EXHIBIT 22

BO Appendix II.

RGP-86 Flatwoods Salamander Pre-Application Evaluation

Endangered Species Act formal consultation was conducted between the U.S. Fish and Wildlife Service and the Corps of Engineers as part of the development of RGP-86. Consultation was based on presumed presence of salamanders due to the proximity of two known locations and the observance of suitable habitat in the action area. Best available methods were used to determine potential impacts to flatwoods salamanders that could be expected from implementation of the permit. However, it is reasonable to expect that with a project area covering more than 47,000 acres (about 1/3 of which is potentially developable) undetected habitat could be present. In order to avoid and minimize potential take of salamanders in these situations, the following habitat evaluation was developed. This evaluation must be completed by all applicants and performed by a qualified ecologist/biologist.

Step 1: Preliminary Project Site Review

1. Applicants and consultants shall obtain and review an informational brochure developed by the Florida Fish and Wildlife Conservation Commission. The brochure is available from Florida Fish and Wildlife Conservation Commission, Bureau of Wildlife Diversity Conservation, 620 South Meridian Street, Tallahassee, Florida 32399-1600.

2. Applicants and/or their consultants shall compare aerial photographs of their project site to Figures 2, 3 and 4 of the Biological Opinion. Note all data points located within the project site and within 450 meters (1,476 feet) of the project site or limits of construction.

3. If any data points of Figure 4 are located within the project site or within 450 meters of the project site or limits of construction, **re-initiation of consultation is required. Continue with Step 2.**

4. Other data points of Figures 2 and 3 that are within the project site action area (including 450 meters) do not need further evaluation. Previous work conducted as part of the biological opinion addressed these sites. **Continue with Step 2.**

Step 2: Procedures for Reviewing Other Data to Determine Whether Additional Field Surveys Should be Conducted (based on Palis 2003)

There is a potential that suitable habitat may have been overlooked during the analysis for the biological opinion. Therefore, specific project sites must be reviewed using the procedures outlined below to determine whether they need to be field surveyed.

1. Review project site using high-resolution recent infrared aerials (scale of 1 inch = 400 feet), NRCS soils data for Bay and Walton counties, and historical aerials of your project area that are of as high a resolution as is obtainable. Note any ponds[1] not depicted on Figures 2 or 3 with similarity of appearance to those of Figure 4 in the biological opinion.

2. Features to look for on the infrared aerials are as follows:

- Absence of a dense titi cover completely surrounding ponds. Absence is a positive indicator. Dense titi appears relatively dark red and smooth
- A graminaceous, treeless ecotone along part of the pond edges. Presence is a positive indicator. Wet, herbaceous edges appear as smooth grayish blue, greenish grayish blue, or as a light band along the edge.
- Absence of deep water. Absence of deep water is a positive indicator. Deep water appears dark blue or almost black.

[1] "Ponds" are not traditional open waterbodies, but are ephemeral wetlands that are ponded for a portion of the year.

3. On historical aerials, look for open savannahs or pine flatwoods around ponds. These are positive indicators and appear as smooth, light-colored areas with scattered-to-no-trees.

4. On soil maps, where ponds occur, look for hydric or mesic soils around pond; hydric or mesic soils are positive indicators of flatwoods salamander use.

5. The presence of all of the above positive indicators means that the pond(s) should be field surveyed.

- If yes, then you must conduct field surveys to determine whether the pond(s) is a potential flatwoods salamander pond. **Continue with Step 3.**
- If no here and no to Step 1. 3., then **you are finished with the flatwoods salamander evaluation - Go to Step 5** (Reticulated Flatwoods Salamander Findings).
- If no here and yes to Step 1. 3., then **re-initiation of consultation is required.**

Step 3: Field Assessment of Potential Reticulated Flatwoods Salamander (*Ambystoma bishopi*) Ponds

The Description Data Sheet (next page) may be completed at the same time as other fieldwork, such as wetland delineation. The field data sheet that must be completed at the time of the field survey follows. Photographs must also be taken of the ecotone and pond, particularly noting the location of the most graminaceous portion of ecotone and wetland groundcover.

Potential Flatwoods Salamander
Pond Description Data Sheet

Instructions: Circle the number of the most appropriate descriptor in each category. If no description option applies, circle "other" and describe. In some categories, such as ECOTONE VEGETATION DESCRIPTION, SPECIES COMPOSITION, and SURROUNDING UPLANDS, circle the number for all appropriate descriptors.

Pond# _____ Date _____ Observer(s) _____

ECOTONE VEGETATION DESCRIPTION
(If more than one descriptor applies, circle and estimate percentage of pond perimeter.
Also circle appropriate grass and shrub species)

1) undisturbed graminaceous (*Aristida stricta, Calamovilfa curtissii*)[1], few to no shrubs (*Clethra, Cliftonia, Cyrilla, Hypericum, Ilex myrtifolia, Lyonia*) _____%
2) disturbed graminaceous (*Aristida stricta, Calamovilfa curtissii*; bedded/rutted), few to no shrubs (*Clethra, Cliftonia, Cyrilla, Hypericum, Ilex myrtifolia, Lyonia*) _____%
3) undisturbed graminaceous (*Aristida stricta, Calamovilfa curtissii*) under thick *Clethra, Cliftonia, Cyrilla, Hypericum, Ilex myrtifolia, Lyonia*) _____%
4) weedy graminaceous (*Andropogon, Panicum verrucosum*, and/or *weedy Rhynchospora*), few to no shrubs (*Clethra, Cliftonia, Cyrilla, Hypericum, Ilex myrtifolia, Lyonia*) _____%
5) disturbed graminaceous (*Aristida stricta, Calamovilfa curtissii*; bedded/rutted), under thick *Clethra, Cliftonia, Cyrilla, Hypericum, Ilex myrtifolia, Lyonia* _____%
8) weedy graminaceous (*Andropogon, Panicum verrucosum*, weedy *Rhynchospora*) under thick *Clethra, Cliftonia, Cyrilla, Hypericum, Ilex myrtifolia, Lyonia* _____%
9) thick shrubs (*Clethra, Cliftonia, Cyrilla, Hypericum, Ilex myrtifolia, Lyonia*) over little to no graminaceous (*Aristida stricta, Calamovilfa curtissii, Andropogon, Panicum verrucosum*, weedy *Rhynchospora*) _____%
10) no ecotone _____%
11) other:_____ _____%

GRAMINACEOUS ECOTONE EXTENT DESCRIPTION

1) > 75 % of pond perimeter
2) 51-75% of pond perimeter
3) 26-50 % of pond perimeter
4) <25% of pond perimeter

GRAMINACEOUS ECOTONE WIDTH DESCRIPTION

1) > 0 m wide
2) 6-10 m wide
3) 3-5 m wide
4) 1-2m wide

POND GRAMINACEOUS GROUNDCOVER SPECIES COMPOSITION
(place asterisk adjacent to visually dominant species)

---

1 "Undisturbed graminaceous" and "disturbed graminaceous" mean that the appropriate ground cover species are present (*Aristida stricta, Calamovilfa curtissii*, wiry *Rhynchospora* spp., and *Sporobolus*). However, "disturbed graminaceous" indicates that the soil has been disturbed by human activities such as chopping, bedding, ATV or skidder tracks. "Weedy graminaceous" means that not only are the appropriate ground cover species absent, but that the soil has been disturbed.

1) *Aristida affinis*
2) *Carex*
3) *Dichanthelium (Panicum) erectifolium*
4) *Eriocaulon compressum*
5) *Panicum rigidulum*
6) *Rhynchospora inundata/corniculata*
7) *Rhynchospora* _____
8) *Sphagnum*
9) *Xyris*
10) other: _____

POND GRAMINACEOUS VEGETATION COVERAGE

1) extensive throughout basin, marsh-like
2) over most of basin (> 75 %)
3) scattered and local in basin (approx 25-74%)
4) limited to basin edge
5) sparse
6) none

POND CANOPY SPECIES COMPOSITION
(place asterisk adjacent to visually dominant species)

1) *Taxodium ascendens*
2) *Nyssa biflora*
3) *Pinus elliottii*
4) *Ilex myrtifolia*
5) other: _____

POND CANOPY COVERAGE

1) <25% 2) 26-50% 3) 51-75% 4) >75%

POND SUBSTRATE

1) relatively firm mud/sand with little to no leaf/needle litter
2) relatively firm mud/sand with abundant leaf/needle litter
3) soft and peaty (thick leaf/needle litter)

APPROXIMATE WATER DEPTH (_____ m)

If site dry, estimate using high water stains on trees: ____ m

WATER COLOR

1) clear to light stain 2) moderate stain (ice tea) 3) dark stain (coffee) 4) no water

SURROUNDING UPLANDS
(circle every applicable number and indicate relative percentage of area around pond)

1) undisturbed graminaceous (*Aristida stricta, Sporobolus*) dominated, few to no shrubs _____%
2) disturbed graminaceous (*Aristida stricta, Sporobolus*) dominated, few to no shrubs _____%
3) approximately 50/50 undisturbed graminaceous (*Aristida stricta, Sporobolus*)/shrubs _____%
4) approximately 50/50 disturbed graminaceous (*Aristida stricta, Sporobolus*)/shrubs _____%
5) disturbed with sparse vegetation (i.e., principally pine straw) _____%
6) shrub dominated (shrubs knee high or less), sparse graminaceous (*Aristida stricta, Sporobolus*) _____%

7) shrub dominated (shrubs between knee and head high), sparse graminaceous (*Aristida stricta, Sporobolus*) ____%
8) shrub dominated (shrubs head high or more), sparse graminaceous (*Aristida stricta, Sporobolus*) ____%
9) weedy graminaceous (e.g., *Andropogon*), few to no shrubs ____%
10) shrub dominated (shrubs knee high or less), sparse weedy graminaceous (*Andropogon*, etc.) ____%
11) shrub dominated (shrubs knee to head high), sparse weedy graminaceous (*Andropogon*, etc.) ____%
12) shrub dominated (shrubs head high or more), sparse weedy graminaceous (*Andropogon*, etc.) ____%
13) other _____ ____%

UPLANDS SPECIES PRESENT
(circle number and place asterisk by visually dominant species)

1) *Andropogon*
2) *Aristida stricta*
3) *Conradina canescens*
4) *Cyrilla racemiflora*
5) *Ilex glabra*
6) *Kalmia hirsuta*
7) *Licania michauxii*
8) *Lyonia lucida*
9) *Myrica cerifera*
10) *Pteridium aquilinum*
11) *Quercus minima/pumila*
12) *Serenoa repens*
13) *Vaccinium darrowi/myrsinites*
14) _____

General Notes: _____

SKETCH WETLAND/UPLAND (North ↑)
(delineate locations of vegetational differences in ecotone and in wetland and uplands)
(**photograph** the ecotone and pond noting the location of the most graminaceous portion of ecotone and wetland ground cover, note photo points)

Step 4: Expert Review of Field Results

When Steps 2 and 3 have been completed, the completed field data sheets and photographs should be sent to a recognized flatwoods salamander expert. In addition, the current and historical aerials, soil data, and a map of the project site should also be forwarded to the expert. The expert will review all the information to determine whether the pond might be a potential flatwoods salamander pond.

The field data sheet used in Step 3 has been organized so that the descriptors under each category of interest are ordered from best to worst conditions for flatwoods salamanders. For example, under the category Ecotone Vegetation Description, the first descriptor [1) undisturbed graminaceous… few to no shrubs…] describes the best conditions for flatwoods salamanders and the last two descriptors [9) thick shrubs… and 10) no ecotone] describe the worst conditions.

The expert will evaluate the descriptors selected for each category of interest to determine whether the pond might be a potential flatwoods salamander breeding pond. If mostly low number descriptors were selected on the field data sheet, then the pond is more likely to be considered a potential breeding pond; conversely, if primarily high number descriptors were selected on the field data sheet, then the pond is less likely to be considered a potential breeding pond. However, no formula presently exists that encompasses all the possibilities that might eliminate or elect a pond for further consideration as a potential breeding pond.

If the expert cannot determine whether or not the pond should be considered a potential flatwoods salamander breeding pond, s/he may request additional information from the ecologist/biologist who visited the pond and/or the project applicant. If the request for additional information is not fulfilled within a reasonable time period or the response is not sufficiently helpful, the expert may also elect to visit the pond himself at the expense of the project applicant.

The expert will provide a written determination as to whether the surveyed pond(s) is likely to be a potential flatwoods salamander breeding pond.

Review Time Frames:

- Provide field data sheets to expert;
- Expert reviews field data sheets within 10 working days of receipt, and
    - Requests additional information, or
    - Provides[2] written determination;
- Project applicant or their consultant provides additional information to expert;
- Expert provides written determination to project applicant within 5 working days of receipt of sufficient additional information;
- Project applicant provides the expert's written determination and background documentation (prepared map of ponds, aerials, soil data, field data sheets, and photographs) to the agencies as part of the pre-application Item #8.

2 "Provides" implies postmarked, emailed or faxed.

Step 5: Flatwoods Salamander Findings

	Yes	No
1. The project site contains or is within 450 meters (1,476 feet) one or more of the data points indicated in Figure 4 of the biological opinion. **If yes, re-initiation of consultation is required.**	____	____
2. The project site contains or is within 450 meters of potential habitat not evaluated in the biological opinion.	____	____
3. Field evaluations and expert review were necessary for additional habitat.	____	____
4. Expert review indicates that suitable habitat is located within the project action area. Name of flatwoods salamander expert _____. **If yes, re-initiation of consultation is required.**	____	____
5. Appropriate documentation is included to support these findings.	____	____

Signature _____ Date _____

Ecologist/Biologist who Performed the Evaluation