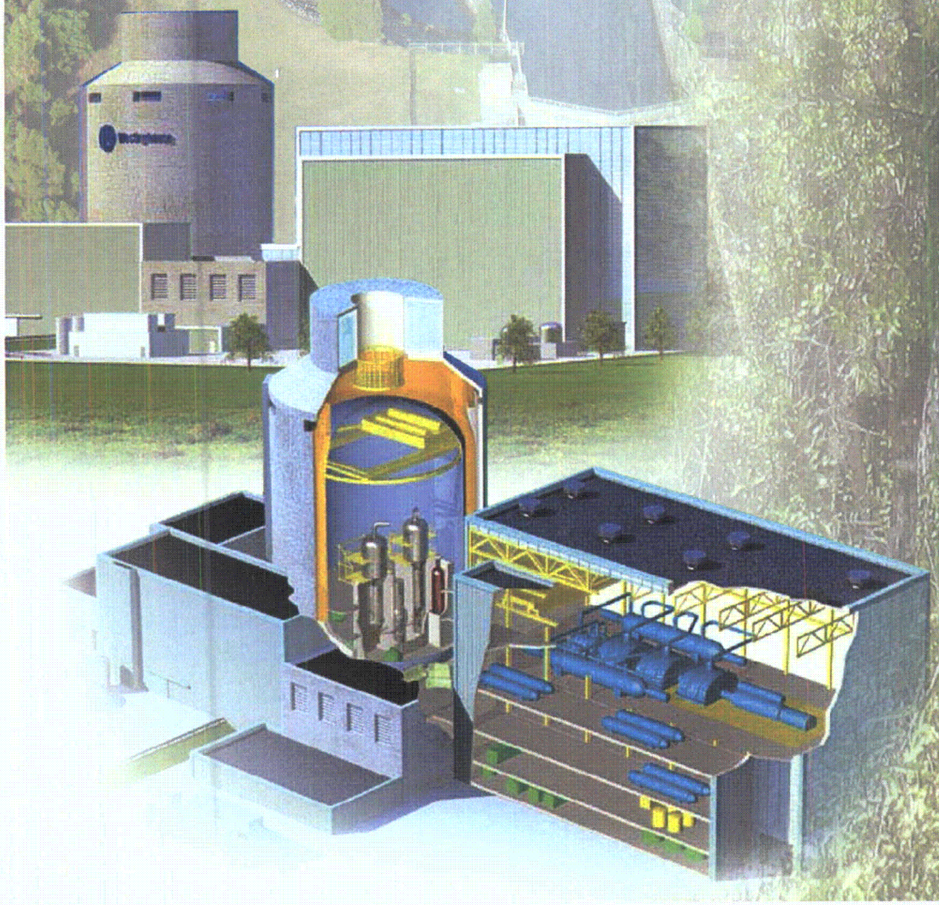
Progress Energy

Levy Nuclear Plant – Transmission Lines

Wetland Delineation / Threatened & Endangered Species Assessment

FDEP PA08-51B and
USACE SAJ-2008-00490 (IP-GAH)



Levy – Central Florida South Transmission Line

Volume 2 of 2

March 2010

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/4/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 1

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 1 20S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.777020 Long: -81.962975 Datum: WGS84

Soil Map Unit Name: Placid fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Heavily grazed wet prairie, marginal hydrology

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 2-5

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 1

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Eupatorium capillifolium	80	yes	FACU
2. Dichanthelium spp.	1	no	FAC
3. Centella asiatica	1	no	FACW
4. Ludwigia spp.	1	no	OBL
5. Panicum hemitomon	1	no	OBL
6. Hydrocotyle umbellata	1	no	OBL
7. Paspalum notatum	1	no	FACU
8. Andropogon virginicus	1	no	FAC
9. Cyperus spp.	1	no	FACW
10. Bacopa monnieri	1	no	OBL
11. Muridannia spp.	1	no	FAC
12. Polygonum spp.	1	no	FAC
	91	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	0.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	4 x1=	4
FACW species	2 x2=	4
FAC species	4 x3=	12
FACU species	81 x4=	324
UPL species	x5=	0
Column Totals:	91 (A)	344 (B)

Prevalance Index = B/A = 3.78

Hydrophytic Vegetation Indicators:

_____ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

✓ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community. Vegetation heavily grazed and trampled by cattle.

County/soil: Sumter- Placid

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 2/1							black fine sand
10-16	10 YR 3/1							very dark gray fine sand
16-28	10 YR 5/2							grayish brown fine sand
28-80	10 YR 7/2							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/4/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 2

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 1 20S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.777196 Long: -81.963870 Datum: WGS84

Soil Map Unit Name: Placid fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Heavily grazed wet prairie, marginal hydrology

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 2-5

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 2

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Eupatorium capillifolium	80	yes	FACU
2. Bacopa monnieri	5	no	OBL
3. Centella asiatica	5	no	FACW
4. Ludwigia repens	5	no	OBL
5. Andropogon virginicus	1	no	FAC
6. Paspalum notatum	1	no	FACU
7. Polypremum procumbens	1	no	FACU
8. Rhyncospora spp.	1	no	FACW
9. Ludwigia suffruticosa	1	no	OBL
10. Eleocharis spp.	1	no	OBL
11.			
12.			
	101	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	0.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	12	x1=	12
FACW species	6	x2=	12
FAC species	1	x3=	3
FACU species	82	x4=	328
UPL species		x5=	0
Column Totals:	101 (A)		355 (B)

Prevalance Index = B/A = 3.51

Hydrophytic Vegetation Indicators:

____ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

✓ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community. Vegetation heavily grazed and trampled by cattle.

County/soil: Sumter- Placid

SOIL Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 2/1							black fine sand
10-16	10 YR 3/1							very dark gray fine sand
16-28	10 YR 5/2							grayish brown fine sand
28-80	10 YR 7/2							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/4/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 4

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 35 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.788789 Long: -81.982799 Datum: WGS84

Soil Map Unit Name: Adamsville fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Depressional isolated wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): < 5
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 4

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Hydrochloa caroliniensis	60	yes	OBL
2. Eupatorium capillifolium	15	no	FACU
3. Hydrocotyle umbellata	10	no	OBL
4. Sagittaria filiformis	10	no	NL
5. Juncus effusus	10	no	FACW
6. Ludwigia spp.	5	no	OBL
7. Polygonum spp.	5	no	FAC
8. Cyperus spp.	1	no	FACW
9.			
10.			
11.			
12.			
	116	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Rubus spp.	1	yes	FACU
2.			
3.			
4.			
5.			
	1	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	50.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Adamsville

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 5/1							gray fine sand
5-9	10 YR 5/3							brown fine sand
9-17	10 YR 6/4							light yellowish brown fine sand
17-29	10 YR 7/4							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/4/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 5&6

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 28 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.807332 Long: -82.008780 Datum: WGS84

Soil Map Unit Name: Basinger fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Wet prairie on edge of creek, prairie is heavily grazed by cows, cows access creek, some evidence of channel alteration.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 24
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-6
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-4

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 5&6

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	15	yes	FAC
2. Salix caroliniana	1	no	OBL
3.			
4.			
5.			
6.			
7.			
	16	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Juncus effusus	20	yes	FACW
2. Hydrocotyle spp.	20	yes	OBL
3. Ludwigia repens	20	yes	OBL
4. Pistia stratiotes	10	no	OBL
5. Nymphaea spp.	5	no	OBL
6. Sagittaria spp.	5	no	OBL
7. Pontederia cordata	5	no	OBL
8. Eupatorium capillifolium	1	no	FACU
9. Panicum repens	1	no	FACW
10. Polygonum spp.	1	no	FAC
11. Xyris spp.	1	no	OBL
12. Eleocharis spp.	1	no	OBL
	90	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Gelsimium spp.	1	yes	FAC
2. Ampelopsis arborea	1	yes	FAC
3. Smilax spp.	1	yes	FAC
4. Vitus rotundifolia	1	yes	FAC
5.			
	4	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	8	(A)
Total Number of Dominant Species Across All Strata:	8	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Basinger

SOIL

Sampling Point: 5&6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 2/1							black fine sand
8-15	10 YR 6/2							light brownish gray fine sand
15-27	10 YR 7/2							light gray fine sand
27-45	10 YR 4/3		10 YR 3/2				common medium distinct bodies	dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3l

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/4/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 7

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 28 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.811781 Long: -82.013656 Datum: WGS84

Soil Map Unit Name: Wabasso fine sand NWI classification: palustrine emergent/forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Wet prairie surrounded by mixed wetland forest

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): <10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 7

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus palustrus	50	yes	FACU
2. Acer rubrum	10	no	OBL
3. Quercus nigra	1	no	FAC
4. Ilex opaca var. opaca	1	no	FAC
5.			
6.			
7.			
	62	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Diospyros virginiana	1	yes	FAC
2. Ulmus alata	1	yes	FACU
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Callicarpa americana	1	yes	FACU
2. Sambucus canadensis	1	yes	FACW
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:____)			
1. Woodwardia aereolata	5	yes	OBL
2. Woodwardia virginica	5	yes	OBL
3. Urena lobata	1	no	FACU
4. Polygonum spp.	1	no	FAC
5. Hydrocotyle spp.	1	no	OBL
6. Eleocharis spp.	1	no	OBL
7. Dichanthelium spp.	1	no	FAC
8. Hyptis alata	1	no	OBL
9. Sphagnum spp.	1	no	N/A
10. Eupatorium capillifolium	1	no	FACU
11. Rhexia spp.	1	no	FACW
12. Osmunda regalis	1	no	OBL
	20	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Gelsimium spp.	20	yes	FAC
2. Rubus spp.	5	no	FACU
3. Vitus rotundifolia	1	no	FAC
4. Smilax spp.	1	no	FAC
5. Mikania scandens	1	no	FACW
	28	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	8	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	62.50	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Wabasso

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1		10 YR 7/1				many fine and medium roots	very dark gray fine sand
4-16	10 YR 5/1							gray fine sand
16-28	5 YR 2/2		5 YR 4/4; 10 YR 6/1				common fine and medium roots	dark reddish brown fine sand
28-32	10 YR 7/3		10 YR 7/6; 10 YR 6/2				common fine and medium roots	very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/4/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 8

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 28 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.813602 Long: -82.017167 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: marginal, heavily grazed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-10

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 8

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Cynodon dactylon	20	yes	FACU
2. Paspalum notatum	20	yes	FACU
3. Polygonum spp.	10	no	FAC
4. Bidens spp.	10	no	FACW
5. Hydrocotyle spp.	5	no	OBL
6. Ludwigia repens	5	no	OBL
7. Eleocharis spp.	5	no	OBL
8. Panicum hemitomon	5	no	OBL
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:			Multiply by:
OBL species	20%	x1=	0.2
FACW species	10%	x2=	0.2
FAC species	10%	x3=	0.3
FACU species	40%	x4=	1.6
UPL species		x5=	0
Column Totals:	80% (A)		2.3 (B)

Prevalance Index = B/A = 2.88

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is 50%
- ✓ Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Eau Gallie

SOIL

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 9

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 28 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.813309 Long: -82.017320 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: isolated, depressional; marginal hydrology

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 2-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 9

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Paspalum notatum	50	yes	FACU
2. Polygonum spp.	25	yes	FAC
3. Panicum hemitomon	5	no	OBL
4. Rhyncospora spp.	5	no	FACW
5. Ludwigia repens	5	no	OBL
6. Xyris spp.	2	no	OBL
7. Andropogon virginicus	2	no	FAC
8. Scleria spp.	2	no	FACW
9. Centella asiatica	2	no	FACW
10. Eleocharis spp.	2	no	OBL
11. Hydrocotyle spp.	2	no	OBL
12.			
	102	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	50.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	(A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Eau Gallie

SOIL Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 10

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 29 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.814024 Long: -82.029829 Datum: WGS84

Soil Map Unit Name: Wabasso fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: disturbed depressional wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 10

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 10

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	2	yes	FAC
2. Myrica cerifera	2	yes	FAC
3.			
4.			
5.			
6.			
7.			
	4	= Total Cover	
Herb Stratum (Plot size:____)			
1. Setaria spp.	35	yes	FAC
2. Panicum hemitomon	25	yes	OBL
3. Ludwigia spp.	10	no	OBL
4. Juncus effusus	5	no	FACW
5. Pluchea spp.	2	no	FACW
6. Andropogon glomeratus	2	no	FACW
7. Polygonum spp.	2	no	FAC
8. Carex albolutescens	2	no	FAC
9. Rhyncospora spp.	2	no	FACW
10. Eupatorium capillifolium	2	no	FACU
11. Carex spp.	2	no	FACW
12. Ludwigia suffruticosa	2	no	OBL
	91	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	25	yes	FAC
2. Vitus rotundifolia	2	no	FAC
3. Mikania scandens	2	no	FACW
4. Smilax spp.	2	no	FAC
5. Parthenocissus quinquefolia	2	no	FAC
	33	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	(A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Wabasso

SOIL Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1		10 YR 7/1				many fine and medium roots	very dark gray fine sand
4-16	10 YR 5/1							gray fine sand
16-28	5 YR 2/2		5 YR 4/4; 10 YR 6/1				common fine and medium roots	dark reddish brown fine sand
28-32	10 YR 7/3		10 YR 7/6; 10 YR 6/2				common fine and medium roots	very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 11

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.819048 Long: -82.037373 Datum: WGS84

Soil Map Unit Name: Sumterville fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: drainage ditch

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): > 10

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 11

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Quercus nigra	2	yes	FAC
2. Liquidambar styraciflua	2	yes	FAC
3.			
4.			
5.			
6.			
7.			
	4	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis halimifolia	2	yes	FAC
2. Ilex opaca var. opaca	2	yes	FAC
3. Callicarpa americana	2	yes	FACU
4.			
5.			
6.			
7.			
	6	= Total Cover	
Herb Stratum (Plot size:____)			
1. Bidens spp.	10	yes	FACW
2. Urena lobata	10	yes	FACU
3. Andropogon glomeratus	2	no	FACW
4. Juncus spp.	2	no	OBL
5. Thelypteris spp.	2	no	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	26	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Rubus spp.	50	yes	FACU
2. Smilax spp.	5	no	FAC
3. Lygodium sp.	2	no	FAC
4.			
5.			
	57	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	8	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	62.50	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	(A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Sumterville

SOIL

Sampling Point: 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	10 YR 4/1							dark gray fine sand
9-24	10 YR 6/4							light yellowish brown fine sand
24-29	10 YR 7/4		10 YR 6/6, 6/8; 10 YR 7/2				common fine faint and distinct mottles	very pale brown fine sand
29-47	10 YR 7/1		7.5 YR 5/6; 5 YR 4/6				common medium distinct mottles	light gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 12

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.818428 Long: -82.037358 Datum: WGS84

Soil Map Unit Name: Sumterville fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: drainage ditch

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): >10

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 12

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus nigra	20	yes	FAC
2. Liquidambar styraciflua	20	yes	FAC
3. Sabal palmetto	10	no	FAC
4. Ulmus americana	10	no	FACW
5.			
6.			
7.			
	60	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Callicarpa americana	5	yes	FACU
2. Baccharis halimifolia	2	yes	FAC
3.			
4.			
5.			
6.			
7.			
	7	= Total Cover	
Herb Stratum (Plot size:____)			
1. Andropogon glomeratus	2	yes	FACW
2. Thelypteris spp.	2	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	4	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Smilax spp.	2	yes	FAC
2. Vitus rotundifolia	2	yes	FAC
3.			
4.			
5.			
	4	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	7	(A)
Total Number of Dominant Species Across All Strata:	8	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	87.50	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Sumterville

SOIL

Sampling Point: 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	10 YR 4/1							dark gray fine sand
9-24	10 YR 6/4							light yellowish brown fine sand
24-29	10 YR 7/4		10 YR 6/6, 6/8; 10 YR 7/2				common fine faint and distinct mottles	very pale brown fine sand
29-47	10 YR 7/1		7.5 YR 5/6; 5 YR 4/6				common medium distinct mottles	light gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 13

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.820883 Long: -82.039050 Datum: WGS84

Soil Map Unit Name: Wabasso fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Wet prairie surrounded by mixed wetland forest; heavily grazed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): >8
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): >4

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 13

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	2	yes	FACW
2. Salix spp.	2	yes	FACW
3.			
4.			
5.			
6.			
7.			
	4	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:____)			
1. Paspalum notatum	20	yes	FACU
2. Cynodon dactylon	15	yes	FACU
3. Eupatorium capillifolium	10	yes	FACU
4. Polygonum spp.	10	yes	FAC
5. Centella asiatica	5	no	FACW
6. Andropogon virginicus	5	no	FAC
7. Hydrocotyle spp.	5	no	OBL
8. Ludwigia suffruticosa	2	no	OBL
9. Eleocharis spp.	2	no	OBL
10. Hyptis alata	2	no	OBL
11. Andropogon glomeratus	2	no	FACW
12. Carex albolutescens	2	no	FAC
	80	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Smilax spp.	5	yes	FAC
2.			
3.			
4.			
5.			
	5	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	8	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	62.50	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Wabasso

SOIL

Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1		10 YR 7/1				many fine and medium roots	very dark gray fine sand
4-16	10 YR 5/1							gray fine sand
16-28	5 YR 2/2		5 YR 4/4; 10 YR 6/1				common fine and medium roots	dark reddish brown fine sand
28-32	10 YR 7/3		10 YR 7/6; 10 YR 6/2				common fine and medium roots	very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 14

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.822599 Long: -82.040994 Datum: WGS84

Soil Map Unit Name: Wabasso fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: heavily grazed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓	Depth (inches): 0
Water Table Present?	Yes ✓ No _____	Depth (inches): 4-10
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 0-6

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 14

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Juncus spp.	20	yes	OBL
2. Eupatorium capillifolium	10	yes	FACU
3. Polygonum punctatum	10	yes	FACW
4. Panicum repens	5	no	FACW
5. Paspalum notatum	5	no	FACU
6. Hydrocotyle spp.	2	no	OBL
7. Centella asiatica	2	no	FACW
8. Pontederia cordata	2	no	OBL
9. Andropogon virginicus	2	no	FAC
10. Andropogon glomeratus	2	no	FACW
11. Polypremum procumbens	2	no	FACU
12. Aster spp.	2	no	FAC
	64	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Wabasso

SOIL

Sampling Point: 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1		10 YR 7/1				many fine and medium roots	very dark gray fine sand
4-16	10 YR 5/1							gray fine sand
16-28	5 YR 2/2		5 YR 4/4; 10 YR 6/1				common fine and medium roots	dark reddish brown fine sand
28-32	10 YR 7/3		10 YR 7/6; 10 YR 6/2				common fine and medium roots	very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 15

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.825922 Long: -82.044510 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: bisected by transmission line access road

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-6
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-4

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 15

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Nyssa sylvatica var. biflora	10	yes	FAC
2. Acer rubrum	10	yes	OBL
3. Quercus nigra	2	no	FAC
4. Quercus laurifolia	2	no	FACW
5.			
6.			
7.			
	24	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	10	yes	FACW
2. Liquidambar styraciflua	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Myrica cerifera	2	yes	FAC
3. Ludwigia spp.	2	yes	OBL
4.			
5.			
6.			
7.			
	9	= Total Cover	
Herb Stratum (Plot size:____)			
1. Lemna spp.	30	yes	OBL
2. Hydrocotyle umbellata	10	yes	OBL
3. Pontederia cordata	10	yes	OBL
4. Juncus effusus	5	no	FACW
5. Thalia geniculata	5	no	OBL
6. Bidens mitis	5	no	OBL
7. Centella asiatica	2	no	FACW
8. Andropogon virginicus	2	no	FAC
9. Rhyncospora spp.	2	no	FACW
10. Eupatorium capillifolium	2	no	FACU
11. Saururus cernuus	2	no	OBL
12. Setaria spp.	2	no	FAC
	77	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Smilax spp.	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	11	(A)
Total Number of Dominant Species Across All Strata:	11	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Ft. Green

SOIL Sampling Point: 15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 16

Investigator(s): Colleen Cunningham, Stephen Larsen Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.825531 Long: -82.044817 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand NWI classification: palustrine emergent/forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Wet prairie surrounded by mixed wetland forest

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-8
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-4

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 16

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sabal palmetto	10	yes	FAC
2. Quercus nigra	10	yes	FAC
3. Quercus laurifolia	10	yes	FACW
4. Carpinus caroliniana	2	no	FAC
5. Liquidambar styraciflua	2	no	FAC
6. Persea borbonia	2	no	FACW
7.			
	36	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:____)			
1. Juncus effusus	35	yes	FACW
2. Pontederia cordata	25	yes	OBL
3. Andropogon glomeratus	2	no	FACW
4. Bidens mitis	2	no	OBL
5. Lemna spp.	2	no	OBL
6. Hydrocotyle spp.	2	no	OBL
7. Setaria spp.	2	no	FAC
8. Phyla nodiflora	2	no	FACW
9. Thelypteris spp.	2	no	FACW
10. Andropogon virginicus	2	no	FAC
11. Centella asiatica	2	no	FACW
12. Cynodon dactylon	2	no	FACU
	80	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2. Smilax spp.	2	yes	FAC
3. Toxicodendron radicans	2	yes	FAC
4.			
5.			
	6	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	9	(A)
Total Number of Dominant Species Across All Strata:	9	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Ft. Green

SOIL

Sampling Point: 16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 17

Investigator(s): Stacy Rizzo, Tony Devanzo Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.827889 Long: -82.047351 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent/forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Wet prairie and freshwater marsh surrounded by mixed wetland forest

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____Aquatic Fauna (B13)	_____Surface Soil Cracks (B6)
✓ Saturation (A3)	_____Marl Deposits (B15) **(LRR U)**	_____Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____Hydrogen Sulfide Odor (C1)	_____Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____Oxidized Rhizospheres on Living Roots (C3)	_____Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____Presence of Reduced Iron (C4)	_____Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____Recent Iron Reduction in Tilled Soils (C6)	_____Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____Thin Muck Surface (C7)	_____Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____Other (Explain in Remarks)	_____Geomorphic Position (D2)
		_____Shallow Aquitard (D3)
		_____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes_____	No ✓	Depth (inches): 0
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-6
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 17

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	20	yes	FACW
2. Acer rubrum	20	yes	OBL
3. Quercus nigra	10	no	FAC
4. Ulmus alata	10	no	FACU
5. Liquidambar styraciflua	10	no	FAC
6.			
7.			
	70	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Sabal palmetto	10	yes	FAC
2. Salix spp.	10	yes	FACW
3. Cornus foemina	5	yes	FACW
4.			
5.			
6.			
7.			
	25	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	10	yes	OBL
2. Myrica cerifera	10	yes	FAC
3. Baccharis sp.	5	no	FAC
4. Rosa palustris	5	no	OBL
5. Ilex cassine	5	no	FACW
6.			
7.			
	35	= Total Cover	
Herb Stratum (Plot size:____)			
1. Polygonum spp.	20	yes	FAC
2. Saururus cernuus	20	yes	OBL
3. Cyperus spp.	15	no	FACW
4. Rhyncospora spp.	10	no	FACW
5. Juncus effusus	10	no	FACW
6. Aster elliotii	10	no	OBL
7. Pluchea spp.	5	no	FACW
8. Ludwigia peruviana	5	no	OBL
9. Solidago spp.	5	no	FACU
10. Dichromena spp.	5	no	FACW
11. Sagittaria lancifolia	5	no	OBL
12. Osmunda cinnamomea	5	no	FACW
	115	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	9	(A)
Total Number of Dominant Species Across All Strata:	9	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Eau Gallie

SOIL

Sampling Point: 17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 18

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 19 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.828184 Long: -82.047031 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Connected by culvert under road to Wetland 17

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Drainage Patterns (B10)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Moss Trim Lines (B16)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Dry-Season Water Table (C2)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Crayfish Burrows (C8)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 18

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Ludwigia spp.	25	yes	OBL
2. Polygonum spp.	25	yes	FAC
3. Juncus effusus	20	yes	FACW
4. Amphicarpum muhlenbergianu	15	no	FACW
5. Rhyncospora spp.	10	no	FACW
6. Lyonia lucida	5	no	FACW
7. Eleocharis spp.	5	no	OBL
8. Panicum hemitomon	5	no	OBL
9. Cyperus spp.	5	no	FACW
10. Helianthus spp.	1	no	FAC
11. Xyris spp.	1	no	OBL
12.			
	117	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 19

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 18 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.831190 Long: -82.051499 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 19

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Amphicarpum muhlenbergianu	90	yes	FACW
2. Panicum hemitomon	20	yes	OBL
3. Polygonum spp.	10	no	FAC
4. Andropogon glomeratus	10	no	FACW
5. Rhyncospora spp.	10	no	FACW
6. Rhexia spp.	5	no	FACW
7. Dichromena spp.	5	no	FACW
8. Solidago spp.	5	no	FACU
9.			
10.			
11.			
12.			
	155	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Rubus spp.	10	yes	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 20

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 18 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.832230 Long: -82.051395 Datum: WGS84

Soil Map Unit Name: Wabasso fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Disturbed by mowing, marginal but has drainage and water stained leaves

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	✓ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Surface Soil Cracks (B6)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Sparsely Vegetated Concave Surface (B8)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Geomorphic Position (D2)
		____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 20

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Rubus spp.	10	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Amphicarpum muhlenbergianu	30	yes	FACW
2. Panicum hemitomon	25	yes	OBL
3. Paspalum notatum	25	yes	FACU
4. Cyperus spp.	20	yes	FACW
5. Xyris spp.	15	no	OBL
6. Hydrocotyle spp.	10	no	OBL
7. Eleocharis spp.	5	no	OBL
8. Solidago spp.	5	no	FACU
9. Scleria spp.	5	no	FACW
10. Eupatorium rotundifloium	5	no	FAC
11. Polygala spp.	5	no	FAC
12. Setaria spp.	5	no	FAC
	155	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Wabasso

SOIL Sampling Point: 20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1		10 YR 7/1				many fine and medium roots	very dark gray fine sand
4-16	10 YR 5/1							gray fine sand
16-28	5 YR 2/2		5 YR 4/4; 10 YR 6/1				common fine and medium roots	dark reddish brown fine sand
28-32	10 YR 7/3		10 YR 7/6; 10 YR 6/2				common fine and medium roots	very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 21

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 18 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.832402 Long: -82.052655 Datum: WGS84

Soil Map Unit Name: Monteocha fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: evidence of hogs rooting

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 21

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Pinus elliottii	5	yes	FACW
2. Liquidambar styraciflua	2	yes	FAC
3.			
4.			
5.			
6.			
7.			
	7	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Rubus spp.	10	yes	FACU
2. Ilex glabra	2	no	FACW
3.			
4.			
5.			
6.			
7.			
	12	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	80	yes	OBL
2. Solidago spp.	25	yes	FACU
3. Andropogon virginicus	20	yes	FAC
4. Rhyncospora spp.	10	no	FACW
5. Amphicarpum muhlenbergianu	10	no	FACW
6. Rhexia spp.	10	no	FACW
7. Xyris spp.	5	no	OBL
8. Pontederia cordata	5	no	OBL
9. Cyperus spp.	5	no	FACW
10. Eriocaulon spp.	5	no	OBL
11.			
12.			
	175	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Monteocha

SOIL Sampling Point: 21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12								black loamy sand
12-18	10 YR 6/2		10 YR 7/1				common fine and medium faint light gray	light brownish gray sand
18-27	7.5 YR 3/2							dark brown sand
27-34	10 YR 4/3		10 YR 3/3, 7.5 YR 3/2				common medium faint dark brown	dark brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 22

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 18 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.832402 Long: -82.052655 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 22

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Paspalum notatum	30	yes	FACU
2. Panicum hemitomon	25	yes	OBL
3. Rhyncospora spp.	15	yes	FACW
4. Cyperus spp.	15	yes	FACW
5. Andropogon virginicus	10	no	FAC
6. Setaria spp.	5	no	FAC
7. Carex albolutescens	5	no	FAC
8. Polygonum spp.	5	no	FAC
9. Xyris spp.	5	no	OBL
10. Rubus spp.	5	no	FACU
11.			
12.			
	120	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	75.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 23

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 18 19S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.833815 Long: -82.053458 Datum: WGS84

Soil Map Unit Name: Monteocha fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: hog trails through wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

_____ Surface Soil Cracks (B6)
_____ Sparsely Vegetated Concave Surface (B8)
_____ Drainage Patterns (B10)
_____ Moss Trim Lines (B16)
_____ Dry-Season Water Table (C2)
_____ Crayfish Burrows (C8)
_____ Saturation Visible on Aerial Imagery (C9)
_____ Geomorphic Position (D2)
_____ Shallow Aquitard (D3)
_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 23

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	80	yes	OBL
2. Rhyncospora spp.	50	yes	FACW
3. Pontederia cordata	40	yes	OBL
4. Andropogon virginicus	20	yes	FAC
5. Scleria spp.	20	yes	FACW
6. Fimbristylis spp.	20	yes	FACW
7. Sagittaria spp.	15	no	OBL
8. Solidago spp.	10	no	FACU
9. Xyris spp.	10	no	OBL
10. Rhexia spp.	10	no	FACW
11. Sabatia spp.	5	no	OBL
12.			
	280	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Rubus spp.	5	yes	FACU
2.			
3.			
4.			
5.			
	5	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	7	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	85.71	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Monteocha

SOIL Sampling Point: 23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12								black loamy sand
12-18	10 YR 6/2		10 YR 7/1				common fine and medium faint light gray	light brownish gray sand
18-27	7.5 YR 3/2							dark brown sand
27-34	10 YR 4/3		10 YR 3/3, 7.5 YR 3/2				common medium faint dark brown	dark brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 24

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.833815 Long: -82.053458 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: mowed, hog rooting

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 24

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Rhyncospora spp.	60	yes	FACW
2. Panicum hemitomon	50	yes	OBL
3. Carex albolutescens	20	yes	FAC
4. Andropogon glomeratus	15	no	FACW
5. Dichromena spp.	10	no	FACW
6. Setaria spp.	10	no	FAC
7. Cyperus spp.	10	no	FACW
8. Polygonum spp.	5	no	FAC
9. Acer rubrum	2	no	OBL
10. Liquidambar styraciflua	2	no	FAC
11.			
12.			
	184	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Mikania scandens	5	yes	FACW
2.			
3.			
4.			
5.			
	5	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 25

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.834612 Long: -82.054770 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ____, or Hydrology ____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: ditch along railroad tracks, disturbed with rocks, logs, etc.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ____	No ✓	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 25

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix spp.	5	yes	FACW
2. Acer rubrum	2	yes	OBL
3.			
4.			
5.			
6.			
7.			
	7	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	10	yes	FAC
2. Sambucus canadensis	5	yes	FACW
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Dichromena spp.	10	yes	FACW
2. Solidago spp.	10	yes	FACU
3. Aster elliotii	10	yes	OBL
4. Cyperus spp.	10	yes	FACW
5. Sagittaria lancifolia	10	yes	OBL
6. Andropogon glomeratus	5	no	FACW
7. Polygonum spp.	5	no	FAC
8. Acer rubrum	2	no	OBL
9.			
10.			
11.			
12.			
	62	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Ampelopsis arborea	20	yes	FAC
2. Vitus rotundifolia	20	yes	FAC
3. Lygodium japonicum	15	yes	FAC
4. Ipomoea quamoclit	15	yes	FACU
5.			
	70	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	11	(A)
Total Number of Dominant Species Across All Strata:	13	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	84.62	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 26

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.834694 Long: -82.055332 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: marginal; between right-of-way road and forested area

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Surface Soil Cracks (B6)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Sparsely Vegetated Concave Surface (B8)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery (C9)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Geomorphic Position (D2)
		____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 26

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Rhyncospora spp.	20	yes	FACW
2. Cyperus spp.	20	yes	FACW
3. Liquidambar styraciflua	10	no	FAC
4. Rubus spp.	10	no	FACU
5. Panicum hemitomon	10	no	OBL
6. Carex albolutescens	5	no	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 27

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.836069 Long: -82.056937 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: some cleared areas, exotics present

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

_____ Surface Soil Cracks (B6)
_____ Sparsely Vegetated Concave Surface (B8)
_____ Drainage Patterns (B10)
_____ Moss Trim Lines (B16)
_____ Dry-Season Water Table (C2)
_____ Crayfish Burrows (C8)
_____ Saturation Visible on Aerial Imagery (C9)
_____ Geomorphic Position (D2)
_____ Shallow Aquitard (D3)
_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 27

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	yes	OBL
2. Taxodium spp.	20	yes	OBL
3. Ulmus alata	20	yes	FACU
4. Liquidambar styraciflua	20	yes	FAC
5. Sabal palmetto	10	no	FAC
6. Quercus nigra	10	no	FAC
7. Quercus virginiana	5	no	FACU
	135	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Hypericum spp.	30	yes	FACW
2. Ardisia crenata	20	yes	NL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Vitus rotundifolia	10	yes	FAC
2.			
3.			
4.			
5.			
	10	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	83.33	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

__ Prevalence Index is ≤3.0[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 28

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.836416 Long: -82.057343 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 28

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Acer rubrum	5	yes	OBL
2. Liquidambar styraciflua	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Ulmus alata	20	yes	FACU
2. Centella asiatica	20	yes	FACW
3. Iris spp.	10	yes	OBL
4. Juncus spp.	10	yes	OBL
5. Rhyncospora spp.	10	yes	FACW
6. Dichromena spp.	10	yes	FACW
7. Cyperus spp.	10	yes	FACW
8. Scleria spp.	5	no	FACW
9. Polygonum spp.	5	no	FAC
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Ampelopsis arborea	10	yes	FAC
2.			
3.			
4.			
5.			
	10	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	9	(A)
Total Number of Dominant Species Across All Strata:	10	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	90.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Ft. Green

SOIL

Sampling Point: 28

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 29

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.835678 Long: -82.055552 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ____	No ✓	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 29

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Juncus spp.	40	yes	OBL
2. Woodwardia aereolata	30	yes	OBL
3. Saururus cernuus	20	yes	OBL
4. Rhyncospora spp.	20	yes	FACW
5. Polygonum spp.	20	yes	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	130	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 29

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 30

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.836325 Long: -82.056260 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 30

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Dichromena spp.	10	yes	FACW
2. Cyperus spp.	10	yes	FACW
3. Carex spp.	10	yes	FACW
4. Juncus spp.	10	yes	OBL
5. Panicum hemitomon	10	yes	OBL
6. Setaria spp.	10	yes	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL

Sampling Point: 30

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 31

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.836325 Long: -82.056260 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: grazed and trampled

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)	___ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Surface Soil Cracks (B6)
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	___ Sparsely Vegetated Concave Surface (B8)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Moss Trim Lines (B16)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Dry-Season Water Table (C2)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Crayfish Burrows (C8)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Saturation Visible on Aerial Imagery (C9)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Geomorphic Position (D2)
		___ Shallow Aquitard (D3)
		___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): _____
Water Table Present?	Yes ___	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 31

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Hydrocotyle spp.	50	yes	OBL
2. Juncus effusus	30	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL

Sampling Point: 31

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 32, 32A

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.836325 Long: -82.056260 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: grazed and trampled

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 32, 32A

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Polygonum spp.	40	yes	FAC
2. Commelina spp.	30	yes	FACW
3. Juncus effusus	20	yes	FACW
4. Eleocharis spp.	20	yes	OBL
5. Ludwigia spp.	10	no	OBL
6. Hydrocotyle spp.	10	no	OBL
7. Iris spp.	5	no	OBL
8. Cyperus spp.	5	no	FACW
9. Cephalanthus occidentalis	5	no	OBL
10. Thelypteris spp.	5	no	FACW
11. Eupatorium capillifolium	5	no	FACU
12.			
	155	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 32, 32A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 33

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.840185 Long: -82.062204 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: grazed and trampled by horses

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-3
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 33

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	15	yes	OBL
2. Nyssa spp.	10	yes	OBL
3. Liquidambar styraciflua	5	no	FAC
4.			
5.			
6.			
7.			
	30	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eupatorium capillifolium	80	yes	FACU
2. Centella spp.	40	yes	FACW
3. Hydrocotyle spp.	30	yes	OBL
4. Dichondra spp.	20	yes	FAC
5. Commelina spp.	20	yes	FACW
6. Imperata cylindrica	20	yes	NL
7. Panicum hemitomon	10	no	OBL
8. Polygonum spp.	10	no	FAC
9. Cyperus spp.	10	no	FACW
10. Rhyncospora spp.	10	no	FACW
11. Saururus cernuus	10	no	OBL
12. Hyptis alata	5	no	OBL
	265	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	7	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	85.71	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL Sampling Point: 33

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/						numerous fine and few medium roots	very dark gray
4-9	10 YR 5/2						common fine roots	grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 34

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.841384 Long: -82.062171 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: portions are mowed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 34

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eupatorium capillifolium	40	yes	FACU
2. Panicum hemitomon	20	yes	OBL
3. Imperata cylindrica	20	yes	NL
4. Juncus spp.	15	no	OBL
5. Polygonum spp.	10	no	FAC
6. Ludwigia spp.	10	no	OBL
7. Sagittaria spp.	5	no	OBL
8. Cyperus spp.	5	no	FACW
9. Fimbristylis spp.	5	no	FACW
10. Andropogon glomeratus	5	no	FACW
11. Dichromena spp.	5	no	FACW
12.			
	140	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL Sampling Point: 34

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/						numerous fine and few medium roots	very dark gray
4-9	10 YR 5/2						common fine roots	grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 35

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.841469 Long: -82.062558 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: mowed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 35

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Commelina spp.	40	yes	FACW
2. Juncus effusus	30	yes	FACW
3. Eleocharis spp.	10	no	OBL
4. Polygonum spp.	10	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL Sampling Point: 35

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/						numerous fine and few medium roots	very dark gray
4-9	10 YR 5/2						common fine roots	grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 36

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.841469 Long: -82.062558 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: palustrine forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: clearcut vegetation

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-5
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 36

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	20	yes	OBL
2. Fraxinus caroliniana	20	yes	OBL
3. Diospyros virginiana	10	yes	FAC
4. Liquidambar styraciflua	10	yes	FAC
5. Taxodium spp.	10	yes	OBL
6. Ulmus alata	10	yes	FACU
7. Ulmus americana	10	yes	FACW
	90	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Liquidambar styraciflua	30	yes	FAC
2. Sabal palmetto	10	yes	FAC
3. Magnolia virginiana	10	yes	FACW
4. Carpinus caroliniana	10	yes	FAC
5. Salix spp.	5	no	FACW
6.			
7.			
	65	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Hydrocotyle spp.	10	yes	OBL
2. Dichromena spp.	10	yes	FACW
3. Cyperus spp.	10	yes	FACW
4. Ludwigia peruviana	10	yes	OBL
5. Andropogon glomeratus	10	yes	FACW
6. Eleocharis spp.	10	yes	OBL
7. Solidago spp.	10	yes	FACU
8. Aster elliotii	5	no	OBL
9.			
10.			
11.			
12.			
	75	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 16 (A)

Total Number of Dominant Species Across All Strata: 18 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 88.89 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL Sampling Point: 36

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 37

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 13 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.841806 Long: -82.063095 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: mowed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 37

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Juncus effusus	40	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL Sampling Point: 37

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 38

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 12 19S 22E / 11 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.844331 Long: -82.065154 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 38

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix spp.	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ludwigia peruviana	10	yes	OBL
2. Sesbania spp.	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Cyperus spp.	40	yes	FACW
2. Setaria spp.	30	yes	FAC
3. Erianthus giganteus	10	yes	FACW
4. Rhyncospora spp.	10	yes	FACW
5. Phyla nodiflora	10	yes	FACW
6. Dichromena spp.	10	yes	FACW
7. Lemna spp.	10	yes	OBL
8. Ludwigia spp.	10	yes	OBL
9. Hydrocotyle spp.	10	yes	OBL
10. Aster elliotii	10	yes	OBL
11. Thelypteris spp.	10	yes	FACW
12. Andropogon glomeratus	10	yes	FACW
	170	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	15	(A)
Total Number of Dominant Species Across All Strata:	15	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____ x1=	0
FACW species	_____ x2=	0
FAC species	_____ x3=	0
FACU species	_____ x4=	0
UPL species	_____ x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Nittaw

SOIL Sampling Point: 38

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 39

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 12 19S 22E / 11 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.844331 Long: -82.065154 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 39

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Cyperus spp.	80	yes	FACW
2. Andropogon glomeratus	5	no	FACW
3. Aster elliotii	5	no	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL Sampling Point: 39

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 40

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 11 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.847573 Long: -82.068680 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: trampled by cows

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 40

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ludwigia spp.	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Cyperus spp.	30	yes	FACW
2. Setaria spp.	30	yes	FAC
3. Hydrocotyle spp.	30	yes	OBL
4. Dichondra spp.	30	yes	FAC
5. Scirpus spp.	10	no	OBL
6. Dichromena spp.	10	no	FACW
7. Polygonum spp.	5	no	FAC
8. Andropogon glomeratus	5	no	FACW
9. Erianthus spp.	5	no	FAC
10.			
11.			
12.			
	155	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL Sampling Point: 40

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 41

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 11 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.848938 Long: -82.070055 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: trampled by cows

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 41

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix spp.	10	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Hydrocotyle spp.	80	yes	OBL
2. Salvinia minima	50	yes	OBL
3. Cyperus spp.	20	yes	FACW
4. Helianthus spp.	5	no	FAC
5. Andropogon glomeratus	5	no	FACW
6. Commelina spp.	5	no	FACW
7. Setaria spp.	2	no	FAC
8. Erianthus spp.	2	no	FAC
9.			
10.			
11.			
12.			
	169	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL Sampling Point: 41

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 42

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 11 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.851715 Long: -82.073012 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: trampled by cows

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 42

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Limnobium spongia	80	yes	OBL
2. Salvinia minima	40	yes	OBL
3. Setaria spp.	25	yes	FAC
4. Azola caroliniana	20	yes	OBL
5. Cyperus spp.	10	no	FACW
6. Panicum repens	10	no	FACW
7. Carex spp.	5	no	FACW
8. Helianthus spp.	5	no	FAC
9. Lemna spp.	5	no	OBL
10. Hyptis alata	2	no	OBL
11.			
12.			
	202	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL

Sampling Point: 42

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 43

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 11 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.852502 Long: -82.074109 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: roadside ditch

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 43

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ludwigia spp.	20	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Commelina spp.	60	yes	FACW
2. Setaria spp.	20	yes	FAC
3. Juncus effusus	5	no	FACW
4. Andropogon glomeratus	5	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL

Sampling Point: 43

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 44

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 11 19S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.852502 Long: -82.074109 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 44

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Limnobium spongia	80	yes	OBL
2. Salvinia minima	40	yes	OBL
3. Setaria spp.	25	yes	FAC
4. Azola caroliniana	20	yes	OBL
5. Cyperus spp.	10	no	FACW
6. Panicum repens	10	no	FACW
7. Pontederia cordata	10	no	OBL
8. Carex spp.	5	no	FACW
9. Helianthus spp.	5	no	FAC
10. Lemna spp.	5	no	OBL
11. Hyptis alata	2	no	OBL
12.			
	212	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL

Sampling Point: **44**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 45

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 11 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.854535 Long: -82.076922 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: clearcut and mowed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 45

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	yes	OBL
2. Liquidambar styraciflua	20	yes	FAC
3. Fraxinus caroliniana	10	no	OBL
4. Ulmus americana	10	no	FACW
5. Pinus elliottii	5	no	FACW
6. Quercus nigra	5	no	FAC
7. Taxodium spp.	5	no	OBL
	85	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Sabal palmetto	10	yes	FAC
2. Sapium sebiferum	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Serenoa repens	10	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Juncus effusus	20	yes	FACW
2. Pontederia cordata	20	yes	OBL
3. Saururus cernuus	10	yes	OBL
4. Cyperus spp.	10	yes	FACW
5. Panicum hemitomon	10	yes	OBL
6. Gelsemium spp.	5	no	FAC
7. Woodwardia virginica	5	no	OBL
8. Sagittaria lancifolia	5	no	OBL
9. Limnobium spongia	5	no	OBL
10. Bacopa caroliniana	5	no	OBL
11. Centella spp.	5	no	FACW
12. Juncus spp.	5	no	OBL
	105	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Vitus rotundifolia	10	yes	FAC
2.			
3.			
4.			
5.			
	10	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	10	(A)
Total Number of Dominant Species Across All Strata:	11	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	90.91	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

__ Prevalence Index is ≤3.0[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL

Sampling Point: 45

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/							very dark gray
4-9	10 YR 5/2							grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 45A

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 11 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.854416 Long: -82.076171 Datum: WGS84

Soil Map Unit Name: Nittaw muck NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: connected to 45 through a culvert

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 45A

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Juncus effusus	90	yes	FACW
2. Eupatorium capillifolium	5	no	FACU
3. Andropogon glomeratus	5	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Nittaw

SOIL Sampling Point: 45A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 2/2, 5 YR 2/1							dark reddish brown, black rubbed muck
7-15	10 YR 2/1							black fine sand
15-28	10 YR 3/1							very dark gray sandy clay
28-52	5 Y 4/1		5 YR 4/2, 5 YR 5/4, 5/6				few fine faint olive gray and few fine distinct olive	dark gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 46

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 11 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.855635 Long: -82.078035 Datum: WGS84

Soil Map Unit Name: Wabasso fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: manmade retention pond

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 46

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ludwigia peruviana	30	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eleocharis spp.	20	yes	OBL
2. Symphyotrichum tenuifolium	20	yes	NL
3. Hydrocotyle spp.	20	yes	OBL
4. Ludwigia repens	20	yes	OBL
5. Pontederia cordata	5	no	OBL
6. Typha spp.	5	no	OBL
7. Cyperus spp.	5	no	FACW
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Wabasso

SOIL Sampling Point: 46

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1							very dark gray fine sand
4-16	10 YR 5/1							gray fine sand
16-28	5 YR 2/2		5 YR 4/4; 10 YR 6/1				common fine and medium roots	dark reddish brown fine sand
28-32	10 YR 7/3		10 YR 7/6; 10 YR 6/2				common fine and medium roots	very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 47

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 11 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.856192 Long: -82.079178 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: portions trampled by cows

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 47

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Pontederia cordata	80	yes	OBL
2. Cyperus spp.	20	yes	FACW
3. Juncus effusus	10	no	FACW
4. Dichromena spp.	10	no	FACW
5. Paspalum notatum	10	no	FACU
6. Symphyotrichum tenuifolium	5	no	NL
7. Polygonum spp.	5	no	FAC
8. Saururus cernuus	5	no	OBL
9. Hydrocotyle spp.	5	no	OBL
10.			
11.			
12.			
	150	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

	Total % Cover of:		Multiply by:
OBL species		x1=	0
FACW species		x2=	0
FAC species		x3=	0
FACU species		x4=	0
UPL species		x5=	
Column Totals:	0 (A)		0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL Sampling Point: 47

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/						numerous fine and few medium roots	very dark gray
4-9	10 YR 5/2						common fine roots	grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 48

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 11 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.857409 Long: -82.079915 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: cattle present, some trampling in wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)	___ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Surface Soil Cracks (B6)
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	___ Sparsely Vegetated Concave Surface (B8)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Moss Trim Lines (B16)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Dry-Season Water Table (C2)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Crayfish Burrows (C8)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Saturation Visible on Aerial Imagery (C9)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Geomorphic Position (D2)
		___ Shallow Aquitard (D3)
		___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): _____
Water Table Present?	Yes ___	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 0-6

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 48

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Phyla nodiflora	60	yes	FACW
2. Polygonum spp.	20	yes	FAC
3. Juncus effusus	10	no	FACW
4. Hydrocotyle spp.	10	no	OBL
5. Symphyotrichum tenuifolium	5	no	NL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL Sampling Point: 48

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/						numerous fine and few medium roots	very dark gray
4-9	10 YR 5/2						common fine roots	grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 49, 49A

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 11 19E 22S / 2 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.858227 Long: -82.080982 Datum: WGS84

Soil Map Unit Name: Floridana mucky fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: trampling by cattle, ditched

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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VEGETATION - Use scientific names of plants

Sampling Point: 49, 49A

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Pontederia cordata	40	yes	OBL
2. Ludwigia peruviana	40	yes	OBL
3. Juncus effusus	10	no	FACW
4. Cyperus spp.	5	no	FACW
5. Helianthus spp.	5	no	FAC
6. Dichromena spp.	5	no	FACW
7. Polygonum spp.	5	no	FAC
8. Typha spp.	5	no	OBL
9.			
10.			
11.			
12.			
	115	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Floridana

SOIL Sampling Point: 49, 49A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	N 2/0							black sand
7-12	10 YR 2/1		10 YR 5/1				many/pockets and streaks	black sand
12-29	2.5 Y 5/2		10 YR 6/6; 10 YR 5/1				few to common/mottles	grayish brown sand
29-38	10 YR 4/1		10 YR 6/2; 10 YR 5/1				few to common/mottles	dark gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 50

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 11 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.857380 Long: -82.080762 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 50

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Juncus effusus	20	yes	FACW
2. Paspalum notatum	10	yes	FACU
3. Hydrocotyle spp.	10	yes	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL Sampling Point: 50

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/						numerous fine and few medium roots	very dark gray
4-9	10 YR 5/2						common fine roots	grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 51

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 2 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.860746 Long: -82.083442 Datum: WGS84

Soil Map Unit Name: Floridana mucky fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: trampled by cattle

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 51

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	2	yes	FAC
2. Taxodium spp.	2	yes	OBL
3.			
4.			
5.			
6.			
7.			
	4	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Sabal palmetto	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Polygonum spp.	50	yes	FAC
2. Juncus effusus	30	yes	FACW
3. Phyla nodiflora	20	yes	FACW
4. Ludwigia arcuata	10	no	OBL
5. Cyperus spp.	10	no	FACW
6. Pontederia cordata	10	no	OBL
7. Saururus cernuus	5	no	OBL
8. Lemna spp.	5	no	OBL
9. Rhyncospora spp.	5	no	FACW
10. Symphyotrichum tenuifolium	5	no	NL
11. Hydrocotyle spp.	5	no	OBL
12.			
	155	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Floridana

SOIL Sampling Point: 51

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	N 2/0							black sand
7-12	10 YR 2/1		10 YR 5/1				many/pockets and streaks	black sand
12-29	2.5 Y 5/2		10 YR 6/6; 10 YR 5/1				few to common/mottles	grayish brown sand
29-38	10 YR 4/1		10 YR 6/2; 10 YR 5/1				few to common/mottles	dark gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 52

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 2 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.862793 Long: -82.083559 Datum: WGS84

Soil Map Unit Name: Wabasso fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: trampled by cattle

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 52

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Juncus effusus	60	yes	FACW
2. Hydrocotyle spp.	20	yes	OBL
3. Polygonum spp.	20	yes	FAC
4. Cyperus spp.	10	no	FACW
5. Panicum hemitomon	10	no	OBL
6. Ludwigia arcuata	10	no	OBL
7. Fuirena spp.	5	no	OBL
8.			
9.			
10.			
11.			
12.			
	135	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Wabasso

SOIL Sampling Point: 52

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1							very dark gray fine sand
4-16	10 YR 5/1							gray fine sand
16-28	5 YR 2/2		5 YR 4/4; 10 YR 6/1				common fine and medium roots	dark reddish brown fine sand
28-32	10 YR 7/3		10 YR 7/6; 10 YR 6/2				common fine and medium roots	very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 53

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 2 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.866030 Long: -82.082769 Datum: WGS84

Soil Map Unit Name: EauGallie fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: fallen tree debris and cut wood in water

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-24
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 53

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix spp.	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Polygonum spp.	60	yes	FAC
2. Eupatorium capillifolium	10	no	FACU
3. Pontederia cordata	5	no	OBL
4. Andropogon glomeratus	5	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- EauGallie

SOIL Sampling Point: 53

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black fine sand
6-18	10 YR 7/2							light gray fine sand
18-21	10 YR 5/2							grayish brown fine sand
21-26	10 YR 2/2							very dark brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 54

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 2 19E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.868644 Long: -82.083208 Datum: WGS84

Soil Map Unit Name: Paisley fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 54

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix spp.	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Rhyncospora spp.	30	yes	FACW
2. Panicum repens	30	yes	FACW
3. Panicum hemitomon	20	yes	OBL
4. Andropogon glomeratus	15	no	FACW
5. Cyperus spp.	10	no	FACW
6. Juncus effusus	10	no	FACW
7. Ludwigia peruviana	10	no	OBL
8. Sesbania spp.	5	no	FAC
9. Polygonum spp.	5	no	FAC
10. Erianthus spp.	5	no	FAC
11. Hyptis alata	5	no	OBL
12. Spartina bakeri	5	no	FACW
	150	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Paisley

SOIL Sampling Point: 54

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 3/, N 2/						numerous fine and few medium roots	very dark gray
4-9	10 YR 5/2						common fine roots	grayish brown loamy fine sand
9-26	N 4/						few fine distinct yellowish brown mottles	dark gray sandy clay
26-45	N 5/						common fine distinct strong brown mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 55

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 35 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.879648 Long: -82.095171 Datum: WGS84

Soil Map Unit Name: Water NWI classification: lacustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: connects to wetland 56

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-60
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 55

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eichhornia sp.	25	yes	OBL
2. Ludwigia spp.	20	yes	OBL
3. Hydrocotyle umbellata	10	no	OBL
4. Pontederia cordata	5	no	OBL
5. Panicum repens	5	no	FACW
6. Juncus effusus	5	no	FACW
7. Sesbania spp.	5	no	FAC
8. Saururus cernuus	1	no	OBL
9. Bidens spp.	1	no	FACW
10. Salvinia minima	1	no	OBL
11. Juncus megacephalus	1	no	OBL
12.			
	79	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____ x1=	0
FACW species	_____ x2=	0
FAC species	_____ x3=	0
FACU species	_____ x4=	0
UPL species	_____ x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Water

SOIL Sampling Point: 55

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 56

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 35 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.879569 Long: -82.096467 Datum: WGS84

Soil Map Unit Name: Urban land NWI classification: lacustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: culvert connects 56 to 57

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-60
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 56

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eichhornia sp.	25	yes	OBL
2. Ludwigia spp.	20	yes	OBL
3. Hydrocotyle umbellata	10	no	OBL
4. Pontederia cordata	5	no	OBL
5. Panicum repens	5	no	FACW
6. Juncus effusus	5	no	FACW
7. Sesbania spp.	5	no	FAC
8. Saururus cernuus	1	no	OBL
9. Bidens spp.	1	no	FACW
10. Salvinia minima	1	no	OBL
11. Juncus megacephalus	1	no	OBL
12.			
	79	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Urban

SOIL Sampling Point: 56

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 57

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 35 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.879540 Long: -82.097292 Datum: WGS84

Soil Map Unit Name: Urban land NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes____ No ✓

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-24
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 57

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eichhornia sp.	60	yes	OBL
2. Juncus effusus	40	yes	FACW
3. Pontederia cordata	10	no	OBL
4. Andropogon glomeratus	10	no	FACW
5. Ludwigia repens	10	no	OBL
6. Symphyotrichum tenuifolium	10	no	NL
7. Helianthus spp.	5	no	FAC
8.			
9.			
10.			
11.			
12.			
	145	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Urban

SOIL Sampling Point: 57

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 58

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 35 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.879775 Long: -82.098833 Datum: WGS84

Soil Map Unit Name: Floridana mucky fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Marsh connects through ditches to larger marsh on southern edge of right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 58

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	5	yes	FAC
2. Nyssa sylvatica var. biflora	3	yes	FAC
3. Acer rubrum	3	yes	OBL
4. Salix spp.	3	yes	FACW
5. Ilex cassine	3	yes	FACW
6.			
7.			
	17	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Juncus effusus	25	yes	FACW
2. Panicum hemitomon	10	yes	OBL
3. Polygonum spp.	10	yes	FAC
4. Pontederia cordata	10	yes	OBL
5. Spartina spp.	5	no	FACW
6. Eupatorium capillifolium	5	no	FACU
7. Sesbania spp.	5	no	FAC
8. Saururus cernuus	5	no	OBL
9. Limnobium spongia	5	no	OBL
10. Lemna spp.	5	no	OBL
11. Salvinia minima	5	no	OBL
12. Woodwardia virginica	3	no	OBL
	93	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	9	(A)
Total Number of Dominant Species Across All Strata:	9	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Floridana

SOIL Sampling Point: 58

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	N 2/0							black sand
7-12	10 YR 2/1		10 YR 5/1				many/pockets and streaks	black sand
12-29	2.5 Y 5/2		10 YR 6/6; 10 YR 5/1				few to common/mottles	grayish brown sand
29-38	10 YR 4/1		10 YR 6/2; 10 YR 5/1				few to common/mottles	dark gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 59

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 35 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.879703 Long: -82.101769 Datum: WGS84

Soil Map Unit Name: Pomello fine sand, 0 to 5 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 59

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix spp.	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eichhornia sp.	75	yes	OBL
2. Juncus effusus	5	no	FACW
3. Eupatorium capillifolium	3	no	FACU
4. Panicum hemitomon	3	no	OBL
5. Polygonum spp.	3	no	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	89	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter-Pomello

SOIL Sampling Point: 59

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/1							black fine sand
4-19	10YR 7/1		10 YR 4/2				few/ streaks	very dark brown fine sand
19-30+	10YR 8/1		10 YR 3/1				common	dark grayish brown fine sand
								pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 60

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 35 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.880569 Long: -82.100285 Datum: WGS84

Soil Map Unit Name: Floridana mucky fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Disturbed area on east side of wetland, fill dumped on edge; connected to wetland 58 through culvert

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-36
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 60

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Cyperus spp.	30	yes	FACW
2. Juncus effusus	20	yes	FACW
3. Eupatorium capillifolium	20	yes	FACU
4. Ludwigia repens	20	yes	OBL
5. Spartina bakeri	10	no	FACW
6. Sesbania spp.	10	no	FAC
7. Rhyncospora spp.	10	no	FACW
8. Panicum hemitomon	10	no	OBL
9. Polygonum spp.	10	no	FAC
10. Eichhornia sp.	10	no	OBL
11. Hyptis alata	5	no	OBL
12. Scleria spp.	5	no	FACW
	160	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	75.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____ x1=	0
FACW species	_____ x2=	0
FAC species	_____ x3=	0
FACU species	_____ x4=	0
UPL species	_____ x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Floridana

SOIL Sampling Point: 60

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	N 2/0							black sand
7-12	10 YR 2/1		10 YR 5/1				many/pockets and streaks	black sand
12-29	2.5 Y 5/2		10 YR 6/6; 10 YR 5/1				few to common/mottles	grayish brown sand
29-38	10 YR 4/1		10 YR 6/2; 10 YR 5/1				few to common/mottles	dark gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 61

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 33 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.879927 Long: -82.104661 Datum: WGS84

Soil Map Unit Name: Pits-Dumps complex NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Trampled by cattle

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	___ Water-Stained Leaves (B9)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	
✓ Saturation (A3)	___ Marl Deposits (B15) **(LRR U)**	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-3
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 61

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Sagittaria filiformis	90	yes	NL
2. Ludwigia repens	40	yes	OBL
3. Panicum repens	1	no	FACW
4. Pontederia cordata	1	no	OBL
5. Ludwigia arcuata	1	no	OBL
6. Cyperus spp.	1	no	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	134	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Pits/Dumps complex

SOIL Sampling Point: 61

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 62

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 33 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.881828 Long: -82.105843 Datum: WGS84

Soil Map Unit Name: Sparr fine sand, 0 to 5 percent slopes NWI classification: lacustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ___ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: trampled by cattle

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-24
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 62

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Limnobium spongia	50	yes	OBL
2. Panicum repens	10	no	FACW
3. Panicum hemitomon	1	no	OBL
4. Lemna spp.	1	no	OBL
5. Spirodela spp.	1	no	OBL
6. Cyperus spp.	1	no	FACW
7. Ludwigia leptocarpa	1	no	OBL
8. Polygonum punctatum	1	no	FACW
9. Hydrocotyle umbellata	1	no	OBL
10. Alternanthera philoxeroides	1	no	OBL
11.			
12.			
	68	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

	Total % Cover of:		Multiply by:
OBL species		x1=	0
FACW species		x2=	0
FAC species		x3=	0
FACU species		x4=	0
UPL species		x5=	
Column Totals:	0 (A)		0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter-Sparr

SOIL Sampling Point: 62

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 5/1							fine sand
3-8	10YR 7/3		10YR4/1,2/1				common	fine sand
8-20	10YR 7/3							loamy fine sand
20-30	10YR 8/2							loamy fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 63

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 33 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.882504 Long: -82.105435 Datum: WGS84

Soil Map Unit Name: Tavares fine sand NWI classification: lacustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ____, or Hydrology ____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: bare ground; trampled by cattle

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 63

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Lemna spp.	30	yes	OBL
2. Ludwigia arcuata	20	yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Tavares

SOIL Sampling Point: 63

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 3/2							very dark grayish brown fine sand
8-28	10 YR 5/2							grayish brown fine sand
28-46	10 YR 6/3							pale brown fine sand
46-68	10 YR 7/4							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 64

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 33 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.886408 Long: -82.109143 Datum: WGS84

Soil Map Unit Name: Floridana mucky fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ____, or Hydrology ____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ____	Depth (inches): 0-96
Water Table Present?	Yes ✓	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 64

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Taxodium distichum	10	yes	OBL
2. Liquidambar styraciflua	5	yes	FAC
3. Ulmus spp.	5	yes	FAC
4. Fraxinus caroliniana	5	yes	OBL
5.			
6.			
7.			
	25	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Sabal palmetto	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Symphyotrichum tenuifolium	20	yes	NL
2. Phyla nodiflora	20	yes	FACW
3. Dichondra spp.	20	yes	FAC
4. Panicum hemitomon	10	no	OBL
5. Setaria spp.	10	no	FAC
6. Hydrocotyle spp.	10	no	OBL
7. Cyperus spp.	10	no	FACW
8. Panicum repens	5	no	FACW
9. Dichromena spp.	5	no	FACW
10. Lachnanthes caroliniana	5	no	OBL
11.			
12.			
	115	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	7	(A)
Total Number of Dominant Species Across All Strata:	7	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Floridana

SOIL Sampling Point: 64

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	N 2/0							black sand
7-12	10 YR 2/1		10 YR 5/1				many/pockets and streaks	black sand
12-29	2.5 Y 5/2		10 YR 6/6; 10 YR 5/1				few to common/mottles	grayish brown sand
29-38	10 YR 4/1		10 YR 6/2; 10 YR 5/1				few to common/mottles	dark gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 65

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 33 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.886275 Long: -82.109572 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil _____, or Hydrology _____ significantly disturbed? Are circumstances normal? Yes ____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 65

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	80	yes	OBL
2. Commelina spp.	30	yes	FACW
3. Hydrocotyle spp.	10	no	OBL
4. Sesbania spp.	10	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	130	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Ft. Green

SOIL Sampling Point: 65

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Sumter Sampling Date: 11/18/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 66

Investigator(s): Karl Bullock, Stacy Rizzo, Ryan Lamar Section, Township, Range: 33 18E 22S

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.886217 Long: -82.110615 Datum: WGS84

Soil Map Unit Name: Pompano fine sand NWI classification: palustrine forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: 66

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus pennsylvanica	10	yes	FACW
2. Liquidambar styraciflua	10	yes	FAC
3. Carpinus caroliniana	10	yes	FAC
4. Acer rubrum	5	no	OBL
5. Quercus nigra	5	no	FAC
6. Taxodium spp.	5	no	OBL
7. Magnolia virginiana	5	no	FACW
	50	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Callicarpa americana	3	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	3	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Eupatorium capillifolium	5	yes	FACU
2. Sesbania spp.	5	yes	FAC
3. Lachnanthes caroliniana	3	yes	OBL
4. Andropogon glomeratus	3	yes	FACW
5. Hydrocotyle umbellata	3	yes	OBL
6. Polygonum punctatum	3	yes	FACW
7. Dichromena spp.	3	yes	FACW
8. Cyperus spp.	3	yes	FACW
9. Urena lobata	3	yes	FACU
10.			
11.			
12.			
	31	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	10	(A)
Total Number of Dominant Species Across All Strata:	13	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	76.92	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1= 0
FACW species		x2= 0
FAC species		x3= 0
FACU species		x4= 0
UPL species		x5=
Column Totals:	0 (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter-Pompano

SOIL

Sampling Point: 66

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 2/2							very dark brown sand
2-7	10 YR 4/1		10 YR 5/2				few/distinct	dark gray sand
7-12	10 YR 6/2		10 YR 4/1; 10 YR 3/1				many distinct	light grayish brown sand
12-22	10 YR 7/3							very pale brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: A

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 1 20S 23E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.963163 Long: -82.595612 Datum: WGS84

Soil Map Unit Name: Pompano fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____Aquatic Fauna (B13)	____Surface Soil Cracks (B6)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Sparsely Vegetated Concave Surface (B8)
✓ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Drainage Patterns (B10)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Moss Trim Lines (B16)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Crayfish Burrows (C8)
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery (C9)
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Geomorphic Position (D2)
		____Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Field Observations: surface water yes in ditch no in overall wetland

Surface Water Present?	Yes ✓ No _____	Depth (inches): 0-3	**Wetland Hydrology Present?** Yes ✓ No _____
Water Table Present?	Yes ✓ No _____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: A

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Rubus cuneifolius	6	yes	FACU
2. Cephalanthus occidentalis	2	yes	OBL
3.			
4.			
5.			
6.			
7.			
	8	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	80	yes	OBL
2. Typha spp.	3	no	OBL
3. Centella asiatica	3	no	FACW
4. Eupatorium capillifolium	2	no	FACU
5. Polygonum punctatum	2	no	FACW
6. Nuphar luteum	2	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	92	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Pompano

SOIL Sampling Point: A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/1							black fine sand
5-15	10 YR 6/2		10 YR 4/2				common medium distinct stains	light brownish gray fine sand
15-45	10 YR 7/1							light gray fine sand
45-80	10 YR 7/1							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ✓ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: B

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 33 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.962471 Long: -82.591800 Datum: WGS84

Soil Map Unit Name: Pompano fine sand, depressional NWI classification: lacustrine/palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	✓ Aquatic Fauna (B13)	
____ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
✓ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
✓ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators present satisfy Corp hydrology requirments.

VEGETATION - Use scientific names of plants

Sampling Point: B

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix caroliniana	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Centella asiatica	20	yes	FACW
2. Ludwigia repens	20	yes	OBL
3. Bacopa caroliniana	10	no	OBL
4. Eupatorium capillifolium	5	no	FACU
5. Eleocharis baldwinii	35	yes	FACW
6. Polygonum punctatum	5	no	FACW
7. Panicum hemitomon	5	no	OBL
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Pompano

SOIL Sampling Point: B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/1							black fine sand
5-15	10 YR 6/2		10 YR 4/2				common medium distinct stains	light brownish gray fine sand
15-45	10 YR 7/1							light gray fine sand
45-80	10 YR 7/1							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
✓ Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: C

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 33 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.962143 Long: -82.589486 Datum: WGS84

Soil Map Unit Name: Adamsville fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-1
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-1
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: C

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Rubus cuneifolius	5	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Polygonum punctatum	35	yes	FACW
2. Panicum hemitomon	35	yes	OBL
3. Andropogon glomeratus	5	no	FACW
4. Eupatorium capillifolium	10	no	FACU
5. Aster carolinianus	5	no	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Adamsville

SOIL Sampling Point: C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: D

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 33 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.962630 Long: -82.589341 Datum: WGS84

Soil Map Unit Name: Water NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
✓ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
✓ Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
____Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-48
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-36
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-24

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: D

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	15	yes	OBL
2. Xyris elliottii	5	no	OBL
3. Centella asiatica	10	yes	FACW
4. Eupatorium capillifolium	15	yes	FACU
5. Polygonum punctatum	5	no	FACW
6. Hydrocotyle umbellata	5	no	OBL
7. Panicum repens	10	yes	FACW
8. Nymphaea odorata	1	no	OBL
9.			
10.			
11.			
12.			
	66	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	75.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Water

SOIL Sampling Point: D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ✓ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks: Hydric soil indicators are present in soil profile.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: E

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 33 17S 17E/ 34 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.963188 Long: -82.585877 Datum: WGS84

Soil Map Unit Name: Adamsville fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No ____

Are Vegetation ✓, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	✓ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
✓ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ____	Depth (inches): 0-6
Water Table Present?	Yes ✓	No ____	Depth (inches): 0-24
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0 -12

Wetland Hydrology Present? **Yes** ✓ **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point:

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Polygonum punctatum	25	yes	FACW
2. Eupatorium capillifolium	60	yes	FACU
3. Panicum hemitomon	5	no	OBL
4. Centella asiatica	10	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	50.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:			Multiply by:
OBL species	5	x1=	5
FACW species	10	x2=	20
FAC species	0	x3=	0
FACU species	85	x4=	340
UPL species	0	x5=	0
Column Totals:	100 (A)		365 (B)

Prevalance Index = B/A = 3.65

Hydrophytic Vegetation Indicators:

_____ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

✓ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community. Cattle and agricultural disturbance and possibly 3 years of drought before this wet season.

County/soil: Citrus- Adamsville

SOIL Sampling Point: E

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: F

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 34 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.963048 Long: -82.584590 Datum: WGS84

Soil Map Unit Name: Adamsville fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil ✓, or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
✓ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-3
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-12
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: F

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	40	yes	OBL
2. Eupatorium capillifolium	5	no	FACU
3. Centella asiatica	10	no	FACW
4. Panicum hemitomon	10	no	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Adamsville

SOIL Sampling Point: F

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
✓ 1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks: Hydric soil indicators are present in soil profile.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: G

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 33 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.963543 Long: -82.591716 Datum: WGS84

Soil Map Unit Name: Pompano fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Ditch.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____Aquatic Fauna (B13)	____Surface Soil Cracks (B6)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Sparsely Vegetated Concave Surface (B8)
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Drainage Patterns (B10)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Moss Trim Lines (B16)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Crayfish Burrows (C8)
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery (C9)
✓ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Geomorphic Position (D2)
		____Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-4
Water Table Present?	Yes ✓	No _____	Depth (inches): 0 -24
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: G

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Polygonum punctatum	25	yes	FACW
2. Panicum hemitomon	25	yes	OBL
3. Eupatorium capillifolium	25	yes	FACU
4. Eleocharis baldwinii	25	yes	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Pompano

SOIL Sampling Point: G

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/1							black fine sand
5-15	10 YR 6/2		10 YR 4/2				common medium distinct stains	light brownish gray fine sand
15-45	10 YR 7/1							light gray fine sand
45-80	10 YR 7/1							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
✓ 1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/04/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: H

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 35 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.962781 Long: -82.561539 Datum: WGS84

Soil Map Unit Name: Candler fine sand, 0 to 5 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
✓ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-4
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-24
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: H

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix caroliniana	5	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Rubus cuneifolius	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Ludwigia peruviana	25	yes	OBL
2. Panicum hemitomon	30	yes	OBL
3. Typha spp.	10	no	OBL
4. Sesbania spp.	20	yes	FAC
5. Juncus megacephalus	2	no	OBL
6. Andropogon glomeratus	10	no	FACW
7. Nymphaea odorata	1	no	OBL
8.			
9.			
10.			
11.			
12.			
	98	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Candler

SOIL Sampling Point: H

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 4/2							dark grayish brown fine sand
4-14	10 YR 7/3							very pale brown fine sand
14-35	10YR 7/4							very pale brown fine sand
35-52	10/YR 6/4							light yellowish brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
✓ Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: I

Investigator(s): Justin Styer, Lianne Ramos Mokfienski Section, Township, Range: 34 17S 19E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.964130 Long: -82.392811 Datum: WGS84

Soil Map Unit Name: Lake, clayey surface 0 to 5 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are circumstances normal? Yes ✓ No____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____Aquatic Fauna (B13)	✓ Surface Soil Cracks (B6)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Sparsely Vegetated Concave Surface (B8)
✓ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Drainage Patterns (B10)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Moss Trim Lines (B16)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Crayfish Burrows (C8)
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery (C9)
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Geomorphic Position (D2)
		____Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓ No ____	Depth (inches): 0-0.25	**Wetland Hydrology Present?** Yes ✓ No ____
Water Table Present?	Yes ✓ No ____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes ✓ No ____	Depth (inches): 0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: I

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Sesbania spp.	15	yes	FAC
2. Cyperus haspan	10	no	OBL
3. Polygonum punctatum	10	no	FACW
4. Aster carolinianus	15	yes	OBL
5. Sagittaria stagnorum	30	yes	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Lake

SOIL Sampling Point: I

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/3							dark brown fine sand
7-27	10 YR 5/4							yellowish-brown fine sand
27-40	10 YR 5/8							yellowish brown fine sand
40-80	10 YR 6/8							brownish yellow fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
✓ 1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

✓ 1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: J

Investigator(s): Justin Styer, Lianne Ramos Mokfienski Section, Township, Range: 25 17S 19E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.982262 Long: -82.368465 Datum: WGS84

Soil Map Unit Name: Basinger fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-6
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-24
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: J

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	15	yes	OBL
2. Nuphar luteum	25	yes	OBL
3. Polygonum punctatum	5	no	FACW
4. Andropogon virginicus	10	no	FAC
5. Eupatorium capillifolium	10	no	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Basinger

SOIL Sampling Point: J

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	N 2/0							black fine sand
3-8	10 YR 7/2							light grey fine sand
8-24	10YR 6/2							light brownish grey fine sand
24-40	10YR 7/2							light grey fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/10/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: K

Investigator(s): Justin Styer, Lianne Ramos Mokfienski Section, Township, Range: 25 17S 19E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.989942 Long: -82.359704 Datum: WGS84

Soil Map Unit Name: Basinger fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____Drift Deposits (B3)	✓ Presence of Reduced Iron (C4)	
____Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
✓ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-36
Water Table Present?	Yes ✓	No _____	Depth (inches): 0-24
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: K

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	5	yes	FACW
2. Myrica cerifera	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Nymphaea odorata	10	no	FACW
2. Lachnanthes caroliniana	10	no	OBL
3. Panicum hemitomon	30	yes	OBL
4. Andropogon virginicus	10	no	FAC
5. Amphicarpum muhlenbergianu	30	yes	FACW
6. Pontederia cordata	5	no	OBL
7. Andropogon glomeratus	5	no	FACW
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Basinger

SOIL Sampling Point: K

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	N 2/0							black fine sand
3-8	10 YR 7/2							light grey fine sand
8-24	10YR 6/2							light brownish grey fine sand
24-40	10YR 7/2							light grey fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ✓ 1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ✓ 1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/11/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: L

Investigator(s): Justin Styer, Lianne Ramos Mokfienski Section, Township, Range: 25 17S 19E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.989582 Long: -82.359102 Datum: WGS84

Soil Map Unit Name: Basinger fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
✓ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ____	Depth (inches): 0-3
Water Table Present?	Yes ✓	No ____	Depth (inches): 0-24
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: L

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Rubus cuneifolius	3	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	3	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Nymphaea odorata	10	no	OBL
2. Lachnanthes caroliniana	10	no	OBL
3. Panicum hemitomon	30	yes	OBL
4. Andropogon virginicus	10	no	FAC
5. Amphicarpum muhlenbergianu	30	yes	FACW
6. Pontederia cordata	5	no	OBL
7. Andropogon glomeratus	2	no	FACW
8.			
9.			
10.			
11.			
12.			
	97	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.67	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Basinger

SOIL Sampling Point: L

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	N 2/0							black fine sand
3-8	10 YR 7/2							light grey fine sand
8-24	10YR 6/2							light brownish grey fine sand
24-40	10YR 7/2							light grey fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
✓ 1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
✓ Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks: Hydric soil indicators are present in soil profile.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: M

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 24 17S 19E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.993596 Long: -82.354846 Datum: WGS84

Soil Map Unit Name: Water/ Anclote-Tomoka complex NWI classification: palustrine emergent/riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Withlacoochee River and floodplain.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____ High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
✓ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	✓ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
✓ Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-144
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: M

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	20	yes	FACW
2. Taxodium distichum	10	yes	OBL
3. Salix caroliniana	10	yes	OBL
4. Ulmus americana	5	no	FACW
5.			
6.			
7.			
	45	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Quercus laurifolia	10	yes	FACW
2. Salix caroliniana	5	yes	OBL
3. Taxodium distichum	5	yes	OBL
4. Acer rubrum	2	no	OBL
5.			
6.			
7.			
	22	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Panicum hemitomon	40	yes	OBL
2. Andropogon virginicus	15	no	FAC
3. Eupatorium capillifolium	10	no	FACU
4. Polygonum punctatum	5	no	FACW
5. Coreopsis spp.	2	no	FACW
6. Nymphaea odorata	2	no	OBL
7. Hyptis alata	2	no	OBL
8. Andropogon glomeratus	2	no	FACW
9.			
10.			
11.			
12.			
	78	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion- Anclote

SOIL

Sampling Point: _____M

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	N 2/0							black fine sand
7-14	10 YR 3/1		N 4/0				common medium distinct mottles	very dark gray fine sand
14-20	10 YR 5/2							grayish brown fine sand
20-32	10 YR 6/2							light brownish gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
✓ 5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
✓ Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: N

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 24 17S 19E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.994063 Long: -82.354273 Datum: WGS84

Soil Map Unit Name: Paisley loamy fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes_____ No ✓	Depth (inches): _____
Water Table Present?	Yes_____ No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: N

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis glomeruliflora	15	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:____)			
1. Hyptis alata	20	yes	OBL
2. Andropogon glomeratus	20	yes	FACW
3. Juncus effusus	15	yes	FACW
4. Paspalum notatum	15	yes	FACU
5. Cyperus odoratus	15	yes	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	83.33	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Marion- Paisley

SOIL Sampling Point: N

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray fine sand
5-15	10 YR 6/2							light brownish gray fine sand
15-24	10 YR 4/1		7.5 YR 4/6; 10 YR 3/2				common medium distinct mottles	dark gray sandy clay loam
24-33	10 YR 6/1		10 YR 6/6; 10 YR 4/6; 7.5 YR 4/6				common medium distinct mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
✓ Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: O

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 24 17S 19E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.995640 Long: -82.352809 Datum: WGS84

Soil Map Unit Name: Paisley loamy fine sand NWI classification: palustrine emergent/shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	✓ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 6-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: O

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	20	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Myrica cerifera	5	yes	FAC
3. Baccharis glomeruliflora	2	no	FACW
4.			
5.			
6.			
7.			
	12	= Total Cover	
Herb Stratum (Plot size:____)			
1. Juncus effusus	30	yes	FACW
2. Panicum hemitomon	30	yes	OBL
3. Andropogon virginicus	10	no	FAC
4. Andropogon glomeratus	10	no	FACW
5. Hyptis alata	5	no	OBL
6. Setaria geniculata	5	no	FAC
7. Thelypteris spp.	5	no	FACW
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion- Paisley

SOIL Sampling Point: O

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray fine sand
5-15	10 YR 6/2							light brownish gray fine sand
15-24	10 YR 4/1		7.5 YR 4/6; 10 YR 3/2				common medium distinct mottles	dark gray sandy clay loam
24-33	10 YR 6/1		10 YR 6/6; 10 YR 4/6; 7.5 YR 4/6				common medium distinct mottles	gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
✓ Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: P

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 19 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.998241 Long: -82.349666 Datum: WGS84

Soil Map Unit Name: Pomona fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓	Depth (inches): _____
Water Table Present?	Yes _____ No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 6-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: P

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	10	yes	FAC
2. Pinus elliottii	10	yes	FACW
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	10	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:____)			
1. Eupatorium capillifolium	45	yes	FACU
2. Panicum hemitomon	45	yes	OBL
3. Andropogon virginicus	10	no	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	80.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Marion-Pomona

SOIL

Sampling Point: _____P

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray sand
5-12	10 YR 6/1		10 YR 4/1				common medium faint mottles	gray sand
12-26	10 YR 7/1		10 YR 6/2				few fine and medium faint mottles	light gray sand
26-29	5 YR 3/1		5 YR 3/3				few fine roots	mixed very dark gray and dark reddish brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: Q

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 19 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.999053 Long: -82.348723 Datum: WGS84

Soil Map Unit Name: Placid-Pompano-Pomona complex NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	
____High Water Table (A2)	____Aquatic Fauna (B13)	
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	
____Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	
____Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	
____Drift Deposits (B3)	____Presence of Reduced Iron (C4)	
____Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	
____Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____Surface Soil Cracks (B6)
____Sparsely Vegetated Concave Surface (B8)
____Drainage Patterns (B10)
____Moss Trim Lines (B16)
____Dry-Season Water Table (C2)
____Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
____Geomorphic Position (D2)
____Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-1
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: Q

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	5	yes	FAC
2. Pinus elliottii	2	yes	FACW
3.			
4.			
5.			
6.			
7.			
	7	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Panicum hemitomon	40	yes	OBL
2. Amphicarpum muhlenbergianu	35	yes	FACW
3. Andropogon virginicus	10	no	FAC
4. Rhynchospora microcarpa	5	no	FACW
5. Hypericum fasciculatum	5	no	FACW
6. Juncus megacephalus	2	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	97	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion-Pomona

SOIL Sampling Point: Q

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray sand
5-12	10 YR 6/1		10 YR 4/1				common medium faint mottles	gray sand
12-26	10 YR 7/1		10 YR 6/2				few fine and medium faint mottles	light gray sand
26-29	5 YR 3/1		5 YR 3/3				few fine roots	mixed very dark gray and dark reddish brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ✓ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3 Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: R

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 19 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.998296 Long: -82.348183 Datum: WGS84

Soil Map Unit Name: Placid-Pompano-Pomona complex NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____Aquatic Fauna (B13)	____Surface Soil Cracks (B6)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Sparsely Vegetated Concave Surface (B8)
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Drainage Patterns (B10)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Moss Trim Lines (B16)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Crayfish Burrows (C8)
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery (C9)
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Geomorphic Position (D2)
		____Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-48
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-6

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: R

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	2	yes	FAC
2. Pinus elliottii	2	yes	FACW
3.			
4.			
5.			
6.			
7.			
	4	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:____)			
1. Panicum hemitomon	30	yes	OBL
2. Amphicarpum muhlenbergianu	30	yes	FACW
3. Andropogon virginicus	20	yes	FAC
4. Nymphaea odorata	10	no	OBL
5. Rhynchospora microcarpa	5	no	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Rubus spp.	2	yes	FACU
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	83.33	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion-Pomona

SOIL Sampling Point: _____R

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray sand
5-12	10 YR 6/1		10 YR 4/1				common medium faint mottles	gray sand
12-26	10 YR 7/1		10 YR 6/2				few fine and medium faint mottles	light gray sand
26-29	5 YR 3/1		5 YR 3/3				few fine roots	mixed very dark gray and dark reddish brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
✓ Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: S

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 19 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.000031 Long: -82.347357 Datum: WGS84

Soil Map Unit Name: Pomona fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Wet prairie surrounded by mixed wetland forest

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)	
____ Sparsely Vegetated Concave Surface (B8)	
____ Drainage Patterns (B10)	
____ Moss Trim Lines (B16)	
____ Dry-Season Water Table (C2)	
____ Crayfish Burrows (C8)	
____ Saturation Visible on Aerial Imagery (C9)	
____ Geomorphic Position (D2)	
____ Shallow Aquitard (D3)	
✓ FAC Neutral Test (D5)	

Field Observations:

Surface Water Present?	Yes_____	No ✓	Depth (inches): _____
Water Table Present?	Yes_____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 6-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: S

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Pinus elliottii	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:____)			
1. Andropogon virginicus	45	yes	FAC
2. Andropogon glomeratus	45	yes	FACW
3. Hyptis alata	10	no	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion-Pomona

SOIL

Sampling Point: S

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray sand
5-12	10 YR 6/1		10 YR 4/1				common medium faint mottles	gray sand
12-26	10 YR 7/1		10 YR 6/2				few fine and medium faint mottles	light gray sand
26-29	5 YR 3/1		5 YR 3/3				few fine roots	mixed very dark gray and dark reddish brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
___Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
✓___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/12/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: T

Investigator(s): Justin Styer, Jen Heintz Section, Township, Range: 18 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.004998 Long: -82.340015 Datum: WGS84

Soil Map Unit Name: Samsula-Martel complex, depressional NWI classification: palustrine scrub-shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Drift Deposits (B3)	✓ Presence of Reduced Iron (C4)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

_____ Surface Soil Cracks (B6)	
_____ Sparsely Vegetated Concave Surface (B8)	
_____ Drainage Patterns (B10)	
_____ Moss Trim Lines (B16)	
_____ Dry-Season Water Table (C2)	
_____ Crayfish Burrows (C8)	
✓ Saturation Visible on Aerial Imagery (C9)	
_____ Geomorphic Position (D2)	
_____ Shallow Aquitard (D3)	
✓ FAC Neutral Test (D5)	

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: T

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	15	yes	FAC
2. Pinus elliottii	10	yes	FACW
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	20	yes	FAC
2. Pinus elliottii	10	yes	FACW
3. Salix caroliniana	10	yes	OBL
4. Quercus laurifolia	10	yes	FACW
5.			
6.			
7.			
	50	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	15	yes	FAC
2. Cephalanthus occidentalis	10	yes	OBL
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
Herb Stratum (Plot size:____)			
1. Amphicarpum muhlenbergianu	10	yes	FACW
2. Rhynchospora microcarpa	10	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	20	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Rubus spp.	10	yes	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	10	(A)
Total Number of Dominant Species Across All Strata:	11	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	90.91	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	0
FACW species	x2=	0
FAC species	x3=	0
FACU species	x4=	0
UPL species	x5=	0
Column Totals:	0% (A)	0 (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Marion-Martel

SOIL Sampling Point: _____T

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
11-0	N 2/0		10 YR 4/3					black muck
0-16	N 2/0							black sand
16-19	10 YR 4/1		10 YR 3/1; 10 YR 5/2				few fine and medium mottles	dark gray sand
19-31	10 YR 5/2							grayish brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: U

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 18 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 29.00518383 Long: 82.33767611 Datum: WGS84

Soil Map Unit Name: Eaton loamy sand NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are circumstances normal? Yes ✓ No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
____ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
✓ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)	
____ Sparsely Vegetated Concave Surface (B8)	
____ Drainage Patterns (B10)	
____ Moss Trim Lines (B16)	
____ Dry-Season Water Table (C2)	
____ Crayfish Burrows (C8)	
✓ Saturation Visible on Aerial Imagery (C9)	
____ Geomorphic Position (D2)	
____ Shallow Aquitard (D3)	
✓ FAC Neutral Test (D5)	

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ____	No ✓	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): >24

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: U

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	10	yes	FAC
2. Salix caroliniana	5	yes	OBL
3. Quercus laurifolia	10	yes	FACW
4.			
5.			
6.			
7.			
	25	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Pinus elliottii	10	yes	FACW
2. Liquidambar styraciflua	10	yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	10	yes	FAC
2. Cephalanthus occidentalis	5	no	OBL
3. Rubus cuneifolius	20	yes	FACU
4.			
5.			
6.			
7.			
	35	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	25	yes	OBL
2. Rhyncospora microcarpa	2	no	FACW
3. Amphicarpum muhlenbergianu	15	yes	FACW
4. Centella asiatica	5	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	47	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	8	(A)
Total Number of Dominant Species Across All Strata:	9	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	88.89	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion- Eaton

SOIL Sampling Point: U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1							black mucky fine sand
6-29	10 YR 7/1							light gray fine sand
29-33	N 5/0							gray sandy clay loam
33-80	N 5/0							gray sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
✓ 1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

✓ 1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: V

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 13 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.00445704 Long: 82.26388731 Datum: WGS84

Soil Map Unit Name: Pompano fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
_____ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓ Depth (inches): _____	
Water Table Present?	Yes _____ No ✓ Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____ Depth (inches): 6-12	**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: V

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Andropogon virginicus	30	yes	FAC
2. Panicum hemitomon	30	yes	OBL
3. Paspalum notatum	5	no	FACU
4. Axonopus furcatus	10	no	OBL
5. Centella asiatica	2	no	FACW
6. Ludwigia repens	2	no	OBL
7. Lachnanthes caroliniana	10	no	OBL
8. Rhyncospora microcarpa	2	no	FACW
9.			
10.			
11.			
12.			
	91	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Marion- Pompano

SOIL Sampling Point: V

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/1							black fine sand
5-15	10 YR 6/2		10 YR 4/2				common medium distinct stains	light brownish gray fine sand
15-45	10 YR 7/1							light gray fine sand
45-80	10 YR 7/1							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
✓ Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: W

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 13 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.00543129 Long: 82.25900524 Datum: WGS84

Soil Map Unit Name: Pompano fine sand, depressional and Pompano fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Small western ditch component of wetland W consists of Pompano fine sand and overall eastern portion is Pompano fine sand, depressional.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	✓ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____ No ✓	Depth (inches): _____	
Water Table Present?	Yes _____ No ✓	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 6-12	**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: W

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Rubus cuneifolius	10	yes	FACU
2. Cephalanthus occidentalis	5	yes	OBL
3. Ilex cassine	2	no	FACW
4. Myrica cerifera	2	no	FAC
5.			
6.			
7.			
	19	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	50	yes	OBL
2. Amphicarpum muhlenbergianu	30	yes	FACW
3. Rhyncospora microcarpa	2	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	82	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	75.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion- Pompano

SOIL Sampling Point: W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/1							black fine sand
5-15	10 YR 6/2		10 YR 4/2				common medium distinct stains	light brownish gray fine sand
15-45	10 YR 7/1							light gray fine sand
45-80	10 YR 7/1							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ✓ 1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ✓ 1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: X

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 13 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.00484257 Long: 82.25662012 Datum: WGS84

Soil Map Unit Name: Pompano fine sand, depressional NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No ____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Surface Soil Cracks (B6)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Sparsely Vegetated Concave Surface (B8)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery (C9)
✓ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Geomorphic Position (D2)
		____ Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-0.5
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: X

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix caroliniana	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Myrica cerifera	2	yes	FAC
3.			
4.			
5.			
6.			
7.			
	7	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Amphicarpum muhlenbergianu	20	yes	FACW
2. Panicum hemitomon	50	yes	OBL
3. Spartina bakeri	15	no	FACW
4. Lachnanthes caroliniana	3	no	OBL
5. Andropogon virginicus	5	no	FAC
6. Centella asiatica	2	no	FACW
7. Drosera spp.	1	no	OBL
8.			
9.			
10.			
11.			
12.			
	96	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion- Pompano

SOIL Sampling Point: X

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/1							black fine sand
5-15	10 YR 6/2		10 YR 4/2				common medium distinct stains	light brownish gray fine sand
15-45	10 YR 7/1							light gray fine sand
45-80	10 YR 7/1							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
✓ Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 1/8/10

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: XA

Investigator(s): Justin Styer Section, Township, Range: 13 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.006 Long: -82.254 Datum: WGS84

Soil Map Unit Name: Pomona fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No _____	Depth (inches): _____
Water Table Present?	Yes ✓	No _____	Depth (inches): >24
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): >24

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: XA

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix caroliniana	40	yes	OBL
2. Quercus laurifolia	5	no	FACW
3. Acer rubrum	2	no	OBL
4.			
5.			
6.			
7.			
	47	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	10	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Spartina bakeri	30	yes	FACW
2. Panicum hemitomon	25	yes	OBL
3. Andropogon virginicus	15	no	FAC
4. Eupatorium capillifolium	15	no	FACU
5. Andropogon glomeratus	5	no	FACW
6. Phyla nodiflora	2	no	FACW
7. Hydrocotyle umbellata	1	no	OBL
8. Rhynchospora colorata	1	no	OBL
9. Xyris elliottii	1	no	OBL
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Marion-Pomona

SOIL Sampling Point: XA

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray sand
5-12	10 YR 6/1		10 YR 4/1				common medium faint mottles	gray sand
12-26	10 YR 7/1							light gray sand
26-29	5 YR 3/1							mixed very dark gray and dark reddish brown sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
✓ Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Marion Sampling Date: 1/8/10

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: XB

Investigator(s): Justin Styer Section, Township, Range: 13 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.006 Long: -82.25 Datum: WGS84

Soil Map Unit Name: Tavares sand, 0 to 5 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation _____, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Surface Soil Cracks (B6)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Sparsely Vegetated Concave Surface (B8)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Moss Trim Lines (B16)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery (C9)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Geomorphic Position (D2)
		____ Shallow Aquitard (D3)
		✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No _____	Depth (inches): _____	
Water Table Present?	Yes ✓ No _____	Depth (inches): >24	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): >24	**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: XB

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Andropogon virginicus	40	yes	FAC
2. Andropogon glomeratus	40	yes	FACW
3. Paspalum notatum	5	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Marion- Tavares

SOIL Sampling Point: XB

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 4/2							dark grayish brown fine sand
3-41	10 YR 7/4							very pale brown fine sand
41-63	10 YR 7/4							very pale brown fine sand
63-80	10 YR 8/1							white fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ✓ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks: Hydric soil indicators are present in soil profile.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/16/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: Y

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 13 17S 20E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 29.00522674 Long: 82.25669108 Datum: WGS84

Soil Map Unit Name: Pompano fine sand, depressional NWI classification: palustrine forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

_____ Surface Soil Cracks (B6)
_____ Sparsely Vegetated Concave Surface (B8)
_____ Drainage Patterns (B10)
_____ Moss Trim Lines (B16)
_____ Dry-Season Water Table (C2)
_____ Crayfish Burrows (C8)
✓ Saturation Visible on Aerial Imagery (C9)
_____ Geomorphic Position (D2)
_____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 6-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: Y

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus elliottii	85	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	85	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Rubus cuneifolius	10	yes	FACU
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Panicum hemitomon	80	yes	OBL
2. Amphicarpum muhlenbergianu	4	no	FACW
3. Pontederia cordata	1	no	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Pompano

SOIL Sampling Point: Y

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/1							black fine sand
5-15	10 YR 6/2		10 YR 4/2				common medium distinct stains	light brownish gray fine sand
15-45	10 YR 7/1							light gray fine sand
45-80	10 YR 7/1							light gray fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: Z

Investigator(s): Justin Styer, Lianne Ramos Mokfienski Section, Township, Range: 28 18S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.89064378 Long: 82.11345268 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand, bouldery subsurface, 0-2 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

	Surface Water (A1)	Water-Stained Leaves (B9)
	High Water Table (A2)	Aquatic Fauna (B13)
	Saturation (A3)	Marl Deposits (B15) **(LRR U)**
✓	Water Marks (B1)	Hydrogen Sulfide Odor (C1)
	Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)
	Drift Deposits (B3)	Presence of Reduced Iron (C4)
	Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)
	Iron Deposits (B5)	✓ Thin Muck Surface (C7)
	Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

✓	Surface Soil Cracks (B6)
✓	Sparsely Vegetated Concave Surface (B8)
	Drainage Patterns (B10)
✓	Moss Trim Lines (B16)
	Dry-Season Water Table (C2)
	Crayfish Burrows (C8)
	Saturation Visible on Aerial Imagery (C9)
	Geomorphic Position (D2)
	Shallow Aquitard (D3)
✓	FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): _____

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland evaluated during dry season. Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: Z

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Dichondra carolinensis	10	yes	FACW
2. Eupatorium capillifolium	10	yes	FACU
3. Centella asiatica	10	yes	FACW
4. Alternanthera philoxeroides	10	yes	OBL
5. Hydrocotyle umbellata	10	yes	OBL
6. Cyperus haspan	10	yes	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	83.33	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Ft. Green

SOIL Sampling Point: Z

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
✓ 1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

✓ 1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AA

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 28 18S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.88961563 Long: -82.11392779 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand/bouldery subsurface, 0-2 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✓ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	✓ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
✓ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
✓ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ✓ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 0-12
Water Table Present?	Yes ✓	No _____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: AA

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Nyssa sylvatica var. biflora	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Centella asiatica	20	yes	FACW
2. Hydrocotyle umbellata	20	yes	OBL
3. Juncus effusus	5	no	FACW
4. Cyperus haspan	10	no	OBL
5. Polygonum punctatum	1	no	FACW
6. Lachnanthes caroliniana	1	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	57	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation1 (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Ft. Green

SOIL Sampling Point: AA

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ✓ 1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ✓ 1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AA1

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 28 18S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.89 Long: -82.114 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand/bouldery subsurface, 0-2 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
✓ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No _____	Depth (inches): 0-12	
Water Table Present?	Yes ✓ No _____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 0-12	**Wetland Hydrology Present?** **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: AA1

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Centella asiatica	20	yes	FACW
2. Alternanthera philoxeroides	25	yes	OBL
3. Hydrocotyle umbellata	20	yes	OBL
4. Ludwigia repens	20	yes	OBL
5. Polygonum punctatum	1	no	FACW
6. Lachnanthes caroliniana	1	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	87	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Sumter- Ft. Green

SOIL Sampling Point: AA1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
✓ 1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

✓ 1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AA2

Investigator(s): Karl Bullock, Stacy Rizzo Section, Township, Range: 28 18S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.89 Long: -82.114 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand/bouldery subsurface, 0-2 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
✓ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
✓ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____ No ____	Depth (inches): 0-12	
Water Table Present?	Yes ✓ No ____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes ✓ No ____	Depth (inches): 0-12	**Wetland Hydrology Present?** Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: AA2

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Centella asiatica	20	yes	FACW
2. Alternanthera philoxeroides	25	yes	OBL
3. Hydrocotyle umbellata	20	yes	OBL
4. Ludwigia repens	20	yes	OBL
5. Polygonum punctatum	1	no	FACW
6. Lachnanthes caroliniana	1	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	87	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Ft. Green

SOIL Sampling Point: AA2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ✓ 1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ✓ 1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 11/17/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AB

Investigator(s): Justin Styer, Jennifer Heintz Section, Township, Range: 28 18S 22E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): ____

Subregion (LRR or MLRA): LRR U Lat: 28.88922449 Long: -82.11290867 Datum: WGS84

Soil Map Unit Name: Ft. Green fine sand/bouldery subsurface/0-2 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks)

Are Vegetation ✓, Soil ✓ or Hydrology ✓ significantly disturbed? Are circumstances normal? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
____ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	✓ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	✓ Thin Muck Surface (C7)	
✓ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)	
____ Sparsely Vegetated Concave Surface (B8)	
____ Drainage Patterns (B10)	
____ Moss Trim Lines (B16)	
____ Dry-Season Water Table (C2)	
____ Crayfish Burrows (C8)	
✓ Saturation Visible on Aerial Imagery (C9)	
____ Geomorphic Position (D2)	
____ Shallow Aquitard (D3)	
✓ FAC Neutral Test (D5)	

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ____	No ✓	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrologic indicators satisfy Corps wetland hydrology requirements.

VEGETATION - Use scientific names of plants

Sampling Point: AB

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Centella asiatica	20	yes	FACW
2. Alternanthera philoxeroides	25	yes	OBL
3. Hydrocotyle umbellata	20	yes	OBL
4. Ludwigia repens	20	yes	OBL
5. Polygonum punctatum	1	no	FACW
6. Lachnanthes caroliniana	1	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	87	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Sumter- Ft. Green

SOIL

Sampling Point: AB

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2							dark grayish brown fine sand
6-14	10 YR 5/2		10 YR 5/6				common fine distinct mottles	grayish brown fine sand
14-28	10 YR 7/2		10 YR 5/8				few fine distinct mottles	light gray fine sand
28-38	10 YR 5/1		10 YR 5/6				common fine distinct mottles	gray sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks: Hydric soil indicators are present in soil profile.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 10/14/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS N

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 32 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.963134 Long: -82.605951 Datum: WGS84

Soil Map Unit Name: Quartzipsaments, 0 to 5 percent slopes NWI classification: lacustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Cattle pond without standing water, mostly bare, saturated ground

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	____Water-Stained Leaves (B9)	____Surface Soil Cracks (B6)
_____ High Water Table (A2)	____Aquatic Fauna (B13)	____Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Drainage Patterns (B10)
_____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Moss Trim Lines (B16)
_____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Dry-Season Water Table (C2)
_____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Crayfish Burrows (C8)
_____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Saturation Visible on Aerial Imagery (C9)
_____ Iron Deposits (B5)	____Thin Muck Surface (C7)	____Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Shallow Aquitard (D3)
		____FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes ✓	No _____	Depth (inches): <5
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: CS N

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix spp.	10	yes	FACW
2. Quercus laurifolia	1	no	FACW
3. Sabal palmetto	1	no	FAC
4. Quercus virginiana	1	no	FACU
5.			
6.			
7.			
	13	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Ludwigia repens	10	yes	OBL
2. Polygonum spp.	5	yes	FAC
3. Sesbania spp.	1	no	FAC
4. Chenopodium ambrosioides	1	no	FACU
5. Phyla nodiflora	1	no	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	18	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Quartzipsaments

SOIL Sampling Point: CS N

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**

___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 10/14/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS O

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 32 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.962351 Long: -82.602468 Datum: WGS84

Soil Map Unit Name: Quartzipsaments, 0 to 5 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Sinkhole wetland, under transmission line, grazed by cattle, open ground

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes ✓	No _____	Depth (inches): <10
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: CS O

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Panicum repens	40	yes	FACW
2. Cynodon dactylon	10	no	FACU
3. Panicum hemitomon	10	no	OBL
4. Polygonum spp.	10	no	FAC
5. Ludwigia repens	1	no	OBL
6. Paspalum notatum	1	no	FACU
7. Hydrocotyle spp.	1	no	OBL
8.			
9.			
10.			
11.			
12.			
	73	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Quartzipsaments

SOIL Sampling Point: CS O

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCFS City/County: Citrus Sampling Date: 10/14/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS P

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 32 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.962936 Long: -82.600993 Datum: WGS84

Soil Map Unit Name: Quartzipsaments, 0 to 5 percent slopes NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Sinkhole wetland, isolated

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Sparsely Vegetated Concave Surface (B8)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes ✓	No _____	Depth (inches): <5
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: CS P

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Sabal palmetto	1	yes	FAC
2. Salix spp.	1	yes	FACW
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	50	yes	OBL
2. Hypericum tetrapetalum	20	yes	FACW
3. Baccharis sp.	1	no	FAC
4. Callicarpa americana	1	no	FACU
5.			
6.			
7.			
	72	= Total Cover	
Herb Stratum (Plot size:___)			
1. Andropogon glomeratus	1	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	1	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Rubus spp.	20	yes	FACU
2. Ampelopsis arborea	1	no	FAC
3.			
4.			
5.			
	21	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	83.33	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

County/soil: Citrus- Quartzipsaments

SOIL

Sampling Point: CS P

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

3Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 1, 2, 4, 5&6, 7, 8, 9**

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Florida** County/parish/borough: **Sumter** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.788786°** N, Long. **-81.982578°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Lake Okahumpka**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lake Okahumpka**
Name of watershed or Hydrologic Unit Code (HUC): **Lake Okahumpka Outlet/03100208**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: **January 11, 2010**.
☒ Field Determination. Date(s): **November 4-5, 2009**.

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are and are not** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetland 5&6)**
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland 5&6)**
   - ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(Wetland 7)**
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: **3.09 acres**

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands 1, 2, 4, 8, and 9 are not jurisdictional because they are hydrologically isolated from TNWs and**

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

RPWs that flow directly or indirectly into TNWs. These areas are isolated and are not expected to have any significant effects on the physical, chemical or biological integrity of the TNW Lake Okahumpka.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW:

   Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW (Wetland 7)**

   (i) General Area Conditions:
   Watershed size: **17,723 acres**
   Drainage area: **17,723 acres**
   Average annual rainfall: **52** inches
   Average annual snowfall: **0** inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through **2** tributaries before entering TNW.

   Project waters are **1-2** river miles from TNW.
   Project waters are **1 (or less)** river miles from RPW.
   Project waters are **1 (or less)** aerial (straight) miles from TNW.
   Project waters are **1 (or less)** aerial (straight) miles from RPW.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters cross or serve as state boundaries. Explain: **N/A**.

Identify flow route to TNW[5]: **Wetland 7 is connected to a perennial ditch located outside of the review area along the southwest side of the Florida Turnpike. This ditch flows south into a perennial RPW in the review area (Wetland 5&6). Wetland 5&6 is an unnamed perennial ditch that flows through a culvert east under the Florida Turnpike into a forested wetland slough which flows into the Lake Okahumpka TNW per the USGS National Hydrography Dataset (last updated May 2006) and 2009 aerial imagery.**
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is:
- ☐ Natural
- ☒ Artificial (man-made). Explain: **Wetland 7 connects to a man-made ditch outside of the review area constructed along the southwest side of the Florida Turnpike.**
- ☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: **2.5** feet
Average depth: **2.5** feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

☐ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: **Herbaceous/50%**	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable – no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2%**

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: **Confined.** Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
- ☒ Bed and banks
- ☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☒ High Tide Line indicated by:	☒ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: **Water mostly clear**.
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
☒ Riparian corridor. Characteristics (type, average width): **Forested, 600 ft**.
☐ Wetland fringe. Characteristics: .
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetland 7)

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size: **1.42 acres**
Wetland type. Explain: **Wet prairie, mixed forested wetland.**
Wetland quality. Explain: **Fair, due to proximity to Florida Turnpike.**
Project wetlands cross or serve as state boundaries. Explain: **N/A**.

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: **Wetland 7 has intermittent flow with a perennial ditch located outside of the review area along the southwest side of the Florida Turnpike.**

Surface flow is: **Confined**
Characteristics: **Both confined (within ditch banks) and sheetflow (non-ditched areas).**

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain:
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **1-2** river miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was mostly clear**.
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):
☐ Riparian buffer. Characteristics (type, average width): .
☐ Vegetation type/percent cover. Explain:
☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
   All wetland(s) being considered in the cumulative analysis: **1**
   Approximately **(1.42)** acres are being considered in the cumulative analysis

   For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland 7 – Y	**1.42**		

Summarize overall biological, chemical and physical functions being performed: **Wetland 7 provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs that form a contiguous connection to TNWs in the region. As part of a larger system, this wetland provides some habitat, foraging, and refugia for wildlife.**

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: **Wetland 7 provides hydrologic detention and attenuation while also filtering pollutants. This wetland is part of a larger network of wetlands and RPWs that form a contiguous to semi-contiguous connection to TNWs in the region. As part of a larger system, this wetland provides some habitat, foraging, and refugia for wildlife, and in combination with adjacent wetlands, could have a significant effect on the physical, chemical, and biological integrity of Lake Okahumpka.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.

☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs. (Wetland 5&6)**
   ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **An unnamed perennial ditch flows through a culvert east under the Florida Turnpike into a forested wetland slough which flows into the Lake Okahumpka TNW per the USGS National Hydrography Dataset (last updated May 2006) and 2009 aerial imagery.**
   ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **260** linear feet **15** width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. (Wetland 5&6)**
   ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   ☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Wetland 5&6 contain wet prairie wetlands that directly abut an unnamed perennial ditch that flows through a culvert east under the Florida Turnpike into a forested wetland slough which flows into the Lake Okahumpka TNW per the USGS National Hydrography Dataset (last updated May 2006) and 2009 aerial imagery.**

   ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

   Provide acreage estimates for jurisdictional wetlands in the review area: **1.58 acres**

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. (Wetland 7)**
   ☒ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: **1.42 acres**

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 1, 2, 4, 5&6, 7, 8, 9**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: **1.93 acres (Wetlands 1, 2, 4, 8, and 9)**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .

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[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 1, 2, 4, 5&6, 7, 8, 9**

- ☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:.
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2007.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 10-54, 61-66, Z, AA, AA1, AA2, AB**

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Florida** County/parish/borough: **Sumter** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.848919°** N. Long. **-82.070848°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Lake Okahumpka, Little Jones Creek, Lake Panasoffkee**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lake Okahumpka, Lake Panasoffkee**
Name of watershed or Hydrologic Unit Code (HUC): **Little Jones Creek/03100208**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: **January 12, 2010.**
☒ Field Determination. Date(s): **November 5, 10-12, 16-18, 2009.**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are and are not** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs **(Wetlands 47, 49A)**
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 36, 38, 40 through 42, 45, 47, 49, 49A, 51, 52, 66)**
   - ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs **(Wetlands 15 through 18, 21, 25, 32, 32A, 34, 44)**
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: **69.62 acres**

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 10-54, 61-66, Z, AA, AA1, AA2, AB**

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands 10 through 14, 19, 20, 22 through 24, 26 through 31, 35, 37, 39, 43, 45A, 46, 48, 50, 53, 54, 61 through 65, Z, AA1, AA2, and AB are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. These areas are isolated and are not expected to have any significant effects on the physical, chemical or biological integrity of Lake Okahumpka, Little Jones Creek, or Lake Panasoffkee.**

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW:

   Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW (Wetlands 47, 49A)**

   (i) **General Area Conditions:**
   Watershed size: **23,642 acres**
   Drainage area: **23,642 acres**
   Average annual rainfall: **52** inches
   Average annual snowfall: **0** inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through **4** tributaries before entering TNW.

   Project waters are **2-5** river miles from TNW.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters are **1 or less** river miles from RPW.
Project waters are **2-5** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: **N/A.**

Identify flow route to TNW[5]: **Wetlands 47 and 49A are seasonal RPWs that flow to the west and join together, forming an artificial path that flows north through a forested slough, crosses I-75, and joins Little Jones Creek. Little Jones Creek flows west southwest to Lake Panasoffkee, a TNW.**

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):
Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain:
- ☒ Manipulated (man-altered). Explain: **Based on a review of aerial photography, portions of the RPW appear to be ditched and culverted.**

Tributary properties with respect to top of bank (estimate):
Average width: **2.5** feet
Average depth: **2.5** feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: **Herbaceous/50%**	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Stable - no erosion evident.**
Presence of run/riffle/pool complexes. Explain: **N/A.**
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): **2 %**

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **6-10**
Describe flow regime:
Other information on duration and volume:.

Surface flow is: **Confined.** Characteristics:

Subsurface flow: **Unknown.** Explain findings:
☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☒ Bed and banks
- ☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gauges
- ☐ other (list):
- ☐ survey to available datum;
- ☐ physical markings;
- ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: **Water color was clear.**
Identify specific pollutants, if known:

(iv) Biological Characteristics. Channel supports (check all that apply):
- ☒ Riparian corridor. Characteristics (type, average width): **Forested, 2,000 ft.**
- ☐ Wetland fringe. Characteristics:
- ☒ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☒ Aquatic/wildlife diversity. Explain findings: **Diverse due to large forested wetland system of Little Jones Creek.**

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW (Wetlands 15 through 18, 21, 25, 32, 32A, 34, 36, 38, 40 through 42, 44, 45, 47, 49, 49A, 51, 52, 66)**

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: **69.26 acres**

Wetland type. Explain: **Emergent/forested**
Wetland quality. Explain: **Fair based on their connection to larger overall forested wetland stream system.**
Project wetlands cross or serve as state boundaries. Explain: **N/A.**

(b) General Flow Relationship with Non-TNW:
Flow is: **Perennial and intermittent flow**. Explain:

Surface flow is: **Confined and overland sheetflow.**
Characteristics: **Both confined (within ditch banks) and sheetflow (non-ditched areas).**

Subsurface flow: **Unknown**. Explain findings:
- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
- ☒ Directly abutting. **(Wetlands 36, 38, 40 through 42, 45, 47, 49, 49A, 51, 52, 66)**
- ☒ Not directly abutting **(Wetlands 15 through 18, 21, 25, 32, 32A, 34, 44)**
  - ☒ Discrete wetland hydrologic connection. Explain: **Wetlands 15 through 18, 21, 25, 32, 32A, 34, 44 are located adjacent to RPWs which flow directly or indirectly into Little Jones Creek and Lake Panasoffkee.**
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **1 or less** river miles from TNW.
Project waters are **1 or less** aerial (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Water was moderately clear.**
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☐ Riparian buffer. Characteristics (type, average width):
- ☒ Vegetation type/percent cover. Explain: **emergent and forested wetland/95%.**

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 10-54, 61-66, Z, AA, AA1, AA2, AB**

☐ Habitat for:
- ☐ Federally Listed species. Explain findings:
- ☐ Fish/spawn areas. Explain findings:
- ☐ Other environmentally-sensitive species. Explain findings:
- ☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis:
Approximately (**69.26**) acres are being considered in the cumulative analysis

For each wetland, specify the following:

Directly abuts? (Y/N)		Size (in acres)	Directly abuts? (Y/N)		Size (in acres)
15	**(N)**	**0.47**	**49**	**(Y)**	**1.83**
16	**(N)**	**4.55**	**49A**	**(Y)**	**0.08**
17	**(N)**	**4.26**	**51**	**(Y)**	**2.39**
18	**(N)**	**0.15**	**52**	**(Y)**	**0.15**
21	**(N)**	**2.4**	**66**	**(N)**	**0.92**
25	**(N)**	**0.13**			
32	**(N)**	**0.31**			
32A	**(N)**	**0.03**			
34	**(N)**	**1.14**			
36	**(Y)**	**6.51**			
38	**(Y)**	**37.73**			
40	**(Y)**	**0.55**			
41	**(Y)**	**0.68**			
42	**(Y)**	**0.28**			
44	**(N)**	**0.31**			
45	**(Y)**	**3.73**			
47	**(Y)**	**0.65**			

Summarize overall biological, chemical and physical functions being performed: **These wetlands provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are also part of a larger network of wetlands and RPWs and non-RPWs that form a contiguous to semi-contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide some habitat, foraging, and refugia for wildlife utilization.**

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: **Wetlands 15 through 18, 21, 25, 32, 32A, 34, 44 are located adjacent to the RPWs which flow directly or indirectly into the Little Jones Creek and Lake Panasoffkee, a TNW. They provide hydrologic detention and attenuation while also filtering pollutants. These wetlands are part of a larger network of wetlands and RPWs that form a contiguous to semi-contiguous connection to TNWs in the region. As part of a larger system, these wetlands provide some habitat, foraging, and refugia for wildlife, and in combination with adjacent wetlands, could have a significant effect on the physical, chemical, and biological integrity of Lake Panasoffkee.**

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.
   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs. (Wetlands 47, 49A)**
   ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: **Wetlands 47 and 49A appear to be seasonal ditches, based on USGS NHD data and field observations.**

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☒ Tributary waters: **750 (total)** linear feet **41 (total)** width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. (Wetlands 36, 38, 40 through 42, 45, 47, 49, 49A, 51, 52, 66)**
   ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   ☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Wetlands 36, 38, 40 through 42, 45, 47, 49, 49A, 51, 52, and 66 directly abut RPWs that flow directly or indirectly to the Little Jones Creek perennial RPW and surrounding RPW forested wetland slough to the Lake Panasoffkee TNW, per USGS NHD data and aerial imagery.**

[8]See Footnote # 3.

☒ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Wetlands 47 and 49A directly abut seasonal RPWs that flow to the west and join together, forming an artificial path that flows north through a forested slough, crosses I-75, and joins Little Jones Creek. Little Jones Creek flows west southwest to Lake Panasoffkee, a TNW, per USGS NHD data and aerial imagery.**

Provide acreage estimates for jurisdictional wetlands in the review area: **55.51 acres**

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. (Wetlands 15 through 18, 21, 25, 32, 32A, 34, 44)**
☒ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C. **Wetlands 15 through 18, 21, 25, 32, 32A, 34, and 44 are located adjacent to RPWs which flow directly or indirectly into Little Jones Creek and Lake Panasoffkee, a TNW, per USGS NHD data and aerial imagery.**

Provide acreage estimates for jurisdictional wetlands in the review area: **13.75 acres**

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.**[9]
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

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[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 10-54, 61-66, Z, AA, AA1, AA2, AB**

☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: **24.34 acres**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
☒ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name:.
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 55 through 60**

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Florida** County/parish/borough: **Sumter** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.879638°** N, Long. **-82.096494°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Little Jones Creek and Lake Panasoffkee**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Lake Panasoffkee**
Name of watershed or Hydrologic Unit Code (HUC): **Little Jones Spring/03100208**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: **December 30, 2009.**
☒ Field Determination. Date(s): **November 17-18, 2009.**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands:.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands 55 through 60 are not jurisdictional because they are hydrologically isolated from TNWs or RPWs**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

that flow directly or indirectly into TNWs, and are not expected to have any significant effects on the physical, biological or chemical integrity of the TNW Lake Panasoffkee.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: **acres**
Drainage area: **acres**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through tributary before entering TNW.

Project waters are river miles from TNW.
Project waters are river miles from RPW.
Project waters are aerial (straight) miles from TNW.
Project waters are aerial (straight) miles from RPW.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters cross or serve as state boundaries. Explain:.

Identify flow route to TNW[5]:

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural .
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: Pick List.

Primary tributary substrate composition (check all that apply):
☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain:.
Tributary geometry: Pick List
Tributary gradient (approximate average slope):

(c) Flow:
Tributary provides for: Pick List
Estimate average number of flow events in review area/year:
Describe flow regime: .
Other information on duration and volume:.

Surface flow is: Pick List. Characteristics: .

Subsurface flow: Pick List. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):
☐ clear, natural line impressed on the bank
☐ changes in the character of soil
☐ shelving
☐ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☐ sediment deposition
☐ water staining
☐ other (list):
☐ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

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[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain:.
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size:
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: . Explain:.

Surface flow is: **Pick List**
Characteristics:.

Subsurface flow: **Pick List**. Explain findings: .
- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are river miles from TNW.
Project waters are aerial (straight) miles from TNW.
Flow is from: **Pick List.**
Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:.
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain:.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis:
Approximately ( ) acres are being considered in the cumulative analysis.

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 55 through 60**

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 55 through 60**

☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).

☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands:

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: **7.47 acres**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
☒ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name:.
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands 55 through 60**

☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Levy-Central Florida South Transmission Line Wetlands A through H, CS O, CS P

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Florida** County/parish/borough: **Citrus** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.962839°** N, Long. **-82.561551°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Crystal River**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **None**
Name of watershed or Hydrologic Unit Code (HUC): **Crystal River/03100207**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: **December 30, 2009**.
☒ Field Determination. Date(s): **November 4-17, 2009** .

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands:

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands A, B, C, D, E, F, G, H, CS O and CS P are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetlands A through H, CS O, CS P

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: acres
Drainage area: acres
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through --- tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are aerial (straight) miles from TNW.
Project waters are aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]:.
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes:

Primary tributary substrate composition (check all that apply):
☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:
Tributary provides for: Pick List
Estimate average number of flow events in review area/year:
Describe flow regime: .
Other information on duration and volume:.

Surface flow is:. Characteristics: .

Subsurface flow:. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):
☐ clear, natural line impressed on the bank
☐ changes in the character of soil
☐ shelving
☐ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☐ sediment deposition
☐ water staining
☐ other (list):
☐ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☒ High Tide Line indicated by:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☒ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

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[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: Unknown.
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size:
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: . Explain: .

Surface flow is:
Characteristics:

Subsurface flow: Explain findings: .
- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting .
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are river miles from TNW.
Project waters are aerial (straight) miles from TNW.
Flow is from:
Estimate approximate location of wetland as within the floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:.
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain:.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis:
Approximately ----is being considered in the cumulative analysis .
For each wetland, specify the following:

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetlands A through H, CS O, CS P

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     - Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
     - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
     - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

   Provide acreage estimates for jurisdictional wetlands in the review area:

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area:

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   - ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   - ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   - ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   - ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetlands A through H, CS O, CS P

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: **15.79 acres**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:.

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[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands A through H, CS O, CS P**

- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Levy-Central Florida South Transmission Line Wetland I

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Florida** County/parish/borough: **Citrus** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.963855°** N, Long. **-82.392641°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Tsala Apopka Lake**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **None**
Name of watershed or Hydrologic Unit Code (HUC): **Tsala Apopka Outlet/03100208**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: **January 11, 2010**.
☒ Field Determination. Date(s): **November 10, 2009**.

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands:

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland I is not jurisdictional because it is hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetland I

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: acres
Drainage area: acres
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through --- tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are aerial (straight) miles from TNW.
Project waters are aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]:.
Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):
Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain:
- ☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes:

Primary tributary substrate composition (check all that apply):
- ☐ Silts
- ☐ Sands
- ☐ Concrete
- ☐ Cobbles
- ☐ Gravel
- ☐ Muck
- ☐ Bedrock
- ☐ Vegetation. Type/% cover:
- ☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:.

Surface flow is:. Characteristics:

Subsurface flow:. Explain findings:
- ☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☐ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):
  - ☐ clear, natural line impressed on the bank
  - ☐ changes in the character of soil
  - ☐ shelving
  - ☐ vegetation matted down, bent, or absent
  - ☐ leaf litter disturbed or washed away
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ other (list):
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
  - ☐ abrupt change in plant community
- ☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
- ☒ High Tide Line indicated by:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list):
- ☒ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

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[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:
Identify specific pollutants, if known:

(iv) Biological Characteristics. Channel supports (check all that apply):
- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size:
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: . Explain:

Surface flow is:
Characteristics:.

Subsurface flow: Explain findings:
- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting .
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are river miles from TNW.
Project waters are aerial (straight) miles from TNW.
Flow is from:
Estimate approximate location of wetland as within the floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:.
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: Approximately ----is being considered in the cumulative analysis
For each wetland, specify the following:

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetland I

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
     - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
     - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

   Provide acreage estimates for jurisdictional wetlands in the review area:

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area:

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   - ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   - ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   - ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   - ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetland I

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: **0.18 acres**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:.

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[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetland I**

- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Levy-Central Florida South Transmission Line Wetlands J through U

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Florida** County/parish/borough: **Citrus** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **29.004989°** N, Long. **-82.339932°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Withlacoochee River**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Withlacoochee River**
Name of watershed or Hydrologic Unit Code (HUC): **Withlacoochee River /03100208**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: **January 11, 2010.**
☒ Field Determination. Date(s): **November 10-12, 2009.**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☒ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: **A portion of the Withlacoochee River, a TNW, crosses the project boundary adjacent to Wetland M.**

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are and are not** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☒ TNWs, including territorial seas **(Wetland M)**
   - ☒ Wetlands adjacent to TNWs **(Wetland M)**
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: **7.63 acres**

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Wetlands J, K, L, N, O, P, Q, R, S, T and U are not jurisdictional because they are hydrologically isolated**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

from TNWs and RPWs that flow directly or indirectly into TNWs. They are not expected to have any significant effects on the physical, chemical or biological integrity of the Withlacoochee River, a TNW.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW (Wetland M)**
   Identify TNW: **Withlacoochee River.**

   Summarize rationale supporting determination: **The Withlacoochee River is a navigable waterway.**

2. **Wetland adjacent to TNW (Wetland M)**
   Summarize rationale supporting conclusion that wetland is "adjacent": **Wetland M contains freshwater marsh and wet prairie wetlands that directly abut the Withlacoochee River, a TNW.**

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) **General Area Conditions:**
   Watershed size: **acres**
   Drainage area: **acres**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through --- tributaries before entering TNW.

   Project waters are **Pick List** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters are aerial (straight) miles from TNW.
Project waters are aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:.

Identify flow route to TNW[5]:.
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes:

Primary tributary substrate composition (check all that apply):
☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain:.
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:
Tributary provides for: Pick List
Estimate average number of flow events in review area/year:
Describe flow regime: .
Other information on duration and volume:.

Surface flow is:. Characteristics: .

Subsurface flow:. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):
☐ clear, natural line impressed on the bank
☐ changes in the character of soil
☐ shelving
☐ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☐ sediment deposition
☐ water staining
☐ other (list):
☐ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☒ High Tide Line indicated by:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☒ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

☐ other (list):

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: Unknown.
Identify specific pollutants, if known:

(iv) Biological Characteristics. Channel supports (check all that apply):
☐ Riparian corridor. Characteristics (type, average width):
☐ Wetland fringe. Characteristics:
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☐ Aquatic/wildlife diversity. Explain findings

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Wetland size:
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: . Explain:

Surface flow is:
Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).

Subsurface flow: Explain findings:
☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
☐ Directly abutting
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain:
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are river miles from TNW.
Project waters are aerial (straight) miles from TNW.
Flow is from:
Estimate approximate location of wetland as within the floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:.
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):
☐ Riparian buffer. Characteristics (type, average width):
☐ Vegetation type/percent cover. Explain:.
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetlands J through U

All wetland(s) being considered in the cumulative analysis: Approximately ----is being considered in the cumulative analysis

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☒ TNWs: **400** linear feet **100** width (ft), Or, **0.918** acres.
   ☒ Wetlands adjacent to TNWs: **6.71** acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:

☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetlands J through U

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: **27.65 acres (Wetlands J, K, L, N, O, P, Q, R, S, T and U)**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.

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[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands J through U**

- ☐ U.S. Geological Survey map(s). Cite scale & quad name:.
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Project: Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines
Assessment Area: Levy-Central Florida South Transmission Line Wetlands V through Y

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: **Florida** County/parish/borough: **Marion** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **29.004794°** N, Long. **-82.255206°** W.
Universal Transverse Mercator:
Name of nearest waterbody: **Gum Slough and the Withlacoochee River**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **None**
Name of watershed or Hydrologic Unit Code (HUC): **Gum Slough/03100208**

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☒ Office (Desk) Determination. Date: **January 11, 2010.**
- ☒ Field Determination. Date(s): **November 16, 2009, January 8, 2010.**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands:

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetlands V,W, X, XA, XB and Y are not jurisdictional because they are hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs. Extensive residential development and a grid of roads separate**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

these wetlands from the nearest TNWs to the south. They are not expected to have any significant effects on the physical, chemical or biological integrity of the TNW the Withlacoochee River.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: acres
Drainage area: acres
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through --- tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are aerial (straight) miles from TNW.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetlands V through Y

Project waters are aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:.

Identify flow route to TNW[5]:.
Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):
Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain:
- ☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes:

Primary tributary substrate composition (check all that apply):
- ☐ Silts
- ☐ Sands
- ☐ Concrete
- ☐ Cobbles
- ☐ Gravel
- ☐ Muck
- ☐ Bedrock
- ☐ Vegetation. Type/% cover:
- ☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain:.
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:
Tributary provides for: Pick List
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:.

Surface flow is:. Characteristics:

Subsurface flow:. Explain findings:
- ☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☐ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):
  - ☐ clear, natural line impressed on the bank
  - ☐ changes in the character of soil
  - ☐ shelving
  - ☐ vegetation matted down, bent, or absent
  - ☐ leaf litter disturbed or washed away
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ other (list):
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
  - ☐ abrupt change in plant community
- ☐ Discontinuous OHWM.[7] Explain: **May be less evident where ditched.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
- ☒ High Tide Line indicated by:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list):
- ☒ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

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[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: Unknown.
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size:
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: . Explain: .

Surface flow is:
Characteristics: Both confined (within ditch banks) and sheetflow (non-ditched areas).

Subsurface flow: Explain findings: .
- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting .
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are river miles from TNW.
Project waters are aerial (straight) miles from TNW.
Flow is from:
Estimate approximate location of wetland as within the floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:.
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain:.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

Project: Progress Energy Florida, Inc. Levy Baseload Transmission Program
Assessment Area: Levy-Central Florida South Transmission Line Wetlands V through Y

All wetland(s) being considered in the cumulative analysis: Approximately ----is being considered in the cumulative analysis

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:

☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: **7.79 acres**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.

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[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetlands V through Y**

- ☐ U.S. Geological Survey map(s). Cite scale & quad name:.
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Project: **Progress Energy Florida, Inc. Levy Nuclear Plant – Transmission Lines**
Assessment Area: **Levy-Central Florida South Transmission Line Wetland CS N**

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: **Florida** County/parish/borough: **Citrus** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **28.963° N**, Long. **-82.606° W**.
Universal Transverse Mercator:
Name of nearest waterbody: **Crystal Bay**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **None**
Name of watershed or Hydrologic Unit Code (HUC): **Direct Runoff to Gulf/03100207**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: **January 11, 2010**.
☒ Field Determination. Date(s): **October 14, 2009**.

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands:

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland CS N is not jurisdictional because it is hydrologically isolated from TNWs and RPWs that flow directly or indirectly into TNWs.**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetland CS N**

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: acres
Drainage area: acres
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through --- tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are aerial (straight) miles from TNW.
Project waters are aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]:.
Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):
Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain:
- ☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes:

Primary tributary substrate composition (check all that apply):
- ☐ Silts
- ☐ Sands
- ☐ Concrete
- ☐ Cobbles
- ☐ Gravel
- ☐ Muck
- ☐ Bedrock
- ☐ Vegetation. Type/% cover:
- ☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:.
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:.

Surface flow is:. Characteristics:

Subsurface flow:. Explain findings:
- ☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☐ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):
  - ☐ clear, natural line impressed on the bank
  - ☐ changes in the character of soil
  - ☐ shelving
  - ☐ vegetation matted down, bent, or absent
  - ☐ leaf litter disturbed or washed away
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ other (list):
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
  - ☐ abrupt change in plant community
- ☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
- ☒ High Tide Line indicated by:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list):
- ☒ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

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[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:
Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):
- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size:
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: . Explain: .

Surface flow is:
Characteristics:.

Subsurface flow: Explain findings: .
- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting .
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are river miles from TNW.
Project waters are aerial (straight) miles from TNW.
Flow is from:
Estimate approximate location of wetland as within the floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:.
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain:.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: Approximately ----is being considered in the cumulative analysis
For each wetland, specify the following:

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetland CS N**

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

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[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetland CS N**

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:.
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: **0.05 acres**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: USGS 2006; www.fgdl.org.
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:.

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[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Project: **Progress Energy Florida, Inc. Levy Baseload Transmission Program**
Assessment Area: **Levy-Central Florida South Transmission Line Wetland CS N**

- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☒ National wetlands inventory map(s). Cite name: USFWS, HRC 2008; www.fgdl.org.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): AerialExpress 2008.
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify): Florida Atlas & Gazetteer, 2006; Southwest Florida Water Management District land use/land cover data, 2004.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland M

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510	Withlacoochee River	Existing Condition	M-510 = 1 acre

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/ 03100208		Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Withlacoochee River, connects to Lake Rousseau to the northwest. Adjacent wetlands occur within the ROW (Wetland M marsh, wet prairie, and mixed forested wetlands)

Assessment area description

Withlacoochee River, residential areas along shoreline, historical floodplain forest cleared within ROW.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, residential areas, roadways	Natural river system is relatively rare in the regional landscape

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, white tailed deer, armadillo, sunfish and forage fishes, various amphibians and herpetofauna	Occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), limpkin (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None observed

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	11/12/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 510 - Wetland M
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, K. Bullock	11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 0	Location and landscape support variable is slightly reduced due to adjacent residential areas along river's edge and cleared transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to disturbance from surrounding development; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by surrounding developed areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 9, significant benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 9, natural river system; g) Dependency of downstream areas on assessment area = 9, significant benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 10	with: 0	The water environment score is reflective of undisturbed conditions. Individual parameter scores: a) water levels and flows = 10; b) water level indicators = 10; c) soil moisture = 10; d) soil erosion or deposition = 9, minimal erosion from adjacent landuses, debris disposal; e) evidence of fire history = N/A; f) vegetation community zonation = 9, riparian zone slightly reduced compared to typical; g) hydrologic stress on vegetation = 10; h) use by animal species with specific hydrological requirements = 8, slightly reduced due to adjacent residential areas, cleared ROW; i) vegetative species tolerant of and associated with water quality degradation = 9, minimal nuisance/exotic species; j) direct observation of water quality = 10; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0	The community structure variable is slightly reduced due to clearing of historical forested floodplain associated with transmission line ROW and residential areas. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, maintenance typically removes riparian shrub/canopy stratum, open water of river channel unimpacted; b) invasive exotics or other invasive plant species = 8, minimal coverage of exotic/nuisance species; c) regeneration and recruitment = 7, riparian recruitment impacted by clearing and surrounding development, no impact to channel; d) age & size distribution = 6, riparian zone atypical of natural river system, impacted due to maintanence; e) density and quality of coarse woody debris, snag, den, and cavity = 8, typical of assessment area; f) plant condition = 8, somewhat reduced due to maintenance; g) land management practices = 7, due to alteration of community structure by ROW maintenance; h) topographic features = 9, typical of assessment area; i) siltation or algal growth in submerged aquatic plant communities = 10, none noted.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.87	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.87 x 0 = 0

Delta = [with-current]
-0.87

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands C, G, 5/6, 11, 12, 25, 28, 30, 32, 32A, 38, 43, 52, 57

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
511		Existing Condition	2.93 acres (C = 0.05, G = 0.10, 5/6-511 = 0.18, 11 = 0.20, 12 = 0.07, 25 = 0.13, 28-511 = 0.12, 30 = 0.10, 32 = 0.31, 32A = 0.03, 38-511 = 1.41, 43 = 0.03, 52 = 0.15, 57-511 = 0.05)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208 and Crystal River to St. Pete/03100207		Wetlands 38, 43, and 52 are included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Typically, these drainage ditches are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Low quality drainage ditches vegetated with smartweed (*Polygonum punctatum*), maidencane (*Panicum hemitomon*), sedges (*Cyperus* spp.), bushy broomsedge (*Andropogon glomeratus*), dogfennel (*Eupatorium capillifolium*), spikerush (*Eleocharis* sp.), soft rush (*Juncus effusus*), coinwort (*Centella asiatica*), marsh pennywort (*Hydrocotyle umbellata*), blackberry (*Rubus* sp.), caesarweed (*Urena lobata*), arrowhead (*Sagittaria lancifolia*), starrush whitetop (*Dichromena colorata*), lizard's tail (*Saururus cernuus*), goldenrod (*Solidago* sp.), peppervine (*Ampelopsis arborea*), dayflower (*Commelina difusa*), and foxtail (*Setaria* spp.), with occasional trees and shrubs including sweetgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), elderberry (*Sambucus canadensis*), American beautyberry (*Callicarpa americana*), groundsel tree (*Baccharis halimifolia*), coastal plain willow (*Salix caroliniana*), red maple (*Acer rubrum*), and winged elm (*Ulmus alata*). Nuisance/exotic species include Japanese climbing fern (*Lygodium japonicum*) and primrose willow (*Ludwigia peruviana*).

	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

red-tailed hawk

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	11/11/2009 through 11/16/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands C, G, 5/6, 11, 12, 25, 28, 30, 32, 32A, 38, 43, 52, 57
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	11/11/2009 through 11/16/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 5	with: 0	Location and landscape support variable is reduced due to location of excavated ditches within surrounding cleared transmission line ROW, urban and/or agricultural development. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 5, reduced due to disturbance from adjacent roadways, cattle, maintenance mowing/herbicide, surrounding development; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding developed areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 4, little benefit, artificial drainageways; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 4, artificial drainage features, some of which connect to adjacent areas; g) Dependency of downstream areas on assessment area = 3, minimal benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 5	with: 0	The water environment score is reduced due to impacts from adjacent roadways, cattle, landclearing, and maintenance activities. Individual parameter scores: a) water levels and flows = 5, altered due to debris disposal, clearing; b) water level indicators = 5, less than typical of assessment area; c) soil moisture = 5, drier than expected; d) soil erosion or deposition = 4, erosion from adjacent landuses, debris disposal; e) evidence of fire history = N/A; f) vegetation community zonation = 4, upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 3, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, some coverage of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0	The community structure variable is reduced due to significant coverage of upland species and excavated, artificial nature of drainage ditches. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, maintenance typically removes shrub/canopy stratum, facultative and upland species prevalent; b) invasive exotics or other invasive plant species = 7, moderate coverage of exotic/nuisance species; c) regeneration and recruitment = 4, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 4, typical of artificial drainage ditch, impacted due to maintanence; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to maintenance and herbicide; g) land management practices = 5, due to proximity of roadways and alteration of community structure by routine maintenance; h) topographic features = 4, artificial excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.50	with: 0

Delta = [with-current]
-0.50

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.50 x 0.02 = 0.01 (Wetland 5/6); -0.50 x <0.005 = <0.005 (Wetland 28); **total of 0.02 acres and total FL of 0.01**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands L, Y, 41, 44, 53

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
511		Existing Condition	2.1 acres (L-511 = 0.34, Y-511 = 0.30, 41 = 0.68, 44 = 0.31, 53 = 0.47)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		Wetlands 41 and 44 are included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Typically, these drainage ditches are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, and cleared transmission line ROW

Assessment area description

Ditches vegetated with maidencane (*Panicum hemitomon*), sedges (*Cyperus* spp.), bushy broomsedge (*Andropogon glomeratus*), coastal plain willow (*Salix caroliniana*), smartweed (*Polygonum* sp.), marsh pennywort (*Hydrocotyle umbellata*), water spangles (*Salvinia minima*), redroot (*Lachnanthes caroliniana*), smartweed (*Polygonum* spp.), dogfennel (*Eupatorium capillifolium*), blackberry (*Rubus* sp.), blue maidencane (*Amphicarpum muhlenbergianum*), fragrant water lily (*Nymphaea odorata*),

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, rail line, residential, roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

great egret, feral hog,

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	11/10/2009 through 11/17/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 511 - Wetlands L, Y, 41, 44, 53
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	11/10/2009 through 11/17/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 0	Location and landscape support variable is somewhat reduced due to location within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to disturbance from surrounding landclearing/development; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding cleared landscape and roadways; d) functions that benefit fish & wildlife downstream-distance or barriers = 6, areas typically connect to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, somewhat reduced due to surrounding cleared transmission line ROW; f) Hydrologically connected areas downstream of assessment area = 7; g) Dependency of downstream areas on assessment area = 5, little benefit to adjacent areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 5	with: 0	The water environment score is reduced due to impacts from landclearing and maintenance activities. Individual parameter scores: a) water levels and flows = 5, altered due to debris disposal, clearing; b) water level indicators = 6, less than typical of assessment area; c) soil moisture = 6, drier than expected; d) soil erosion or deposition = 5, some erosion from adjacent landuses, debris disposal; e) evidence of fire history = N/A; f) vegetation community zonation = 6, some upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, minimal coverage of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 6	with: 0	The community structure variable is reduced due to presence of upland species and routine maintenance activities. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, transmission line maintenance typically removes shrub/canopy stratum, upland and facultative species present; b) invasive exotics or other invasive plant species = 7, minimal coverage; c) regeneration and recruitment = 6, area within transmission line ROW is maintained; d) age & size distribution = 6, altered due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, typical of assessment area, somewhat reduced due to maintenance; g) land management practices = 6, due to alteration of community structure by routine maintenance and adjacent roadways; h) topographic features = 5, minimal, excavated ditches; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.57	0

Delta = [with-current]
-0.57

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.57 x 0.07 = 0.04 (Wetland Y)

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland N, 18, 42, 54, 58

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
511		Existing Condition	1.34 acres (N = 0.16, 18 = 0.15, 42 = 0.28, 54-511 = 0.47, 58-511 = 0.28)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		Wetlands N and 42 are included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest and cleared transmission line ROW

Assessment area description

Ditches vegetated with soft rush (*Juncus effusus*), maidencane (*Panicum hemitomon*), sedges (*Cyperus* spp.), bushy broomsedge (*Andropogon glomeratus*), redroot (*Lachnanthes caroliana*), torpedo grass (*Panicum repens*), primrose willow (*Ludwigia* sp.), foxtail grass (*Setaria* sp.), water spangles (*Salvinia minima*), mosquitofern (*Azolla caroliniana*), frog's bit (*Limnobium spongia*), beakrushes (*Rhynchospora* spp.), musky bushmint (*Hyptis alata*), smartweed (*Polygonum* spp.), dogfennel (*Eupatorium capillifolium*), and blue maidencane (*Amphicarpum muhlenbergianum*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water conveyance, flood attenuation, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

feral hog, moorhen, starlings

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	11/11/2009 through 11/17/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland N, 18, 42, 54, 58
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	11/11/2009 through 11/17/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 0	Location and landscape support variable is somewhat reduced due to location within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to disturbance from surrounding landclearing/development; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding cleared landscape and roadways; d) functions that benefit fish & wildlife downstream-distance or barriers = 6, areas typically connect to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, somewhat reduced due to surrounding cleared transmission line ROW; f) Hydrologically connected areas downstream of assessment area = 7; g) Dependency of downstream areas on assessment area = 5, little benefit to adjacent areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0	The water environment score is reduced due to impacts from landclearing and maintenance activities. Individual parameter scores: a) water levels and flows = 6, excavated drainageways, artificial hydrology; b) water level indicators = 6, less than typical of assessment area; c) soil moisture = 6, drier than expected; d) soil erosion or deposition = 6, some erosion from adjacent landuses, debris disposal; e) evidence of fire history = N/A; f) vegetation community zonation = 6, some upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, minimal coverage of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 6	with: 0	The community structure variable is reduced due to presence of upland species and routine maintenance activities. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, transmission line maintenance typically removes shrub/canopy stratum, upland and facultative species present; b) invasive exotics or other invasive plant species = 7, minimal coverage; c) regeneration and recruitment = 6, area within transmission line ROW is maintained; d) age & size distribution = 6, altered due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, typical of assessment area, somewhat reduced due to maintenance; g) land management practices = 6, due to alteration of community structure by routine maintenance and adjacent roadways; h) topographic features = 5, minimal, excavated ditches; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.60	0

Delta = [with-current]
-0.60

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.60 x 0.03 = 0.02 (Wetland 58); -0.60 x 0.02 = 0.01 (Wetland 54); **total of 0.05 acres and total FL of 0.03**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland B, CS N, XB, 62, 63,

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
534 - Reservoir	Stormwater Ponds, Reservoirs	Existing Condition	2.23 acres (B-534 = 0.59, CS N = 0.05, XB = 1.03, 62 = 0.44, 63 = 0.12)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208 and Crystal River to St. Pete/03100207		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Isolated man-made excavations/reservoirs. Typically surrounded by fringe of wet prairie or marsh vegetation. Surrounded by pasture, residential areas, and cleared transmission line ROW.

Assessment area description

Excavated open water areas within the transmission ROW, often trampled by cattle and occasionally (Wetland B) bordered by wet prairie marsh that is typically mowed/maintained. Vegetative community dominated by creeping ludwigia (*Ludwigia repens*), spikerush (*Eleocharis* sp.), bushy broomsedge (*Andropogon glomeratus*), broomsedge bluestem (*Andropogon virginicus*), frog's bit (*Limnobium spongia*), duckweed (*Lemna minor*), coastal plain willow (*Salix caroliniana*), and coinwort (*Centella asiatica*), as well as the nuisance/exotic species torpedo grass (*Panicum repens*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, residential areas.	Not unique

Functions	Mitigation for previous permit/other historic use
Water storage, wildlife habitat	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), and tricolored heron (SSC).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

killdeer, softshell turtle, bald eagle, snipe, marsh hawk

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Syer, S. Rizzo, K. Bullock, C. Cunningham	10/14/2009 through 1/8/2010

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 534 - Wetland B, CS N, XB, 62, 63
Impact or Mitigation Impact - Fill	Assessment conducted by: J. Styer, S. Rizzo, K. Bullock, C. Cunningham	Assessment date: 10/14/2009 through 1/8/2010

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6 with: 0	Location and landscape support variable is reduced due to location of excavated ponds within surrounding urban and/or industrial development. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to disturbance from maintenance mowing/herbicide, surrounding development; b) Invasive exotic species = 4, significant coverage of torpedo grass and cattail; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding developed areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 1, areas typically isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding development and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 1, typically no hydrologic connection; g) Dependency of downstream areas on assessment area = 1, minimal benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 4 with: 0	The water environment score is reduced due to artifical hydroperiod resulting from excavation of ponds/reservoirs within surrounding cleared, impacted areas. Individual parameter scores: a) water levels and flows = 4, artificial nature of excavated ponds, typically no outflow; b) water level indicators = 4, upland excavated ponds; c) soil moisture = 6, artificial excavation within surrounding upland, soil moisture less than expected; d) soil erosion or deposition = 4, cattle trampling; e) evidence of fire history = N/A; f) vegetation community zonation = 5, artificial system, reduced littoral zone; g) hydrologic stress on vegetation = 5, areas of deeper water reduce extent of expected emergent vegetation; h) use by animal species with specific hydrological requirements = 6, potential wading bird foraging habitat, although lack of hydrologic connection reduces utilization; i) vegetative species tolerant of and associated with water quality degradation = 5, some indication of high nutrients, exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 6 with: 0	The community structure variable is reduced due to artificial excavated nature of assessment area, with minimal littoral zone, cattle impacts, and presence of nuisance/exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, maintenance typically removes shrub/canopy stratum, non-desirable wetland species present; b) invasive exotics or other invasive plant species = 6, moderate coverage of torpedo grass and primrose willow; c) regeneration and recruitment = 4, artificial system, recruitment impacted by surrounding development and diminished hydroperiod; d) age & size distribution = 4, typical of artificial borrow pond system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to maintenance; g) land management practices = 5, due to alteration of community structure by routine maintenance; h) topographic features = 4, artificial excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.53	0

Delta = [with-current]
-0.53

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.53 x 0 = 0

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland U

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617 - Mixed Wetland Hardwoods		Existing Condition	0.82 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest and cleared transmission line ROW

Assessment area description

Mixed wetland hardwoods vegetated with mixture of native wetland species including sweetgum (*Liquidambar styraciflua*), coastal plain willow (*Salix caroliniana*) and laurel oak (Quercus laurifolia). Shrub species include wax myrtle (*Myrica cerifera*) and buttonbush (*Cephalanthus occidentalis*), and sapling slash pine (*Pinus elliottii*). Groundcover species include maidencane (*Panicum hemitomon*), blackberry (*Rubus* sp.), and blue maidencane (*Amphicarpum muhlenbergianum*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW and roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None observed

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer	11/12/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 617 - Wetland U
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, K. Bullock	11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 0	Location and landscape support variable is reflective of surrounding undeveloped uplands, slightly reduced due to cleared transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to cleared ROWt; b) Invasive exotic species = 9, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by adjacent landclearing; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, minimal barriers, isolated wetland; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, minimal impacts; f) Hydrologically connected areas downstream of assessment area = 5, isolated system; g) Dependency of downstream areas on assessment area = 5, minimal benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0	The water environment score is slightly reduced due to impacts from historical landclearing. Individual parameter scores: a) water levels and flows = 7, alterations in water level due to removal of upland habitat; b) water level indicators = 8, consistent with expected; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 7, minimal erosion; e) evidence of fire history = N/A; f) vegetation community zonation = 7, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 7, some edge effect, reduced hydroperiod; h) use by animal species with specific hydrological requirements = 7, wading bird foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, community consists of typical species; j) direct observation of water quality = 8, none noted; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 0	The community structure variable is slightly reduced due to encroachment of upland species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 9, minimal coverage; c) regeneration and recruitment = 7, slightly less than typical due to transmission line maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.73	0

Delta = [with-current]
-0.73

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.73 x 0 = 0

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 617 - Wetland U
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Clearing	J. Styer, K. Bullock	11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 5	Loss of canopy species associated with clearing the transmission line ROW would reduce the location and landscape support variable for wetland forests through loss of contiguous forested parcels and conversion to a freshwater marsh/wetland scrub community. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 5, reduced due to clearing impacts; b) Invasive exotic species = 6, potential encroachment of exotics associated with disturbance; c) Wildlife access to and from outside = 4, reduced due to clearing impacts; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 4, reduced due to habitat loss; f) Hydrologically connected areas downstream of assessment area = 5, reduced due to clearing impacts; g) Dependency of downstream areas on assessment area = 5, reduced benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 4	Clearing the canopy will impact the water environment variable, converting the forested system to a freshwater marsh/wetland scrub habitat. Canopy clearing will impact the water environment score due to erosion, sedimentation, and soil compaction. Individual parameter scores: a) water levels and flows = 4, altered due to clearing impacts related to use of heavy machinery, erosion/sedimentation, and soil compaction; b) water level indicators = 4, altered from clearing impacts; c) soil moisture = 4, altered from soil compaction; d) soil erosion or deposition = 4, temporary erosion from clearing impacts; e) evidence of fire history = N/A; f) vegetation community zonation = 4, altered due to removal of canopy stratum; g) hydrologic stress on vegetation = 6, some stress from soil compaction; h) use by animal species with specific hydrological requirements = 6, decreased use due to clearing; i) vegetative species tolerant of and associated with water quality degradation = 6, may have potential encroachment of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 4	Clearing the canopy will convert the system to a freshwater marsh/wetland scrub community with significant loss of functional value compared to the existing forested system. Functional value will increase as vegetative community becomes established through natural succession. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, canopy stratum removed; b) invasive exotics or other invasive plant species = 6, potential encroachment of exotics associated with disturbance; c) regeneration and recruitment = 4, severely disturbed due to clearing; herbaceous and shrub stratum species will eventually regenerate; d) age & size distribution = 4, impacted from clearing; e) density and quality of coarse woody debris, snag, den, and cavity = 4, reduced due to clearing impacts; f) plant condition = 4, reduced due to clearing impacts; g) land management practices = 4, due to alteration of community structure by clearing; h) topographic features = 4, atypical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.73	0.43

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.3 x 0.81 = 0.24

Delta = [with-current]
-0.30

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland Y

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
625 - Hydric Pine		Existing Condition	Y-625 = 0.23 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically isolated from other wetlands/surface waters outside the transmission line ROW. Surrounded by upland forest, roadways, residential, and cleared transmission line ROW

Assessment area description

Forested wetland with marginal hydrology dominated by slash pine (*Pinus elliottii*) and buttonbush (*Cephalanthus occidentalis*). Dominant groundcover is maidencane (*Panicum hemitomon*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW,residential, roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None observed

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	11/16/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 625 - Wetland Y
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, K. Bullock	11/16/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0	Location and landscape support variable is reduced due to location within light industrial areas and cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, reduced due to surrounding development; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding cleared transmission line ROW, residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0	The water environment score is reduced due to impacts from landclearing, ditching, adjacent residential landuses, and roadways. Individual parameter scores: a) water levels and flows = 6, altered due to clearing, ditching; b) water level indicators = 6, less than typical of assessment area; c) soil moisture = 6, less than typical of assessment area; d) soil erosion or deposition = 6, erosion from adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, none noted; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 0	The community structure variable is reduced due to limited diversity, periodic disturbance. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, limited diversity due to dominance by slash pine; b) invasive exotics or other invasive plant species = 8, minimal coverage; c) regeneration and recruitment = 6, somewhat impacted by ROW maintenance, ditching; d) age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted somewhat by ROW maintenance; g) land management practices = 6, clearing of adjacent native uplands; h) topographic features = 6, reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.67	0

Delta = [with-current]
-0.67

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.67 x 0.04 = 0.03

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 625 - Wetland Y
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Clearing	J. Styer, K. Bullock	11/16/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 5	Loss of canopy species associated with clearing the transmission line ROW would reduce the location and landscape support variable for wetland forests through loss of contiguous forested parcels and conversion to a freshwater marsh/wetland scrub community. Location and landscape support variable is reduced due to clearing and location within light industrial areas and cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 5, reduced due to clearing impacts; b) Invasive exotic species = 6, potential encroachment of exotics associated with disturbance; c) Wildlife access to and from outside = 4, reduced due to clearing impacts; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 4, reduced due to habitat loss; f) Hydrologically connected areas downstream of assessment area = 5, reduced due to clearing impacts; g) Dependency of downstream areas on assessment area = 5, reduced benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 3	Clearing the canopy will impact the water environment variable, converting the forested system to a wet prairie/wetland scrub habitat. Canopy clearing will impact the water environment score due to erosion, sedimentation, and soil compaction. Individual parameter scores: a) water levels and flows = 4, altered due to clearing impacts related to use of heavy machinery, erosion/sedimentation, and soil compaction; b) water level indicators = 3, existing marginal hydrology, further altered due to clearing impacts; c) soil moisture = 4, altered from soil compaction; d) soil erosion or deposition = 3, temporary erosion from clearing impacts; e) evidence of fire history = N/A; f) vegetation community zonation = 3, significantly altered due to removal of canopy stratum; g) hydrologic stress on vegetation = 4, stress from soil compaction; h) use by animal species with specific hydrological requirements = 3, decreased use due to clearing; i) vegetative species tolerant of and associated with water quality degradation = 6, may have potential encroachment of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 3	Clearing the canopy will convert the system to a freshwater marsh/wetland scrub community with significant loss of functional value compared to the existing forested system. Functional value will increase as vegetative community becomes established through natural succession. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 3, canopy stratum removed; b) invasive exotics or other invasive plant species = 6, potential encroachment of exotics associated with disturbance; c) regeneration and recruitment = 3, severely disturbed due to clearing; herbaceous and shrub stratum species will eventually regenerate; d) age & size distribution = 4, impacted from clearing; e) density and quality of coarse woody debris, snag, den, and cavity = 4, reduced due to clearing impacts; f) plant condition = 3, reduced due to clearing impacts; g) land management practices = 3, due to alteration of community structure by clearing; h) topographic features = 4, atypical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.67	0.37

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.30 x 0.18 = 0.05

Delta = [with-current]
-0.30

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands 7, 16, 17, 27, 36, 38, 45, 66

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
630 - Mixed Hardwood/Conifer Wetland		Existing Condition	25.46 acres (7 = 1.42, 16-630 = 1.36, 17-630 = 1.26, 27 = 0.94, 36-630 = 4.04, 38-630 = 14.18, 45-630 = 1.34, 66 = 0.92)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Most areas hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, pasture, roadways, and cleared transmission line ROW

Assessment area description

Mixed hardwood-conifer forested wetlands vegetated with mixture of native wetland species including red maple (*Acer rubrum*), slash pine (*Pinus elliottii*), water oak (*Quercus nigra*), cabbage palm (*Sabal palmetto*), bald cypress (*Taxodium distichum*), popash (*Fraxinus caroliniana*), sweetgum (*Liquidambar styraciflua*), dahoon holly (*Ilex cassine*), winged elm (*Ulmus alata*), laurel oak (*Quercus laurifolia*), Chinese tallow (*Sapium sebiferum*). Shrub species include wax myrtle (*Myrica cerifera*) and buttonbush (*Cephalanthus occidentalis*). Groundcover species include smartweed (*Polygonum* spp.), cinnamon fern (*Osmunda regalis*), Virginia chain fern (*Woodwardia virginica*), netted chain fern (*Woodwardia aereolata*), St. John's wort (*Hypericum* sp.), lizard's tail (*Saururus cernuus*), sedges (*Cyperus* spp.), beakrushes (*Rhynchospora* spp.), and the exotic species scratchthroat (*Ardisia crenata*) and rattlebox (*Sesbania* sp.).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, residential	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Moorhen, great egret, little blue heron, Carolina wren, barred owl, pileated woodpecker

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
S. Rizzo, , C. Cunningham, K. Bullock	11/10/2009 through 11/18/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 630 - Wetlands 7, 16, 17, 27, 36, 38, 45, 66
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	S. Rizzo, C. Cunningham, K. Bullock	11/10/2009 through 11/18/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0	Location and landscape support variable is reduced due to location within cleared transmission line and adjacent to roadway. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, reduced due to surrounding development; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, moderate benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, slightly reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 7; g) Dependency of downstream areas on assessment area = 7, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0	The water environment score is slightly reduced due to impacts from landclearing, ditching, and roadways. Individual parameter scores: a) water levels and flows = 7, altered due to clearing, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from clearing and adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 7; i) vegetative species tolerant of and associated with water quality degradation = 8, minimal coverage; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0	The community structure variable is indicative of a diverse assemblage of native wetland vegetation, slightly reduced due to periodic disturbance and presence of exotic species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, high diversity, dominance of native species; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 5, impacted by ROW maintenance, ditching; d) age & size distribution = 5, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted by ROW maintenance; g) land management practices = 6, clearing of adjacent native uplands; h) topographic features = 6, reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.73	0

Delta = [with-current]
-0.73

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.73 x 0.16 = 0.12 (Wetland 7); -0.73 x 0.08 = 0.06 (Wetland 17); -0.73 x 0.41 = 0.30 (Wetland 36); -0.73 x 0.41 = 0.30, -0.73 x 0.28 = 0.20, -0.73 x 0.36 = 0.26 (Wetland 38); -0.73 x 0.12 = 0.09 (Wetland 45); **total of 1.82 acres and total FL of 1.33**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 630 - Wetlands 7, 16, 17, 27, 36, 38, 45, 66
Impact or Mitigation	Assessment conducted by:	Assessment date:
Existing Condition	S. Rizzo, C. Cunningham, K. Bullock	11/10/2009 through 11/18/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 5

Loss of canopy species associated with clearing the transmission line ROW would reduce the location and landscape support variable for wetland forests through loss of contiguous forested parcels and conversion to a freshwater marsh/wetland scrub community. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 5, reduced due to clearing impacts; b) Invasive exotic species = 6, potential encroachment of exotics associated with disturbance; c) Wildlife access to and from outside = 4, reduced due to clearing impacts; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 4, reduced due to habitat loss; f) Hydrologically connected areas downstream of assessment area = 5, reduced due to clearing impacts; g) Dependency of downstream areas on assessment area = 5, reduced benefit to downstream areas.

.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 4

Clearing the canopy will temporarily impact the water environment variable as the forested system is converted to a freshwater marsh/wetland scrub habitat. Canopy clearing will impact the water environment score due to erosion, sedimentation, and soil compaction. Individual parameter scores: a) water levels and flows = 4, altered due to clearing impacts related to use of heavy machinery, erosion/sedimentation, and soil compaction; b) water level indicators = 4, altered from clearing impacts; c) soil moisture = 4, altered from soil compaction; d) soil erosion or deposition = 4, temporary erosion from clearing impacts; e) evidence of fire history = N/A; f) vegetation community zonation = 4, altered due to removal of canopy stratum; g) hydrologic stress on vegetation = 6, some stress from soil compaction; h) use by animal species with specific hydrological requirements = 6, decreased use due to clearing; i) vegetative species tolerant of and associated with water quality degradation = 6, may have potential encroachment of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.

.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 4

Clearing the canopy will convert the system to a freshwater marsh/wetland scrub community with significant loss of functional value compared to the existing forested system. Functional value will increase as vegetative community becomes established through natural succession. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, canopy stratum removed; b) invasive exotics or other invasive plant species = 6, potential encroachment of exotics associated with disturbance; c) regeneration and recruitment = 4, severely disturbed due to clearing; herbaceous and shrub stratum species will eventually regenerate; d) age & size distribution = 4, impacted from clearing; e) density and quality of coarse woody debris, snag, den, and cavity = 4, reduced due to clearing impacts; f) plant condition = 4, reduced due to clearing impacts; g) land management practices = 4, due to alteration of community structure by clearing; h) topographic features = 4, atypical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.73	0.43

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.30 x 1.26 = 0.38 (Wetland 7); -0.30 x 1.35 = 0.41 (Wetland 16); -0.30 x 1.12 = 0.34 (Wetland 17); -0.30 x 0.91 = 0.27 (Wetland 27); -0.30 x 3.15 = 0.95 (Wetland 36); -0.30 x 12.74 = 3.82 (Wetland 38); -0.30 x 1.22 = 0.37 (Wetland 45); -0.30 x 0.92 = 0.28 (Wetland 66); **total of 22.67 acres and total FL of 6.82**

Delta = [with-current]
-0.30

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland M

FLUCCs code [1]	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
630 - Mixed Hardwood/Conifer Wetland		Existing Condition	M-630 = 1.61 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		Part of Withlachoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to Withlacoochee River and other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, residential with roadways, and cleared transmission line ROW

Assessment area description

Mixed hardwood/confier forested wetland adjacent to the Withlacoochee River and transmission line ROW vegetated with mixture of native wetland species including bald cypress (*Taxodium distichum*), laurel oak (*Quercus laurifolia*), red maple (*Acer rubrum*), coastal plain willow (*Salix caroliniana*), and American elm (*Ulmus americana*). Shrub species include wax myrtle (*Myrica cerifera*) and buttonbush (*Cephalanthus occidentalis*). Groundcover species include maidencane (*Panicum hemitomon*), sedges (*Cyperus* spp.), bushy broomsedge (*Andropogon glomeratus*), and dogfennel (*Eupatorium capillifolium*),

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, residences with roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None observed

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	11/12/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 630 - Wetland M
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, K. Bullock	11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 0

Location and landscape support variable is reduced due to location within cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to surrounding development; b) Invasive exotic species = 7, some coverage by Brazilian pepper; c) Wildlife access to and from outside = 7, decreased due to limitations imposed by surrounding agricultural areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 7, moderate barriers due to surrounding development; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 8, hydrologic connections; g) Dependency of downstream areas on assessment area = 7, moderate benefit to downstream areas.

.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8	with: 0

The water environment score is slightly reduced due to impacts from clearing. Individual parameter scores: a) water levels and flows = 8, alterations in water level due to clearing of adjacent habitat; b) water level indicators = 8, consistent with expected; c) soil moisture = 8, consistent with expected; d) soil erosion or deposition = 8, some erosion from clearing; e) evidence of fire history = N/A; f) vegetation community zonation = 8, typical for assessment area type; g) hydrologic stress on vegetation = 8, minimal edge effect, reduced hydroperiod; h) use by animal species with specific hydrological requirements = 8, potential wading bird foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, community consists of typical species; j) direct observation of water quality = 8, none noted; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.

.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 9	with: 0

The community structure variable score is reflective of native wetland vegetative community, only slightly reduced to do ROW maintenance. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 9, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 9, minimal coverage; c) regeneration and recruitment = 8, slightly impacted by transmission line maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 9, typical of assessment area; f) plant condition = 9, plants appear healthy; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 8, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.83	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.83 x 0 = 0

Delta = [with-current]
-0.83

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 630 - Wetland M
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Clearing	J. Styer, K. Bullock	11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 5	Loss of canopy species associated with clearing the transmission line ROW would reduce the location and landscape support variable for wetland forests through loss of contiguous forested parcels and conversion to a freshwater marsh/wetland scrub community. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 5, reduced due to clearing impacts; b) Invasive exotic species = 6, potential encroachment of exotics associated with disturbance; c) Wildlife access to and from outside = 4, reduced due to clearing impacts; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited benefit; e) Impacts to wildlife listed in Part 1 by outside land uses = 4, reduced due to habitat loss; f) Hydrologically connected areas downstream of assessment area = 5, reduced due to clearing impacts; g) Dependency of downstream areas on assessment area = 5, reduced benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8	with: 4	Clearing the canopy will negatively impact the water environment variable due to erosion, sedimentation, and soil compaction. Individual parameter scores: a) water levels and flows = 4, altered due to clearing impacts related to use of heavy machinery, erosion/sedimentation, and soil compaction; b) water level indicators = 4, altered from clearing impacts; c) soil moisture = 4, altered from soil compaction; d) soil erosion or deposition = 4, temporary erosion from clearing impacts; e) evidence of fire history = N/A; f) vegetation community zonation = 4, altered due to removal of canopy stratum; g) hydrologic stress on vegetation = 6, some stress from soil compaction; h) use by animal species with specific hydrological requirements = 6, decreased use due to clearing; i) vegetative species tolerant of and associated with water quality degradation = 6, may have potential encroachment of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 9	with: 4	Clearing the canopy will convert the system to a freshwater marsh/wetland scrub community with significant loss of functional value compared to the existing forested system. Functional value will increase as vegetative community becomes established through natural succession. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 4, canopy stratum removed; b) invasive exotics or other invasive plant species = 6, potential encroachment of exotics associated with disturbance; c) regeneration and recruitment = 4, severely disturbed due to clearing; herbaceous and shrub stratum species will eventually regenerate; d) age & size distribution = 4, impacted from clearing; e) density and quality of coarse woody debris, snag, den, and cavity = 4, reduced due to clearing impacts; f) plant condition = 4, reduced due to clearing impacts; g) land management practices = 4, due to alteration of community structure by clearing; h) topographic features = 4, atypical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.83	0.43

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.40 x 1.61 = 0.64

Delta = [with-current]
0.43

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetland T

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
631 - Wetland Scrub		Existing Condition	1.45 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Isolated scrub wetland extending outside of ROW; surrounded by upland forest and cleared transmission line ROW.

Assessment area description

Scrub wetland disturbed by feral hog rooting, dominated by a mixture of native shrub and tree species including wax myrtle (*Myrica cerifera*), sweetgum (*Liquidambar styraciflua*), coastal plain willow *(Salix caroliniana),* slash pine (*Pinus elliottii*), laurel oak (*Quercus laurifolia*), and buttonbush (*Cephalanthus occidentalis*). Groundcover species include beakrushes (*Rhynchospora* spp.), blackberry (*Rubus* sp.), and blue maidencane (*Amphicarpum muhlenbergianum*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Feral hog

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	11/12/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 631 - Wetland T
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, K. Bullock	11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 0	Location and landscape support variable is slightly reduced due to location adjacent to silviculture land and cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, reduced due to surrounding development; b) Invasive exotic species = 9, minimal coverage; c) Wildlife access to and from outside = 8, slightly decreased due to limitations imposed by adjacent cleared ROW; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0	The water environment score is slightly reduced due to impacts from landclearing, feral hog damage, and droughty conditions. Individual parameter scores: a) water levels and flows = 7, altered due to clearing, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from feral hogs; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 7, suitable wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 8, none noted; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0	The community structure variable is reflective of dominance by native wetland species, slightly reduced due to feral hog impact, upland species encroachment, and periodic ROW maintenance activities. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 9, minimal coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance, ditching; d) age & size distribution = 7, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 6; f) plant condition = 8, plants appear healthy; g) land management practices = 6, clearing of adjacent native uplands; h) topographic features = 7, slightly reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.77	0

Delta = [with-current]
-0.77

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.77 x 0 = 0

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands F, CS O, CS P, 4,31, 32, 37, 39, 40, 46, 48, 50, 61, 65

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	3.25 acres (F = 0.06, CS O = 0.02, CS P = 0.07, 4 = 0.22, 31 = 0.40, 32-641 = 0.22, 37 = 0.06, 39 = 0.01, 40 = 0.55, 46 = 1.29, 48 = 0.24, 50 = 0.03, 61 = 0.07, 65 = 0.01)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208 and Crystal River to St. Pete/03100207		Wetlands 40 and 50 are included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Majority of the areas are hydrologically isolated from other wetlands/surface waters outside the transmission line ROW. Surrounded by roadways and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands, often impacted by cattle grazing and mowing, vegetated with mixture of predominantly native wetland species including smartweed (*Polygonum* sp.), maidencane (*Panicum hemitomon*), spikerush (*Eleocharis* sp.), dayflower (*Commelina difusa*), buttonbush (*Cephalanthus occidentalis*), sedges (*Cyperus* sp.), St. John's wort (*Hypericum* sp.), dogfennel (*Eupatorium capillifolium*), soft rush (*Juncus effusus*), coinwort (*Centella asiatica*), creeping ludwigia (Ludwigia repens), capeweed (*Phyla nodiflora*), marsh pennywort (*Hydrocotyle umbellata*), grassy arrowhead (*Sagittaria graminea*), and nuisance/exotic species torpedo grass (*Panicum repens*), rattlebox (*Sesbania* sp.), and Peruvian primrose willow (*Ludwigia peruviana*)

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, major roadways, rail line	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

bald eagle, florida whistling duck, American egret, glossy ibis, armadillo, fence lizard, bittern, pied-billed grebe

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
M. Arrants, J. Styer, S. Rizzo, K. Bullock, C. Cunningham	10/14/2009 through 11/17/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 641 - Wetlands F, CS O, CS P, 4,31, 32, 37, 39, 40, 46, 48, 50, 61, 65
Impact or Mitigation Impact - Fill	Assessment conducted by: M. Arrants, J. Styer, S. Rizzo, K. Bullock, C. Cunningham	Assessment date: 10/14/2009 through 11/17/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6 with: 0	Location and landscape support variable is reduced due to location of wetland within cleared transmission line and adjacent to development and roadways. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 5, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by clearing and surrounding residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 4, areas often isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 5, often no hydrologic connection; g) Dependency of downstream areas on assessment area = 5, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6 with: 0	The water environment score is reduced due to impacts from landclearing and maintenance activities. Individual parameter scores: a) water levels and flows = 6, altered due to debris disposal, clearing; b) water level indicators = 6, less than typical of assessment area; c) soil moisture = 6, drier than expected; d) soil erosion or deposition = 3, erosion from adjacent landuses, debris disposal; e) evidence of fire history = N/A; f) vegetation community zonation = 6, typical, although upland species encroachment evident; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 3, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, presence of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5 with: 0	The community structure variable is reduced due to clearing, cattle trampling, routine maintenance/mowing, and encroachment by nuisance/exotic and upland species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, impacted by cattle, mowing, and coverage of nuisance/exotic species; b) invasive exotics or other invasive plant species = 5, signficant coverage; c) regeneration and recruitment = 6, impacted by ROW maintenance, cattle, and diminished hydroperiod; d) age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 4; f) plant condition = 7, plants appear healthy, nuisance/exotic species reduce extent and health of native species; g) land management practices = 5, debris disposal within wetlands, clearing of adjacent native uplands; h) topographic features = 6, reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.57	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.57 x 0.01 = 0.01 (Wetland 48); -0.57 x <0.005 = <0.005 (Wetland 50); **total of 0.01 acre and total FL of 0.01.**

Delta = [with-current]
-0.57

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands A, AA, D, E, H, I, J, Z, XA, 10, 14, 28, 29, 33, 34, 35, 49, 49A, 55, 56, 57, 59

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	21.9 acres (A = 3.54, AA-641 = 0.49, D-641 = 4.58, E = 1.82, H = 1.45, I = 0.18, J = 0.04, Z = 0.06, XA = 0.50, 10 = 1.16, 14 = 0.66, 28 = 0.69, 29 = 0.71, 33 = 0.54, 34 = 1.14, 35 = 0.05, 49 = 1.83, 49A = 0.36, 55 = 1.07, 56 = 0.22, 57-641 = 0.09, 59 = 0.72)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208 and Crystal River to St. Pete/03100207		Wetland 49 is included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Majority of these freshwater marshes are isolated. Wetlands 34, 49, and 49A are hydrologically connected to other wetlands outside the transmission line ROW. Surrounded by upland and wetland forest, roadways,pasture and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands, often impacted by cattle and/or ROW maintenance, vegetated with maidencane (*Panicum hemitomon*), coinwort (*Centella asiatica*), dogfennel (*Eupatorium capillifolium*), broomsedge (*Andropogon virginicus*),pickerelweed (*Pontederia cordata*), foxtail grass (*Setaria* sp.), soft rush (*Juncus effusus*), peppervine (*Ampelopsis arborea*), Virginia chain fern (*Woodwardia virginica*), lizard's tail (*Saururus cernuus*), red maple (*Acer rubrum*), marsh pennywort (*Hydrocotyle umbellata*), arrowhead (*Sagittaria filiformes*), and smartweed (*Polygonum punctatum*). Nuisance/exotic species present, including torpedo grass (*Panicum repens*), rattlebox (*Sesbania* sp.), Peruvian primrose willow (*Ludwigia peruviana*), cattail (*Typha latifolia*), alligator weed (*Alternanthera philoxeroides*), and water hyacinth (*Eichhornia crassipes*),

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, residential areas	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Bald eagle, great egret, glossy ibis, fence lizard, little blue heron

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	11/10/2009 through 11/18/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 641 - Wetlands A, AA, D, E, H, I J, Z, XA, 10, 14, 28, 29, 33, 34, 35, 49, 49A, 55, 56, 57, 59
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	11/10/2009 through 11/18/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 0	Location and landscape support variable is reduced due to location of wetland within cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 6, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding roadways and residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0	The water environment score is reduced due to impacts from landclearing and routine maintenance. Individual parameter scores: a) water levels and flows = 6, altered due to clearing, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients, eg. cattail, water hyacinth, primrose willow; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 6	with: 0	The community structure variable is reduced due to regular disturbance and nuisance species of vegetation. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, limited diversity due to coverage by nuisance/exotic species; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 6, somewhat impacted by ROW maintenance, ditching; d) age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 6; f) plant condition = 6, extent and health of native species impacted somewhat by exotic nuisance species, ROW maintenance; g) land management practices = 6, clearing of adjacent native uplands; h) topographic features = 6, reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.60	with: 0

Delta = [with-current]
-0.60

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.60 x 0.01 = 0.01 (Wetland I); -0.60 x 0.06 = 0.04 (Wetland 28); -0.60 x 0.07 = 0.04 (Wetland 55); **total of 0.14 acres and total FL of 0.09.**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands 38, 45, 45A, 47, 51, 54

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	28.01 acres (38-641 = 22.14, 45-641 = 2.39, 45A = 0.01, 47 = 0.74, 51 = 2.39, 54-641 = 0.34)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		Wetland 51 is included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands outside the transmission line ROW. Surrounded by upland and wetland forest and pasture, roadways and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands, disturbed due to cattle and ROW maintenance, vegetated with mixture of native and nuisance/exotic wetland species including soft rush (*Juncus effusus*), beaksedges (*Rhynchospora* spp.), smartweed (*Polygonum* sp.), capeweed (*Phyla nodiflora*), sedges (*Cyperus* sp.), maidencane (*Panicum hemitomon*), blue maidencane (*Amphicarpum muhlenbergianum*), broomsedge (*Andropogon virginicus*), dogfennel (*Eupatorium capillifolium*), and pickerelweed (*Pontederia cordata*). Nuisance/exotic species present include torpedo grass (*Panicum repens*), Peruvian primrose willow (*Ludwigia peruviana*), and rattlebox (*Sesbania* sp.).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, major roadways, rail line, residential areas.	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

bald eagle, white-eyed vireo

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
S. Rizzo, K. Bullock	11/10/2009 through 11/17/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 641 - Wetlands 38, 45, 47, 51, 54
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	S. Rizzo, K. Bullock	11/10/2009 through 11/17/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 0	Location and landscape support variable is reduced due to location of wetland within cleared transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding roadways and residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0	The water environment score is reduced due to impacts from landclearing, ditching, and roadways. Individual parameter scores: a) water levels and flows = 7, altered due to clearing, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from cattle, adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients, eg. cattail, primrose willow; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 0	These freshwater marshes support a diverse community of native wetland vegetation, although nuisance/exotic species are present and regular maintenance occurs, reducing the community structure variable. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, dominated by desirable native wetland species, nuisance/exotic species present, ROW maintenance reduces extent of canopy species; b) invasive exotics or other invasive plant species = 7, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 7; typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.67	0

Delta = [with-current]
-0.67

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.67 x 0.55 = 0.37, -0.67 x 0.21 = 0.14 (Wetland 38); -0.67 x 0.09 = 0.06 (Wetland 45); -0.67 x 0.47 = 0.31, -0.67 x 0.03 = 0.02 (Wetland 51); -0.67 x <0.005 = <0.005 (Wetland 54); **total of 1.35 acres and total FL of 0.90**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands L, O, 15, 16, 17, 23, 36, 58, 60

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	18.41 acres (L-641 = 0.99, O = 1.60, 15 = 0.47, 16-641 = 2.46, 17-641 = 3.0, 23 = 2.38, 36-641 = 2.47, 58-641 = 1.01, 60 = 4.03)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		Wetlands O and 36 are included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

All but Wetland O are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland scrub and forest, roadways, and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands vegetated with mixture of predominantly native wetland species including soft rush (*Juncus effusus*), beaksedges (*Rhynchospora* spp.), maidencane (*Panicum hemitomon*), blue maidencane (*Amphicarpum muhlenbergianum*), broomsedge (*Andropogon virginicus*), sedges (*Cyperus* sp.), Peruvian primrose willow (*Ludwigia peruviana*), smartweed (*Polygonum* sp.), redroot (*Lachnanthes caroliniana*), marsh pennywort (*Hydrocotyle umbellata*), duckweed (*Lemna minor*), fragrant water lily (*Nymphaea odorata*), sweetgum (*Liquidambar styraciflua*), and pickerelweed (*Pontederia cordata*). Sparse canopy includes sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*), coastal plain willow (*Salix caroliniana*), and blackgum (*Nyssa sylvatica*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW and roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

feral hog, moorhen, great egret, white tailed deer

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, C. Cunningham, K. Bullock	11/05/2009 through 11/12/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 641 - Wetlands L, O, 15, 16, 17, 23, 36, 58, 60
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, S. Rizzo, C. Cunningham	11/05/2009 through 11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0

Location and landscape support variable is slightly reduced due to location of wetlands within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to adjacent development, cleared ROW; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 7, decreased due to limitations imposed by clearing, roadways, development; d) functions that benefit fish & wildlife downstream-distance or barriers = 7; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, slightly reduced due to clearing, roadways, residential, agricultural areas; f) Hydrologically connected areas downstream of assessment area = 7, typically connect to adjacent forested wetlands; g) Dependency of downstream areas on assessment area = 6, moderate benefit to downstream areas.

.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0

The water environment score is reduced due to impacts from landclearing, ditching, and roadways. Individual parameter scores: a) water levels and flows = 7, altered due to clearing, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 7, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 7, wading bird foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, moderate coverage of primrose willow; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.

.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0

These freshwater marshes support a diverse community of native wetland vegetation, although regular maintenance occurs, reducing the community structure variable. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 7, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 7; typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.73	with: 0

Delta = [with-current]
-0.73

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.73 x <0.005 = <0.005 (Wetland 16); -0.73 x 0.42 = 0.31 (Wetland 17); -0.73 x 0.02 = 0.01 (Wetland 36); -0.73 x 0.08 = 0.06 (Wetland 58); **total of 0.52 acres and total FL of 0.38**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands K, M, Q, R

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 - Freshwater Marsh		Existing Condition	23.99 acres (K = 18.40, M-641 = 2.43, Q = 2.63, R = 0.53)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		Wetlands M, Q, and R are included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, and cleared transmission line ROW

Assessment area description

Freshwater marsh wetlands vegetated with mixture of predominantly native wetland species including maidencane (*Panicum hemitomon*), blue maidencane (*Amphicarpum muhlenbergianum*), soft rush (*Juncus effusus*), redroot (*Lachnanthes caroliniana*), dogfennel (*Eupatorium capillifolium*), beaksedges (*Rhynchospora* spp.), broomsedge (*Andropogon virginicus*), and pickerelweed (*Pontederia cordata*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Feral hog, white tailed deer

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, K. Bullock	11/12/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 641 - Wetlands K, M, Q, R
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, K. Bullock	11/12/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 8 / with: 0	Location and landscape support variable is slightly reduced due to location of wetlands within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 8, slightly reduced due to adjacent development, cleared ROW; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 7, decreased due to limitations imposed by clearing, roadways, development; d) functions that benefit fish & wildlife downstream-distance or barriers = 7; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to clearing, roadways, residential areas; f) Hydrologically connected areas downstream of assessment area = 7, typically connect to adjacent forested wetlands; g) Dependency of downstream areas on assessment area = 8, significant benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8 / with: 0	The water environment score is slightly reduced due to impacts from landclearing and roadways. Individual parameter scores: a) water levels and flows = 8, altered due to clearing, ditching; b) water level indicators = 8, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 8, minimal erosion from adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 8, typical of assessment area; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients, eg. cattail, primrose willow; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8 / with: 0	These freshwater marshes support a diverse community of native wetland vegetation, although regular maintenance occurs, slightly reducing the community structure variable. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 8, minimal coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 7; typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.80	0

Delta = [with-current]
-0.80

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.80 x 0.8 = 0.64, -0.80 x 1.22 = 0.98 (Wetland K); **total of 2.02 acres and total FL of 1.62**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands B, V, AA1, AA2, AB, 1, 2, 5/6, 8, 9

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643 - Wet Prairie		Existing Condition	5.94 acres (B-643 = 2.13, V = 0.19, AA1 = 0.004, AA2 = 0.01, AB = 0.41, 1 = 0.46, 2 = 1.05, 5/6-643 = 1.49, 8 = 0.07, 9 = 0.13)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208 and Crystal River to St. Pete/03100207		None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Isolated wet prairie systems occuring within cleared transmission line ROW surrounded by upland pasture, roadways, and upland forest. Wetland 5/6 is wet prairie system connected to agricultural ditch adjacent to Florida Turnpike.

Assessment area description

Disturbed wet prairie wetlands vegetated with a mixture of nuisance/exotic and native species, impacted by grazing, mowing, and ditching. Common species include spikerush (*Eleocharis* sp.), coinwort (*Centella asiatica*), maidencane (*Panicum hemitomon*), broomsedge bluestem (*Andropogon virginicus*), alligator weed (*Alternanthera philoxeroides*), bermuda grass (*Cynodon dactylon*), bahiagrass (*Paspalum notatum*), marsh pennywort (*Hydrocotyle umbellata*), creeping ludwigia (*Ludwigia repens*), smartweed (*Polygonum* sp.), and dogfennel (*Eupatorium capillifolium*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Armadillo, garter snake, killdeer, softshell turtle, bald eagle, snipe, marsh hawk

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, C. Cunningham, K. Bullock	11/04/2009 through 11/16/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 643 - Wetlands B, V, AA1, AA2, AB, 1, 2, 5/6, 8, 9
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, C. Cunningham, K. Bullock	11/04/2009 through 11/16/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 0	Location and landscape support variable is reduced due to location of wetlands within cleared transmission line and surrounding alteraton of native upland and wetland habitat. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding roadways and residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 5	with: 0	The water environment score is reduced due to impacts from landclearing, cattle, and maintenance activities. Individual parameter scores: a) water levels and flows = 5, marginal hydroperiod, altered due to grazing, trampling, clearing; b) water level indicators = 6, less than typical of assessment area; c) soil moisture = 6, drier than expected; d) soil erosion or deposition = 4, erosion from cattle, adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 6, typical, although upland species encroachment evident; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 3, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, presence of nuisance/exotic species; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0	The community structure variable is reduced due to clearing, cattle trampling, routine maintenance/mowing, and encroachment by nuisance/exotic and upland species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, impacted by cattle, mowing, and coverage of nuisance/exotic species; b) invasive exotics or other invasive plant species = 6, moderate coverage; c) regeneration and recruitment = 6, impacted by ROW maintenance, cattle, and diminished hydroperiod; d) age & size distribution = 6, typical of system, reduced due to ROW maintenance; e) density and quality of coarse woody debris, snag, den, and cavity = 4; f) plant condition = 7, plants appear healthy, nuisance/exotic species reduce extent and health of native species; g) land management practices = 5, debris disposal within wetlands, clearing of adjacent native uplands; h) topographic features = 6, reduced compared to typical assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.53	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = -0.53 x 0.02 = 0.01 (Wetland B); -0.53 x 0.16 = 0.08 (Wetland 5/6); **total of 0.18 acres and total FL of 0.09**

Delta = [with-current]
-0.53

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands D, P, S, W, X, AA, 13, 22, 24, 26, 54, 64

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643 - Wet Prairie		Existing Condition	18.05 acres (D-643 = 1.38, P = 0.40, S = 0.29, W = 1.69, X = 3.85, AA-643 = 0.28, 13 = 1.31, 22 = 0.21, 24 = 0.87, 26 = 0.10, 54-643 = 6.97, 64 = 0.70)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208 and Crystal River to St. Pete/03100207		Wetland P is included within Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Most are hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, and cleared transmission line ROW

Assessment area description

Wet prairie wetlands, often disturbed by cattle, feral hog, and/or ROW maintenance, vegetated with mixture of native and exotic wetland species including torpedo grass (*Panicum repens*), coinwort (*Centella asiatica*), dogfennel (*Eupatorium capillifolium*), beaksedges (*Rhynchospora* spp.), sedges (*Cyperus* spp.), maidencane (*Panicum hemitomon*), marsh pennywort (*Hydrocotyle umbellata*), musky mint (*Hyptis alata*), blue maidencane (*Amphicarpum muhlenbergianum*), ponysfoot (*Dichondra carolinensis*), broomsedge (*Andropogon virginicus*), blackberry (*Rubus* sp.), sand cordgrass (*Spartina bakeri*), and bahia grass (*Paspalum notatum*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, rail line	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Glossy ibis, great egret, pied billed grebe, fulvous whistling duck

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
J. Styer, S. Rizzo, K. Bullock	11/10/2009 through 1/8/2010

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 643 - Wetlands D, P, S, W, X, AA, 13, 22, 24, 26, 54, 64
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	J. Styer, S. Rizzo, K. Bullock	11/10/2009 through 1/8/2010

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 0	Location and landscape support variable is reduced due to location of wetlands within cleared transmission line and surrounding alteraton of native upland and wetland habitat. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to surrounding development; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding roadways and residential areas; d) functions that benefit fish & wildlife downstream-distance or barriers = 5, limited connection to other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding habitat loss; f) Hydrologically connected areas downstream of assessment area = 4, limited hydrologic connections; g) Dependency of downstream areas on assessment area = 4, little benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0	The water environment score is reduced due to impacts from landclearing and routine maintenance. Individual parameter scores: a) water levels and flows = 6, altered due to clearing, roadways, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 6, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 5, poor wildlife habitat; i) vegetative species tolerant of and associated with water quality degradation = 6, some species indicative of high nutrients, eg. cattail, water hyacinth, primrose willow; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 0	These wet prairies support a diverse community of native wetland vegetation, although nuisance/exotic species are present and regular maintenance occurs, reducing the community structure variable. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 7, dominated by desirable native wetland species, nuisance/exotic species present, ROW maintenance reduces extent of canopy species; b) invasive exotics or other invasive plant species = 7, moderate coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 7; typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.63	with: 0

Delta = [with-current]
-0.63

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.63 x 0.53 = 0.33, -0.63 x 0.04 = 0.03 (Wetland 54); -0.63 x 0.14 = 0.09 (Wetland D); -0.63 x 0.05 = 0.03 (Wetland W); -0.63 x <0.005 = <0.005 (Wetland X); **total of 0.76 acres and total FL of 0.48**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		Wetlands M, 16, 19, 20, 21

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643 - Wet Prairie		Existing Condition	8.16 acres (M-643 = 3.59, 16-643 = 0.73, 19 = 0.86, 20 = 0.58, 21 = 2.40)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee River, South/03100208		Wet prairie portion of Wetland M adjacent to Withlacoochee River System OFW

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Hydrologically connected to other wetlands/surface waters outside the transmission line ROW. Surrounded by upland and wetland forest, roadways, and cleared transmission line ROW

Assessment area description

Wet prairie wetlands vegetated with mixture of predominantly native wetland species including softrush (*Juncus effusus*), beaksedges (*Rhynchospora* spp.), smartweed (*Polygonum* sp.), yellow-eyed grass (*Xyris* sp.), bahia grass (*Paspalum notatum*), marsh pennywort (*Hydrocotyle umbellata*), maidencane (*Panicum hemitomon*), meadow beauty (Rhexia sp.), goldenrod (*Solidago* sp.), blackberry (*Rubus* sp.), blue maidencane (*Amphicarpum muhlenbergianum*), coinwort (*Centella asiatica*), and broomsedge bluestem (*Andropogon virginicus*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Existing transmission line ROW, roadways, rail line,	Not unique

Functions	Mitigation for previous permit/other historic use
Widlife habitat, water storage, aquifer recharge	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, raccoon, various amphibians and herpetofauna	Potential occasional use by wading birds such as white ibis (SSC), little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), sandhill crane (T), and wood stork (E).

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

little blue heron, feral hog, moorhen, great egret.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
S. Rizzo, C. Cunningham, K. Bullock	11/05/2009 through 11/16/2009

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida, Inc./Levy Baseload Transmission Program/LCFS Transmission Line		FLUCFCS 643 - Wetlands M, 16, 19, 20, 21
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact - Fill	S. Rizzo, C. Cunningham, K. Bullock	11/05/2009 through 11/16/2009

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0	Location and landscape support variable is slightly reduced due to location of wetlands within transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to adjacent development, cleared ROW; b) Invasive exotic species = 7, moderate coverage; c) Wildlife access to and from outside = 7, decreased due to limitations imposed by clearing, roadways, development; d) functions that benefit fish & wildlife downstream-distance or barriers = 7; e) Impacts to wildlife listed in Part 1 by outside land uses = 7, slightly reduced due to clearing, roadways, residential, agricultural areas; f) Hydrologically connected areas downstream of assessment area = 7, typically connect to adjacent forested wetlands; g) Dependency of downstream areas on assessment area = 6, moderate benefit to downstream areas.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0	The water environment score is reduced due to impacts from landclearing, ditching, and roadways. Individual parameter scores: a) water levels and flows = 7, altered due to clearing, ditching; b) water level indicators = 7, typical of assessment area; c) soil moisture = 7, typical of assessment area; d) soil erosion or deposition = 6, erosion from adjacent landuses; e) evidence of fire history = N/A; f) vegetation community zonation = 7, moderate upland species encroachment; g) hydrologic stress on vegetation = 6; h) use by animal species with specific hydrological requirements = 7, wading bird foraging habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, moderate coverage of primrose willow; j) direct observation of water quality = N/A; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0	Community is dominated by a diverse community of native wetland vegetation, although regular maintenance occurs, reducing the community structure variable somewhat. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 8, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 8, minimal coverage; c) regeneration and recruitment = 7, somewhat impacted by ROW maintenance; d) age & size distribution = 8, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = 7; f) plant condition = 8; g) land management practices = 7, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 7; typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.73	with: 0

Delta = [with-current]
-0.73

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = -0.73 x <0.005 = <0.005 (Wetland 16); -0.73 x <0.005 = <0.005 (Wetland 19); **total of <0.005 acres and total FL of <0.005**

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

FLORIDA
Natural Areas
INVENTORY

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December 1, 2009

Stacy Rizzo
Golder Associates, Inc.
6026 NW 1st Place
Gainesville, FL 32607

Dear Ms. Rizzo,

Thank you for your request for information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project: Proposed Citrus Substation – Proposed Central Florida South Substation

Date Received: November 24, 2009

Location: Citrus, Marion and Sumter Counties

Based on the information available, this site appears to be located within a significant region of natural areas and habitat for several rare species. Special consideration should be taken to avoid and/or mitigate impacts to these natural resources, and to design land uses that are compatible with these resources.

Based on the information available, this site appears to be located on or very near a significant region of scrub habitat, a natural community in decline that provides important habitat for several rare species within a small area. Additional consideration should be given to avoid and/or mitigate impacts to these natural resources, and to design land uses that are compatible with these resources.

Element Occurrences

A search of our maps and database indicates that currently we have several Element Occurrences mapped within the vicinity of the study area (see enclosed maps and element occurrence tables). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

The Element Occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, Element Occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant.

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Reports). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

Florida Scrub-jay Survey – U.S. Fish and Wildlife Service
This survey was conducted by staff and associates of the Archbold Biological Station from 1992 to 1996. An attempt was made to record all scrub-jay (*Aphelocoma coerulescens*) groups, although most federal lands were not officially surveyed. Each map point represents one or more groups.

This data layer indicates that there are potential scrub-jay populations on or very near your site. For additional information:

Fitzpatrick, J.W., B. Pranty, and B. Stith, 1994, Florida scrub jay statewide map, 1992-1993. U. S. Fish and Wildlife Service Report, Cooperative Agreement no. 14-16-004-91-950.

Managed Areas
Portions of the site appear to be located within the Withlacoochee State Trail, managed by the Florida Department of Environmental Protection, Office of Greenways and Trails, the Withlacoochee State Forest and the Ross Prairie State Forest, both managed by the Florida Department of Agriculture and Consumer Services, Division of Forestry, and the Halpata Tastanaki Preserve, managed by the Southwest Florida Water Management District.

The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.

Land Acquisition Projects
This site appears to be located within the Longleaf Pine Ecosystem Florida Forever BOT Project, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. A description of this project is enclosed. For more information on this Florida Forever Project, contact the Florida Department of Environmental Protection, Division of State Lands.

Florida Forever Board of Trustees (BOT) projects are proposed and acquired through the Florida Department of Environmental Protection, Division of State Lands. The state has no regulatory authority over these lands until they are purchased.

The Inventory always recommends that professionals familiar with Florida's flora and fauna should conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological

resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

Thank you for your use of FNAI services. If I can be of further assistance, please give me a call at (850) 224-8207.

Sincerely,
Alicia C. Newberry

Alicia C. Newberry
Data Services Coordinator

Encl

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 1 of 7)

Citrus County

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FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

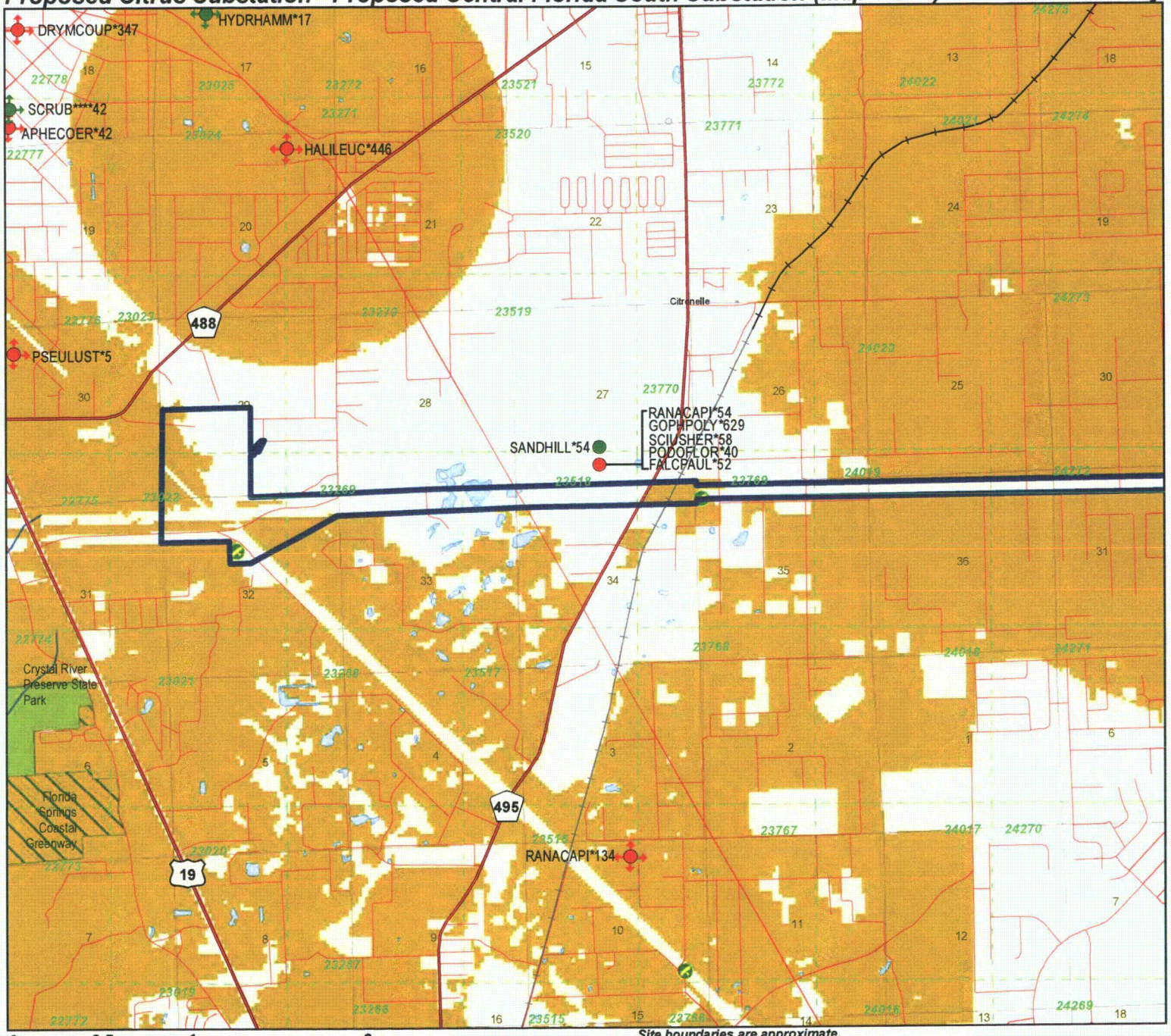
- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



N
W E
S

0 0.5 1 2 Miles

Site boundaries are approximate.

NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 1 DEC 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 1 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
APHECOER*42	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981-02-21	GRASSY PALMETTO SCRUB	1981-02-21: 11 SCRUB JAYS
RANACAPI*134	Rana capito	Gopher Frog	G3	S3	N	LS	1991-03-17	Upland Pine Forest; old field community	1991-03-17: D.J. STEVENSON, observed 1 adult female.
HYDRHAMM*17	Hydric hammock		G4	S4	N	N	2004	ISOLATED OCCURRENCE WITH LIMESTONE BOULDERS AT THE SURFACE; SOME DEEPER POOLS OF WATER.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-11-12) (U05FNA02FLUS). DOMINATED BY SABAL PALMETTO AND ACER RUBRUM.
SCRUB****42	Scrub		G2	S2	N	N	2004	GRASSY PALMETTO SCRUB	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1981-02-21) (U05FNA02FLUS). OCCURRENCE AT SITE
GOPHPOLY*629	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1990-04	SANDHILL, LONGLEAF PINE-TURKEY OAK, WIREGRASS, ALSO SOME PASTURE.	NUMEROUS BURROWS. 300+/- INDIVIDUALS BASED ON BURROW SURVEYS TO FGFWFC STANDARDS, EST POPULATION DENSITY OF 1.3/AC. 42%, 25% AND 33% OF OBSERVED BURROWS WERE ACTIVE, INACTIVE AND OLD RESPECTIVELY.
FALCPAUL*52	Falco sparverius paulus	Southeastern American Kestrel	G5T4	S3	N	LT	1990-04	SANDHILL, LONGLEAF PINE-TURKEY OAK, WIREGRASS.	8 INDIVIDUALS AND SURVIVING FLEDGLINGS AND 2 CONFIRMED NESTS.
SANDHILL*54	Sandhill		G3	S2	N	N	1990-04	SANDHILL, LONGLEAF PINE-TURKEY OAK, WIREGRASS.	No EO data given
PODOFLOR*40	Podomys floridanus	Florida Mouse	G3	S3	N	LS	1990-04	SANDHILL, LONGLEAF PINE-TURKEY OAK, WIREGRASS.	36 (ADULTS AND JUVENILE) INDIVIDUALS CAPTURED AND RELEASED, DURING 800 TRAP NIGHT SURVEY. MAJORITY OF TRAPS WERE SET IN VICINITY OF GOPHERUS BURROWS.
RANACAPI*54	Rana capito	Gopher Frog	G3	S3	N	LS	1990-04	SANDHILL, LONGLEAF PINE-TURKEY OAK, WIREGRASS.	6 INDIVIDUALS CAPTURED IN FUNNEL TRAPS SET AT ENTRANCE OF GOPHER TORTOISE BURROWS.
SCIUSHER*58	Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS	1990-04	SANDHILL, LONGLEAF PINE-TURKEY OAK, WIREGRASS, ALSO IN PASTURE-BAHIA GRASS.	6 INDIVIDUALS OBSERVED IN SANDHILL AND PASTURE.

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 1 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
DRYMCOUP*347	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1973-10	No general description given	MUSEUM SPECIMEN: S. CHRISTMAN, OCT 1973, UF.
HALILEUC*446	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1995-2003: Continuously active. (U03FWC01FLUS). Previous data (note different format) NEST: 1995: PRODUCED 1 YOUNG; 1994: GONE; 1993: PRODUCED 2 YOUNG; 1992-87: NO DATA; 1982-1986 ACTIVE; FLEDGED YOUNG 1982-1983, 1985.
PSEULUST*5	Pseudobranchus striatus lustricolus	Gulf Hammock Dwarf Siren	G5T1	S1	N	N	1951-03-15	1951: habitat not described by Neill (1951) (A51NEI02FLUS).	1951-03-15: W. T. Neill collected at least eight adults (paratypes, ERA-WTN 14218-14225) (A51NEI02FLUS, B92MOL01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 23022					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Leitneria floridana	Corkwood	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 23023					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mesic flatwoods		G4	S4	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Leitneria floridana	Corkwood	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Matrix Unit ID: 23269

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Sandhill upland lake		G3	S2	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Leitneria floridana	Corkwood	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Matrix Unit ID: 23518

Documented

Falco sparverius paulus	Southeastern American Kestrel	G5T4	S3	N	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
Sandhill upland lake		G3	S2	N	N

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Leitneria floridana	Corkwood	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 23769					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Leitneria floridana	Corkwood	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 24019					

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Sandhill		G3	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Matrix Unit ID: 24272					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 1 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE

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Proposed Citrus Substation - Proposed Central Florida South Substation (Map 2 of 7)

Citrus County

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FLORIDA Natural Areas INVENTORY

Element Occurrences

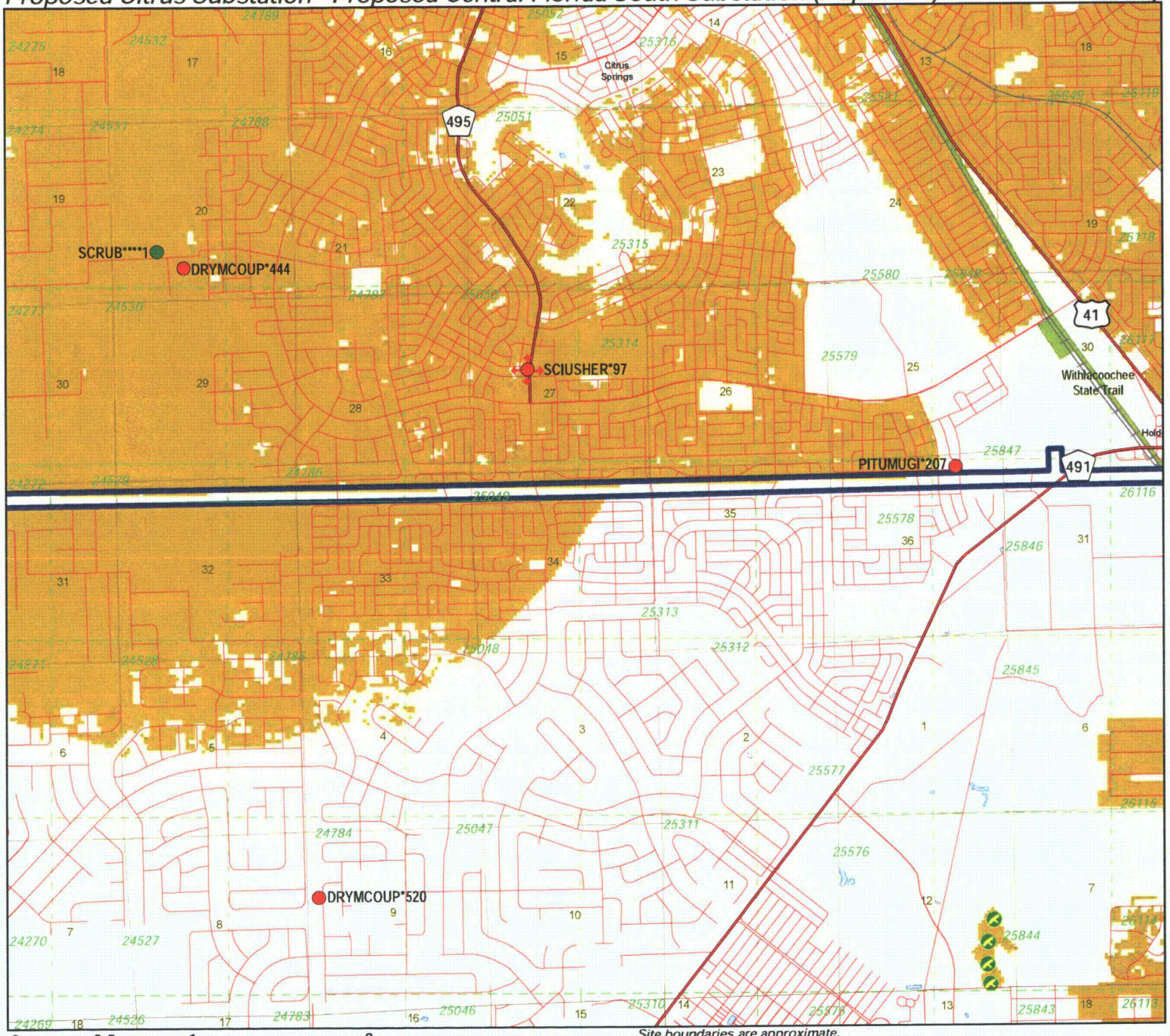
- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



N W E S

0 0.5 1 2 Miles

Site boundaries are approximate.

NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 1 DEC 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 2 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SCIUSHER*97	Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS	1995-01-12	Sandhill dominated by longleaf pine, turkey oak and wiregrass.	1995-01-12: 1 adult, foraging (U95MAI01).
SCRUB****1	Scrub		G2	S2	N	N	2004	SURROUNDED BY SANDHILL.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1983-02-19) (U05FNA02FLUS). SAND PINE>SAND LIVE OAK,CHAPMAN'S OAK,MYRTLE OAK, FETTERBUSH,GARBERIA,SOLIDAGO CHAPMANII,SCRUB CLOVER, SCRUB BLUEBERRY,SAW PAL
DRYMCOUP*444	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	1994-06-13	Sand pine scrub.	Snake observed AOR.
PITUMUGI*207	Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS	1999-07-28	1999-07: semi-developed subdivision in former sandhill; includes many vacant lots (U99MAI02FLUS).	1999-07-28: G. Maidhoff observed road-killed adult pine snake (U99MAI02FLUS).
DRYMCOUP*520	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	2008-06-18	2008-06-18: sandhill developed as a residential subdivision with many roads and houses (U08MAI01FLUS).	2006-06-18: D. Ferry photographed adult in his driveway (U08MAI01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 24529					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Matrix Unit ID: 24786					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Matrix Unit ID: 25049

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Matrix Unit ID: 25313

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mesic flatwoods		G4	S4	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Matrix Unit ID: 25578					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Shermán's Fox Squirrel	G5T3	S3	N	LS
Matrix Unit ID: 25846					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mesic flatwoods		G4	S4	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Sandhill		G3	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N

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Map 2 of 7

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Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
x Unit ID: 25847					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Sandhill		G3	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 2 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

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Proposed Citrus Substation - Proposed Central Florida South Substation (Map 3 of 7) Citrus and Marion Counties

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FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

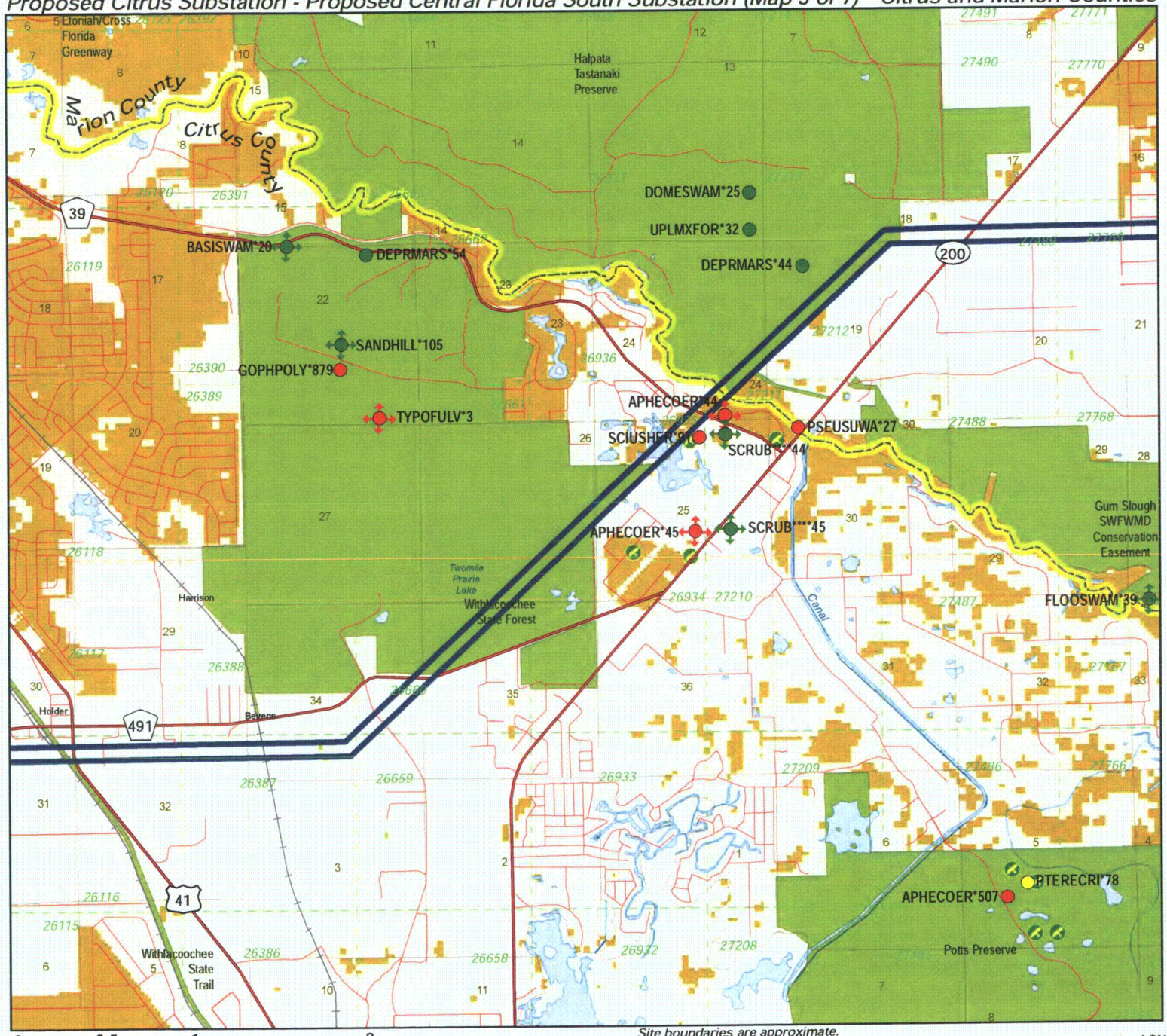
- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



0 0.5 1 2 Miles

Site boundaries are approximate.

NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 1 DEC 2009

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 3 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SCRUB****44	Scrub		G2	S2	N	N	1981-03-05	SECOND GROWTH OAK SCRUB	OCCURRENCE AT SITE
SCRUB****45	Scrub		G2	S2	N	N	1981-03-05	OAK SCRUB	OCCURRENCE AT SITE
PSEUSUWA*27	Pseudemys concinna suwanniensis	Suwannee Cooter	G5T3	S3	N	LS	1994-05-12	MEDIUM-SIZED RIVER WITH BLACKWATER AND SPRING-FED CHARACTERISTICS; BORDERED BY NARROW FLOODPLAIN SWAMP/FOREST AND UPLAND MIXED FOREST; AQUATIC VEGETATION INCLUDES HYDROCOTYLE, SCIRPUS, TYPHA, PISTIA, MORE.	1994-05-12: D. JACKSON OBSERVED SEVERAL BASKING INDIVIDUALS, MOSTLY SUB-ADULT, DURING MORNING CANOE SURVEY OF 3-MILE STRETCH DOWNSTREAM OF S-200 (PNDJAC01FLUS). 1991-07-26: D. S. CROWE (FFWCC) OBSERVED 2 ADULT FEMALES AT S-44 CROSSING (FWC WILDOBS. DATAB
DOMESWAM*25	Dome swamp		G4	S4	N	N	2004	CYPRESS DOMINATED AREAS EVIDENT IN AERIAL PHOTO IN NORTHERN PORTION OF STOKES FOREST.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-01) (U05FNA02FLUS).
DEPRMARS*44	Depression marsh		G4	S4	N	N	2004	DEPRESSIONS DOMINATED BY WETLAND GRASSES AND SEDGES.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-01) (U05FNA02FLUS). LARGE TRACT OF OLD GROWTH FOREST WITH SEVERAL DEPRESSIONAL WETLANDS.
SCIUSHER*91	Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS	1994-05-12	Principal habitat on ranch is sandhill that has been disturbed by cattle ranching activities; pasture grasses have encroached into groundcover. Turkey oaks are large, longleafs are abundant though mostly small, wiregrass is widespread though sparse. Subs	1994-05-11, 12: during 2-day field assessment of Jordan Ranch, Jackson and Printiss observed one adult.
UPLMXFOR*32	Upland mixed forest		G4	S4	N	N	2004	UPLAND MIXED FOREST DOMINATED BY LAUREL OAK (QUERCUS LAURIFOLIA), LIVE OAK (Q. VIRGINIANA), AND WATER OAK (Q. NIGRA), WITH LONGLEAF PINE (PINUS PALUSTRIS), SOUTHERN MAGNOLIA (MAGNOLIA GRANDIFLORA), AND SLASH PINE (P. ELLIOTTII). SAW PALMETTO (SERENOA REP	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-01) (U05FNA02FLUS). LARGE TRACT OF OLD GROWTH FOREST WITH SEVERAL DEPRESSIONAL WETLANDS.
APHECOER*45	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981-03-05	OAK SCRUB	1981-03-05: 1 SCRUB JAY

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 3 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
APHECOER*44	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981-03-05	SECOND-GROWTH OAK SCRUB	1981-03-05: 2 SCRUB JAYS
GOPHPOLY*879	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1994-05-12	Principal habitat on ranch is sandhill that has been disturbed by cattle ranching activities; pasture grasses have encroached into groundcover. Turkey oaks are large, longleafs are abundant though mostly small, wiregrass is widespread though sparse. Subs	1994-05-11, 12: Jackson and Printiss observed many active burrows; each of 4 burrows probed with 1 burrow camera contained an adult tortoise; one contained a gopher fly.
PTERECRI*78	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	2003-08-20	2003-08-20: One plant observed in scrubby flatwoods which burned in May 2002 wildfire; plowlines in area (F03DEA01FLUS).	2003-08-20: One individual plant observed in fruit (F03DEA01FLUS).
BASISWAM*20	Basin swamp		G4	S3	N	N	2004	Basin Swamp surrounded by Sandhill.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1994-05-11) (U05FNA02FLUS). Large (ca. 300 ac.) aesthetic swamp with permanent water; surrounded and dominated by tall pond cypress (Taxodium ascendens);
SANDHILL*105	Sandhill		G3	S2	N	N	2008-05-14	1994: Sandhill (moderately to heavily disturbed) bordered by Basin Swamp, Depression Marshes and Xeric Hammock/Scrubby Flatwoods (F94JAC02FUS).	2008-05-14: native groundcover is abundant, but in several areas, groundcover is degraded due to lack of fire and subsequent hardwood encroachment. Midstory oaks are dense throughout most of the site and sand pine is invading in some areas (PNDKIN02FLUS
FLOOSWAM*39	Floodplain swamp		G4	S4	N	N	2004	LARGE AREA OF CYPRESS-DOMINATED SWAMP; RED MAPLE AND POP ASH ALSO FREQUENT.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-01) (U05FNA02FLUS).
DEPRMARS*54	Depression marsh		G4	S4	N	N	2004	Depression Marsh surrounded by Pine Plantation.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1994-05-11) (U05FNA02FLUS). Surrounding habitat disturbed (plantation); water 1"-24" with abundant floating and submerged vegetation (especially water shi
TYPOFULV*3	Typocerus fulvocinctus	Yellow-banded Typocerus Long-horned Beetle	G2	S2	N	N	1994-Pre	1994-Pre: occurs in pine flatwoods (B94DEY01FLUS).	1994-Pre: This species occurs in pine flatwoods (B94DEY01FLUS).

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 3 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
APHECOER*507	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	2004-10-03pre	2004-10-03pre: scrubby flatwoods adjacent to sand pine scrub (U04DEA02FLUS).	2004-10-03pre: 3 birds seen flying (U04DEA02FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 26116					
Likely					
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 26387					
Likely					
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Matrix Unit ID: 26659

Likely

Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 26660					
Likely					
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Typocerus fulvocinctus	Yellow-banded Typocerus Long-horne	G2	S2	N	N
Matrix Unit ID: 26934					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Potential					

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Scrub		G2	S2	N	N
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Typocerus fulvocinctus	Yellow-banded Typocerus Long-horne	G2	S2	N	N

Matrix Unit ID: 26935

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS

Potential

Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	LS
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllanthus leibmannianus ssp. platylepis	Pinewood Dainties	G4T2	S2	N	LE
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pseudemys concinna suwanniensis	Suwannee Cooter	G5T3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Scrub		G2	S2	N	N
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Typocerus fulvocinctus	Yellow-banded Typocerus Long-horne	G2	S2	N	N

Matrix Unit ID: 27211

Documented

Pseudemys concinna suwanniensis	Suwannee Cooter	G5T3	S3	N	LS

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Floodplain swamp		G4	S4	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Upland hardwood forest		G5	S3	N	N

Potential

Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	LS
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

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Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Scrub		G2	S2	N	N
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 27212

Documented

Depression marsh		G4	S4	N	N
Upland mixed forest		G4	S4	N	N

Likely

Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N

Potential

Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	LS
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

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Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pseudemys concinna suwanniensis	Suwannee Cooter	G5T3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Scrub		G2	S2	N	N
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 27489

Likely

Mesic flatwoods		G4	S4	N	N
Upland hardwood forest		G5	S3	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 3 of 7

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Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

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Proposed Citrus Substation - Proposed Central Florida South Substation (Map 4 of 7)

Marion County

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FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

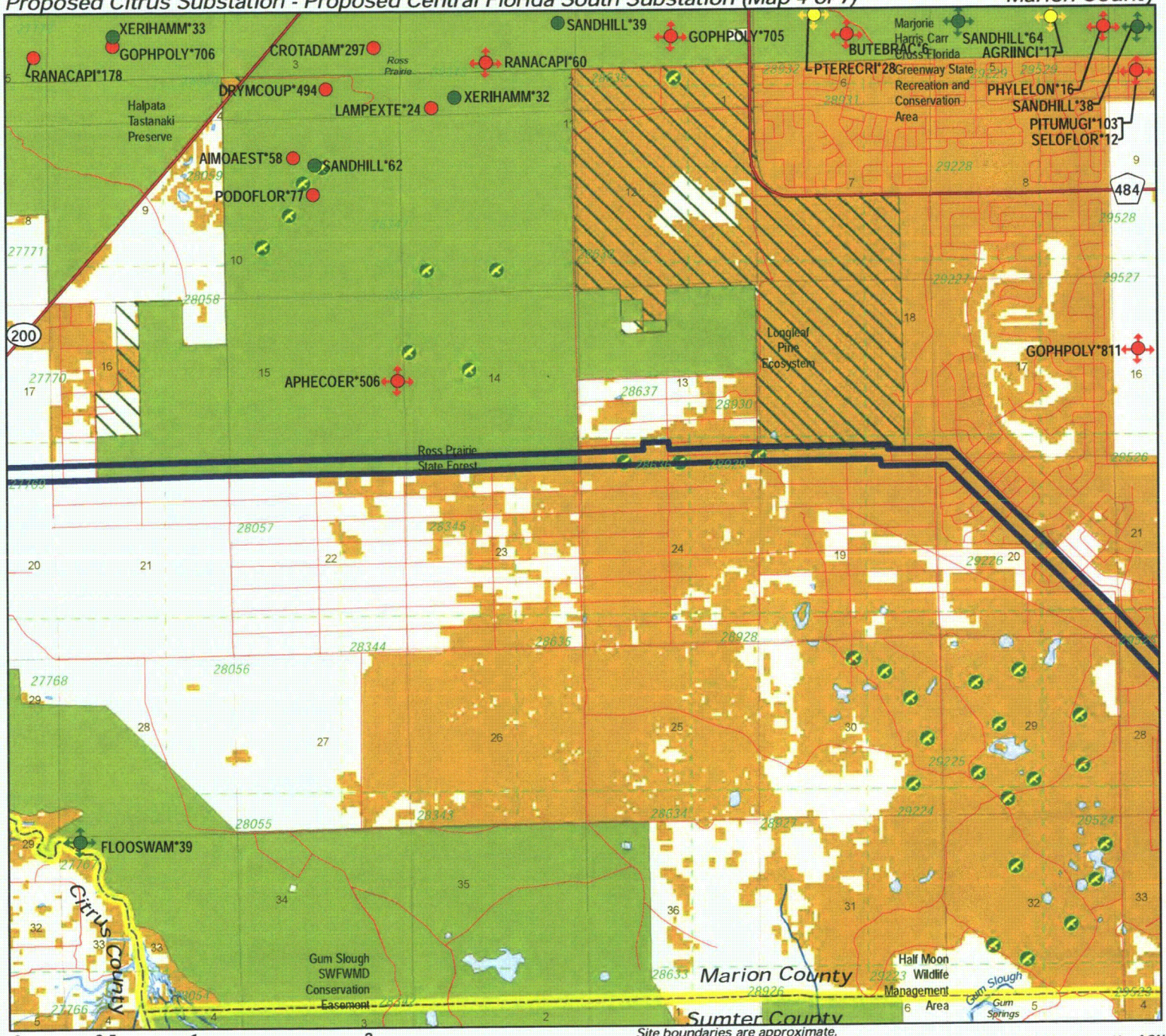
- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



0 0.5 1 2 Miles

Site boundaries are approximate.

Map produced by ACN
Map Date: 1 DEC 2009

NOTE
Map should not be interpreted without accompanying documents.

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 4 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
GOPHPOLY*811	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1993-03-08	SANDHILL EO #82: AREA DOMINATED BY TURKEY OAKS, LONGLEAF PINE, AND SOME QUERCUS MARGARETTA; OAKS AND PINES OF VARIOUS AGES THROUGHOUT, SOME PINES VERY MATURE--NOT LOGGED? SOME ENCROACHMENT BY LIVE OAK AND SAND PINE. ON CANDLER SOILS (TYPIC QUARTZIPSAMMEN	SEVERAL BURROWS NOTED DURING MARION CO. NATURAL AREAS SURVEY.
XERIHAMM*32	Xeric hammock		G3	S3	N	N	2004	LARGE DEPRESSION MARSHES INTERSPERSED BETWEEN XERIC HAMMOCK.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-10-03) (U05FNA02FLUS). LARGE QUERCUS VIRGINIANA DOMINANT IN OVERSTORY, ALSO WITH Q. LAURIFOLIA AND A FEW MAGNOLIA GRANDIFLORA; SHRUB LAYER INCLUDES I
XERIHAMM*33	Xeric hammock		G3	S3	N	N	2004	LIVE OAK HAMMOCK WITH AMERICAN HOLLY (ILEX OPACA) AND BEAUTYBERRY (CALLICARPA AMERICANA) IN THE UNDERSTORY, PARTRIDGEBERRY (MITCHELLA REPENS) IN THE GROUNDCOVER; GRADES INTO SANDHILL AND DEPRESSION MARSH.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-11-07) (U05FNA02FLUS). LARGE QUERCUS VIRGINIANA, Q. LAURIFOLIA, AND OCCASIONAL MAGNOLIA GRANDIFLORA.
SANDHILL*62	Sandhill		G3	S2	N	N	2004	OPEN LONGLEAF PINE/TURKEY OAK/WIREGRASS GRADING INTO XERIC HAMMOCK AND DEPRESSION MARSH.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-10-24) (U05FNA02FLUS). SCATTERED OVERSTORY OF LONGLEAF PINE (PINUS PALUSTRIS) WITH A MODERATELY DENSE TO SPARSE MIDSTORY COMPRISED PREDOMINANTLY OF T

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ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 4 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SANDHILL*39	Sandhill		G3	S2	N	N	2004	SAND POST OAK (QUERCUS MARGARETTA) AND BLUE JACK OAKS (QUERCUS INCANA) PREVALENT CLOSER TO SR200.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-10-03) (U05FNA02FLUS). OPEN TO DENSE TURKEY OAKS, MATURE WITH MOSTLY "POLE" STAGE LONGLEAF PINES BUT SOME MATURE IN A FEW AREAS; UNDERSTORY OF WIREGR
AIMOAEST*58	Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N	1999	No general description given	1999: Reported on site (U99WOO01FLUS).
PODOFLOR*77	Podomys floridanus	Florida Mouse	G3	S3	N	LS	1999-04-14	99-07-06: Primarily sandhill and scrub habitat (U99SUR03FLUS)	99-07-06: 3 captures using Sherman live traps. 10 traps set, representing a total of 10 trap nights (number of traps multiplied by number of nights open) U99SUR03FLUS.
RANACAPI*60	Rana capito	Gopher Frog	G3	S3	N	LS	1991-10-03	FROG OBSERVED AT MOUTH OF GOPHER TORTOISE BURROW AT 8:00 AM.	1 FROG OBSERVED.
PITUMUGI*103	Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS	1975-03-19	No general description given	SPECIMEN COLLECTED AOR 19 MARCH 1975 BY CHRISTMAN AND KEENLYNE.
AGRIINCI*17	Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE	1975-09-04	1975-09-04: Turkey oak woods along with Galium, Paronychia, Diodia and Helianthella (S75MARUFFLUS).	1975-09-04: Occasional herb in turkey oak woods; specimen taken [plant with flower bud] (S75MARUFFLUS).
BUTEBRAC*6	Buteo brachyurus	Short-tailed Hawk	G4G5	S1	N	N	1991-09-16	PERCHED IN A LIVE OAK IN SANDHILL.	ONE HAWK OBSERVED; UNKNOWN WHETHER IT WAS RESIDENT OR TRANSITORY ALTHOUGH BEHAVIOR SUGGESTED IT MAY BE A RESIDENT.
GOPHPOLY*706	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1991-11-07	XERIC HAMMOCK AND SANDHILL.	10 ACTIVE, 3 INACTIVE, 2 ABANDONED TORTOISE BURROWS FOUND; 3 RECENTLY DEAD, PREDATED TORTOISE SHELLS OBSERVED.
LAMPEXTE*24	Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	LT	1991-10-24	XERIC HAMMOCK.	UNCATALOGUED FSM SPECIMEN, 1 NOVEMBER 1975, C.R. SMITH.

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CROTADAM*297	Crotalus adamanteus	Eastern Diamondback Rattlesnake	G4	S3	N	N	2003-11-19	2003-11-19: Mesic oak hammock heavily dominated by Quercus virginiana. Due to the amount of shade the canopy provided, little herbacous growth exists. This oak hammock is surrounded by wet prairies with extensive coverage in grasses and other e	2003-11-19: Davis documented one large (5 ft) adult Crotalus adamanteus coiled at edge of mesic hammock (PNDDAV04FLUS, U04DAV01FLUS).
DRYMCOUP*494	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	2003-11-19	2003-11-20: one adult indigo snake was found leaving a dry prairie of various grasses, and moving toward a mesic live oak hammock. The dry prairie is a part of the "diggings" of the old barge canal (PNDDAV04FLUS). 2002-12-07: upland lon	2003-11-19: A. Davis observed one large Drymarchon couper in a dry prairie. This individual was moving out of the dry prairie and into a live oak (Quercus virginiana) mesic hammock (U04DAV01FLUS, PNDDAV04FLUS). 2002-12-07:
RANACAPI*178	Rana capito	Gopher Frog	G3	S3	N	LS	2004-01-27	2004-01-27: sandhill with canopy of Pinus palustris and scattered Quercus laevis. The canopy is very open overall. Ground cover abundant with Aristida stricta and other grasses and herbs (PNDDAV04FLUS, U04DAV01FLUS).	2004-01-27: Davis documented one adult gopher frog in an unbaited funnel trap placed in an active tortoise burrow (PNDDAV04FLUS, U04DAV01FLUS).
GOPHPOLY*705	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1991-09-23	SANDHILL THAT HAS BEEN RECENTLY BURNED ADJACENT TO SR 484.	APPROX. 18 BURROWS FOUND.
SANDHILL*64	Sandhill		G3	S2	N	N	2004	LARGE TRACT OF INTACT SANDHILL WHICH HAS BEEN RECENTLY BURNED IN SOME AREAS; INTACT GROUNDCOVER.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-09-23) (U05FNA02FLUS). PINUS PALUSTRIS/QUERCUS LAEVIS/ARISTIDA STRICTA.
SANDHILL*38	Sandhill		G3	S2	N	N	2004	SANDHILL	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1988-10) (U05FNA02FLUS). MODERATELY TO VERY DENSE MATURE TURKEY OAKS (Q. LAEVIS) WITH MANY YOUNG SAPLINGS. UNDERSTORY OF WIREGRASS AND LONGLEAF PINE SAPLI

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FLOOSWAM*39	Floodplain swamp		G4	S4	N	N	2004	LARGE AREA OF CYPRESS-DOMINATED SWAMP; RED MAPLE AND POP ASH ALSO FREQUENT.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-01) (U05FNA02FLUS).
PTERECRI*28	Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT	2004-03-25	2004-03-25: Source Point 2 (southern point) -Sandhill with land clearing and off-road vehicle trails (U05HER01FLUS). 1975-09-11: Source Point 1 (northern point) -Turkey oak community (PNDMAR01FLUS).	2004-03-25: Source Point 2 (southern point) had one vegetative plant at 5 feet tall observed in sandhill (U05HER01FLUS). 1975-09-11: Source Point 1 (northern point). Infrequent annual in the turkey oak community; inconspicuous in the flora [plant w/ frui
APHECOER*506	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	2007-03-00	2007-03-00: scrubby flatwoods w/ history of fire exclusion. Nearby scrubby flatwoods have been recently treated mechanically and part of these areas burned (U07DOF01FLUS).	2007-03-00: two territories; 3 jays observed in north territory, 2 jays in south (PNDPED02FLUS).
SELOFLOR*12	Selonodon floridensis	Florida Cebrionid Beetle	G2G3	S2S3	N	N	1975-06-17	2005-08-05: There is sandhill in most of this area (NNDFNA01FLUS). 1975-06-17: No description given (B99GAL01FLUS).	1975-06-17: Fourteen specimens were collected in a blacklight trap (B99GAL01FLUS).
PHYLELON*16	Phyllophaga elongata	Elongate June Beetle	G2G4	S2S4	N	N	1975-06-28	1975-06-28: No description given (B89WOO01FLUS).	1975-06-28: One specimen was collected by P.C. Drummond using a blacklight trap (B89WOO01FLUS). 1975-05-21: Holler and Woodruff collected one specimen using a blacklight trap (B89WOO01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 27769					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mesic flatwoods		G4	S4	N	N
Upland hardwood forest		G5	S3	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 28057					
Likely					
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE

Matrix Unit ID: 28345

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

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Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE

Matrix Unit ID: 28636

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE

Matrix Unit ID: 28929

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

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Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllophaga elongata	Elongate June Beetle	G2G4	S2S4	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 29226					
Likely					
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllophaga elongata	Elongate June Beetle	G2G4	S2S4	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

Matrix Unit ID: 29526

Likely

Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Phyllophaga elongata	Elongate June Beetle	G2G4	S2S4	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 4 of 7

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Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Sideroxylon alachuense	Silver Buckthorn	G1	S1	N	LE
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

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Proposed Citrus Substation - Proposed Central Florida South Substation (Map 5 of 7)

Marion & Sumter Counties

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FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

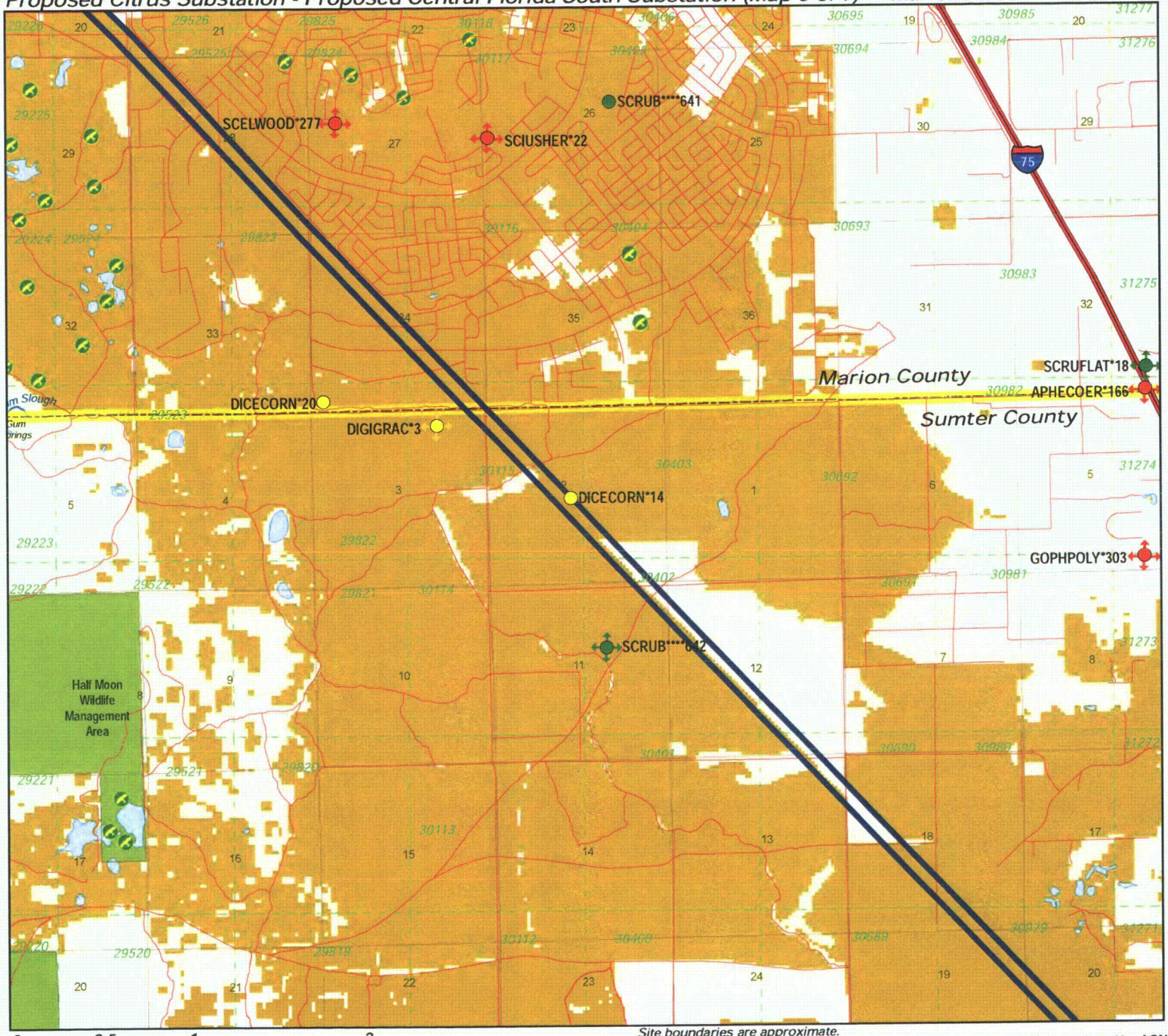
Land Acquisition Projects

- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water

N W E S



0 0.5 1 2 Miles

Site boundaries are approximate.

NOTE
Map should not be interpreted without accompanying documents.

Map produced by ACN
Map Date: 1 DEC 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 5 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SCRUFLAT*18	Scrubby flatwoods		G3	S3	N	N	2004	OPEN SLASH PINE SCRUB	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1981-02-21) (U05FNA02FLUS). OCCURRENCE AT SITE
APHECOER*166	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981-02-21	2004-12-11: Habitat now is mostly improved pasture with small housing developments. Small remnant scrub fragments are present throughout area but fire suppressed (PNDJEN04FLUS).1981-02-21: OPEN SLASH PINE SCRUB= [SCRUBBY FLATWOODS] (PNDCOX01FLUS).	2004-12-11: Informal survey to update EO found no scrub jays in area though the area does have potential to harbor them. Original habitat has been converted mostly to pasture and residential housing but the housing is of the low impact kind with fragment
SCELWOOD*277	Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N	1987-07-07	Scrub	1987-07-07: S.P. Christman, MNH, observation.
GOPHPOLY*303	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	2004-12-11	2004-12-11: Burrows near highway on private ranchland (PNDJEN04FLUS).	2004-12-11: Several recent but inactive burrows found. Habitat is mostly unburned ranchlands (PNDJEN04FLUS). 1986: DEAD ON ROAD (U86DIE01FLUS).
SCIUSHER*22	Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS	1986	No general description given	ABUNDANT, 1986 AS REPORTED TO TIM O'MEARA BY FGC GAME MGT. SPECIALIST SUPERVISOR, CHARLES ORME.
DICECORN*14	Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE	1988-11-14	No general description given	Specimen fertile.
SCRUB****641	Scrub		G2	S2	N	N	1987	No general description given	No EO data given
DIGIGRAC*3	Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N	2001	LONGLEAF PINE-TURKEY OAK SANDHILLS (U01STR01FLUS).	2001: NONE GIVEN (U01STRO01FLUS).
DICECORN*20	Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE	2001	2001: LONGLEAF PINE - TURKEY OAK SANDHILLS (U01STR01FLUS).	2001: NO DATA GIVEN (U01STR01FLUS).
SCRUB****642	Scrub		G2	S2	N	N	2004	No general description given	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 2004) (U05FNA02FLUS). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1987-07-19) (U05FNA02FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 29525					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Matrix Unit ID: 29823					
Documented					
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Sandhill		G3	S2	N	N

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FLORIDA Natural Areas INVENTORY

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Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Matrix Unit ID: 29824					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT

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Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 30115

Documented

Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

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Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE

Matrix Unit ID: 30116

Likely

Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 30402					
Likely					
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Matrix Unit ID: 30403					
Likely					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Mesic flatwoods		G4	S4	N	N
Sandhill upland lake		G3	S2	N	N
Scrub		G2	S2	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Litsea aestivalis	Pondspice	G3	S2	N	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sceloporus woodi	Florida Scrub Lizard	G3	S3	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 30690

Likely

Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria gracillima	Longleaf Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 30691

Likely

Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT

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Biodiversity Matrix Report
Map 5 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Matrix Unit ID: 30979					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Upland hardwood forest		G5	S3	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Matrix Unit ID: 30980					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS

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Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Stilosoma extenuatum	Short-tailed Snake	G3	S3	N	LT
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

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Proposed Citrus Substation - Proposed Central Florida South Substation (Map 6 of 7)

Sumter County

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FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

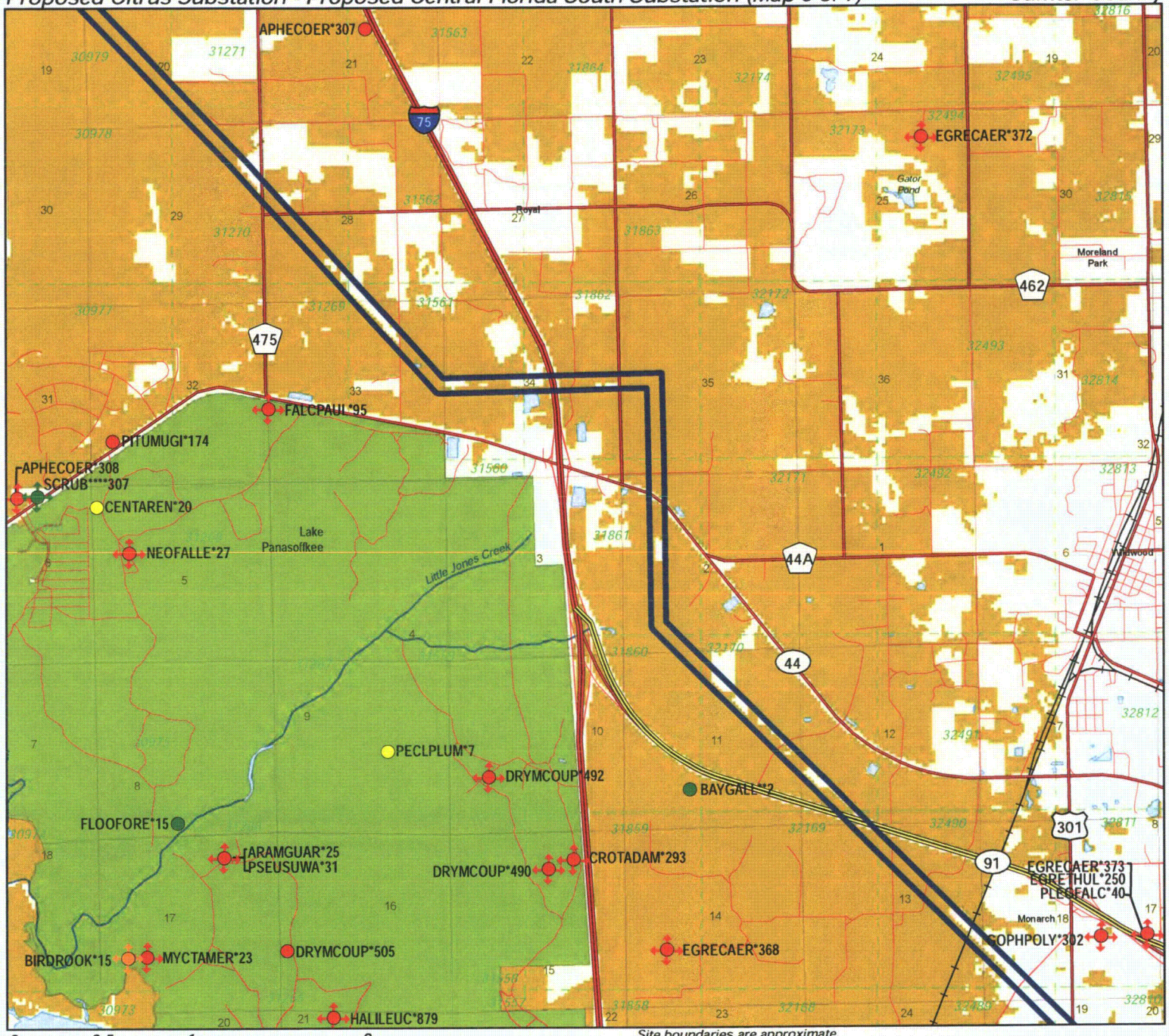
- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



0 0.5 1 2 Miles

Site boundaries are approximate.

Map produced by ACN
Map Date: 1 DEC 2009

NOTE
Map should not be interpreted without accompanying documents.

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 6 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SCRUB****307	Scrub		G2	S2	N	N	1981-04-20	GRASSY PALMETTO SCRUB.	No EO data given
GOPHPOLY*302	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1987-pre	No general description given	1987-pre: Species occurrence noted here in Diemer's unpublished map set (U86DIE01FLUS).
PLEGFALC*40	Plegadis falcinellus	Glossy Ibis	G5	S3	N	N	1988-05-16	Small clump of elderberry in spoil-farm pond next to FL. Turnpike.	1988-05-16: R. Sullivan, GFC - GRHE and LBHE young in feathered stage. "Total" (nests?) = 47 (also includes SNEG, GLIB, ANHI).
EGRETHUL*250	Egretta thula	Snowy Egret	G5	S3	N	LS	1988-05-16	1988-05-16: Small clump of elderberry in spoil/farm pond next to FL. Turnpike (U97GFC02FLUS).	1988-05-16: R. Sullivan, GFC. GRHE and LBHE young in feathered stage. "Total" (nests?) = 47 (also includes SNEG, GLIB, ANHI) (U97GFC02FLUS).
EGRECAER*373	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-05-16	Small clump of elderberry in spoil/farm pond.	1988/05/16: R. Sullivan, GFC, observation. GRHE and LBHE young in feathered stage. "Total" (nests?) = 47 (also includes SNEG, GLIB, ANHI).
EGRECAER*372	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-05-19	Willows in wet prairie.	1988/05/19: R. Sullivan, GFC, observation. 200-300 CAEG roosting, but no nests observed. LBHE and CAEG seen in loafing on colony nesting stage. ANHI and GBHE seen in feathered young nesting stage. "Total" (nests?) = B.
APHECOER*307	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981	2004-12-11: Clump of palmettos no longer persist here (PNDJEN04FLUS). 1981: CLUMP OF SAW PALMETTOS ON RIGHT-OF-WAY (PNDCOX01FLUS)	2004-12-11: Informal survey to update EO produced no scrub jays. Area has been converted to improved pasture, no habitat left; inspection of 2004 aerial photography flown 03/11/2004 shows development of something surrounded by an oval shaped road under c
FLOOFORE*15	Floodplain forest		G4	S3	N	N	1997-08-13	Floodplain swamp on edge of spring run stream which grades into upland mixed forest and cutover sandhill now dominated by pond pine (Pinus serotina).	1997-08-13: Extensive floodplain forest with a canopy of Taxodium distichum, Liquidambar styraciflua, Nyssa biflora, Acer rubrum, and Fraxinus pennsylvanica. Subcanopy of Sabal palmetto and Carpinus caroliniana. Very sparse shrub layer but herbs are dens
PITUMUGI*174	Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS	1991-09-18	Sandhill.	Specimen UF 83633 collected by D. Stevenson and D. Crowe, Sept. 18, 1991.

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ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 6 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
BAYGALL**2	Baygall		G4	S4	N	N	2004	VERY EXTENSIVE, WELL-DEVELOPED SEEPAGE SWAMP DOMINATED BY BAY SPP. RECEIVES TREATED SEWAGE FROM WILDWOOD.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1982-06-16) (U05FNA02FLUS).
APHECOER*308	Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT	1981-04-20	GRASSY PALMETTO SCRUB.	1981-02-21: 3-4 SCRUB JAYS; 1981-04-20: 4 SCRUB JAYS.
NEOFALLE*27	Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N	1991-07-22	1991-07-22: Depression Marsh and Floodplain Marsh (U97GFC02FLUS).	1991: D.J. Stevenson, GFC, observed 1 adult (U97GFC02FLUS).
EGRECAER*368	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1989-05-09	Willow island in borrow pit.	1989/05/09: J.A. Hovis, GFC, observation. CAEG in incubation posture. Surveyed from helicopter. Site not visited by plane in 1989. "Total" = X (unknown).
BIRDROOK*15	Bird Rookery		G5	SNR	N	N	1978-04	CYPRESS STRAND ALONG LAKE AND CREEK, NESTING SUB- STRATE OF CYPRESS.	GREAT BLUE HERON (5 PRS IN 4/77, NONE THEREAFTER); WOOD STORK (40 PRS IN 4/77; EMPTY ON NEXT VISIT IN 4/78).
PSEUSUWA*31	Pseudemys concinna suwanniensis	Suwannee Cooter	G5T3	S3	N	LS	1991-07-22	Spring run stream	1991-07-22: D.S. Crowe, GFC, observed 1 adult.
ARAMGUAR*25	Aramus guarauna	Limpkin	G5	S3	N	LS	1991-07-22	Seepage stream	1991-07-22: D.J. Stevenson, GFC, observed 1 adult.
FALCPAUL*95	Falco sparverius paulus	Southeastern American Kestrel	G5T4	S3	N	LT	1991-05-13	Improved pasture, or sod farm	1991-05-13: J.A. Hovis, GFC, observed 1 adult female; also observed approx. 1 week ago (5/06?-NeSmith) by S.F. Husted..
MYCTAMER*23	Mycteria americana	Wood Stork	G4	S2	LE	LE	1978-04	CYPRESS STRAND ALONG LAKE AND CREEK, NESTING SUB- STRATE OF CYPRESS.	43-45 NESTING PAIRS IN 4/77; NONE IN 4/78.
CROTADAM*293	Crotalus adamanteus	Eastern Diamondback Rattlesnake	G4	S3	N	N	2003-04-22	2003-04-22: individual observed in oak scrub community (U03DEA03FLUS).	2003-04-22: DeAngelis observed one Crotalus adamanteus in an oak scrub community (U03DEA03FLUS).
DRYMCOUP*490	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	2003-04-24	2003-04-24: one Drymarchon couperi was found in an oak scrub community (U03DEA02FLUS).	2003-05-01: One Drymarchon couperi was found near the east-central boundary of Lake Panasoffkee (SWFWMD) in an oak scrub community (PNDDEA03FLUS).

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ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 6 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
DRYMCOUP*492	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	2004-03-16	2004-03-16 (J. DeAngelis): one indigo was observed in an isolated upland community of Quercus geminata, Quercus myrtifolia, Quercus chapmani, and Serenoa repens (PNDDEA03FLUS, U04DEA01FLUS).	2004: J. DeAnglis found one eastern indigo snake in disturbed uplands (PNDDEA03FLUS, U04DEA01FLUS).
PECLPLUM*7	Pecluma plumula	Plume Polypody	G5	S2	N	LE	2005-07-13	2003-07-29: mesic and hydric hammock on live oak with resurrection fern and green fly orchid. Canopy includes magnolia, sweetgum, cabbage palm, and needle palm (in shrubs). Several large (4'+ dbh) Quercus virginiana contained an estimated 200-300 plant	2005-07-13: at least 300-400 plants seen, probably hundreds more in hammock, epiphytic on live oaks, many with sporangia (PNDGUL01FLUS).
HALILEUC*879	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1995-2003: Continuously active. (U03FWC01FLUS). Previous data (note different format) Nest; 1995: Produced 1 young; 1994: Produced 2 young; 1993: Produced 2 young.
DRYMCOUP*505	Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT	2004-02-10	2004-02-10: Scrub with xeric oaks, saw palmetto, and sparse grasses. Area covers approximately 350 acres (U04DEA01FLUS).	2004-02-10: One indigo within close proximity to tortoise burrow (U04DEA01FLUS).
CENTAREN*20	Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE	2002-07-10	2002-07-10: SANDHILL, GENTLY SLOPING TO ADJACENT MARSH; DOMINANT SPECIES: PINUS PAULSTRIS, QUERCUS LAEVIS, Q. GEMINATA (SOME Q. MARGARETTA), ARISTIDA STRICTA, BAHIA GRASS (PNDEA03FLUS).	2002-07-10: 4 PLANTS, FLOWERING; STEMS INTERTWINED WITH CLITORIA MARIANA VINES (PNDDEA03FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 31270					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Falco sparverius paulus	Southeastern American Kestrel	G5T4	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N
Potential					
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Matrix Unit ID: 31271					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Upland hardwood forest		G5	S3	N	N
Potential					
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 31561

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Falco sparverius paulus	Southeastern American Kestrel	G5T4	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N

Potential

Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 31860

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
Baygall		G4	S4	N	N
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Scrub		G2	S2	N	N
Potential					
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Dicerandra cornutissima	Longspurred Mint	G1	S1	LE	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Matrix Unit ID: 31861					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Upland hardwood forest		G5	S3	N	N
Potential					

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 31862

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N

Potential

Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*

Matrix Unit ID: 32169

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Egretta caerulea	Little Blue Heron	G5	S4	N	LS
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 32170

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Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N
Potential					
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Matrix Unit ID: 32490					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N
Potential					
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 6 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

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FLORIDA
Natural Areas
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Proposed Citrus Substation - Proposed Central Florida South Substation (Map 7 of 7)

Sumter County

Element Occurrences

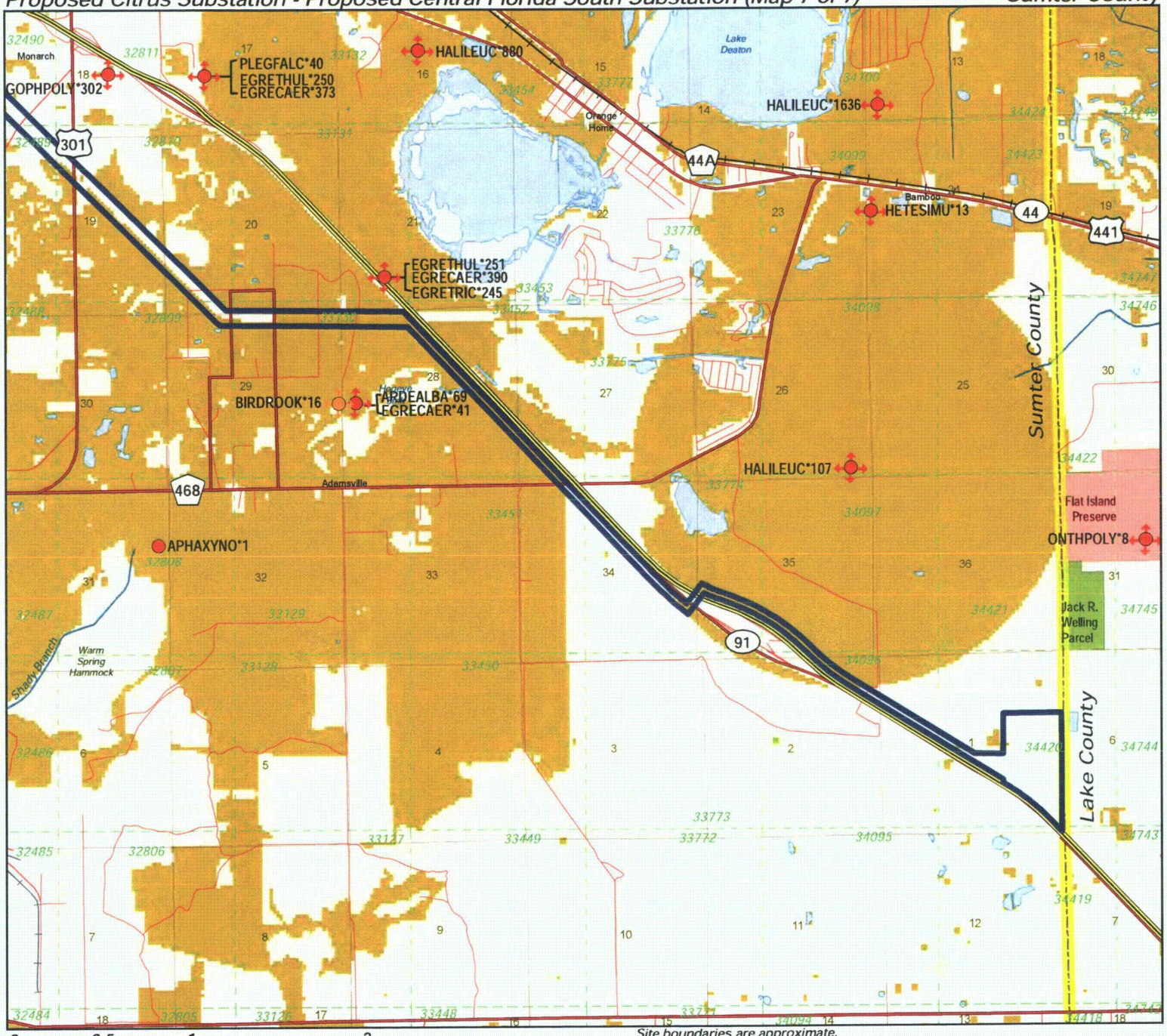
- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



N
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NOTE
Map should not be interpreted without accompanying documents.

0 0.5 1 2 Miles

Site boundaries are approximate.

Map produced by ACN
Map Date: 1 DEC 2009

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 7 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
ARDEALBA*69	Ardea alba	Great Egret	G5	S4	N	N	1978-07	POND SURROUNDED BY WILLOWS AND PASTURE LAND; NESTING SUBSTRATE IS WILLOWS OVER WATER.	10 NESTING PAIRS IN 4/77; 10 PRS IN 4/78.
EGRECAER*390	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-05-16	Willows in freshwater wetland.	1988/05/16: R. Sullivan, GFC, observation. "Unable to estimate numbers." (GREG, SNEG, CAEG, GBHE, LBHE, TCHE, WHIB, ANHI present). 1989/05/09: Total = A, ANHI present.
HETESIMU*13	Heterodon simus	Southern Hognose Snake	G2	S2	N	N	1995-07-23	Bahia grass pasture ca. 100 yards from 30 acres of live oak hammock surrounding semi-permanent pond; GEOMYS abundant; BUFO QUERCICUS breeds in two ponds (U00ASH01FLUS).	1995-07-23: Ashton observed adult male and female in GOPHERUS burrow.
EGRETRIC*245	Egretta tricolor	Tricolored Heron	G5	S4	N	LS	1988-05-16	No general description given	1988/05/16: R. Sullivan, GFC. "Unable to estimate numbers."
GOPHPOLY*302	Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT	1987-pre	No general description given	1987-pre: Species occurrence noted here in Diemer's unpublished map set (U86DIE01FLUS).
PLEGFALC*40	Plegadis falcinellus	Glossy Ibis	G5	S3	N	N	1988-05-16	Small clump of elderberry in spoil-farm pond next to FL. Turnpike.	1988-05-16: R. Sullivan, GFC - GRHE and LBHE young in feathered stage. "Total" (nests?) = 47 (also includes SNEG, GLIB, ANHI).
EGRECAER*41	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1978-07	POND SURROUNDED BY WILLOWS AND PASTURE LAND; NESTING SUBSTRATE IS WILLOWS OVER WATER.	ACTIVE IN AREA, BUT NO KNOWN NESTING ACTIVITY.
EGRETHUL*250	Egretta thula	Snowy Egret	G5	S3	N	LS	1988-05-16	1988-05-16: Small clump of elderberry in spoil/farm pond next to FL. Turnpike (U97GFC02FLUS).	1988-05-16: R. Sullivan, GFC. GRHE and LBHE young in feathered stage. "Total" (nests?) = 47 (also includes SNEG, GLIB, ANHI) (U97GFC02FLUS).
BIRDROOK*16	Bird Rookery		G5	SNR	N	N	1978-07	POND SURROUNDED BY WILLOWS AND PASTURE LAND; NESTING SUBSTRATE IS WILLOWS OVER WATER.	MOSTLY CATTLE EGRETS (2000 PRS 6/76; 3500 PRS 4/77; 4000 4/78). LITTLE BLUE HERON (ACTIVE BUT NO NESTING);GREAT EGRET (10 PRS 4/77; 10 PRS 4/78); ANHINGA & GREAT BLUE HERON ARE ACTIVE IN AREA, BUT APPARENTLY DON'T NEST.
EGRETHUL*251	Egretta thula	Snowy Egret	G5	S3	N	LS	1988-05-16	Willows in freshwater wetland.	1988/05/16: R. Sullivan, GFC. "Unable to estimate numbers."

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Proposed Citrus Substation - Proposed Central Florida South Substation (Map 7 of 7)

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
EGRECAER*373	Egretta caerulea	Little Blue Heron	G5	S4	N	LS	1988-05-16	Small clump of elderberry in spoil/farm pond.	1988/05/16: R. Sullivan, GFC, observation. GRHE and LBHE young in feathered stage. "Total" (nests?) = 47 (also includes SNEG, GLIB, ANHI).
HALILEUC*1636	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2002	2005-07-12: Source does not provide a description.	Nest status: Active, 2002; Not active, 2003; Unknown status or not assessed, 2001, 2000, 1999;(U03FWC01FLUS)
HALILEUC*107	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1999-2003: Active - 2003, 2002, 2001; Inactive - 2000, 1999;Status 1995-98: Continuously active. (U03FWC01FLUS). Previous data (note different format) NEST: 1995: PRODUCED 1 YOUNG; 1994: PRODUCED 1 YOUNG; 1993-92: GONE; 1991: INACTIVE; 1990-8
HALILEUC*880	Haliaeetus leucocephalus	Bald Eagle	G5	S3	PS	N	2003	No general description given	Nest status 1995-2003: Continuously active. (U03FWC01FLUS). Previous data (note different format) Nest; 1995: Produced 2 young; 1994: Inactive; 1993: Active, produced 0 young.
APHAXYNO*1	Aphaostracon xynoelictum	Fenney Springs Hydrobe Snail	G1	S1	N	N	1967-05-25	FENNEY SPRINGS IS 2 VERTICAL-SIDED POOLS FORMED BY A COLLAPSED LIMESTONE CAVERN. POOLS DRAIN INTO LARGE SPRING RUN THAT FLOWS WESTWARD.	ELEMENT FOUND ONLY IN SPRING POOLS AND RUN IN IMMEDIATE VICINITY OF SPRINGS, ON SUBSTRATE, DEBRIS, VEGETATION. ABUNDANT IN LATE SUMMER ON MOSS-COVERED LIMESTONE BOULDERS. ASSOCIATED WITH CINCINNATIA FLORIDANA (ABUNDANT IN SPRING-RUN).
ONTHPOLY*8	Onthophagus polyphemi polyphemi	Punctate Gopher Tortoise Onthophagus Beetle	GNRTNR	S2S3	N	N	1938-07-02	1938-07-02: in a gopher tortoise burrow (B73WOO01FLUS).	1938-07-02: Two specimens were collected from a gopher tortoise burrow by C.C.Goff (B73WOO01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 32809					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Upland hardwood forest		G5	S3	N	N
Potential					
Ardea alba	Great Egret	G5	S4	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bird Rookery		GNR	SNR	N	N
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Egretta caerulea	Little Blue Heron	G5	S4	N	LS
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Matrix Unit ID: 32810					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Egretta caerulea	Little Blue Heron	G5	S4	N	LS
Egretta thula	Snowy Egret	G5	S3	N	LS
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Plegadis falcinellus	Glossy Ibis	G5	S3	N	N
Upland hardwood forest		G5	S3	N	N
Potential					
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 33130

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Egretta caerulea	Little Blue Heron	G5	S4	N	LS
Egretta thula	Snowy Egret	G5	S3	N	LS
Egretta tricolor	Tricolored Heron	G5	S4	N	LS
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N

Potential

Ardea alba	Great Egret	G5	S4	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bird Rookery		GNR	SNR	N	N
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 33451

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Upland hardwood forest		G5	S3	N	N

Potential

Ardea alba	Great Egret	G5	S4	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bird Rookery		GNR	SNR	N	N
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Egretta caerulea	Little Blue Heron	G5	S4	N	LS
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Warea amplexifolia	Clasping Warea	G1	S1	LE	LE

Matrix Unit ID: 33452

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Egretta caerulea	Little Blue Heron	G5	S4	N	LS
Egretta thula	Snowy Egret	G5	S3	N	LS
Egretta tricolor	Tricolored Heron	G5	S4	N	LS
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Upland hardwood forest		G5	S3	N	N

Potential

Ardea alba	Great Egret	G5	S4	N	N
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Asplenium x curtissii	Curtiss' Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bird Rookery		GNR	SNR	N	N
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 33774

Likely

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Forestiera godfreyi	Godfrey's Swampprivet	G2	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Monotropsis reynoldsiae	Pygmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 34096

Potential					
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Onthophagus polyphemi polyphemi	Punctate Gopher Tortoise Onthophag	GNRTNR	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE

Matrix Unit ID: 34097

Likely

Haliaeetus leucocephalus	Bald Eagle	G5	S3	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE

Potential

Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Onthophagus polyphemi polyphemi	Punctate Gopher Tortoise Onthophag	GNRTNR	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE

Matrix Unit ID: 34420

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report
Map 7 of 7

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Likely					
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential					
Arnoglossum diversifolium	Variable-leaved Indian-plantain	G2	S2	N	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Asplenium plenum	Ruffled Spleenwort	G1Q	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Coelorachis tuberculosa	Piedmont Jointgrass	G3	S3	N	LT
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Digitaria floridana	Florida Crabgrass	G1	S1	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	G4T3	S3	LT	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Justicia cooleyi	Cooley's Water-willow	G2	S2	LE	LE
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Onthophagus polyphemi polyphemi	Punctate Gopher Tortoise Onthophag	GNRTNR	S2S3	N	N
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Rana capito	Gopher Frog	G3	S3	N	LS
Salix floridana	Florida Willow	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Spigelia loganioides	Pinkroot	G2Q	S2	N	LE
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	G4G5T1	S1	N	LE
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Warea amplexifolia	Clasping Warea	G1	S1	LE	LE

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Potential - This site lies within the known or predicted range of the species listed.

GLOBAL AND STATE RANKS

Florida Natural Areas Inventory (FNAI) defines an **element** as any rare or exemplary component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature. FNAI assigns two ranks to each element found in Florida: the **global rank**, which is based on an element's worldwide status, and the **state rank**, which is based on the status of the element within Florida. Element ranks are based on many factors, including estimated number of occurrences, estimated abundance (for species and populations) or area (for natural communities), estimated number of adequately protected occurrences, range, threats, and ecological fragility.

GLOBAL RANK DEFINITIONS

G1	Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
G2	Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
G3	Either very rare and local throughout its range (21-100 occurrences or less than 10,0000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
G4	Apparently secure globally (may be rare in parts of range).
G5	Demonstrably secure globally.
G#?	Tentative rank (e.g., G2?)
G#G#	Range of rank; insufficient data to assign specific global rank (e.g., G2G3)
G#T#	Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)
G#Q	Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q)
G#T#Q	Same as above, but validity as subspecies or variety is questioned.
GH	Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
GNA	Ranking is not applicable because element is not a suitable target for conservation (e.g. as for hybrid species)
GNR	Not yet ranked (temporary)
GNRTNR	Neither the full species nor the taxonomic subgroup has yet been ranked (temporary)
GX	Believed to be extinct throughout range
GXC	Extirpated from the wild but still known from captivity/cultivation
GU	Unrankable. Due to lack of information, no rank or range can be assigned (e.g., GUT2).

STATE RANK DEFINITIONS

Definition parallels global element rank: substitute "S" for "G" in above global ranks, and "in Florida" for "globally" in above global rank definitions.

FEDERAL AND STATE LEGAL STATUSES (U.S. Fish and Wildlife Service – USFWS) PROVIDED BY FNAI FOR INFORMATION ONLY.

For official definitions and lists of protected species, consult the relevant state or federal agency.

FEDERAL LEGAL STATUS

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

LE Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species which is in danger of extinction throughout all or a significant portion of its range.

LE,XN A non essential experimental population of a species otherwise Listed as an Endangered Species in the List of Endangered and Threatened Wildlife and Plants. LE,XN for Grus americana (Whooping crane), Federally listed as XN (Non essential experimental population) refers to the Florida experimental population only. Federal listing elsewhere for Grus americana is LE.

PE Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.

LT Listed as Threatened Species, defined as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

LT,PDL Species currently listed Threatened but has been proposed for delisting.

PT Proposed for listing as Threatened Species.

C Candidate Species for addition to the list of Endangered and Threatened Wildlife and Plants, Category 1. Federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.

SAT Threatened due to similarity of appearance to a threatened species.

SC Species of Concern, species is not currently listed but is of management concern to USFWS.

N Not currently listed, nor currently being considered for addition to the List of Endangered and Threatened Wildlife and Plants.

FLORIDA LEGAL STATUSES (Florida Fish and Wildlife Conservation Commission – FFWCC/ Florida Department of Agriculture and Consumer Services – FDACS)

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission - FFWCC, 1 August 1997, and subsequent updates.

LE Listed as Endangered Species by the FFWCC. Defined as a species, subspecies, or isolated population which is so rare or depleted in number or so restricted in range of habitat due to any man-made or natural factors that it is in immediate danger of extinction or extirpation from the state, or which may attain such a status within the immediate future.

LT Listed as Threatened Species by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.

LT* Indicates that a species has LT status only in selected portions of its range in Florida. LT* for Ursus americanus floridanus (Florida black bear) indicates that LT status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. LT* for Neovison vison pop. 1 (Southern mink, South Florida population) state listed as Threatened refers to the Everglades population only (Note: species formerly listed as Mustela vison mink pop. 1. Also, priorly listed as Mustela evergladensis).

LS Listed as Species of Special Concern by the FFWCC, defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification,

environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species.

LS* Indicates that a species has LS status only in selected portions of its range in Florida. LS* for Pandion haliaetus (Osprey) state listed as LS (Species of Special Concern) in Monroe County only.

PE Proposed for listing as Endangered.

PT Proposed for listing as Threatened.

PS Proposed for listing as a Species of Special Concern.

N Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or please visit: http://DOACS.State.FL.US/PI/Images/Rule05b.pdf

LE Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.

PE Proposed by the FDACS for listing as Endangered Plants.

LT Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered. LT* indicates that a species has LT status only in selected portions of its range in Florida.

PT Proposed by the FDACS for listing as Threatened Plants.

N Not currently listed, nor currently being considered for listing.

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FLORIDA
Natural Areas
INVENTORY

Tracking Florida's Biodiversity

Longleaf Pine Ecosystem

Hamilton, Gilchrist, Volusia and Marion Counties

Group B
Full Fee

Purpose for State Acquisition

Though they once covered much of north and central Florida, old-growth longleaf pine sandhills are now only distant memories, replaced by pine plantations, pastures, and housing developments. Nevertheless, fragments of good sandhills still remain. The Longleaf Pine Ecosystem project will conserve two of the largest and best of these fragments, in so doing helping to ensure the survival of several rare animals like the red-cockaded woodpecker as well as some plants, and giving the public an opportunity to see and enjoy the original, and increasingly rare, natural landscape of Florida's uplands. This project may also help complete the Florida National Scenic Trail, a statewide non-motorized trail that crosses a number of Florida Forever project sites.

Bell Ridge: The primary goal is to restore, maintain and protect in perpetuity all native ecosystems; to integrate compatible human use: and to insure long-term viability of populations and species considered rare. The Bell Ridge is a small xeric upland physiographic feature lying just north of the much larger Brooksville Ridge. The gently rolling hills and ridges of the Bell Ridge represent relict beach dunes now at elevations of 60-100 feet and consist of excessively well-drained sands of generally low fertility. It is predominantly sandhill of variable quality. The Bell Ridge Sandhills can be expected to support most of the fauna, both game and nongame, typical of sandhill habitat. Evidence of one rare species, the gopher tortoise was found.

Longleaf Pine Ecosystem FNAI Elements - July 2009	
Red-cockaded Woodpecker	G3/S2
Florida Scrub-jay	G2/S2
Florida Black Bear	G5T2/S2
Eastern Indigo Snake	G3/S3
Gopher Tortoise	G3/S3
Florida Mouse	G3/S3
Longspurred Mint	G1/S1
Giant Orchid	G2G3/S2
Incised Groove-bur	G3/S2
Short-tailed Hawk	G4G5/S1
Scrub Stylisma	G3/S3
22 rare species are associated with the project	

Manager

Division of Forestry (DOF), Department of Agriculture and Consumer Services (Ross Prairie, Blue Spring Longleaf).

Bell Ridge: The DOF will manage the project under a multiple use management regime consistent with the State Forest system.

General Description

Longleaf Pine Ecosystem sites (Ross Prairie Sandhill, Ross Prairie Addition, Bell Ridge, and Blue Spring Longleaf) are some of the highest quality longleaf pine sandhills in Florida. Longleaf pine sandhills are one of Florida's most distinctive and endangered forest types, and have declined by more than 80% in the last century. The project will protect nearly 20 plants, animals, and natural communities listed by Florida Natural Areas Inventory. Archaeological sites are known from the Ross Prairie site. These sites are vulnerable to logging and fire suppression as well as development.

Public Use

The project will provide state forests, with opportunities for hunting, hiking, horseback riding, camping and nature appreciation.

Placed on list	**1993**
Project Area (Acres)	**25,637**
Acres Acquired	**10,218***
at a Cost of	**$30,408,180**
Acres Remaining	**15,417**
with Estimated (Tax Assessed) Value of	**$26,681,675**

*** includes 54 acres at Caraway Lake acquired by the Florida Audubon Society in 1990**

Acquisition Planning
Largest property owners south of canal lands (essential) within the Ross Prairie (8,216 acres) site are Janet Land Corp. (acquired) and Deltona-Marion Oaks Sub. (unwilling seller). North of the canal lands are seven (essential), Ocala Waterway Estates (essential), Guy (essential), Davis, and less than 35 other smaller tracts. Acquisition work is scheduled to begin in early 1999 onthe Maverick, Davis, and Guy tracts. The BlueSpring site (1,978 acres) site consists of one owner, (acquired, through TNC).

On December 3, 1998, LAMAC transferred the Deland Ridge and Chassahowitzka Sandhill sites to the Negotiation Impasse group.

On July 29, 1999, the Council combined the 3,040 acres Ross Prairie Addition project to the Longleaf Pine Ecosystem project (Priority Group).

On December 9, 1999 the Council approved the Bell Ridge project and added it to the Longleaf Pine Ecosystem project.

The Division of State Lands is not actively working this project.

Coordination
There is no acquisition partner.

Management Policy Statement
The primary goals of management of the Longleaf Pine Ecosystem project are: to conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographic area; to conserve and protect significant habitat for native species or endangered and threatened species; and to conserve, protect, manage, or restore important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, coastal, recreational, timber, fish or wildlife resources which local or state regulatory programs cannot adequately protect.

Management Prospectus
Qualifications for state designation The quality of the pine forests on the Blue Spring Longleaf and Ross Prairie sites, and their size and diversity, make them suitable for state forests.

Manager DOF is manager (Ross Prairie, Blue Spring Longleaf).

Bell Ridge: The DOF will manage the project under a multiple use management regime consistent with the State Forest system.
Conditions affecting intensity of management On the Blue Spring tract, there are no known major disturbances that will require extraordinary attention, so management intensity is expected to be typical for a state forest. On Ross Prairie, however, the construction of an extension of the Florida Turnpike may hinder fire management activities and public access to the forest.
Timetable for implementing management and provisions for security and protection of infrastructure The Blue Spring Longleaf tract and part of the Ross Prairie tract have been acquired. The Division is now providing public access to these tracts for low-intensity, non-facilities-related outdoor recreation.

Management on the Blue Spring Longleaf tract will concentrate on maintaining the existing open conditions and seeds will be collected with as little disturbance as possible to the resources. On all three tracts, the Division will provide access to the public while protecting sensitive resources. The sites' natural resources and threatened and endangered plants and animals will be inventoried to provide the basis for a management plan.

Long-range plans for these tracts will generally be directed toward restoring disturbed areas to their original conditions, as far as possible, as well as protecting threatened and endangered species. An all-season burning program will use, whenever possible, existing roads, black lines, foam lines and natural breaks to contain fires. Timber management will mostly involve improvement thinning and regeneration harvests. Plantations will be thinned and, where appropriate, reforested with species found in natural ecosystems. Stands will not have a targeted rotation age. Infrastructure will primarily be located in disturbed areas and will be the minimum required for management and public access. The Division will promote environmental education.
Revenue-generating potential The Division of Forestry will sell timber as needed to improve or maintain desirable ecosystem conditions. These sales will provide a variable source of revenue, but the revenue-generating potential for these tracts is expected to be low.

LONGLEAF PINE ECOSYSTEM: OVERVIEW

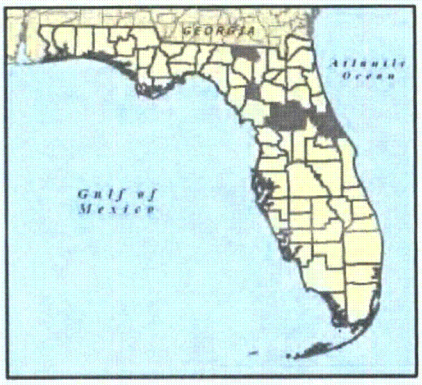
HAMILTON, GILCHRIST, VOLUSIA, AND MARION COUNTIES

Map 1: Hamilton County
A. Blue Spring Longleaf Site

Map 2: Gilchrist County
A. Bell Ridge Sandhills Site

Map 3: Volusia County
A. Deland Ridge Site

Map 4: Marion County
A. Ross Prairie Sandhill Site
B. Ross Prairie Addition Site



0 15 30 60 Miles

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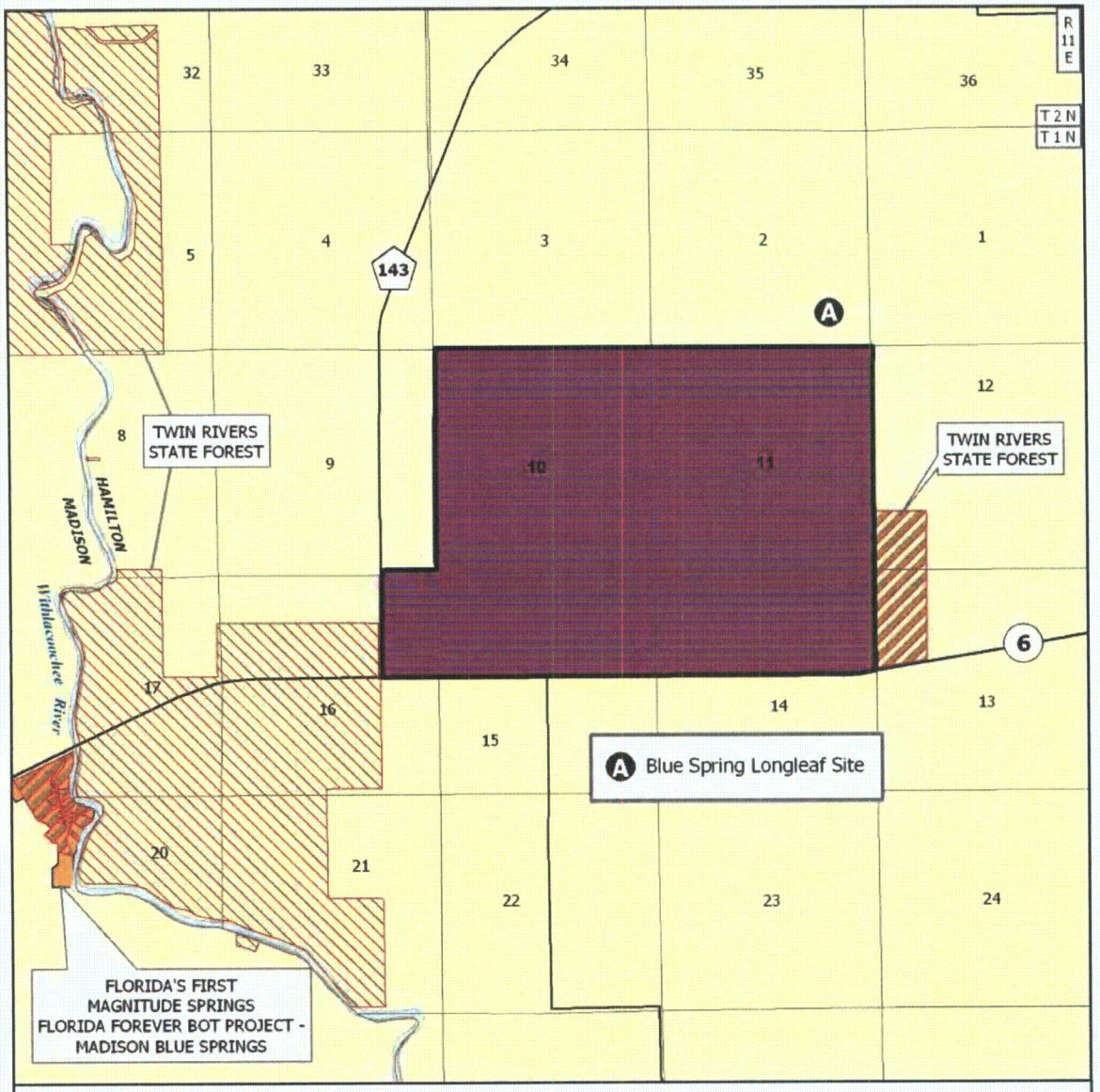
Cooperators in management activities The DOF will cooperate with and seek the assistance of other state agencies, local government entities and interested parties as appropriate.

Bell Ridge:
Management Policy
The primary objective of management of the Bell Ridge Sandhills is to protect and restore the threatened Sandhill natural community. A secondary objective is to provide resource-based recreational activities that are compatible with protection of the natural and cultural resource values of the project. The site will be managed under the multiple-use concept—management activities will be directed first toward conservation of resources and second toward integrating carefully controlled consumptive uses. Managers will control access to the proposal; thoroughly inventory the resources; restore hydrological disturbances; conduct prescribed burning of fire-dependent communities in a manner mimicking natural lightning-season fires, using existing firelines, natural firebreaks, existing roads, or foam lines for control, when possible; strictly limit timber harvesting in mature stands; and monitor management activities to ensure that they are actually conserving resources. Managers will limit the number and size of recreational facilities, ensure that they avoid the most sensitive resources, and site them in already disturbed areas when possible.

The proposal includes over 3,000 acres of relatively undisturbed land adjacent to an existing area of conservation lands. It consequently appears to have the size and location to achieve its primary and secondary objective.

Management Prospectus
Management Goals
The Bell Ridge Sandhill encompasses approximately 3,500 acres in Gilchrist, Florida. The site is located approximately 9 miles north east of Trenton, seven miles east of Bell, seventeen miles north of the Watermelon Pond Unit of Goethe State Forest, and twenty miles west of Gainesville. The DOF proposes to manage the project under a multiple use management regime consistent with the State Forest system, and in a manner designed to accomplish the acquisition goals and measures for this project as approved by the Acquisition and Restoration Council. These goals and measures are hereby incorporated by reference.

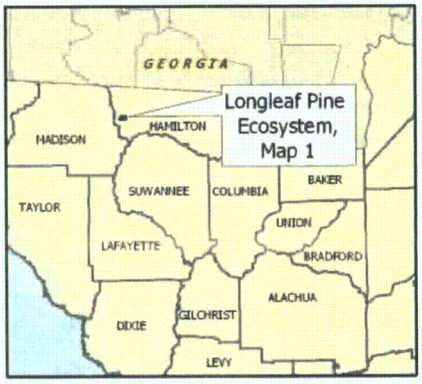
The primary land management goal for the DOF is to restore, maintain and protect in perpetuity all native ecosystems; to integrate compatible human use; and to insure long-term viability of populations and species considered rare. This ecosystem approach will guide the DOF management activities on this project.
Qualifications for State Designation
The major community represented on this project is sandhill. The project's size and diversity makes it desirable for use and management as a State Forest. Management by the DOF as a State Forest is contingent upon the state acquiring fee simple title to the entire project and obtaining some level of legal public access to the site, which is likely since the eastern and northern property boundaries are county maintained graded roads.
Conditions Affecting Intensity of Management
There are portions of the parcel that have been disturbed that will require restoration efforts. There is at least one linear facility that bisects the parcel, which will be an area of management concern for monitoring unauthorized uses and introduction of invasive exotic species. The sandhill community is considered imperiled and as such may be sensitive to certain uses and the intensity of use. As such, water resource development projects, water supply development projects, stormwater management projects and any additional linear facilities, other than those that already exist on the project, are considered incompatible with this type of ecosystem and with the resource values on this project. The adjacent residential developments will pose a management concern associated with prescribed burning, public use, unauthorized uses, and other natural resource management activities. There are areas that have refuse and debris and which should be removed prior to closing on the core parcel. Other than those above-mentioned points, there are no other known major disturbances that will require extraordinary attention. The level of management intensity and related management cost is expected to be moderately high initially to establish this as a state forest.
Timetable for Implementing Management
Once the core area is acquired and assigned to the Division of Forestry, public access will be provided for low intensity outdoor recreation activities. The Division of Forestry proposes to manage the site as a new unit of the State Forest system, and the Waccasassa Forestry Center personnel will carry out initial management activities and coordinate public access and use. DOF will cooperate with and seek the assistance of other



LONGLEAF PINE ECOSYSTEM: MAP 1 OF 4

HAMILTON COUNTY

- Florida Forever BOT Project Boundary
- Acquired
- Other Florida Forever BOT Projects
- State Owned Lands
- Other Conservation Lands



0 0.5 1 2 Miles

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state agencies, local government entities and interested parties as appropriate.

Initial and intermediate management efforts will concentrate on site security, public and fire management access, resource inventory, reforestation of areas where off-site species have been harvested, natural regeneration of the native species in the areas with low densities, and any restoration activities. Steps will be taken to insure that the public is provided appropriate access while simultaneously affording protection of sensitive resources. There are many roads throughout the property, and as such a road plan will need to be developed to determine those to be used for vehicular use by the public, those that are required for administrative use, and unnecessary access points and roads that should be closed. An inventory of the site's natural resources and threatened and endangered flora and fauna will eventually be conducted tobasis for formulation of a management plan. Prior to collection of necessary resource information, management proposals for this project can only be conceptual in nature. Long-range plans for this property will generally be directed toward the restoration of disturbed areas and maintenance of natural communities. To the greatest extent practical, disturbed sites will be restored to conditions that would be expected to occur in naturally functioning ecosystems. Any existing pine plantations will be thinned to achieve a more natural appearance. Off-site species will eventually be replaced with species that would be expected to occur naturally on those specific sites. Management activities will also stress enhancement of the abundance and spatial distribution of threatened and endangered species.

Portions of the area can sustain an all season prescribed burning program utilizing practices which incorporate recent research findings. The objective is to eventually establish an all season prescribed burning program on all of the fire dependent community types. Whenever possible, existing roads, black lines, foam lines and natural breaks will be utilized to contain and control prescribed and natural fires.

Timber management activities will primarily consist of improvement thinning and regeneration harvests aimed at maintaining and perpetuating forest ecosystems. Stands will not have a targeted rotation age but will be managed to maintain a broad diversity of age classes ranging from young stands to areas with old growth characteristics. This will provide habitat for the full spectrum of species that would be found in the natural environment and enhance and maintain biodiversity. The resource inventory will be used to identify sensitive areas that need special attention, protection or management, and to locate areas that are appropriate for any recreational or administrative facilities. Recreation and administrative infrastructure development will primarily be located in already disturbed areas and will be the absolute minimum required to allow public access for the uses mentioned above, to provide facilities to accommodate public use, and to administer and manage the property.

The Division will promote recreation and environmental education in the natural environment. It is anticipated that interpretative and user services recreational facilities will be developed and the use of low impact, rustic facilities will be stressed. High impact, organized recreation areas are not planned because of possible adverse effects on the natural environment. Unnecessary roads, firelines and hydrological disturbances will be abandoned and/or restored to the greatest extent practical.

Florida Forever Performance Measures

The DOF has reviewed the project and believes that following Florida Forever Performance Measures appear to apply to this parcel:

- Measure G1: Acres acquired that are available for sustainable forest management.
- Measure G2: Acres of state owned forestland managed for economic return in accordance with current Best Management Practices (BMPs).
- Measure G4: Percentage and number of acres identified for restoration actually restored by reforestation. **Note:** In some areas, this may be accomplished by natural regeneration in areas of low density and once off-site species are harvested.

There is the possibility that other measures apply, however, that may be determined by an inventory of the resources on the project.

Revenue Generating Potential

As mentioned above, timber sales will be conducted as needed to improve or maintain desirable ecosystem conditions. These sales will primarily take place in upland pine stands and will provide a variable source

(continued)

LONGLEAF PINE ECOSYSTEM: MAP 2 OF 4

GILCHRIST COUNTY

Florida Forever BOT Project Boundary

Essential Parcel(s) Remaining

Other Conservation Lands

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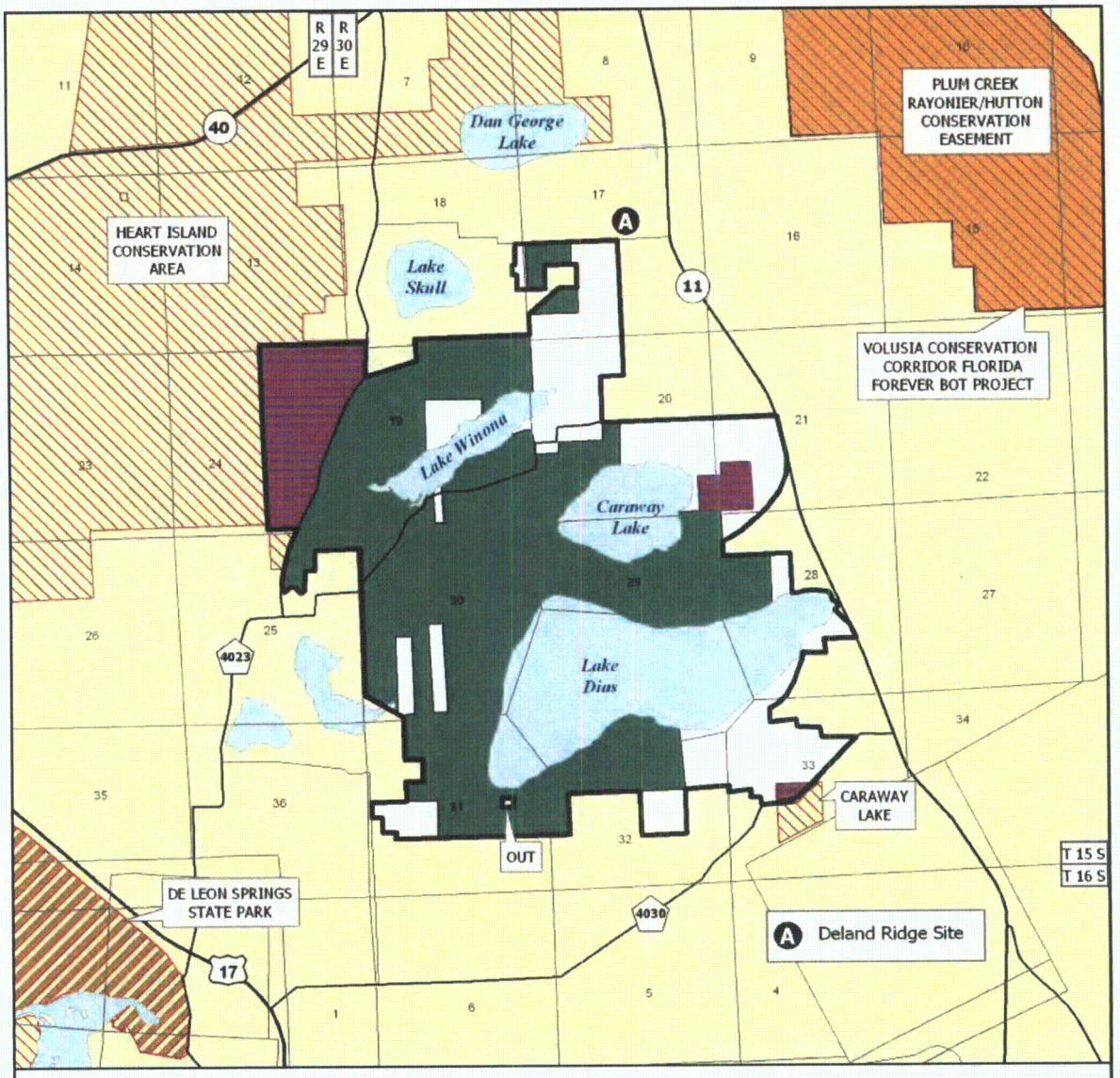
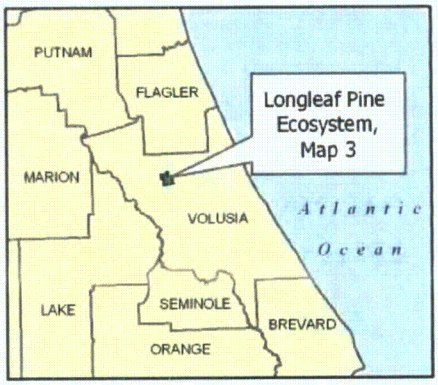


LONGLEAF PINE ECOSYSTEM: MAP 3 OF 4

VOLUSIA COUNTY

- Florida Forever BOT Project Boundary
- Acquired
- Essential Parcel(s) Remaining
- Other Florida Forever BOT Projects
- State Owned Lands
- Other Conservation Lands

0 0.5 1 2 Miles



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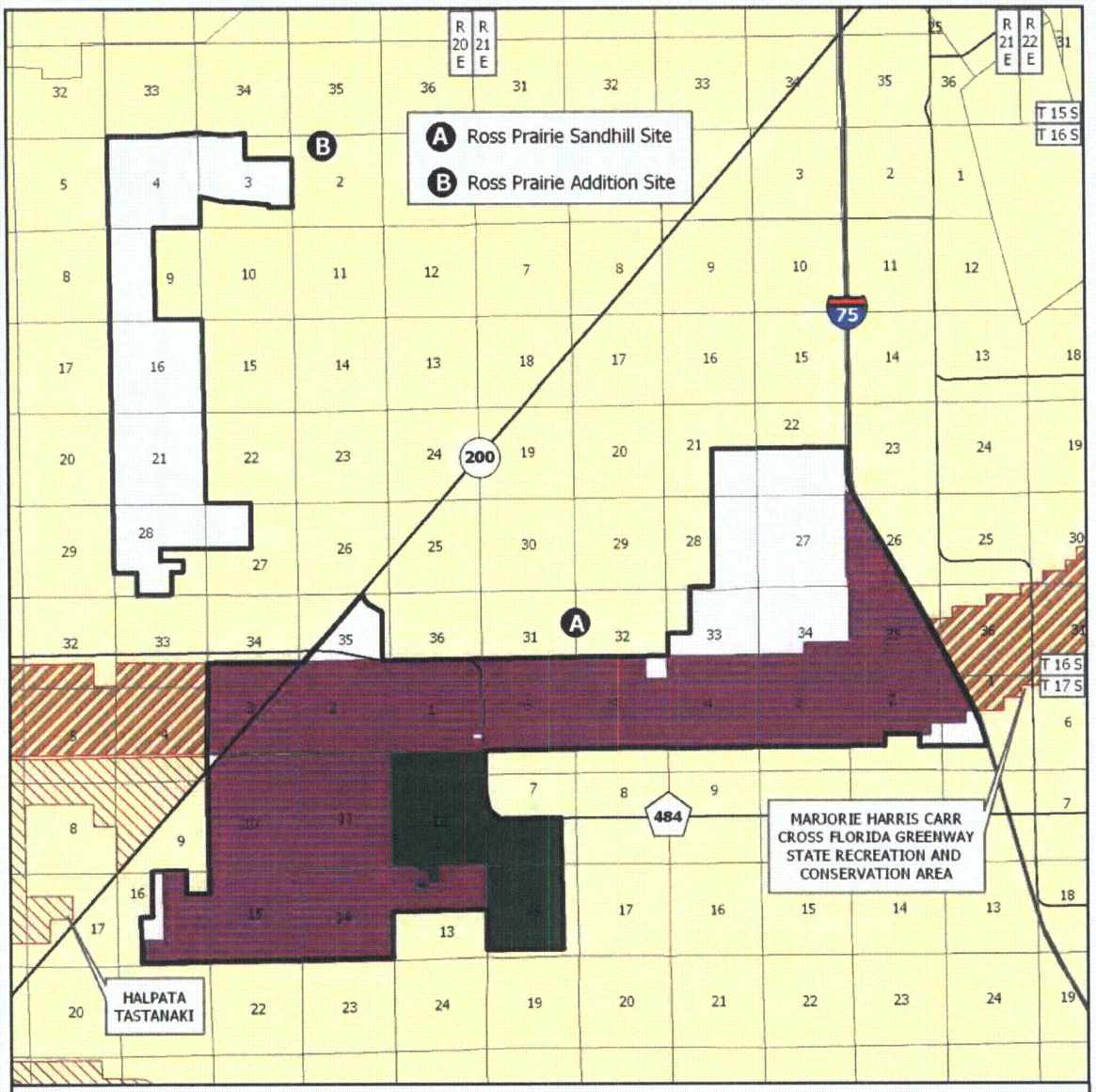
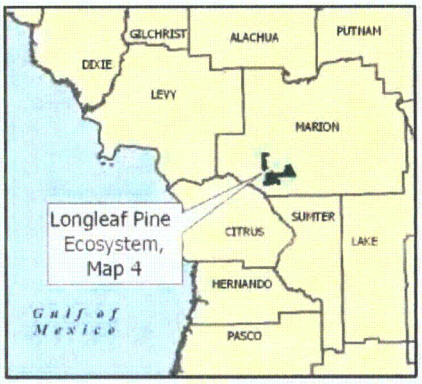


LONGLEAF PINE ECOSYSTEM: MAP 4 OF 4

MARION COUNTY

- Florida Forever BOT Project Boundary
- Acquired
- Essential Parcel(s) Remaining
- State Owned Lands
- Other Conservation Lands



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of revenue dependent upon a variety of factors. Due to the existing condition of the timber resource on the property, revenue generating potential of this project is expected to be medium.

Capital Project Expenditures

Capital project expenditures will be needed on this parcel as listed below. They include relocation of the Trenton Work Center to this site to provide site management, security and public service. The existing Trenton Work Center is currently leased from the private sector and this lease is due to expire in 2005. It is not anticipated that the lease will be renewed. The existing house and barn on the property can be used for these facilities so that the expense associated with it can be reduced, although, they will require renovation. Reinforcing the fencing in the areas of residential development will be necessary to clearly establish the boundary with resources that cannot be easy burned or altered. It is anticipated that some the existing roads will be used as multi-use trails for hiking, horse back riding and off road biking. As such, visitor services in the disturbed area will be provided.

Management Costs and Sources of Revenue

It is anticipated that management funding will come from the CARL trust fund. Budget needs for interim management are estimated as follows.

Longleaf Pine Ecosystem:
Management Cost Summary/DOF

Category	1995/96	1996/97	1997/98
Source of Funds	CARL	CARL	CARL
Salary	$31,080	$41,013	$44,000
OPS	$0	$0	$0
Expense	$25,505	$11,302	$13,000
OCO	$40,626	$0	$10,000
FCO	$0	$0	$0
TOTAL	$97,211	$52,315	$67,000

Management Cost Summary/DOF (Deland Ridge)

Category	Startup	Recurring
Source of Funds	CARL	CARL
Salary	$0	$0
OPS	$0	$0
Expense	$7,000	$5,000
OCO	$0	$0
FCO	$0	$0
TOTAL	$7,000	$5,000

FLORIDA
Natural Areas
INVENTORY

Technical Assistance Provided by:

FREAC
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AT THE FLORIDA STATE UNIVERSITY

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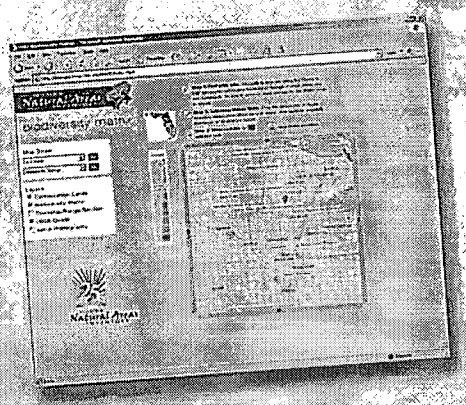
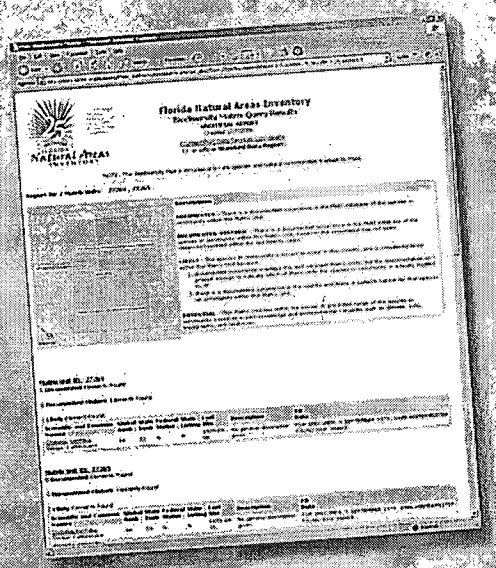


FNAI's Biodiversity Matrix Online

The Biodiversity Matrix Map Server is a new **screening tool** from FNAI that provides **immediate, free access** to rare species occurrence information statewide. This tool allows you to zoom to your site of interest and create a report listing documented, likely, and potential occurrences of rare species and natural communities.



The FNAI Biodiversity Matrix offers **built-in interpretation** of the likelihood of species occurrence for each 1-square-mile Matrix Unit across the state. The report includes a site map and list of species and natural communities by occurrence status: Documented, Documented-Historic, Likely, and Potential.

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Please note: FNAI will continue to offer our Standard Data Report service as always. The Standard Data Report offers the most comprehensive information available on rare species, natural communities, conservation lands, and other natural resources.