

WALLACE DAM



Lake Oconee

Study Report

Rare, Threatened, and Endangered Species (RTE)

Wallace Dam Hydroelectric Project

FERC Project No. 2413

Prepared For:



A SOUTHERN COMPANY

Prepared With:



NOVEMBER 2016

(Volume 4)

APPENDIX A

**Georgia Department of Wildlife Resources: Known Occurrences On or Near
Wallace Dam, Green, Hancock, Morgan, and Putnam County, Georgia**



MARK WILLIAMS
COMMISSIONER

DAN FORSTER
DIRECTOR

May 13, 2016

Jim Ozier
Environmental Affairs
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near Wallace Dam, Green, Hancock, Morgan, and Putnam County, Georgia

(Site Center: -83.257147, 33.435155, WGS84)

- US *Acipenser oxyrinchus oxyrinchus* (Atlantic Sturgeon) on site in the Oconee River
- GA *Acmispon helleri* (Carolina Trefoil) approx. 1.9 mi E of site
- Amorpha schwerinii* (Schwerin Indigo-bush) approx. 2.7 mi E of site
- Amorpha schwerinii* (Schwerin Indigo-bush) [EXTIRPATED] approx. 2.3 mi E of site
- US *Amphianthus pusillus* (Pool Sprite) on site
- US *Amphianthus pusillus* (Pool Sprite) approx. 2.7 mi E of site
- US *Amphianthus pusillus* (Pool Sprite) approx. 2.1 mi E of site
- GA *Cyprinella xaenura* (Altamaha Shiner) approx. 2.2 mi SE of site in Richland Creek
- GA *Cyprinella xaenura* (Altamaha Shiner) approx. 1.9 mi W of site in Big Cedar Creek
- GA *Cyprinella xaenura* (Altamaha Shiner) approx. 2.8 mi NW of site in the Little River
- GA *Cypripedium acaule* (Pink Ladyslipper) [HISTORIC] approx. 0.9 mi NE of site
- GA *Draba aprica* (Sun-loving Draba) on site
- Elatine brachysperma* (Shortseed Waterwort) [HISTORIC] approx. 2.0 mi E of site
- Gratiola graniticola* (Granite Hedge-hyssop) approx. 2.0 mi NE of site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- GA *Haliaeetus leucocephalus* (Bald Eagle) approx. 0.2 mi W of site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- GA *Haliaeetus leucocephalus* (Bald Eagle) approx. 0.1 mi SE of site
- GA *Haliaeetus leucocephalus* (Bald Eagle) approx. 0.4 mi E of site
- GA *Haliaeetus leucocephalus* (Bald Eagle) on site
- Hemidactylium scutatum* (Four-toed Salamander) approx. 0.3 mi SE of site

- US *Isoetes tegetiformans* (Mat-forming Quillwort) approx. 2.1 mi E of site
- US *Isoetes tegetiformans* (Mat-forming Quillwort) on site
- Laterallus jamaicensis* (Black Rail) on site
- Limnothlypis swainsonii* (Swainson's Warbler) approx. 2.4 mi W of site
- Limnothlypis swainsonii* (Swainson's Warbler) on site
- GA *Moxostoma robustum* (Robust Redhorse) approx. 0.2 mi NW of site in Little River
- Moxostoma sp. 4* (Brassy Jumprock) [HISTORIC] on site in Lake Sinclair
- Myotis austroriparius* (Southeastern Myotis) approx. 1.2 mi E of site
- Panax quinquefolius* (American Ginseng) on site
- Pilularia americana* (American Pillwort) approx. 2.0 mi E of site
- Pilularia americana* (American Pillwort) approx. 2.6 mi E of site
- US *Ptilimnium nodosum* (Harperella) [EXTIRPATED?] on site
- GA *Quercus oglethorpensis* (Oglethorpe Oak) on site
- GA *Quercus oglethorpensis* (Oglethorpe Oak) on site
- GA *Quercus oglethorpensis* (Oglethorpe Oak) [EXTIRPATED] on site
- Rallus elegans* (King Rail) on site
- GA *Sedum pusillum* (Granite Stonecrop) approx. 1.9 mi NE of site
- GA *Sedum pusillum* (Granite Stonecrop) approx. 2.7 mi E of site
- Spiranthes ovalis var. erostellata* (Self-pollinating Oval Ladies-tresses) approx. 0.8 mi N of site
- GA *Stewartia malacodendron* (Silky Camellia) in an uncertain location near the project site
- Trillium sp. nov. ined. aff. decumbens* (Southern Decumbent Trillium) on site
- Oconee River Lower 7 (0307010201) [SWAP High Priority Watershed], on site
- Oconee River Lower 6 (0307010202) [SWAP High Priority Watershed], approx. 2.2 mi E of site

(Site Center: -83.349456, 33.607897, WGS84)

- GA *Cyprinella xaenura* (Altamaha Shiner) approx. 2.5 mi NW of site in Hard Labor Creek
- Hemidactylium scutatum* (Four-toed Salamander) [HISTORIC] approx. 0.3 mi NW of site
- Micropterus sp. cf. coosae "Altamaha"* (Altamaha Bass) approx. 2.6 mi NW of site in Hard Labor Creek
- Perimyotis subflavus* (Tri-colored Bat) [HISTORIC] on site
- Apalachee River 1, Lake Oconee (0307010109) [SWAP High Priority Watershed], on site

APPENDIX B

Wallace Dam Hydroelectric Project: Listing Status, Preferred Habitats, and Occurrence Data for Rare, Threatened, and Endangered Species

Table 1: Wallace Dam Hydroelectric Project: Listing Status, Preferred Habitats, and Occurrence Data for Rare, Threatened, and Endangered Species

Common Name	Scientific Name	Federal Status ¹	State Status ²	Global Status ³	Project Counties of Occurrence	Preferred Habitat	Occur in Project Quarter Quads	Suitable Habitat Onsite	Observed Within Project Boundary
FAUNA									
MUSSELS									
Atlantic pigtoe	<i>Fusconaia masoni</i>	None	E	G2	Hancock	Sand and gravel in large creeks and rivers; occurs in the Ogeechee River, not known to occur in the Oconee River.	No	Yes ⁴	No
FISH									
Altamaha shiner	<i>Cyprinella xaenura</i>	None	T	G2G3	Greene, Morgan, Putnam	Small tributaries and rivers, often in small pools with rocky or sand substrates.	No	Yes	No
Robust redhorse	<i>Moxostoma robustum</i>	None	E	G1	Putnam	Medium to large rivers; shallow riffles to deep flowing water; moderate currents.	No	Yes	No
REPTILES									
Southern hognose snake	<i>Heterodon simus</i>	None	T	G2	Hancock	Well-drained, xeric, sandy soils where longleaf pine and/or scrub oaks are the characteristic woody vegetation. Also found in wiregrass, fallow-fields, and fire-maintained areas.	No	Yes	No
BIRDS									
Bald eagle	<i>Haliaeetus leucocephalus</i>	None	T	G5	Greene, Morgan, Hancock, Putnam	Almost always nest near open water, usually found in large, open topped pines in areas typically > 300 feet from human disturbance.	Yes	Yes	Yes
Bachman's sparrow	<i>Peucaea aestivalis</i>	None	R	G3	Hancock	Open pine or oak woods, clear cuts, utility rights-of-ways, old fields, and brushy areas.	No	Yes	Yes ⁵

Table 1: Wallace Dam Hydroelectric Project: Listing Status, Preferred Habitats, and Occurrence Data for Rare, Threatened, and Endangered Species

Common Name	Scientific Name	Federal Status ¹	State Status ²	Global Status ³	Project Counties of Occurrence	Preferred Habitat	Occur in Project Quarter Quads	Suitable Habitat Onsite	Observed Within Project Boundary
Red cockaded woodpecker	<i>Leuconotopicus borealis</i>	LE	E	G3	Putnam	Large expanses of mature, open pine forest, particularly longleaf, slash, or loblolly pine, nests in old living pines	No	Yes	No
FLORA									
Carolina trefoil	<i>Acmispon helleri</i>	None	E	G5	Greene	Openings in post oak and blackjack oak woodlands with clay soils, over bedrock high in iron and magnesium; clearings, roadsides, and right-of-ways.	No	Yes	No
Pool sprite	<i>Amphianthus pusillus</i>	LT	T	G2	Greene, Putnam, Hancock	Shallow, flat-bottomed depressions on granite outcrops, with thin gravelly soils and winter-spring inundation.	Yes	Yes	Yes
Sun-loving draba	<i>Draba aprica</i>	None	E	G3	Putnam	Shallow soils on and around granite outcrops, usually near the edges of "islands" of eastern red cedar trees.	Yes	Yes	No
Dwarf hatpins	<i>Eriocaulon koernickianum</i>	None	E	G2	Greene, Hancock	Seepage areas and wet depressions on granite outcrops, often with horned bladderwort.	No	Yes	No
Black-spored quillwort	<i>Isoetes melanospora</i>	LE	E	G1	Greene	Shallow, temporarily flooded, flat bottomed pools formed by natural erosion on granite outcrops.	No	Yes	No
Mat-forming quillwort	<i>Isoetes tegetiformans</i>	LE	E	G1	Greene, Putnam, Hancock	Shallow pools formed by natural erosion on granite outcrops.	Yes	Yes	No
Harperella	<i>Ptilimnium nodosum</i>	LE	E	G2	Greene, Putnam, Hancock	Granite outcrop seeps.	Yes	Yes	No
Oglethorpe oak	<i>Quercus oglethorpensis</i>	None	T	G3	Greene, Putnam	Wet clay soils of upland seepage swamps, stream terraces and moist hardwood forests.	Yes	Yes	No

Table 1: Wallace Dam Hydroelectric Project: Listing Status, Preferred Habitats, and Occurrence Data for Rare, Threatened, and Endangered Species

Common Name	Scientific Name	Federal Status ¹	State Status ²	Global Status ³	Project Counties of Occurrence	Preferred Habitat	Occur in Project Quarter Quads	Suitable Habitat Onsite	Observed Within Project Boundary
Michaux's sumac/Dwarf sumac ⁵	<i>Rhus michauxii</i> ⁵	LE	E	G2G3	Newton*	Dry, open, rocky, or sandy woodlands over mafic bedrock; on ridges and river bluffs.	No	Yes	No
Bay star-vine	<i>Schisandra glabra</i>	None	T	G3	Morgan	Moist, deciduous hardwood forests on lower slopes, stream terraces, and floodplains.	No	Yes	No
Granite stonecrop	<i>Sedum pusillum</i>	None	T	G3	Greene	Granite outcrops, usually in mats of moss beneath red cedar trees.	No	Yes	No
Ovate catchfly	<i>Silene ovata</i>	None	R	G3	Hancock	Mesic deciduous or beech-magnolia forests over limestone; boulder, high elevation oak forests.	No	No	No
Silky camellia	<i>Stewartia malacodendron</i>	None	R	G4	Hancock	Rich ravine and slope forests; lower slopes of sandhills above bogs and creek swamps.	No	No	No
Piedmont barren strawberry	<i>Waldsteinia lobata</i>	None	R	G2G3	Morgan	Stream terraces, floodplain forests, and rocky, lower slopes with oak-hickory-pine forests.	No	Yes	No

¹ Federal Status: LE = Listed Endangered;
LT = Listed Threatened

² Georgia Status: E = Georgia Endangered;
T = Georgia Threatened;
R = Georgia Rare;
C = Georgia Species of Concern;

³ Global ranks: G1 = critically imperiled, at very high risk of extinction due to extreme rarity;
G2 = imperiled, at high risk of extinction due to very restricted range;
G3 = vulnerable, at moderate risk of extinction due to restricted range;
G4 = apparently secure, uncommon but not rare;
G5 = secure – common, widespread

⁴ Although suitable habitat is present within the Project boundary, this species is generally confined to regions outside the vicinity of the Project – such as the Coastal Plain or adjacent watersheds.

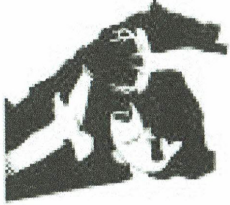
⁵ *Rhus michauxii* added to the list at the request of USFWS

Sources:

Georgia DNR: wildlife resources division: <http://georgiawildlife.com/> and <http://gakrakow.github.io/>
Nature serve: <http://explorer.natureserve.org/index.htm>
U.S. fish and wildlife service: <https://ecos.fws.gov/ipac/>
Georgia Power: internal surveys/collection data

APPENDIX C

Special Concern Collection Data Sheets



Nongame Conservation Section
2065 US Hwy 278 SE
Social Circle, GA 30025
Phone: (770) 918-6411

SPECIAL CONCERN ANIMAL OBSERVATION AND COLLECTION DATA SHEET

Species Scientific Name: *Pevcaea aestivalis*

Date Observed / Collected: 26 April 2016 County: _____

Method of Observation/Capture: Terrestrial survey

Observer / Collector: Mike McElroy

Affiliation / Address: Corbly Ecology Group / Georgia Power Company

Field Collection Number: NA

Museum & Accession Number: NA

Site Name: Wallace Dawn Project Topographic Quad: _____

Directions To Site From Known Landmark: located on Transmission Easement edge
(33.349019° -83.192512°), approximately 4605.89 feet bearing
188.05° from Sparta Hwy + Rockville rd (33.341582° -83.140389°)

General Description of Habitat: Pine Woodlands adjacent to Transmission
Easement Sparta Hwy + Rockville rd (33.341582° -83.140389°)

Specimen Data: _____

Weight: NA Sex: NA

Additional Notes (e.g. behavior, condition): Identified by unique call

***Attach a photocopy from a 7.5-minute U.S.G.S. topographic map showing the location of
the observation or collection site. Please mark the precise location of the site.***

Send to: Katrina Morris, Wildlife Biologist
Georgia Department of Natural Resources
Wildlife Resources Division
Nongame Conservation Section
2065 U.S. Hwy. 278, SE
Social Circle, Georgia 30025

Nongame Conservation Section
2065 US Hwy 278 SE
Social Circle, GA 30025
Phone: (770) 918-6411



SPECIAL CONCERN PLANT DATA SHEET

Species Scientific Name: Amphicarpus pusillus
Date Observed / Collected: 25 April 2016 County: Putnam, Ga
Observer / Collector: Andy Whurton
Affiliation / Address: Corbis Ecology Group / Georgia Power Company
Was a Voucher Specimen Collected? Yes ___ No X

Where Will Specimen Be Deposited? _____

Was a Photo Taken? Yes X No ___

Where Will Photo Be Located? RTLE Report

Was live material collected? Yes ___ No X

Where will specimen be grown? _____

Site Name: Wallace Dam Project Topographic Quad: _____
Directions To Site From Known Landmark: located approximately 3,152 feet
bearing 168, ~~25~~ 52° from Rock Hawks Lawrence Shoals,
Easton, Ga 31024
General Description of Habitat: Large Granite Outcrop

Landowner information: Georgia Power Company
Additional Notes (size of population, vigor, flowering, fruiting, etc.): small population,
Flowering

Attach a photocopy from a 7.5-minute U.S.G.S. topographic map showing the location of the observation/collection site. Please mark the precise location of the site.

Send to: Greg Krakow, Data Manager
Georgia Department of Natural Resources
Wildlife Resources Division
Nongame Conservation Section
2065 U.S. Hwy. 278, SE
Social Circle, Georgia 30025

APPENDIX D

Representative Photographs



Granite Outcrop – Suitable Habitat for Several RTE Species



Pool Sprite (*Amphianthus pussillus*) - Federally and State Threatened



Mesic Slope Forest – Suitable Habitat for Oglethorpe oak (*Quercus oglethorpensis*)



Open Pine Forest – Suitable Habitat for Bachman's sparrow (*Peucaea aestivalis*)



Lake Oconee – Suitable Habitat for Bald Eagle (*Haliaeetus leucocephalus*)