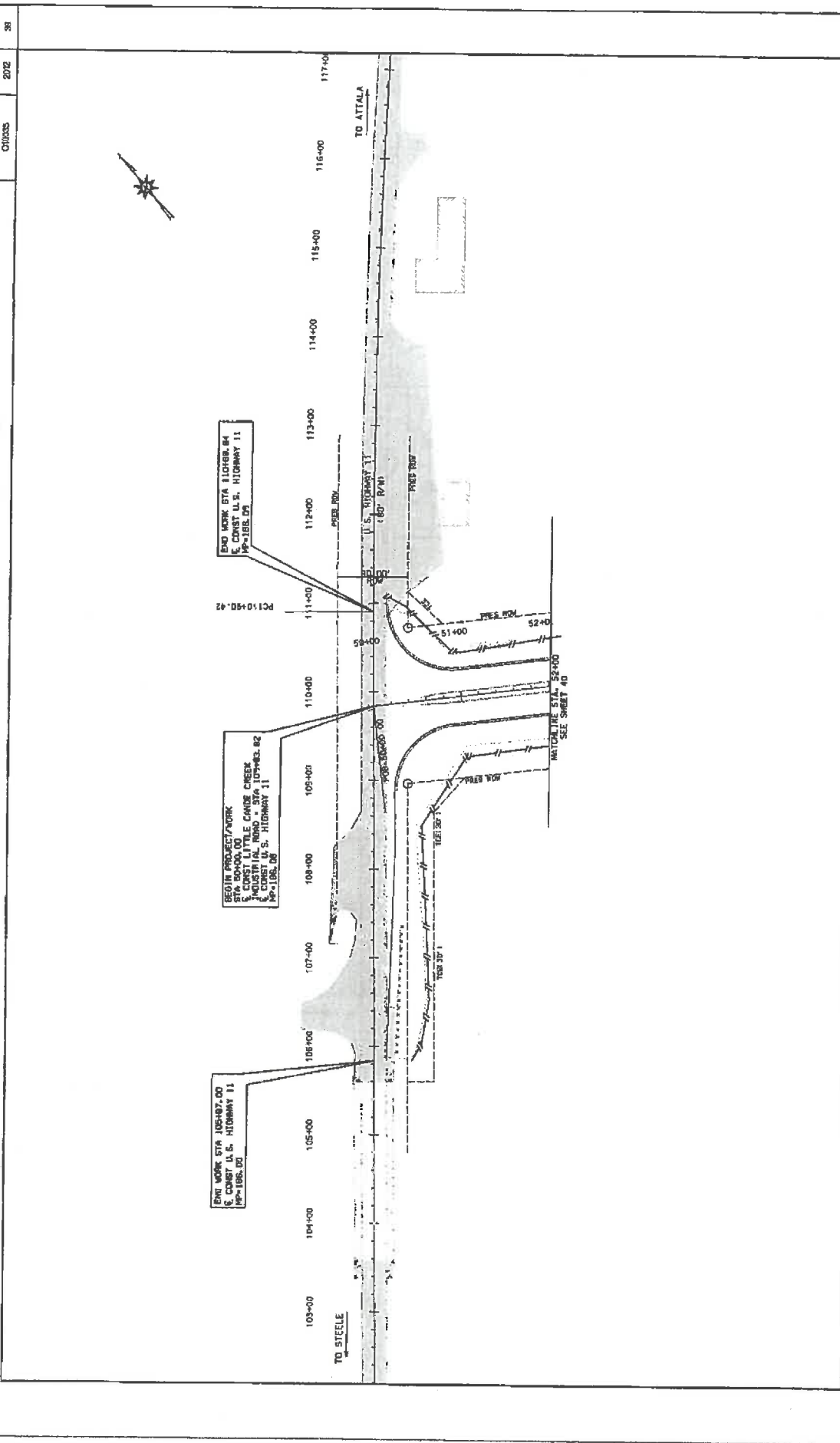
SPECIAL PROJECT DETAIL
EROSION AND SEDIMENT CONTROL
PROJECT NO. 010055

DATE: 01/14/11
DRAWN BY: [Name]
CHECKED BY: [Name]

NOT TO SCALE

EROSION AND SEDIMENT CONTROL PLAN

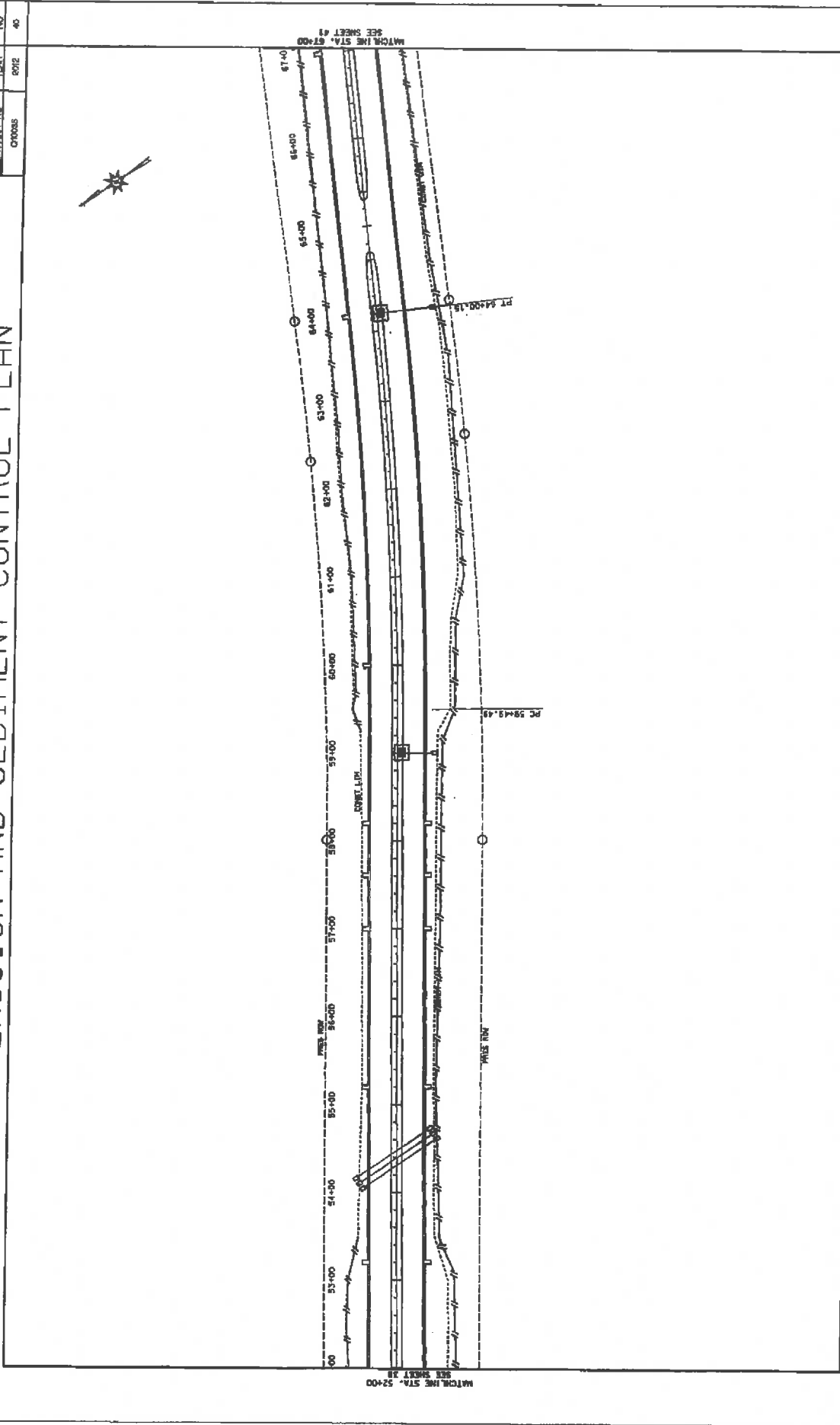
REFERENCE PROJECT NO.	2012	YEAR	2012	SHEET NO.	38
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RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	DATE:	DATE:	DATE:
PLAN SUBMITTAL: <input type="checkbox"/>		GOODBYN: <input type="checkbox"/>		HILLS: <input type="checkbox"/>	
CAWWOOD: <input type="checkbox"/>		HORIZ: <input type="checkbox"/>		SCALE: <input type="checkbox"/>	
SHEET TITLE: EROSION AND SEDIMENT CONTROL PLAN		ROUTE: U.S. HIGHWAY 11		SCALE (FEET): 1" = 40'	

EROSION AND SEDIMENT CONTROL PLAN

REFERENCE PROJECT NO	09005
FISCAL YEAR	2012
SHEET NO	40

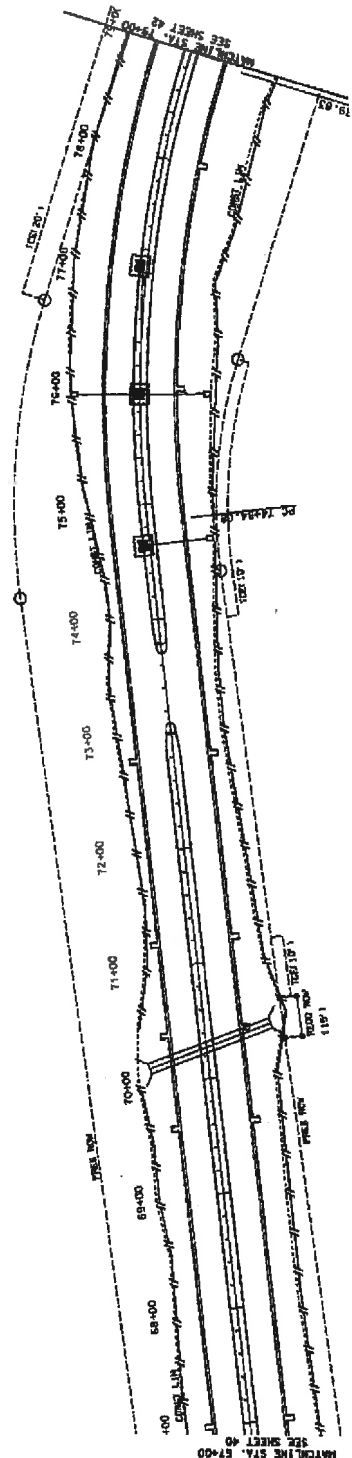


EROSION AND SEDIMENT CONTROL PLAN

REFERENCE PROJECT NO. 010035

FISCAL YEAR 2012

SHEET NO. 41

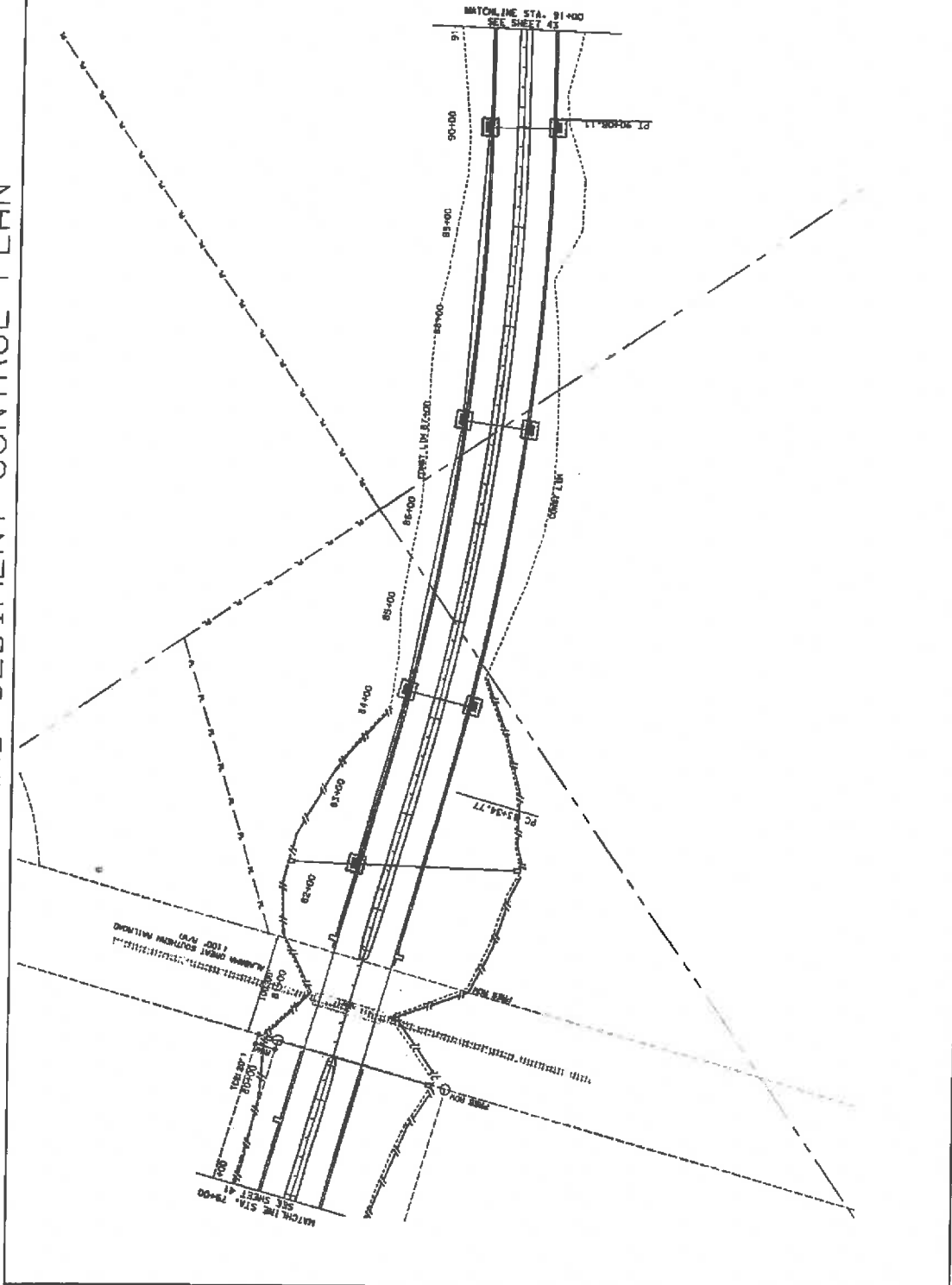


RESPONSIBLE PEO. DATE:	SUPERVISOR DATE:	DESIGNER DATE:	<input type="checkbox"/> PLAN SUBMITTAL <input type="checkbox"/> GOODWIN <input type="checkbox"/> MILLS <input type="checkbox"/> CAWOOD	HORIZ 0 50 100 FEET	SCALE (FEET)	SHEET TITLE EROSION AND SEDIMENT CONTROL PLAN LITTLEFIELD INDUSTRIAL ROAD	ROUTE LITTLEFIELD INDUSTRIAL ROAD
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010035_ECP_41.dwg 7/1/2014 2:08:13 PM

EROSION AND SEDIMENT CONTROL PLAN

REFERENCE PROJECT NO.	090035
FISCAL YEAR	2012
SHEET NO.	42

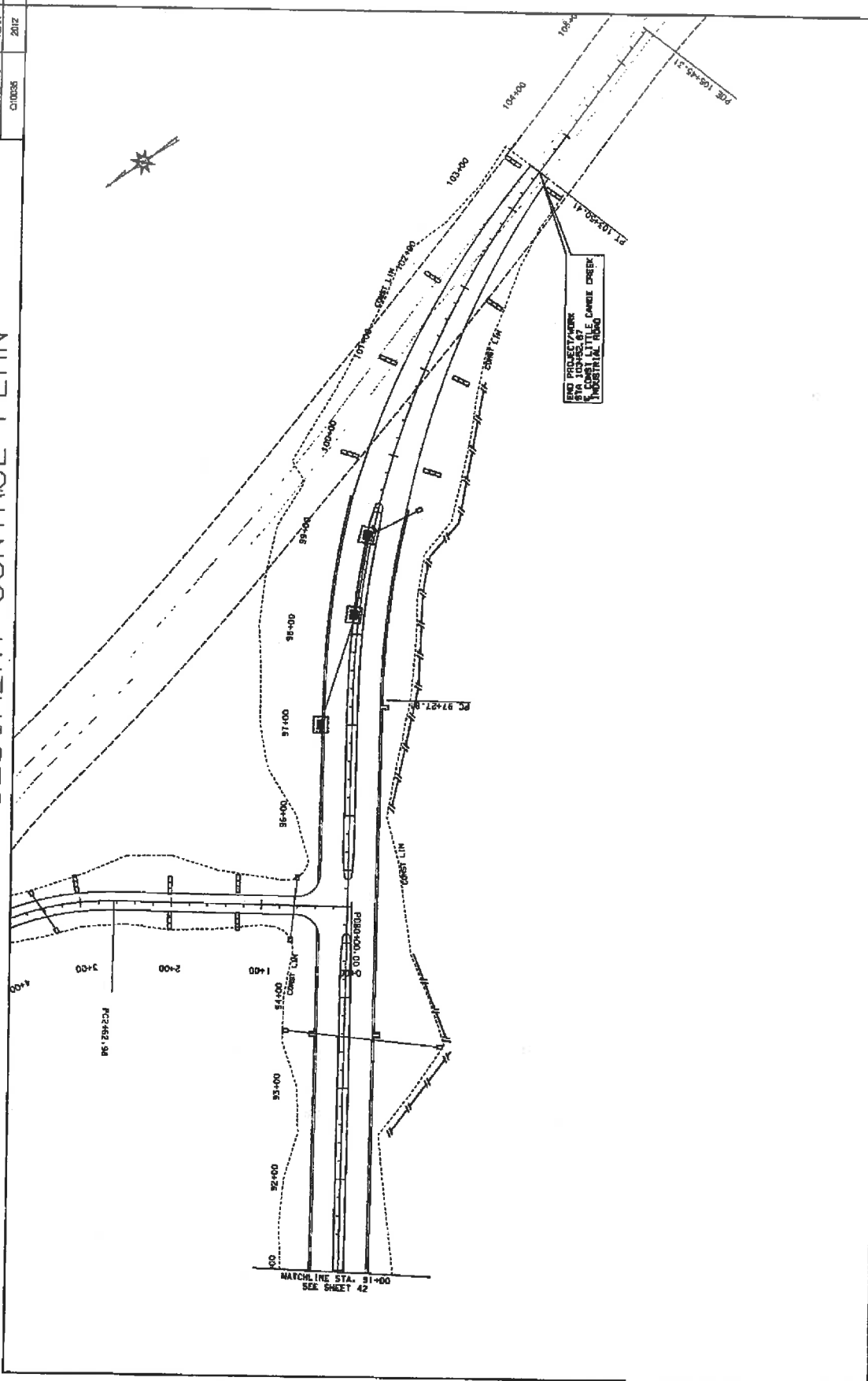


RESPONSIBLE PE DATE	SUPERVISOR DATE	DESIGNER DATE	PLAN SUBMITTAL	<input type="checkbox"/> GOODWIN Company: [unreadable]	<input type="checkbox"/> MILLS Company: [unreadable]	<input type="checkbox"/> CAYWOOD Company: [unreadable]	HORIZ SCALE (FEET)	SHEET TITLE LITTLE RIVER LITTLE RIVER LITTLE RIVER	ROUTE LITTLE RIVER CROSSING ROAD
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Q10035_ECP_42.dgn 7/1/08 14:20:47 PM

EROSION AND SEDIMENT CONTROL PLAN

REFERENCE PROJECT NO.	C10036
FISCAL YEAR	2012
SHEET NO.	43



RESPONSIBLE P.C.	DATE:	SUPERVISOR:	DESIGNER:	DATE:	PLAN SUBMITTAL	GOODBYN	MILLS	CAWOOD	HORIZ	SCALE (FEET)	SHEET TITLE	ROUTE
									50	0	PROJECT AREA 97A 103WEL 07 103WEL 07 103WEL 07 103WEL 07 INDUSTRIAL ROAD	LITTLE CREEK INDUSTRIAL ROAD



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO
2009-TA-0184

JUL 08 2014

Mr. Stuart Blackwell
Goodwyn, Mills, and Cawood, Inc.
2701 1st Avenue South, Suite 100
Birmingham, AL 35233

Dear Mr. Blackwell:

Thank you for your June 4 and July 1, 2014, letters written in response to our April 30, 2014, correspondence and requesting our concurrence that a proposed 40-acre industrial development site and 10.35-acre access road in Etowah County, Alabama, are not likely to adversely affect endangered and threatened species or adversely modify critical habitat. These two proposed sites are to be added to an adjacent 700+-acre site. The proposed industrial development site and access road are located at approximately 33° 58' 00.89" N, 86° 9' 54.21" W and 33° 58' 10.022" N, 86° 10' 39.942" W, respectively. We are providing the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) (ESA).

Endangered, Threatened, Proposed and Candidate Species

As indicated in our April 30 letter, the following endangered, threatened, proposed and candidate species were considered in your assessment of the proposed project area:

Coosa moccasinshell, *Medionidus parvulus* - Endangered
Finelined pocketbook, *Hamiota (=Lampsilis) altilis* - Threatened
Georgia aster, *Symphyotrichum georgianum* - Candidate
Gray bat, *Myotis grisescens* - Endangered
Indiana bat, *Myotis sodalis* - Endangered
Northern long-eared bat, *Myotis septentrionalis* - Proposed
Ovate clubshell, *Pleurobema perovatum* - Endangered
Southern clubshell, *Pleurobema decisum* - Endangered
Southern pigtoe, *Pleurobema georgianum* - Endangered
Triangular kidneyshell, *Ptychobranthus greenii* - Endangered
Upland combshell, *Epioblasma metastrata* - Endangered

According to the information contained in your June 4 and July 1, 2014, letters, the perennial stream that will be crossed for the proposed access road does not provide suitable habitat for the aquatic species listed above, because it has been heavily impacted by cattle and horses. Based on your assertion that the stream has very low flow and stagnant water, highly eroded banks, and a

PHONE: 251-441-5181

FAX: 251-441-6222

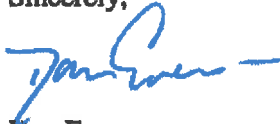
lack of riparian buffer, and the fact that at the site of the crossings it is used as a watering hole for horses on the property, we will concur that this stream is unlikely to harbor the endangered and threatened species of aquatic mussels listed above.

According to information provided in your June 4 letter, the proposed 40-acre industrial development site likely contains suitable spring/summer habitat for the Indiana bat and to avoid adverse effects to this species you have stated that all tree clearing for the proposed project will occur from October 15 to March 31, in accordance with procedures outlined in the [Range-wide Indiana Bat Protection and Enhancement Plan Guidelines](#) (July 2009). Based on this, we concur with your finding that the proposed project is not likely to adversely affect the Indiana bat. With regard to the proposed 10.35-acre access road, you indicate that there were only four isolated trees in the agricultural fields that exhibited characteristics typical of suitable spring/summer habitat for the Indiana bat. Based on this information, we concur with your assertion that it is unlikely that this site provides suitable habitat for the Indiana bat.

We believe that requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner that was not previously considered; (2) this action is subsequently modified in a manner not previously considered in this assessment; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

If you have any questions or need additional information, please contact Ms. Karen Marlowe of my staff at (205) 726-2667. Please use the reference number located at the top of this letter in future phone calls or written correspondence.

Sincerely,



Dan Everson
Deputy Field Supervisor
Alabama Ecological Services Field Office

cc: USACE, Birmingham, AL
ADEM, Montgomery, AL
ADCNR, Montgomery, AL

March 17, 2014

U.S. Department of the Interior, Fish and Wildlife Service
1208B Main Street
Daphne, Alabama 36526

**RE: Request for Concurrence
Little Canoe Creek - 40 Acres
Etowah County, Alabama**

To Whom It May Concern:

The Etowah County Commission, with the assistance of Goodwyn, Mills & Cawood, Inc. (GMC) is seeking concurrence on the subject parcel located to the northeast of Steele, Alabama off of Canoe Creek Road in Etowah County, Alabama. The proposed site encompasses 40±acres with the entire site currently being undeveloped and forested. There were no streams noted on the property during the site visit. GMC is currently conducting a jurisdictional waters determination for future permitting considerations. Enclosed are the following figures that depict the subject site:

- Figure 1: Site Location Map
- Figure 2: USGS Quadrangle Map
- Figure 3: Aerial Photograph
- Figure 4: Etowah County Soils Map

In addition to bald eagles (*Haliaeetus leucocephalus*) and red-cockaded woodpeckers (*Picoides borealis*), which occur in any county, the following species are listed for Etowah County, Alabama.

CLAMS

- Orangenacre mucket (*Lampsilis perovalis*) Threatened
- Upland combshell (*Epioblasma metastrata*) Endangered
- Finelined pocketbook (*Lampsilis altilis*) Threatened
- Ovate clubshell (*Pleurobema perovatum*) Endangered
- Southern clubshell (*Pleurobema decisum*) Endangered
- Triangular Kidneyshell (*Ptychobranchus greenii*) Endangered
- Alabama moccasinshell (*Medionidus acutissimus*) Threatened
- Southern pigtoe (*Pleurobema georgianum*) Endangered

FISHES

- Rush Darter (*Etheostoma phytophilum*) Endangered

FLOWERING PLANTS

- Mohr's Barbara button (*Marshallia mohrii*) Threatened**
- Green pitcher-plant (*Sarracenia oreophila*) Endangered**
- Alabama leather flower (*Clematis socialis*) Endangered**
- Georgia aster (*Symphotrichum georgianum*) Candidate**

MAMMALS

- Gray bat (*Myotis grisescens*) Endangered**
- Indiana bat (*Myotis sodalis*) Endangered**

REPTILES

- Flattened musk turtle (*Sternotherus depressus*) Threatened**

GMC conducted a site survey to determine the presence of these E&T species and the habitat conditions that could potentially support these species. Below is a description of the above species habitat requirements and observations noted on the site visit:

BALD EAGLE/RCW

The bald eagle diet consists of almost exclusively fish, making large bodies of water the ideal habitat. The subject site does not appear to contain the necessary water source to support a breeding pair of bald eagles. Because of these habitat conditions and because no bald eagle nests were discovered during the site visit, it is in our professional opinion that the subject site does not contain suitable habitat for bald eagles. The red-cockaded woodpecker (RCW) typically only nest in pine stands greater than 60 years old. In addition, prescribed burning or thinned understory typically is required to promote and support RCW habitat. The site is currently forested and undeveloped. However, silviculture activities have previously occurred on the site. The site does not contain pines greater than 60 years old or thinned understory conditions. No RCWs were observed on the date of the site visit. Because of these habitat conditions, it is our professional opinion that the subject site does not contain habitat to support RCWs.

CLAM SPECIES

The listed aquatic species (mussels) are found in streambed habitat and require high water quality generally in medium to large rivers for sustainability and to insure survival. All of the listed mussel species require high water quality to support their life history. These species were not observed during the site visit. As previously noted the area in question there are no intermittent or perennial streams located on the property. Based on habitat conditions and low water quality, there are no anticipated impacts.

01/06/2008 11:58 AM
 11/27/2008 11:58 AM
 Birmingham, AL 35233
 205-988-1942
 11/27/2008

FISH SPECIES

Rush darters appear to prefer relatively low gradient small streams, with a variety of habitats including streams with silt, sand, sand and silt, muck and sand or some gravel with sand, and bedrock. There are no intermittent or perennial streams located on the property. This species was not noted during the site visit. Based on habitat conditions and low water quality, there are no anticipated impacts.

PLANT SPECIES

Mohr's Barbara's Buttons commonly inhabits moist to wet openings in sandy clay soils in prairie-like meadows or woodlands and shale-bedded streams. It grows in association with sedges and grasses and prefers direct sunlight or partial shade. The green pitcher plant is found in three distinct habitat types including sandstone streambanks, mixed oak or pine flatwoods, and seepage bogs. Appropriate habitat for the green pitcher plant has apparently been naturally maintained through a combination of harsh environmental conditions which discourage competing plants, and periodic disturbance events. Fire is likely important in maintaining open woodland habitats, while violent winter flooding may impede succession and eliminate competing species along mountain stream banks. The habitat for the Alabama leather flower is in bottomland hardwood forest where there are canopy gaps. The Georgia aster is a candidate species and is found in dry open woods, roadsides, and other openings. Probably a relict species of the post oak (*Quercus stellata*)-savanna communities that existed in the region prior to fire suppression and the eradication of large native grazing animals.

With the exception of the access road and railroad, the subject site is comprised of thick midstory and understory species. This type of habitat is not conducive to support the Mohr's Barbara's Button or the Georgia aster which prefers open wooded areas or areas receiving some direct sunlight. The habitat does not support the green pitcher plant which prefers extreme conditions to discourage competing plants. The site does not contain bottomland hardwoods and therefore does not support the Alabama Leather Flower. GMC biologist surveyed all access roads and surrounding areas throughout the forested areas and none of these species were noted. No evidence of this species was noted during the E&T survey of the site.

MAMMAL SPECIES

No caves or cave like structures were observed on the date of the site visit. GMC surveyed the entire site and there were no direct observations of the Indiana bat or the Gray bat on the date of the site visit. Due to the lack of habitat on the site and no direct observations of these species, it is our professional opinion that the subject site does not contain habitat to support these species.

FLATTENED MUSK TURTLE

This species is historically restricted to upper Black Warrior River system in northern Alabama, upstream from the Fall Line. The subject site is located in the Cahaba watershed. In addition, this species requires

MAJORAN B. HILL - RD
1700 ...
Montgomery, AL 36117
205 ...
... WASH

ENGINEERING ENVIRONMENTAL GEOTECHNICAL INTERIOR DESIGN LANDSCAPE PLANNING SURVEYING ARCHITECTURE

streambed habitat with high water quality generally in medium to large rivers for sustainability and to insure survival. These species were not observed during the site visit. As previously noted the area in question contains no intermittent or perennial streams. Based on habitat conditions and low water quality, there are no anticipated impacts.

There is no critical habitat located on the subject site and none of the above listed species were observed during site visit. In GMC's opinion the proposed project does not contain suitable habitat for the above listed species. Please advise us of any present concerns you may have related to the subject site with the above listed species or critical habitat, as well as any other wildlife concerns. Thank you for your help on this and future projects. Please contact me at 205-879-4462 if you have any questions or need additional information.

Sincerely,



Stuart Blackwell, PWS
Biologist

Enclosures

PLANNING & DESIGN SERVICES, INC. LANDSCAPE ARCHITECTURE & PLANNING INTERIOR DESIGN GEO TECHNICAL ENVIRONMENTAL ENGINEERING

PLANNING & DESIGN SERVICES, INC.
1000 Massachusetts Avenue
Pittsfield, MA 01203
Tel: 413-499-1100 Fax: 413-499-1101
www.plandesign.com



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO

2009-TA-0184

APR 30 2014

Mr. Stuart Blackwell
Goodwyn, Mills, and Cawood, Inc.
2701 1st Avenue South, Suite 100
Birmingham, AL 35233

Dear Mr. Blackwell:

Thank you for your March 17 and 24, 2014, letters requesting comments on potential impacts to threatened and endangered species as a result of a proposed 40-acre industrial development site and 10.35-acre access road in Etowah County, Alabama. These two proposed sites are to be added to an adjacent 700+-acre site. The proposed industrial development site and access road are located at approximately 33° 58' 00.89" N, 86° 9' 54.21" W and 33° 58' 10.022" N, 86° 10' 39.942" W, respectfully. The proposed access road will involve two stream crossings. We are providing the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) (ESA).

Endangered, Threatened, Proposed and Candidate Species

The following endangered, threatened, proposed and candidate species may occur in the proposed project area:

- ✓ Coosa moccasinshell, *Medionidus parvulus* - Endangered
- ✓ Finelined pocketbook, *Hamiota (=Lampsilis) altilis* - Threatened
- Georgia aster, *Symphyotrichum georgianum* - Candidate¹
- Gray bat, *Myotis grisescens* - Endangered
- Indiana bat, *Myotis sodalis* - Endangered
- Northern long-eared bat, *Myotis septentrionalis* - Proposed
- ✓ Ovate clubshell, *Pleurobema perovatum* - Endangered
- ✓ Southern clubshell, *Pleurobema decisum* - Endangered
- ✓ Southern pigtoe, *Pleurobema georgianum* - Endangered
- ✓ Triangular kidneyshell, *Ptychobranhus greenii* - Endangered
- ✓ Upland combshell, *Epioblasma metastriata* - Endangered

¹ Candidate species are afforded no protection under the ESA. Surveys for this species in any appropriate habitat are recommended, but not required. This information is being provided to alert you that the species could be listed in the future. Therefore, if the proposed work is not carried out in the next year, it would be prudent to contact this office to determine if any changes have occurred to the status of this species.

PHONE: 251-441-5181

FAX: 251-441-6222

Although you indicate in your correspondence that you do not believe the perennial stream on the proposed site would support any of the aquatic species listed above, no focused surveys were conducted. We recommend that surveys for these federally protected species be conducted by a qualified biologist with a current collecting permit(s) from the U.S. Fish and Wildlife Service (Service). Prior experience with each of these particular species is strongly recommended for the consultant undertaking the survey. Please provide the name of the surveyor, his/her credentials, and a thorough description of survey methods and habitats present. If it can be demonstrated that no suitable habitat exists for any of these species within the impacted areas through a detailed description of the habitat and/or site photographs showing unsuitable habitat throughout the entire project area, a species survey is unnecessary (although we would appreciate notification of habitat suitability survey results).

In addition, while you have indicated that there are no caves or cave-like structures on the project site, you did not include a habitat assessment to indicate whether or not there may be suitable habitat for summering Indiana bats (and northern long-eared bats). The northern long-eared bat is proposed as endangered and, unless projects are likely to jeopardize the continued existence of the species, conferencing under section 7 of the ESA is not required. In this case, your proposed project does not rise to the level of "likely to jeopardize"; therefore, no section 7 conferencing is recommended for the northern long-eared bat.

To avoid impacts to spring/summer roosting and maternity colonies of the Indiana bat in the State of Alabama, all proposed projects that may impact suitable Indiana bat habitat should follow the procedures outlined in the [Range-wide Indiana Bat Protection and Enhancement Plan Guidelines](#) (July 2009), which were developed by a team comprised of the U.S. Fish and Wildlife Service, Office of Surface Mining, and a group of Regulatory Authorities representing the Interstate Mining Compact Commission. While the purpose of these guidelines is to aid coal mining applicants in understanding the options and protocols associated with assuring compliance with the 1996 Biological Opinion on implementation of the Surface Mining Control and Reclamation Act (SMCRA), they are equally applicable to other land-clearing projects within the State. In accordance with that guidance, when project areas contain potential summer habitat, tree clearing should occur from October 15 to March 31.

If all tree removal for this project occurs between October 15 and March 31, we will concur with your assertion that the proposed project is not likely to adversely affect the Indiana bat. If this timing is not achievable and no other measures to avoid adverse effects are possible, then we recommend that you proceed to acoustic and/or mist-netting surveys to determine presence or probable absence of Indiana bats at the project site in accordance with the 2014 Range-wide Indiana Bat Summer Survey Guidelines (January 2014) (<http://www.fws.gov/midwest/endangered/mammals/inba/surveys/pdf/2014IBatSummerSurveyGuidelines13Jan2014.pdf>).

If it can be demonstrated that no suitable habitat exists for any of these species within the impacted areas through a detailed description of the habitat and/or site photographs showing unsuitable habitat throughout the entire project area, a species survey is unnecessary (although

GMC

May 22, 2017
 Mr. Bill Pearson
 Field Supervisor
 U.S. Fish and Wildlife Service
 1208-B Main Street
 Daphne, AL 36528



U.S. Fish and Wildlife Service
 1208-B - Daphne, Alabama 36528
 Phone: 251-441-5181 Fax: 251-441-6222

No federally listed species/critical habitat are known to occur in the project area. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW. SITE MAY CONTAIN WETLANDS. Contact U.S. Army Corps of Engineers for a jurisdictional wetlands determination. We recommend the use of best management practices specific to your project (See <http://www.fws.gov/daphne/section7/bmp.html>).


 William Pearson, Field Supervisor

5/31/17

Date

#4

RE: Request for Concurrence
 Little Canoe Creek Industrial Park
 Etowah County, Alabama

Dear Mr. Pearson:

Goodwyn, Mills & Cawood, Inc. (GMC), on behalf of the Etowah County Commission, submits to the U.S. Fish and Wildlife Service (USFWS) this request for documentation regarding compliance with the Federal Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) for proposed development of a commercial/industrial park located between Steele and Attalla in Etowah County, Alabama. The USFWS has already provided concurrence on the majority of this site (Ref: 2008-TA-0184). GMC is requesting concurrence for the remaining areas of the property (see Figures 1-3).

According to the *Information, Planning, and Conservation System (IPAC)* report for Etowah County last accessed May 22, 2017 the following federally listed species may occur within the county.

AMPHIBIANS

Black warrior (=Sipsey Fork) waterdog (*Necturus alabamensis*) - Proposed endangered

CLAMS

Orangenacre mucket (*Lampsilis perovalls*) - Threatened
 Southern acornshell (*Epioblasma othcaloogensis*) - Endangered
 Upland combshell (*Epioblasma metastriata*) - Endangered
 Finelined pocketbook (*Lampsilis altilis*) - Threatened
 Ovate clubshell (*Pleurobema perovatum*) - Endangered
 Southern clubshell (*Pleurobema decisum*) - Endangered
 Triangular Kidneyshell (*Ptychobranhus greenii*) - Endangered
 Alabama moccasinshell (*Medionidus acutissimus*) - Threatened
 Coosa moccasinshell (*Medionidus parvulus*) - Endangered
 Southern pigtoe (*Pleurobema georgianum*) - Endangered

Goodwyn Mills Cawood

2701 1st Avenue South
 Suite 100
 Birmingham, AL 35233

T (205) 879-4462
 F (205) 879-4493

www.gmcnetwork.com

Building Communities



Georgia pigtoe (*Pleurobema hanleyianum*) - Endangered
 Southern sandshell (*Hamiota australis*) - Endangered

FISHES

Cahaba shiner (*Notropis cahabae*) - Endangered
 Rush Darter (*Etheostoma phytophilum*) - Endangered

PLANTS

Mohr's Barabara's buttons (*Marshallia mohrii*) - Threatened
 Green pitcher-plant (*Sarracenia oreophila*) - Endangered
 White fringeless orchid (*Platanthera integrilabia*) - Proposed Threatened
 Harperella (*Ptilimnium nodosum*) - Endangered
 Tennessee yellow-eyed grass (*Xyris tennesseensis*) - Endangered
 Alabama leather flower (*Clematis socialis*) - Endangered

MAMMALS

Indiana bat (*Myotis sodalis*) - Endangered
 Gray bat (*Myotis grisescens*) - Endangered
 Northern Long-Eared Bat (*Myotis septentrionalis*) - Threatened

REPTILES

Flattened musk turtle (*Stemotherus depressus*) - Threatened

SNAILS

Painted rocksnail (*Leptoxis taeniata*) - Threatened
 Interrupted (=Georgia) Rocksnail (*Leptoxis foremani*) - Endangered

Bald eagles (*Haliaeetus leucocephalus*) and red-cockaded woodpeckers (*Picoides borealis*) may also occur in the county.

GMC conducted a site survey to determine the presence of these E& T species and the habitat conditions that could potentially support these species. Below is a description of the above species habitat requirements and observations noted on the site visit.

BALD EAGLE / RCW

The bald eagle diet consists of almost exclusively fish, making large bodies of water the ideal habitat. The subject site does not appear to contain the necessary water source to support a breeding pair of bald eagles. Because of these habitat conditions and because no bald eagle nests were discovered during the site visit, it is in our professional opinion that the subject site does not contain suitable habitat for bald eagles. The red-cockaded woodpecker (RCW) typically only nest in pine stands greater than 60 years old. In addition, prescribed burning or thinned understory typically is required to promote and support RCW habitat. The site has previously been under silviculture operations and the forested areas do not contain pines greater than 60 years old or



thinned understory conditions. No RCWs were observed on the date of the site visit. Because of these habitat conditions, it is our professional opinion that the subject site does not contain habitat to support RCWs.

FLATTENED MUSK TURTLE

This species is historically restricted to upper Black Warrior River system in northern Alabama, upstream from the Fall Line. The subject site is located in the Middle Coosa watershed. In addition, this species requires streambed habitat with high water quality generally in medium to large rivers for sustainability and to insure survival. Little Canoe Creek forms the extreme western boundary of the property and may be considered potential habitat for these species. However, this stream will not be impacted during development of the property due to its existence on the property line. The listed species was not noted during the site visit and the remaining stream habitat on the property is incapable of supporting this species.

MUSSELS / DARTERS

The listed aquatic species (darters and mussels) are found in streambed habitat and require high water quality large generally in medium to large rivers for sustainability and to insure survival. There are two RPW's located on the property. Little Canoe Creek forms the extreme western boundary of the property and does have some potential to be adequate habitat for these species. However, this stream will not be impacted during development of the property due to its existence on the property line. All tributaries draining into Little Canoe Creek are 1st order seasonal RPW's. These streams do not have continuous flowing water and cannot support the mussel and darter species. In addition, these streams exhibit poor water quality due to recent silvicultural operations (clear-cut) prior to Etowah County Commission purchase of the property. On the eastern portion of the property, there is a stream that is a UT to Rook Creek. This stream is a 2nd order stream and was dry during the site visit. This stream and the tributaries to this stream are incapable of supporting the above referenced aquatic species. In summary, none of the listed species were noted during the site visit and the stream habitat on the property is incapable of supporting these species. The only stream habitat found on site capable of supporting the listed species is in Little Canoe Creek. Since this stream serves as the western property line, it will not be impacted during development of the property. Therefore, there are no anticipated impacts.



PLANT SPECIES

Mohr's Barbara's Buttons commonly inhabits moist to wet openings in sandy clay soils in prairie-like meadows or woodlands and shale-bedded streams. It grows in association with sedges and grasses and prefers direct sunlight or partial shade. The soils on this property are composed of silt loams and outcroppings (see attached soils information), which do not meet the soil requirements for this species. In addition, no evidence of this species was noted during the site visits.

The green pitcher plant is found in three distinct habitat types including sandstone streambanks, mixed oak or pine flatwoods, and seepage bogs. The soils in all of these habitats are sandy and highly acidic and exhibit generally moist soil conditions. Appropriate habitat for the green pitcher plant has apparently been naturally maintained through a combination of harsh environmental conditions which discourage competing plants, and periodic disturbance events. Fire is likely important in maintaining open woodland habitats, while violent winter flooding may impede succession and eliminate competing species along mountain stream banks. As indicated in the attached soil reports from the USDA Web Soil Survey, the soils on this site are comprised mostly of clays which do not meet the soil requirements for this species. There is one area on the eastern portion of the property that is swamp like in nature and may be considered a bog habitat. However, the soils are clay and loamy in nature and furthermore, this area will not be disturbed during construction. Little Canoe Creek is located on the western boundary of the property, but will also not be disturbed during construction. Remaining wetland and moist areas have been disturbed by silvicultural operations and are void of vegetation (see attached Figure 3). These areas do not exhibit appropriate soil conditions and do not provide the appropriate habitat for this species. No evidence of this species was noted during the E&T survey of the site.

The habitat for the Alabama leather flower is in bottomland hardwood forest where there are canopy gaps. As previously mentioned the western and southern portions of the property have been subject to heavy silvicultural operations and do not provide appropriate habitat (see Figure 3). The eastern portion of the property remains forested with a 24-acre swamp and a few access roads providing the only canopy gaps. The swamp area will not be impacted during development. GMC biologist surveyed all access roads and surrounding areas throughout the forested areas and this species was not noted.

It is our opinion that the protected species and critical habitat is not present for any of the listed species in the county due to the majority of the site being completely cleared for silvicultural purposes and the remainder of the site not meeting habitat requirements and/or soil requirements for the species.

GMC

To comply with the Federal Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), GMC respectfully requests that your office review the attached figures for any known federally listed endangered and/or threatened species and their habitats. If you concur that the implementation of the proposed project will have no effect on federally listed species or their habitats, please indicate your approval and return this document, or photocopy thereof, to GMC. If you do not concur, please provide the requisite guidance for the proposed project. If you have any questions, please call me at (205)542-8857.

Sincerely,



Crystal Shurett
Environmental Scientist
Goodwyn, Mills, & Cawood, Inc.

Enclosures