

-- Flatwoods Salamanders --
Effects Determination Guidance for Endangered & Threatened Species (EDGES)

Baker, Bryan, Charlton, Chatham, Decatur, Dougherty, Early, Evans, Lanier, Lee, Liberty, Long, McIntosh, Miller, Screven, and Seminole Counties

Species Covered by This EDGES: Frosted flatwoods salamander (*Ambystoma cingulatum*, threatened) and Reticulated flatwoods salamander (*Ambystoma bishopi*, Endangered)

These flatwoods salamanders are found only in the Georgia and South Carolina coastal plain and the Florida panhandle. They occur in isolated populations scattered across the historical range in remnants of their suitable habitat.

Flatwoods salamanders are pond-breeding amphibians that have aquatic larval stages and terrestrial juvenile and adult stages. Adult flatwoods salamanders migrate in the fall to seasonally-flooded depressional wetlands, where they breed in small, isolated ephemeral ponds. Eggs hatch into larvae in the winter and metamorphose between March and May. Juveniles disperse from ponds to terrestrial habitat after metamorphosing. The terrestrial adults and juveniles spend much of their time below ground in crayfish burrows or root channels until it is time to return to their natal pond to breed. Breeding wetlands are located in the same mesic longleaf pine-wire grass dominated flatwoods, where adults and juveniles reside outside of the breeding season.



Frosted (above) and reticulated flatwoods salamanders



Habitat loss is the primary cause of the rapid decline of these species throughout their ranges. Agriculture and silviculture have altered much of Georgia’s longleaf pine-flatwoods ecosystem and eliminated adult habitat and their breeding wetlands. Fire suppression in the Coastal Plain has reduced suitable habitat by allowing midstories and closed canopies to develop which shade and suppress herbaceous groundcover.

This EDGES covers (1) existing structure maintenance and (2) new development, including subdivisions, commercial development, roads, pipelines and powerlines, stream and wetland



restoration/ stabilization, and similar projects. It does not cover new drinking water reservoirs, airports, or similar large-impact projects.

Endangered Species Act Consultation Checklist:

Applicant:

1. IPAC indicates one of these flatwoods salamanders may occur in the project area (see range map on Page 2).
 - a. No.....No effect. Provide IPaC information to the Savannah District with application/PCN.
 - b. Yes.....Go to #2.

2. The Fish and Wildlife Service-Georgia Field Offices (FWS-GA) provided documentation evaluating habitat, potential presence of species, suitable survey methodology and/or potential project impacts (FWS-GA signed letter or sticker, T&E survey where FWS-GA provided concurrence with negative findings, or similar documentation).

- a. No.....Provide completed EDGES Applicant Coordination Slip and supporting documentation to the Savannah District with 404 application/PCN.
- b. Yes.....Provide FWS-GA project review documentation and/or survey data to the Savannah District with application/PCN.

Savannah District:

- 3. The project occurs in Baker or Miller Counties, where Critical Habitat for the reticulated flatwoods salamander has been designated (Critical Habitat for the frosted flatwoods salamander has not been identified in Georgia).
 - a. No.....Savannah District has determined “No adverse modification to Critical Habitat.”
Go to #4.
 - b. Yes.....Contact FWS-GA to determine if consultation is needed.
- 4. The project will impact longleaf pine–wiregrass flatwoods or slash pine flatwoods (not managed pine plantations).
 - a. No.....No effect. FWS-GA concurrence is not needed.
 - b. Yes.....Go to #5.
- 5. Project information listed below is provided to assist the Savannah District and FWS-GA evaluate T&E impacts:
 - a. No.....Request the information and, once received, continue with 6b.
 - b. Yes.....Share data with FWS-GA and continue consultation. If Consultation results in a Corps’ determination of:
 - i) NLAA, and FWS-GA concurs, consultation complete.
 - ii) LAA, and FWS-GA concurs, initiate formal consultation.

Information to be Provided the Savannah District for Endangered Species Act Review

- A map detailing the size and location of pine flatwoods and isolated depressional wetlands on the site.
- A description of each wetland and flatwoods habitat that will be impacted by the project, keyed to the map.
- An evaluation of the effects of the project on fire frequency on the site.

