

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/22/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB K
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 4 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.939921 Long: -82.588058 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>isolated depressional wetland</u> | | |

HYDROLOGY

| | | |
|--|--|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-6</u> | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-10</u> | |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-4</u> | |
| (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

VEGETATION - Use scientific names of plants

Sampling Point: CB K

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|------------------|-------------------|------------------|--|--------------------------|
| 1. <i>Quercus laurifolia</i> | 5 | yes | FACW | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>9</u> (A) |
| 2. <i>Nyssa sylvatica</i> var. <i>biflora</i> | 2 | yes | FAC | Total Number of Dominant Species Across All Strata: | <u>10</u> (B) |
| 3. <i>Sabal palmetto</i> | 2 | yes | FAC | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>90.00</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | | |
| 5. _____ | _____ | _____ | _____ | | |
| 6. _____ | _____ | _____ | _____ | | |
| 7. _____ | _____ | _____ | _____ | | |
| | | | 9 = Total Cover | | |
| Sapling Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Prevalance Index worksheet: | |
| 1. <i>Salix</i> spp. | 5 | yes | FACW | Total % Cover of: OBL species _____ x1= _____ | Multiply by: 0 |
| 2. _____ | _____ | _____ | _____ | FACW species _____ x2= _____ | 0 |
| 3. _____ | _____ | _____ | _____ | FAC species _____ x3= _____ | 0 |
| 4. _____ | _____ | _____ | _____ | FACU species _____ x4= _____ | 0 |
| 5. _____ | _____ | _____ | _____ | UPL species _____ x5= _____ | 0 |
| 6. _____ | _____ | _____ | _____ | Column Totals: _____ | 0 (A) _____ 0 (B) |
| 7. _____ | _____ | _____ | _____ | | |
| | | | 5 = Total Cover | Prevalance Index = B/A = _____ | |
| Shrub Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Indicators: | |
| 1. <i>Cephalanthus occidentalis</i> | 10 | yes | OBL | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 2. <i>Myrica cerifera</i> | 2 | no | FAC | <input type="checkbox"/> Prevalance Index is $\leq 3.0^1$ | |
| 3. <i>Hypericum fasciculatum</i> | 2 | no | FACW | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 4. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 5. _____ | _____ | _____ | _____ | | |
| 6. _____ | _____ | _____ | _____ | | |
| 7. _____ | _____ | _____ | _____ | | |
| | | | 14 = Total Cover | Definitions of Vegetation Strata: | |
| Herb Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | 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. | |
| 1. <i>Andropogon glomeratus</i> | 30 | yes | FACW | | |
| 2. <i>Pontederia cordata</i> | 10 | yes | OBL | | |
| 3. <i>Andropogon virginicus</i> | 10 | yes | FAC | | |
| 4. <i>Cyperus</i> spp. | 2 | no | FACW | | |
| 5. <i>Viola lanceolata</i> | 2 | no | OBL | | |
| 6. <i>Setaria</i> spp. | 2 | no | FAC | | |
| 7. <i>Dichromena colorata</i> | 2 | no | FACW | | |
| 8. <i>Phyla nodiflora</i> | 2 | no | FACW | | |
| 9. <i>Panicum hemitomon</i> | 2 | no | OBL | | |
| 10. <i>Axonopus</i> spp. | 2 | no | FACW | | |
| 11. <i>Fuirena</i> spp. | 2 | no | OBL | | |
| 12. <i>Rhynchospora</i> spp. | 2 | no | FACW | | |
| | | | 68 = Total Cover | | |
| Woody Vine Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | |
| 1. <i>Rubus</i> spp. | 2 | yes | FACU | | |
| 2. <i>Ampelopsis arborea</i> | 2 | yes | FAC | | |
| 3. <i>Cuscuta</i> spp. | 2 | yes | NL | | |
| 4. _____ | _____ | _____ | _____ | | |
| 5. _____ | _____ | _____ | _____ | | |
| | | | 6 = Total Cover | | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------------|---|-------------------|------------------|---|---------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 |
| | | | | | | | | |
| | | | | | | | | |

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

| Hydric Soil Indicators: | Indicators for Problematic Hydric Soils ³ : |
|--|---|
| <input type="checkbox"/> Histic (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) |
| <input type="checkbox"/> Histic Epidon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P,T,U) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input checked="" type="checkbox"/> Muck Presence (A8) (LRR U) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P,T) | <input type="checkbox"/> Marl (F10) (LRR U) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Orchric (F11) (MLRA 151) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P,T) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) | <input type="checkbox"/> Delta Orchric (F17) (MLRA 151) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) | |

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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB L
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 3 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.937324 Long: -82.585511 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses | | |

HYDROLOGY

| | | | |
|--|--|--|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) | |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) | |
| _____ Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) | |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) | |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) | |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) | |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) | |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) | |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) | |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) | |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) | |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>>10</u> | | |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | |
| Remarks: | | | |

VEGETATION - Use scientific names of plants

Sampling Point: **CB L**

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicato r Status | Dominance Test Worksheet: | |
|--|---------------------|----------------------|----------------------|--|---------------------------|
| 1. Sabal palmetto | 2 | yes | FAC | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>5</u> (A) |
| 2. Quercus laurifolia | 2 | yes | FACW | Total Number of Dominant Species Across All Strata: | <u>7</u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>71.43</u> (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | Total % Cover of: <u> </u> Multiply by: | |
| 6. | | | | OBL species | x1= <u> </u> 0 |
| 7. | | | | FACW species | x2= <u> </u> 0 |
| | 4 = Total Cover | | | FAC species | x3= <u> </u> 0 |
| Sapling Stratum (Plot size: _____) | | | | FACU species | x4= <u> </u> 0 |
| 1. | | | | UPL species | x5= <u> </u> 0 |
| 2. | | | | Column Totals: | <u>0</u> (A) <u>0</u> (B) |
| 3. | | | | Prevalance Index = B/A = | |
| 4. | | | | Hydrophytic Vegetation Indicators: | |
| 5. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 6. | | | | <input type="checkbox"/> Prevalance Index is $\leq 3.0^1$ | |
| 7. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| Shrub Stratum (Plot size: _____) | 0 = Total Cover | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 1. Serenoa repens | 2 | yes | FACU | Definitions of Vegetation Strata: | |
| 2. Viburnum obovatum | 2 | yes | FACW | 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). | |
| 3. | | | | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 4. | | | | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 5. | | | | 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. | |
| 6. | | | | Woody vine- All woody vines, regardless of height. | |
| 7. | | | | | |
| Herb Stratum (Plot size: _____) | 4 = Total Cover | | | | |
| 1. Diodia virginiana | 30 | yes | FACW | | |
| 2. Cynodon dactylon | 30 | yes | FACU | | |
| 3. Lindernia grandiflora | 20 | yes | OBL | | |
| 4. Phyla nodiflora | 15 | no | FACW | | |
| 5. Centella asiatica | 2 | no | FACW | | |
| 6. Hydrocotyle umbellata | 2 | no | OBL | | |
| 7. Rhynchospora spp. | 2 | no | FACW | | |
| 8. Cyperus surinamensis | 2 | no | FACW | | |
| 9. Axonopus spp. | 2 | no | FACW | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| Woody Vine Stratum (Plot size: _____) | 105 = Total Cover | | | | |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| | 0 = Total Cover | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|----------------------------------|-------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ⁴ | | |
| 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 |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

⁴Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histol (A1) Polyvalue Below Surface (S8) (LRR S, T, U)
- Histic Epidon (A2) Thin Dark Surface (S9) (LRR S, T, U)
- Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)
- Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)
- Stratified Layers (A5) Depleted Matrix (F3)
- Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)
- 5 cm Mucky Mineral (A7) (LRR P,T,U) Depleted Dark Surface (F7)
- Muck Presence (A8) (LRR U) Redox Depressions (F8)
- 1 cm Muck (A9) (LRR P,T) Marl (F10) (LRR U)
- Depleted Below Dark Surface (A11) Depleted Orchric (F11) (MLRA 151)
- Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P,T)
- Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)
- Sandy Mucky Mineral (S1) (LRR O, S) Delta Orchric (F17) (MLRA 151)
- Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)
- Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A)
- Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
- Dark Surface (S7) (LRR P, S, T, U)

Indicators for Problematic Hydric Soils³:

- 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB M
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 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.934794 Long: -82.581782 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses | | |

HYDROLOGY

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

| | | |
|--|--|--|
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-12</u> | |

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CB M

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|---------------------------|----------------------|---------------------|--|--|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.00</u> (A/B) | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 0 = Total Cover | | | | Prevalance Index worksheet: | |
| Sapling Stratum (Plot size: _____) | | | | 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: <u>0</u> (A) <u>0</u> (B) | |
| 1. | | | | Prevalance Index = B/A = _____ Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is 50% Prevalance Index is $\leq 3.0^1$ Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 0 = Total Cover | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| Shrub Stratum (Plot size: _____) | | | | Definitions of Vegetation Strata: | |
| 1. | Cephalanthus occidentalis | 2 | yes OBL | 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. | |
| 2. | Hypericum tetrapelatum | 2 | yes FACW | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 4 = Total Cover | | | | | |
| Herb Stratum (Plot size: _____) | | | | | |
| 1. | Axonopus spp. | 50 | yes FACW | | |
| 2. | Paspalum notatum | 30 | yes FACU | | |
| 3. | Phyla nodiflora | 10 | no FACW | | |
| 4. | Dichantherium spp. | 5 | no FAC | | |
| 5. | Diodia virginiana | 2 | no FACW | | |
| 6. | Hydrocotyle umbellata | 2 | no OBL | | |
| 7. | Ludwigia suffruticosa | 2 | no OBL | | |
| 8. | Ludwigia repens | 2 | no OBL | | |
| 9. | Fuirena spp. | 2 | no OBL | | |
| 10. | Eupatorium capillifolium | 2 | no FACU | | |
| 11. | Centella asiatica | 2 | no FACW | | |
| 12. | Rhynchospora spp. | 2 | no FACW | | |
| 111 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | |
| 1. | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 0 = Total Cover | | | | | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

SOIL

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|-------------------------------|-------------------------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 | |
| | | | | | | | | |
| | | | | | | | | |

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

Hydric Soil Indicators:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) | <input type="checkbox"/> 1 cm Muck (a9) (LRR O) |
| <input type="checkbox"/> Histic Epidon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) | <input type="checkbox"/> 2 cm Muck (A10) (LRR S) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B) |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) (LRR T, U) |
| <input checked="" type="checkbox"/> Muck Presence (A8) (LRR U) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) | <input type="checkbox"/> Marl (F10) (LRR U) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Orchric (F11) (MLRA 151) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) | |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) | <input type="checkbox"/> Delta Orchric (F17) (MLRA 151) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) | |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) | |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) | | |

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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB N
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 10 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.929100 Long: -82.576362 Datum: WGS84
 Soil Map Unit Name: Tavares fine sand NWI classification: Freshwater Pond

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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses | | |

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|--|--|
| Primary Indicators (minimum of one is required; check all that apply) | | _____ Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>12</u> | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> | |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

VEGETATION - Use scientific names of plants

Sampling Point: _____ CB N

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|------------------|-------------------|--------------------------|--|---------------------------|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>3</u> (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | <u>3</u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>100.00</u> (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | Total % Cover of: Multiply by: | |
| 6. | | | | OBL species _____ | x1= <u>0</u> |
| 7. | | | | FACW species _____ | x2= <u>0</u> |
| | | | | FAC species _____ | x3= <u>0</u> |
| | | | | FACU species _____ | x4= <u>0</u> |
| | | | | UPL species _____ | x5= <u>0</u> |
| | | | | Column Totals: _____ | <u>0</u> (A) <u>0</u> (B) |
| 0 = Total Cover | | | Prevalance Index = B/A = | | |
| Shrub Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Indicators: | |
| 1. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 2. | | | | <input type="checkbox"/> Prevalance Index is $\leq 3.0^1$ | |
| 3. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 4. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 5. | | | | Definitions of Vegetation Strata: | |
| 6. | | | | 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). | |
| 7. | | | | 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. | |
| 0 = Total Cover | | | | | |
| Herb Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | | |
| 1. Eleocharis spp. | 20 | yes | OBL | | |
| 2. Hydrocotyle spp. | 20 | yes | OBL | | |
| 3. Phyla nodiflora | 20 | yes | FACW | | |
| 4. Hypericum spp. | 2 | no | FACW | | |
| 5. Ludwigia spp. | 2 | no | OBL | | |
| 6. Panicum repens | 2 | no | FACW | | |
| 7. Diodia virginiana | 2 | no | FACW | | |
| 8. Cyperus surinamensis | 2 | no | FACW | | |
| 9. Scoparia dulcis | 2 | no | FAC | | |
| 10. Paspalum notatum | 2 | no | FACU | | |
| 11. | | | | | |
| 12. | | | | | |
| 74 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | | |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 0 = Total Cover | | | | | |
| Remarks: (If observed, list morphological adaptations below). | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

SOIL

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|-----------------------------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 | | 10 YR 7/4 | | | | few medium distinct mottles | white fine sand |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histol (A1) Polyvalue Below Surface (S8) (LRR S, T, U)
- Histic Epidon (A2) Thin Dark Surface (S9) (LRR S, T, U)
- Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)
- Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)
- Stratified Layers (A5) Depleted Matrix (F3)
- Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)
- 5 cm Mucky Mineral (A7) (LRR P,T,U) Depleted Dark Surface (F7)
- Muck Presence (A8) (LRR U) Redox Depressions (F8)
- 1 cm Muck (A9) (LRR P,T) Marl (F10) (LRR U)
- Depleted Below Dark Surface (A11) Depleted Orchric (F11) (MLRA 151)
- Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P,T)
- Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)
- Sandy Mucky Mineral (S1) (LRR O, S) Delta Orchric (F17) (MLRA 151)
- Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)
- Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A)
- Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
- Dark Surface (S7) (LRR P, S, T, U)

Indicators for Problematic Hydric Soils³:

- 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB O
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 10 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.923788 Long: -82.569427 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |

Remarks: wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses

HYDROLOGY

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

| | | |
|--|---|--|
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____, No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): >10 | |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): >10 | |

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CB O

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|---------------------|----------------------|---------------------|--|---------------------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>3</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: | <u>4</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>75.00</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | Prevalance Index worksheet: | |
| 5. _____ | _____ | _____ | _____ | Total % Cover of: | Multiply by: |
| 6. _____ | _____ | _____ | _____ | OBL species _____ | x1= _____ 0 |
| 7. _____ | _____ | _____ | _____ | FACW species _____ | x2= _____ 0 |
| 0 = Total Cover | | | | FAC species _____ | x3= _____ 0 |
| Sapling Stratum (Plot size: _____) | | | | FACU species _____ | x4= _____ 0 |
| 1. _____ | _____ | _____ | _____ | UPL species _____ | x5= _____ 0 |
| 2. _____ | _____ | _____ | _____ | Column Totals: | <u>0</u> (A) <u>0</u> (B) |
| 3. _____ | _____ | _____ | _____ | Prevalance Index = B/A = _____ | |
| 4. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Indicators: | |
| 5. _____ | _____ | _____ | _____ | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 6. _____ | _____ | _____ | _____ | Prevalance Index is $\leq 3.0^1$ | |
| 7. _____ | _____ | _____ | _____ | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 0 = Total Cover | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| Shrub Stratum (Plot size: _____) | | | | Definitions of Vegetation Strata: | |
| 1. Baccharis halimifolia | 2 | yes | FAC | 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). | |
| 2. _____ | _____ | _____ | _____ | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 3. _____ | _____ | _____ | _____ | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 4. _____ | _____ | _____ | _____ | 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. | |
| 5. _____ | _____ | _____ | _____ | Woody vine- All woody vines, regardless of height. | |
| 6. _____ | _____ | _____ | _____ | | |
| 7. _____ | _____ | _____ | _____ | | |
| 2 = Total Cover | | | | | |
| Herb Stratum (Plot size: _____) | | | | | |
| 1. Andropogon glomeratus | 30 | yes | FACW | | |
| 2. Eupatorium capillifolium | 30 | yes | FACU | | |
| 3. Axonopus spp. | 30 | yes | FACW | | |
| 4. Phyla nodiflora | 10 | no | FACW | | |
| 5. Fuirena spp. | 2 | no | OBL | | |
| 6. Cyperus spp. | 2 | no | FACW | | |
| 7. Carex albolutescens | 2 | no | FAC | | |
| 8. Rhynchospora spp. | 2 | no | FACW | | |
| 9. Euthamia caroliniana | 2 | no | NL | | |
| 10. Andropogon virginicus | 2 | no | FAC | | |
| 11. Paspalum notatum | 2 | no | FACU | | |
| 12. Cyperus surinamensis | 2 | no | FACW | | |
| 116 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | |
| 1. _____ | _____ | _____ | _____ | | |
| 2. _____ | _____ | _____ | _____ | | |
| 3. _____ | _____ | _____ | _____ | | |
| 4. _____ | _____ | _____ | _____ | | |
| 5. _____ | _____ | _____ | _____ | | |
| 0 = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|-------------------------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-5 | 10 YR 2/1 | | | | | | black fine sand | |
| 5-15 | 10 YR 6/2 | | 10 YR 4/2 | | | | common medium distinct stains | |
| 15-45 | 10 YR 7/1 | | | | | | light gray fine sand | |
| 45-80 | 10 YR 7/1 | | | | | | light gray fine sand | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB P
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 10 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.922999 Long: -82.569338 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses | | |

HYDROLOGY

| | | | |
|--|--|--|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) | |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) | |
| _____ Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) | |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) | |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) | |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) | |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) | |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) | |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) | |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) | |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) | |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>>10</u> | | |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>>10</u> | | |
| (includes capillary fringe) | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | |
| Remarks: | | | |

VEGETATION - Use scientific names of plants

Sampling Point: CB P

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|------------------|-------------------|--|--|--------------------|
| 1. <i>Acer rubrum</i> | 2 | yes | OBL | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>15</u> (A) |
| 2. <i>Quercus laurifolia</i> | 2 | yes | FACW | Total Number of Dominant Species Across All Strata: | <u>18</u> (B) |
| 3. <i>Salix</i> spp. | 2 | yes | FACW | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>83.33</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | | |
| 5. _____ | _____ | _____ | _____ | | |
| 6. _____ | _____ | _____ | _____ | | |
| 7. _____ | _____ | _____ | _____ | | |
| 6 = Total Cover | | | | | |
| Sapling Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Prevalence Index worksheet: | |
| 1. _____ | _____ | _____ | _____ | Total % Cover of: | Multiply by: |
| 2. _____ | _____ | _____ | _____ | OBL species _____ | x1= _____ 0 |
| 3. _____ | _____ | _____ | _____ | FACW species _____ | x2= _____ 0 |
| 4. _____ | _____ | _____ | _____ | FAC species _____ | x3= _____ 0 |
| 5. _____ | _____ | _____ | _____ | FACU species _____ | x4= _____ 0 |
| 6. _____ | _____ | _____ | _____ | UPL species _____ | x5= _____ 0 |
| 7. _____ | _____ | _____ | _____ | Column Totals: _____ | 0 (A) _____ 0 (B) |
| 0 = Total Cover | | | Prevalence Index = B/A = _____ | | |
| Shrub Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Indicators: | |
| 1. <i>Cephalanthus occidentalis</i> | 2 | yes | OBL | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 2. <i>Myrica cerifera</i> | 2 | yes | FAC | Prevalence Index is $\leq 3.0^1$ | |
| 3. _____ | _____ | _____ | _____ | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 4. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 5. _____ | _____ | _____ | _____ | | |
| 6. _____ | _____ | _____ | _____ | | |
| 7. _____ | _____ | _____ | _____ | | |
| 4 = Total Cover | | | Definitions of Vegetation Strata: | | |
| Herb Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | 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). | |
| 1. <i>Eupatorium capillifolium</i> | 2 | yes | FACU | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 2. <i>Euthamia caroliniana</i> | 2 | yes | NL | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 3. <i>Ludwigia suffruticosa</i> | 2 | yes | OBL | 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. | |
| 4. <i>Aster</i> spp. | 2 | yes | FAC | Woody vine- All woody vines, regardless of height. | |
| 5. <i>Setaria</i> spp. | 2 | yes | FAC | | |
| 6. <i>Lachnanthes caroliniana</i> | 2 | yes | OBL | | |
| 7. <i>Solidago canadensis</i> | 2 | yes | FACU | | |
| 8. <i>Rhynchospora</i> spp. | 2 | yes | FACW | | |
| 9. <i>Andropogon virginicus</i> | 2 | yes | FAC | | |
| 10. <i>Fuirena</i> spp. | 2 | yes | OBL | | |
| 11. <i>Pluchea</i> spp. | 2 | yes | FACW | | |
| 12. <i>Helianthus angustifolius</i> | 2 | yes | FAC | | |
| 24 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | |
| 1. <i>Rubus</i> spp. | 2 | yes | FACU | | |
| 2. <i>Ampelopsis arborea</i> | 2 | yes | FAC | | |
| 3. _____ | _____ | _____ | _____ | | |
| 4. _____ | _____ | _____ | _____ | | |
| 5. _____ | _____ | _____ | _____ | | |
| 4 = Total Cover | | | | | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|----------------------------------|-------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB Q
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 11 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.920510 Long: -82.565579 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses</u> | | |

HYDROLOGY

| | | |
|--|--|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-24</u> | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-4</u> | |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-5</u> | |
| (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

VEGETATION - Use scientific names of plants

Sampling Point: CB Q

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | | | |
|--|---------------------|----------------------|---------------------|--|---------------------------|-------------------------|--|
| 1. <i>Quercus laurifolia</i> | 2 | yes | FACW | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>10</u> (A) | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: | <u>13</u> (B) | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>76.92</u> (A/B) | | |
| 4. _____ | _____ | _____ | _____ | Prevalance Index worksheet: | | | |
| 5. _____ | _____ | _____ | _____ | <u>2</u> = Total Cover | | | |
| 6. _____ | _____ | _____ | _____ | Total % Cover of: | | | |
| 7. _____ | _____ | _____ | _____ | Multiply by: | | | |
| Sapling Stratum (Plot size: _____) | | | | OBL species | x1= <u>0</u> | | |
| 1. <i>Salix</i> spp. | 10 | yes | FACW | FACW species | x2= <u>0</u> | | |
| 2. <i>Sapium sebiferum</i> | 2 | no | FAC | FAC species | x3= <u>0</u> | | |
| 3. _____ | _____ | _____ | _____ | FACU species | x4= <u>0</u> | | |
| 4. _____ | _____ | _____ | _____ | UPL species | x5= <u>0</u> | | |
| 5. _____ | _____ | _____ | _____ | Column Totals: | <u>0</u> (A) <u>0</u> (B) | | |
| 6. _____ | _____ | _____ | _____ | Prevalance Index = B/A = _____ | | | |
| 7. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Indicators: | | | |
| Shrub Stratum (Plot size: _____) | | | | <u>12</u> = Total Cover | | | |
| 1. <i>Cephalanthus occidentalis</i> | 10 | yes | OBL | <input checked="" type="checkbox"/> Dominance Test is 50% | | | |
| 2. <i>Baccharis halimifolia</i> | 2 | no | FAC | Prevalance Index is $\leq 3.0^1$ | | | |
| 3. <i>Hypericum tetrapelatum</i> | 2 | no | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 4. <i>Hypericum brachyphyllum</i> | 2 | no | FACW | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | |
| 5. _____ | _____ | _____ | _____ | Definitions of Vegetation Strata: | | | |
| 6. _____ | _____ | _____ | _____ | 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. | | | |
| 7. _____ | _____ | _____ | _____ | | | | |
| Herb Stratum (Plot size: _____) | | | | | | <u>16</u> = Total Cover | |
| 1. <i>Andropogon glomeratus</i> | 10 | yes | FACW | | | | |
| 2. <i>Panicum repens</i> | 10 | yes | FACW | | | | |
| 3. <i>Eleocharis</i> spp. | 10 | yes | OBL | | | | |
| 4. <i>Fuirena</i> spp. | 10 | yes | OBL | | | | |
| 5. <i>Andropogon virginicus</i> | 10 | yes | FAC | | | | |
| 6. <i>Rhynchospora</i> spp. | 10 | yes | FACW | | | | |
| 7. <i>Eupatorium capillifolium</i> | 10 | yes | FACU | | | | |
| 8. <i>Solidago canadensis</i> | 10 | yes | FACU | | | | |
| 9. <i>Aster</i> spp. | 2 | no | FAC | | | | |
| 10. <i>Centella asiatica</i> | 2 | no | FACW | | | | |
| 11. <i>Setaria</i> spp. | 2 | no | FAC | | | | |
| 12. <i>Andropogon virginicus</i> | 2 | no | FAC | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | <u>88</u> = Total Cover | | | |
| 1. <i>Mikania scandens</i> | 2 | yes | FACW | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | | | |
| 2. <i>Rubus</i> spp. | 2 | yes | FACU | | | | |
| 3. _____ | _____ | _____ | _____ | | | | |
| 4. _____ | _____ | _____ | _____ | | | | |
| 5. _____ | _____ | _____ | _____ | | | | |
| <u>4</u> = Total Cover | | | | | | | |
| Remarks: (If observed, list morphological adaptations below). | | | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------------|---|-------------------|------------------|---|---------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 |
| | | | | | | | | |
| | | | | | | | | |

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

Hydric Soil Indicators:

- Histol (A1) Polyvalue Below Surface (S8) (LRR S, T, U)
- Histic Epidon (A2) Thin Dark Surface (S9) (LRR S, T, U)
- Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)
- Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)
- Stratified Layers (A5) Depleted Matrix (F3)
- Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)
- 5 cm Mucky Mineral (A7) (LRR P,T,U) Depleted Dark Surface (F7)
- Muck Presence (A8) (LRR U) Redox Depressions (F8)
- 1 cm Muck (A9) (LRR P,T) Marl (F10) (LRR U)
- Depleted Below Dark Surface (A11) Depleted Orchric (F11) (MLRA 151)
- Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P,T)
- Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)
- Sandy Mucky Mineral (S1) (LRR O, S) Delta Orchric (F17) (MLRA 151)
- Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)
- Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A)
- Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
- Dark Surface (S7) (LRR P, S, T, U)

Indicators for Problematic Hydric Soils³:

- 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB R
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 14 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.919095 Long: -82.564701 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses | | |

HYDROLOGY

| | | |
|--|--|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) |
| _____ Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): 0-12 | |
| (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

VEGETATION - Use scientific names of plants

Sampling Point: CB R

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|------------------|-------------------|------------------|--|---------------------------|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>7</u> (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | <u>7</u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>100.00</u> (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | Total % Cover of: <u>0</u> = Total Cover | |
| 6. | | | | Multiply by: | |
| 7. | | | | OBL species | x1= <u>0</u> |
| Sapling Stratum (Plot size: _____) | | | | FACW species | x2= <u>0</u> |
| 1. Salix spp. | <u>2</u> | <u>yes</u> | <u>FACW</u> | FAC species | x3= <u>0</u> |
| 2. | | | | FACU species | x4= <u>0</u> |
| 3. | | | | UPL species | x5= <u>0</u> |
| 4. | | | | Column Totals: | <u>0</u> (A) <u>0</u> (B) |
| 5. | | | | Prevalance Index = B/A = | |
| 6. | | | | Hydrophytic Vegetation Indicators: | |
| 7. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| Shrub Stratum (Plot size: _____) | | | | <input type="checkbox"/> Prevalance Index is $\leq 3.0^1$ | |
| 1. Cephalanthus occidentalis | <u>2</u> | <u>yes</u> | <u>OBL</u> | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 2. Baccharis halimifolia | <u>2</u> | <u>yes</u> | <u>FAC</u> | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 3. Hypericum spp. | <u>2</u> | <u>yes</u> | <u>FACW</u> | Definitions of Vegetation Strata: | |
| 4. | | | | 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). | |
| 5. | | | | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 6. | | | | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 7. | | | | 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. | |
| Herb Stratum (Plot size: _____) | | | | Woody vine- All woody vines, regardless of height. | |
| 1. Andropogon virginicus | <u>30</u> | <u>yes</u> | <u>FAC</u> | 99 = Total Cover | |
| 2. Centella asiatica | <u>20</u> | <u>yes</u> | <u>FACW</u> | Woody Vine Stratum (Plot size: _____) | |
| 3. Typha spp. | <u>15</u> | <u>no</u> | <u>OBL</u> | 1. Mikania scandens | |
| 4. Solidago canadensis | <u>10</u> | <u>no</u> | <u>FACU</u> | <u>2</u> | |
| 5. Fuirena spp. | <u>10</u> | <u>no</u> | <u>OBL</u> | 2. | |
| 6. Cyperus surinamensis | <u>2</u> | <u>no</u> | <u>FACW</u> | 3. | |
| 7. Ludwigia spp. | <u>2</u> | <u>no</u> | <u>OBL</u> | 4. | |
| 8. Woodwardia virginica | <u>2</u> | <u>no</u> | <u>OBL</u> | 5. | |
| 9. Panicum repens | <u>2</u> | <u>no</u> | <u>FACW</u> | 2 = Total Cover | |
| 10. Rhynchospora spp. | <u>2</u> | <u>no</u> | <u>FACW</u> | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| 11. Eupatorium capillifolium | <u>2</u> | <u>no</u> | <u>FACU</u> | | |
| 12. Phyla nodiflora | <u>2</u> | <u>no</u> | <u>FACW</u> | | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------------|---|-------------------|------------------|---|---------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 |
| | | | | | | | | |
| | | | | | | | | |

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

| Hydric Soil Indicators: | Indicators for Problematic Hydric Soils ³ : |
|--|---|
| <input type="checkbox"/> Histic (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) |
| <input type="checkbox"/> Histic Epidon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input checked="" type="checkbox"/> Muck Presence (A8) (LRR U) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) | <input type="checkbox"/> Marl (F10) (LRR U) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Orchric (F11) (MLRA 151) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) | <input type="checkbox"/> Delta Orchric (F17) (MLRA 151) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) | |

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 <input checked="" type="checkbox"/> No _____ |
|--|--|

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB S
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 14 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.918767 Long: -82.563796 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |

Remarks: wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|--|---|
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) |
| _____ Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |

| | | |
|-----------------------------|--|--|
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-12</u> | |
| (includes capillary fringe) | | |

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CB S

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|---------------------|----------------------|---------------------|--|---------------------------|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>4</u> (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | <u>5</u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>80.00</u> (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | Total % Cover of: <u>0</u> = Total Cover | |
| 6. | | | | OBL species | x1= <u>0</u> |
| 7. | | | | FACW species | x2= <u>0</u> |
| | | | | FAC species | x3= <u>0</u> |
| | | | | FACU species | x4= <u>0</u> |
| | | | | UPL species | x5= <u>0</u> |
| | | | | Column Totals: | <u>0</u> (A) <u>0</u> (B) |
| | | | | Prevalance Index = B/A = _____ | |
| Sapling Stratum (Plot size: _____) | | | | Hydrophytic Vegetation Indicators: | |
| 1. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 2. | | | | Prevalance Index is $\leq 3.0^1$ | |
| 3. | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 4. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 5. | | | | Definitions of Vegetation Strata: | |
| 6. | | | | 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). | |
| 7. | | | | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| Herb Stratum (Plot size: _____) | | | | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 1. | 25 | yes | FAC | 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. | |
| 2. | 5 | yes | FACW | Woody vine- All woody vines, regardless of height. | |
| 3. | 5 | yes | FACU | | |
| 4. | 5 | yes | OBL | | |
| 5. | 2 | no | OBL | | |
| 6. | 2 | no | OBL | | |
| 7. | 2 | no | OBL | | |
| 8. | 2 | no | FACW | | |
| 9. | 2 | no | OBL | | |
| 10. | 2 | no | FACW | | |
| 11. | 2 | no | OBL | | |
| 12. | 2 | no | FACW | | |
| | 56 | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| | 0 | | | | |

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

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------------|---|-------------------|------------------|---|---------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 |
| | | | | | | | | |
| | | | | | | | | |

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

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histic (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) |
| <input type="checkbox"/> Histic Epidon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P,T,U) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input checked="" type="checkbox"/> Muck Presence (A8) (LRR U) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P,T) | <input type="checkbox"/> Marl (F10) (LRR U) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Orchric (F11) (MLRA 151) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P,T) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) | <input type="checkbox"/> Delta Orchric (F17) (MLRA 151) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) | |

Indicators for Problematic Hydric Soils³:

- 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/23/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB T
 Investigator(s): Tony Davanzo, Colleen Cunningham Section, Township, Range: 14 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.916900 Long: -82.561592 Datum: WGS84
 Soil Map Unit Name: Tavares 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses</u> | | |

HYDROLOGY

| | | |
|--|--|---|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) |
| _____ Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |

| | | |
|-----------------------------|--|--|
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2-10</u> | |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-5</u> | |
| (includes capillary fringe) | | |

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CB T

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|---------------------|----------------------|---------------------|--|------------------------|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>2</u> (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | <u>3</u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>66.67</u> (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | <u>0</u> = Total Cover | <u>0</u> = Total Cover |
| 6. | | | | <u>0</u> = Total Cover | <u>0</u> = Total Cover |
| 7. | | | | <u>0</u> = Total Cover | <u>0</u> = Total Cover |
| Sapling Stratum (Plot size: _____) | | | | Hydrophytic Vegetation Indicators: | |
| 1. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 2. | | | | <input type="checkbox"/> Prevalance Index is $\leq 3.0^1$ | |
| 3. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 4. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 5. | | | | Definitions of Vegetation Strata: | |
| 6. | | | | 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). | |
| 7. | | | | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 8. | | | | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 9. | | | | 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. | |
| 10. | | | | Woody vine- All woody vines, regardless of height. | |
| 11. | | | | | |
| 12. | | | | | |
| Herb Stratum (Plot size: _____) | | | | | |
| 1. | 30 | yes | OBL | | |
| 2. | 10 | no | FACU | | |
| 3. | 2 | no | FAC | | |
| 4. | 2 | no | FAC | | |
| 5. | 2 | no | FACW | | |
| 6. | 2 | no | FACU | | |
| 7. | 2 | no | OBL | | |
| 8. | 2 | no | FACW | | |
| 9. | 2 | no | OBL | | |
| 10. | 2 | no | FACW | | |
| 11. | | | | | |
| 12. | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | |
| 1. | 2 | yes | FACU | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 2 = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

County/soil: Citrus- Tavares

Sampling Point: CB T

SOIL

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|-----------------------------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 | | 10 YR 7/4 | | | | few medium distinct mottles | white fine sand |
| | | | | | | | | |
| | | | | | | | | |

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

Hydric Soil Indicators:

- Histic (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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/27/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB U
 Investigator(s): Colleen Cunningham Section, Township, Range: 14 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.916219 Long: -82.560354 Datum: WGS84
 Soil Map Unit Name: Tavares 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses</u> | | |

HYDROLOGY

| | |
|---|--|
| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | _____ Surface Soil Cracks (B6) |
| _____ Surface Water (A1) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Drainage Patterns (B10) |
| _____ Water Marks (B1) | _____ Moss Trim Lines (B16) |
| _____ Sediment Deposits (B2) | _____ Dry-Season Water Table (C2) |
| _____ Drift Deposits (B3) | _____ Crayfish Burrows (C8) |
| _____ Algal Mat or Crust (B4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Iron Deposits (B5) | _____ Geomorphic Position (D2) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Shallow Aquitard (D3) |
| _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |
| Field Observations: | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>> 8</u> | |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>> 2</u> (includes capillary fringe) | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: | |

VEGETATION - Use scientific names of plants

Sampling Point: CB U

| Tree Stratum (Plot size: <u> </u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: |
|---|--------------------------|----------------------|---------------------|--|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u> 3 </u> (A) Total Number of Dominant Species Across All Strata: <u> 6 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B) |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 0 = Total Cover | | | | Prevalence Index worksheet: |
| Sapling Stratum (Plot size: <u> </u>) | | | | Total % Cover of: <u> </u> Multiply by: |
| 1. | | | | OBL species <u> </u> x1= <u> </u> |
| 2. | | | | FACW species <u> </u> x2= <u> </u> |
| 3. | | | | FAC species <u> </u> x3= <u> </u> |
| 4. | | | | FACU species <u> </u> x4= <u> </u> |
| 5. | | | | UPL species <u> </u> x5= <u> </u> |
| 6. | | | | Column Totals: <u> </u> (A) <u> </u> (B) |
| 7. | | | | Prevalence Index = B/A = <u> </u> |
| 0 = Total Cover | | | | Hydrophytic Vegetation Indicators: |
| Shrub Stratum (Plot size: <u> </u>) | | | | <input checked="" type="checkbox"/> Dominance Test is 50% <input type="checkbox"/> Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. | Hypericum spp. | 2 | yes FACW | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 2. | Serenoa repens | 2 | yes FACU | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 4 = Total Cover | | | | Definitions of Vegetation Strata: |
| Herb Stratum (Plot size: <u> </u>) | | | | 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. |
| 1. | Solidago canadensis | 20 | yes FACU | |
| 2. | Woodwardia virginica | 15 | yes OBL | |
| 3. | Lachnanthes caroliniana | 15 | yes OBL | |
| 4. | Andropogon glomeratus | 10 | no FACW | |
| 5. | Andropogon virginicus | 10 | no FAC | |
| 6. | Eupatorium capillifolium | 10 | no FACU | |
| 7. | Cyperus spp. | 2 | no FACW | |
| 8. | Polygala spp. | 2 | no FAC | |
| 9. | Rhynchospora spp. | 2 | no FACW | |
| 10. | Dichanthelium spp. | 2 | no FAC | |
| 11. | Centella asiatica | 2 | no FACW | |
| 12. | Euthamia caroliniana | 2 | no NL | |
| 92 = Total Cover | | | | |
| Woody Vine Stratum (Plot size: <u> </u>) | | | | |
| 1. | Rubus spp. | 2 | yes FACU | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 2 = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Remarks: (If observed, list morphological adaptations below). Percent cover estimates based on meandering survey of the broader community. | | | | |

SOIL

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|-----------------------------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 | | 10 YR 7/4 | | | | few medium distinct mottles | white fine sand |
| | | | | | | | | |
| | | | | | | | | |

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

Hydric Soil Indicators:

- Histic (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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/27/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB V
 Investigator(s): Colleen Cunningham Section, Township, Range: 14 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.914424 Long: -82.55327 Datum: WGS84
 Soil Map Unit Name: Tavares 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses</u> | | |

HYDROLOGY

| | | |
|--|---|--|
| Wetland Hydrology Indicators: | | <u>Secondary Indicators (minimum of two required)</u> |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) |
| _____ Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>> 10</u> | |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>> 4</u> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

VEGETATION - Use scientific names of plants

Sampling Point: CB V

| Tree Stratum (Plot size: <u> </u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|---|--------------------------|-------------------|------------------|--|--|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u> 4 </u> (A) Total Number of Dominant Species Across All Strata: <u> 6 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67</u> (A/B) | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 0 = Total Cover | | | | Prevalance Index worksheet: | |
| Sapling Stratum (Plot size: <u> </u>) | | | | Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x1= <u> 0 </u> FACW species <u> </u> x2= <u> 0 </u> FAC species <u> </u> x3= <u> 0 </u> FACU species <u> </u> x4= <u> 0 </u> UPL species <u> </u> x5= <u> 0 </u> Column Totals: <u> </u> (A) <u> 0 </u> (B) | |
| 1. | | | | Prevalance Index = B/A = <u> </u> Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is 50% Prevalance Index is $\leq 3.0^1$ Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 0 = Total Cover | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| Shrub Stratum (Plot size: <u> </u>) | | | | Definitions of Vegetation Strata: | |
| 1. | Lyonia lucida | 2 | yes FACW | 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. | |
| 2. | Ilex decidua | 2 | yes FACW | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 4 = Total Cover | | | | | |
| Herb Stratum (Plot size: <u> </u>) | | | | | |
| 1. | Panicum hemitomon | 25 | yes OBL | | |
| 2. | Hyptis alata | 10 | yes OBL | | |
| 3. | Solidago canadensis | 10 | yes FACU | | |
| 4. | Euthamia caroliniana | 5 | no NL | | |
| 5. | Eupatorium capillifolium | 5 | no FACU | | |
| 6. | Lachnanthes caroliniana | 5 | no OBL | | |
| 7. | Ludwigia spp. | 2 | no OBL | | |
| 8. | Andropogon virginicus | 2 | no FAC | | |
| 9. | Ludwigia suffruticosa | 2 | no OBL | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 66 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: <u> </u>) | | | | | |
| 1. | Rubus spp. | 10 | yes FACU | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <u> </u> | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 10 = Total Cover | | | | | |
| Remarks: (If observed, list morphological adaptations below). Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|-----------------------------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 | | 10 YR 7/4 | | | | few medium distinct mottles | white fine sand |
| | | | | | | | | |
| | | | | | | | | |

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

| Hydric Soil Indicators: | Indicators for Problematic Hydric Soils ³ : |
|--|---|
| <input type="checkbox"/> Histol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) |
| <input type="checkbox"/> Histic Epidon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P,T,U) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input checked="" type="checkbox"/> Muck Presence (A8) (LRR U) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P,T) | <input type="checkbox"/> Marl (F10) (LRR U) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Orchric (F11) (MLRA 151) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P,T) |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) | <input type="checkbox"/> Delta Orchric (F17) (MLRA 151) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) | |

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 <input checked="" type="checkbox"/> No _____ |
|--|---|

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/27/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB W
 Investigator(s): Colleen Cunningham Section, Township, Range: 14 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.913392 Long: -82.557172 Datum: WGS84
 Soil Map Unit Name: Tavares 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses</u> | | |

HYDROLOGY

| | | |
|--|--|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) |
| _____ Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>> 6</u> | |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2-6</u> | |
| (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

VEGETATION - Use scientific names of plants

Sampling Point: CB W

| Tree Stratum (Plot size: <u> </u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|---|------------------|-------------------|------------------|---|----------------------|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u> 3 </u> (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | <u> 6 </u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>50.00</u> (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | Total % Cover of: Multiply by: | |
| 6. | | | | OBL species | x1= <u> 0 </u> |
| 7. | | | | FACW species | x2= <u> 0 </u> |
| | | | | FAC species | x3= <u> 0 </u> |
| | | | | FACU species | x4= <u> 0 </u> |
| | | | | UPL species | x5= <u> 0 </u> |
| | | | | Column Totals: | (A) <u> 0 </u> (B) |
| 0 = Total Cover | | | | Prevalance Index = B/A = | |
| Sapling Stratum (Plot size: <u> </u>) | | | | Hydrophytic Vegetation Indicators: | |
| 1. Salix spp. | 2 | yes | FACW | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 2. | | | | Prevalance Index is $\leq 3.0^1$ | |
| 3. | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 4. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 2 = Total Cover | | | | Definitions of Vegetation Strata: | |
| Shrub Stratum (Plot size: <u> </u>) | | | | 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). | |
| 1. Baccharis halimifolia | 10 | yes | FAC | 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. | |
| 2. Hypericum spp. | 2 | no | FACW | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 12 = Total Cover | | | | | |
| Herb Stratum (Plot size: <u> </u>) | | | | | |
| 1. Andropogon glomeratus | 20 | yes | FACW | | |
| 2. Eupatorium capillifolium | 15 | yes | FACU | | |
| 3. Euthamia caroliniana | 15 | yes | NL | | |
| 4. Solidago canadensis | 15 | yes | FACU | | |
| 5. Rhynchospora spp. | 10 | no | FACW | | |
| 6. Ludwigia suffruticosa | 10 | no | OBL | | |
| 7. Phyla nodiflora | 2 | no | FACW | | |
| 8. Andropogon virginicus | 2 | no | FAC | | |
| 9. Panicum hemitomon | 2 | no | OBL | | |
| 10. Lachnanthes caroliniana | 2 | no | OBL | | |
| 11. Polygonum spp. | 2 | no | FAC | | |
| 12. Hydrocotyle umbellata | 2 | no | OBL | | |
| 97 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: <u> </u>) | | | | | |
| 1. Rubus spp. | 10 | yes | FACU | | |
| 2. Mikania scandens | 2 | no | FACW | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 12 = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: (If observed, list morphological adaptations below). Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|-----------------------------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 | | 10 YR 7/4 | | | | few medium distinct mottles | white fine sand |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/27/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CB X
 Investigator(s): Colleen Cunningham Section, Township, Range: 14 18S 17E
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): LRR U Lat: 28.910586 Long: -82.554910 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>wet prairie wetland, grazed very low by cattle, invaded by pasture and weed grasses</u> | | |

HYDROLOGY

| | | | |
|--|--|--|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) | |
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | _____ Surface Soil Cracks (B6) | |
| <input checked="" type="checkbox"/> Surface Water (A1) | _____ Water-Stained Leaves (B9) | _____ Sparsely Vegetated Concave Surface (B8) | |
| _____ High Water Table (A2) | _____ Aquatic Fauna (B13) | _____ Drainage Patterns (B10) | |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Marl Deposits (B15) (LRR U) | _____ Moss Trim Lines (B16) | |
| _____ Water Marks (B1) | _____ Hydrogen Sulfide Odor (C1) | _____ Dry-Season Water Table (C2) | |
| _____ Sediment Deposits (B2) | _____ Oxidized Rhizospheres on Living Roots (C3) | _____ Crayfish Burrows (C8) | |
| _____ Drift Deposits (B3) | _____ Presence of Reduced Iron (C4) | _____ Saturation Visible on Aerial Imagery (C9) | |
| _____ Algal Mat or Crust (B4) | _____ Recent Iron Reduction in Tilled Soils (C6) | _____ Geomorphic Position (D2) | |
| _____ Iron Deposits (B5) | _____ Thin Muck Surface (C7) | _____ Shallow Aquitard (D3) | |
| _____ Inundation Visible on Aerial Imagery (B7) | _____ Other (Explain in Remarks) | _____ FAC Neutral Test (D5) | |
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Surface Water Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-12</u> | | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-10</u> | | |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-5</u> | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | |
| Remarks: | | | |

VEGETATION - Use scientific names of plants

Sampling Point: CB X

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|------------------|-------------------|------------------|--|--------------------|
| 1. | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>5</u> (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | <u>6</u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>83.33</u> (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | Total % Cover of: Multiply by: | |
| 6. | | | | OBL species _____ | x1= <u>0</u> |
| 7. | | | | FACW species _____ | x2= <u>0</u> |
| 0 = Total Cover | | | | FAC species _____ | x3= <u>0</u> |
| Sapling Stratum (Plot size: _____) | | | | FACU species _____ | x4= <u>0</u> |
| 1. Salix spp. | 10 | yes | FACW | UPL species _____ | x5= <u>0</u> |
| 2. | | | | Column Totals: _____ | (A) <u>0</u> (B) |
| 3. | | | | Prevalance Index = B/A = | |
| 4. | | | | Hydrophytic Vegetation Indicators: | |
| 5. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| 6. | | | | Prevalance Index is $\leq 3.0^1$ | |
| 7. | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 10 = Total Cover | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| Shrub Stratum (Plot size: _____) | | | | Definitions of Vegetation Strata: | |
| 1. Baccharis halimifolia | 5 | yes | FAC | 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). | |
| 2. | | | | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 3. | | | | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 4. | | | | 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. | |
| 5. | | | | Woody vine- All woody vines, regardless of height. | |
| 6. | | | | | |
| 7. | | | | | |
| 5 = Total Cover | | | | | |
| Herb Stratum (Plot size: _____) | | | | | |
| 1. Rhynchospora spp. | 20 | yes | FACW | | |
| 2. Panicum hemitomon | 20 | yes | OBL | | |
| 3. Panicum repens | 15 | yes | FACW | | |
| 4. Andropogon virginicus | 10 | no | FAC | | |
| 5. Bidens mitis | 5 | no | OBL | | |
| 6. Solidago canadensis | 5 | no | FACU | | |
| 7. Andropogon glomeratus | 5 | no | FACW | | |
| 8. Euthamia caroliniana | 2 | no | NL | | |
| 9. Hyptis alata | 2 | no | OBL | | |
| 10. Xyris spp. | 2 | no | OBL | | |
| 11. Fuirena spp. | 2 | no | OBL | | |
| 12. Typha spp. | 2 | no | OBL | | |
| 90 = Total Cover | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | |
| 1. Rubus spp. | 2 | yes | FACU | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 2 = Total Cover | | | | | |
| Remarks: (If observed, list morphological adaptations below). | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

County/soil: Citrus- Water

SOIL

Sampling Point: CB X

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/14/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS Q
 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: 28.961395 Long: -82.610479 Datum: WGS84
 Soil Map Unit Name: Quartzipsammments NWI classification: shrub wetland

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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: <u>Depressional scrub-shrub wetland, grazed by cattle</u> | | |

HYDROLOGY

| | |
|---|---|
| Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u><10</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>4</u> (includes capillary fringe) | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____ _____ _____ | |
| Remarks: _____ _____ _____ | |

VEGETATION - Use scientific names of plants

Sampling Point: CS Q

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|------------------|-------------------|------------------|--|---------------------|
| 1. Sabal palmetto | 1 | yes | FAC | Number of Dominant Species That Are OBL, FACW, or FAC: | 2 (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | 4 (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | 50.00 (A/B) |
| 4. | | | | Prevalance Index worksheet: | |
| 5. | | | | Total % Cover of: <u>1</u> = Total Cover | |
| 6. | | | | Multiply by: | |
| 7. | | | | OBL species | x1= _____ |
| Sapling Stratum (Plot size: _____) | | | | FACW species | x2= _____ |
| 1. | | | | FAC species | x3= _____ |
| 2. | | | | FACU species | x4= _____ |
| 3. | | | | UPL species | x5= _____ |
| 4. | | | | Column Totals: | (A) _____ (B) _____ |
| 5. | | | | Prevalance Index = B/A = _____ | |
| 6. | | | | Hydrophytic Vegetation Indicators: | |
| 7. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| Shrub Stratum (Plot size: _____) | | | | <input type="checkbox"/> Prevalance Index is $\leq 3.0^1$ | |
| 1. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 2. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 3. | | | | Definitions of Vegetation Strata: | |
| 4. | | | | 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). | |
| 5. | | | | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 6. | | | | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 7. | | | | 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. | |
| 8. | | | | Woody vine- All woody vines, regardless of height. | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| Herb Stratum (Plot size: _____) | | | | 0 = Total Cover | |
| 1. Eupatorium capillifolium | 10 | yes | FACU | | |
| 2. Centella spp. | 10 | yes | FACW | | |
| 3. Phyla nodiflora | 5 | no | FACW | | |
| 4. Pluchea spp. | 5 | no | FACW | | |
| 5. Solidago spp. | 1 | no | FACU | | |
| 6. Lygodium japonicum | 1 | no | FAC | | |
| 7. Lygodium microphyllum | 1 | no | NL | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | 33 = Total Cover | |
| 1. Rubus spp. | 10 | yes | FACU | | |
| 2. Ampelopsis arborea | 1 | no | FAC | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| Hydrophytic Vegetation Present? | | | | Yes <input checked="" type="checkbox"/> No _____ | |
| | | | | 11 = Total Cover | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

| | | |
|--|---|---|
| Hydric Soil Indicators: <input type="checkbox"/> Histol (A1) <input type="checkbox"/> Histic Epidon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P,T,U) <input checked="" type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P,T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Orchric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P,T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Orchric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) | Indicators for Problematic Hydric Soils ³: <input type="checkbox"/> 1 cm Muck (a9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) (LRR T, U) <input type="checkbox"/> 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:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, CB Line City/County: Citrus Sampling Date: 10/14/09
 Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS R
 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: 28.960896 Long: -82.614054 Datum: WGS84
 Soil Map Unit Name: Tavares fine sand NWI classification: Shrub wetland

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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: Depressional scrub-shrub wetland with small upland inclusions | | |

HYDROLOGY

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

| | | | |
|--|--|-----------------------|--|
| Field Observations: | | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): < 10 | |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): < 10 | |

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CS R

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: | |
|--|------------------|-------------------|------------------|--|---------------------|
| 1. <i>Quercus laurifolia</i> | 30 | yes | FACW | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>6</u> (A) |
| 2. <i>Sabal palmetto</i> | 1 | no | FAC | Total Number of Dominant Species Across All Strata: | <u>6</u> (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>100.00</u> (A/B) |
| 4. | | | | Prevalence Index worksheet: | |
| 5. | | | | Total % Cover of: <u>31</u> = Total Cover | |
| 6. | | | | Multiply by: | |
| 7. | | | | OBL species | x1= _____ |
| Sapling Stratum (Plot size: _____) | | | | FACW species | x2= _____ |
| 1. <i>Salix</i> spp. | 30 | yes | FACW | FAC species | x3= _____ |
| 2. | | | | FACU species | x4= _____ |
| 3. | | | | UPL species | x5= _____ |
| 4. | | | | Column Totals: | _____ (A) _____ (B) |
| 5. | | | | Prevalence Index = B/A = _____ | |
| 6. | | | | Hydrophytic Vegetation Indicators: | |
| 7. | | | | <input checked="" type="checkbox"/> Dominance Test is 50% | |
| Shrub Stratum (Plot size: _____) | | | | <input type="checkbox"/> Prevalence Index is $\leq 3.0^1$ | |
| 1. <i>Myrica cerifera</i> | 1 | yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 2. <i>Baccharis halimifolia</i> | 1 | yes | FAC | | |
| 3. | | | | | |
| 4. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 5. | | | | Definitions of Vegetation Strata: | |
| 6. | | | | 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). | |
| 7. | | | | Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 8. | | | | Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | |
| 9. | | | | 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. | |
| 10. | | | | Woody vine- All woody vines, regardless of height. | |
| 11. | | | | | |
| 12. | | | | | |
| Herb Stratum (Plot size: _____) | | | | | |
| 1. <i>Panicum hemitomon</i> | 30 | yes | OBL | | |
| 2. <i>Phyla nodiflora</i> | 1 | no | FACW | | |
| 3. <i>Eupatorium capillifolium</i> | 1 | no | FACU | | |
| 4. <i>Pluchea</i> spp. | 1 | no | FACW | | |
| 5. <i>Hyptis alata</i> | 1 | no | OBL | | |
| 6. <i>Centella asiatica</i> | 1 | no | FACW | | |
| 7. <i>Andropogon glomeratus</i> | 1 | no | FACW | | |
| 8. <i>Ambrosia</i> spp. | 1 | no | FAC | | |
| 9. <i>Sagittaria latifolia</i> | 1 | no | OBL | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | |
| 1. <i>Ampelopsis arborea</i> | 1 | yes | FAC | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| Total % Cover = <u>38</u> | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Total % Cover = <u>1</u> | | | | | |
| Remarks: (If observed, list morphological adaptations below). | | | | | |
| Percent cover estimates based on meandering survey of the broader community. | | | | | |

County/soil: Citrus- Tavares

SOIL

Sampling Point: CS R

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|--------------------------------|------------------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 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 | | 10 YR 7/4 | | | | few medium distinct mottles | white fine sand |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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:

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. **28.910587° N**, Long. **-82.555199° 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: **January 27, 2010**.

Field Determination. Date(s): **October 14, 2009, November 4, 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 waters² (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: **Livestock ponds CB A and CB N and Wetlands CB B, CB C, CB D, CB E, CB F, CB G, CB H, CB I, CB J, CB K, CB L, CB M, CB O, CB P, CB Q, CB R, CB S, CB T, CB U, CB V, CB W, CB X, CS Q, and CS R totaling 24.06**

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.

acres are not jurisdictional because they are hydrologically isolated 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 Crystal River 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

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 waterbody⁴ 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 TNW⁵.
 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
 OHWM⁶ (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;
 physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges

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.

⁷Ibid.

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)

All wetland(s) being considered in the cumulative analysis: Approximately ----is being considered in the cumulative analysis

For each wetland, specify the following:

| | | | |
|------------------------------|------------------------|------------------------------|------------------------|
| <u>Directly abuts? (Y/N)</u> | <u>Size (in acres)</u> | <u>Directly abuts? (Y/N)</u> | <u>Size (in acres)</u> |
|------------------------------|------------------------|------------------------------|------------------------|

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-RPWs⁸ 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 jurisdictional. 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).

⁸See Footnote # 3.

⁹To 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: **Livestock ponds CB A and CB N and Wetlands CB B, CB C, CB D, CB E, CB F, CB G, CB H, CB I, CB J, CB K, CB L, CB M, CB O, CB P, CB Q, CB R, CB S, CB T, CB U, CB V, CB W, CB X, CS Q, and CS R totaling 24.06 acres are not jurisdictional because they are hydrologically isolated 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 Crystal River TNW**
- 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: **24.06 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.

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: **Crystal River - Brookridge Transmission Line Wetlands CB A through CB X, CS Q, CS R**

- 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 Geodetic 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 Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | | Application Number | Assessment Area Name or Number FLUCFCS 534 - Wetlands CB A and CB N | |
| FLUCCs code 534 - Reservoirs less than 10 acres | Further classification (optional) Cattle Ponds | | Impact or Mitigation Site? Existing Condition | Assessment Area Size 1.45 acres (CB A=0.46, CB N=0.99) |
| Basin/Watershed Name/Number Crystal River to St. Pete/03100207 | Affected Waterbody (Class) | Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None | | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Isolated ponds within maintained transmission line ROW; cattle ponds, adjacent to areas of upland forest | | | | |
| Assessment area description Ponds excavated within upland pasture with herbaceous fringe that is heavily grazed and impacted by off-road vehicle (ORV) traffic. Vegetative community includes mixture of native and nuisance/exotic species, such as torpedo grass (<i>Panicum repens</i>), shrubby primrose willow (<i>Ludwigia suffruticosa</i>), marsh seedbox (<i>Ludwigia palustris</i>), capweed (<i>Phyla nodiflora</i>), marsh pennywort (<i>Hydrocotyle umbellata</i>), spikerush (<i>Eleocharis</i> sp.), maidencane (<i>Panicum hemitomon</i>), and water lily (<i>Nymphaea</i> sp.). | | | | |
| Significant nearby features Existing transmission line ROW, dirt roads utilized by recreational vehicle traffic | | Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique | | |
| Functions Water storage for cattle | | Mitigation for previous permit/other historic use 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) Wading birds, raccoon, white tailed deer, sunfish, mosquitofish, various amphibians and herpetofauna | | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) 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.): Wood ducks, barred owl, Florida cooter | | | | |
| Additional relevant factors: | | | | |
| Assessment conducted by: C. Cunningham, A. Davanzo | | Assessment date(s): 10/23/2009 | | |

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

| | | |
|--|---|--|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | Application Number | Assessment Area Name or Number FLUCFCS 534 - Wetlands CB A and CB N |
| Impact or Mitigation Existing Condition | Assessment conducted by: C. Cunningham, A. Davanzo | Assessment date: 10/23/2009 |

| |
|--|
| Scoring Guidance |
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed |

| Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|--|---|--|
| 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 | Location and landscape support variable is reduced due to location of excavated cattle pond within maintained transmission line ROW. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 5, reduced due to disturbance from cattle; b) Invasive exotic species = 4, moderate coverage of torpedo grass and primrose willow; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by transmission line ROW and surrounding agricultural habitats and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 0, area isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 6, reduced due to surrounding agricultural uses and clearing of native habitat; f) Hydrologically connected areas downstream of assessment area = 0, no hydrologic connection; g) Dependency of downstream areas on assessment area = 0, no benefit to downstream areas. | |
| | w/o pres or current 6 | with 0 |
| .500(6)(b)Water Environment (n/a for uplands) | The water environment score is reduced due to impacts from historical landclearing for pasture and drought conditions. Individual parameter scores: a) water levels and flows = 4, artificial nature of cattle ponds, no outflow; b) water level indicators = 5, upland excavated ponds; c) soil moisture = 7, consistent with expected; d) soil erosion or deposition = 5, erosion from cattle; e) evidence of fire history = N/A; f) vegetation community zonation = 5, artificial system; g) hydrologic stress on vegetation = 7, not apparent; h) use by animal species with specific hydrological requirements = 5, due to lack of open water connection; i) vegetative species tolerant of and associated with water quality degradation = 4, indication of high nutrients, exotic species; j) direct observation of water quality = 3, high nutrients evident due to algal growth and nuisance/exotic vegetation; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A. | |
| | w/o pres or current 5 | with 0 |
| .500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community | The community structure variable is reduced due to impacts from grazing cattle and artificial nature of excavated, isolated ponds. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 5, only emergent community, with non-desirable wetland species evident; b) invasive exotics or other invasive plant species = 4, extensive coverage of torpedo grass and primrose willow; c) regeneration and recruitment = 4, artificial system, recruitment impacted by cattle and diminished hydroperiod; d) age & size distribution = 4, typical of artificial cattle pond system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 5, reduced due to grazing cattle; g) land management practices = 5, due to alteration of community structure by cattle; h) topographic features = 3, artificial excavated system; i) siltation or algal growth in submerged aquatic plant communities = N/A | |
| | w/o pres or current 5 | with 0 |

| | |
|---|------|
| Score = sum of above scores/30 (if uplands, divide by 20) | |
| current | with |
| or w/o pres 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 = 0 |

| |
|------------------------|
| 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 Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | | Application Number | Assessment Area Name or Number FLUCFCS 618 - Wetlands CS Q and CS R | |
| FLUCCs code 618 - Willow Shrub Marsh | Further classification (optional) | | Impact or Mitigation Site? Existing Condition | Assessment Area Size 1.47 acres (CS Q=0.10, CS R=1.37) |
| Basin/Watershed Name/Number Crystal River to St. Pete/03100207 | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None | | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Isolated shrub marshes within cleared transmission line ROW. | | | | |
| Assessment area description Shrub wetlands impacted by cattle grazing and diminished hydroperiod. Vegetative community dominated by coastal plain willow (<i>Salix caroliniana</i>), with wax myrtle (<i>Myrica cerifera</i>), groundsel tree (<i>Baccharis halimifolia</i>), laurel oak (<i>Quercus laurifolia</i>), and shining sumac (<i>Rhus copallina</i>) present, as well as maidencane (<i>Panicum hemitomon</i>), dogfennel (<i>Eupatorium capillifolium</i>), coinwort (<i>Centella asiatica</i>), capeweed (<i>Phyla nodiflora</i>), and marsh fleabane (<i>Pluchea odorata</i>). Nuisance/exotic species japanese climbing fern (<i>Lygodium japonicum</i>) also present. | | | | |
| Significant nearby features Cleared transmission line ROW | | Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique | | |
| Functions Wildlife habitat, water storage, aquifer recharge | | Mitigation for previous permit/other historic use 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) Wading birds, raccoon, various amphibians and herpetofauna | | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) 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 shouldered hawk, catbird, gopher tortoises in adjacent uplands | | | | |
| Additional relevant factors: | | | | |
| Assessment conducted by: M. Arrants, C. Cunningham, K. Bullock | | Assessment date(s): 10/14/2009 | | |

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

| | | |
|--|---|--|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | Application Number | Assessment Area Name or Number FLUCFCS 618 - Wetlands CS Q and CS R |
| Impact or Mitigation Existing Condition | Assessment conducted by: M. Arrants, C. Cunningham, K. Bullock | Assessment date: 10/14/2009 |

| |
|--|
| Scoring Guidance |
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed |

| | | | |
|---|--|---|--|
| Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
| 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 | Location and landscape support variable is reduced due to location of wetlands 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 of japanese climbing fern; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding habitat loss; d) functions that benefit fish & wildlife downstream-distance or barriers = 2, areas 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 = 2, no hydrologic connection; g) Dependency of downstream areas on assessment area = 2, little benefit to downstream areas. |
| w/o pres or current | with |
| 6 | 0 |
| .500(6)(b)Water Environment (n/a for uplands) | The water environment score is reduced due to impacts from landclearing and cattle. Individual parameter scores: a) water levels and flows = 6, altered due to clearing of transmission line ROW, decreased hydroperiod; b) water level indicators = 6, decreased compared to typical assessment area; c) soil moisture = 6, decreased compared to typical assessment area; d) soil erosion or deposition = 6, erosion from cattle; 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. |
| w/o pres or current | with |
| 6 | 0 |
| .500(6)(c)Community structure | The community structure variable is reduced due to presence of nuisance species of vegetation, grazing impacts, and upland species encroachment. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, primarily native wetland species, some exotic and upland species present; b) invasive exotics or other invasive plant species = 7, moderate coverage; c) regeneration and recruitment = 6, impacted by mowing, grazing; d) age & size distribution = 5, altered due to grazing and maintenance of ROW; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to grazing, ROW maintenance; g) land management practices = 6, due to alteration of community structure by clearing of adjacent native uplands; h) topographic features = 6, typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A |
| 1. Vegetation and/or | |
| 2. Benthic Community | |
| w/o pres or current | with |
| 6 | 0 |

| | |
|---|---|
| Score = sum of above scores/30 (if uplands, divide by 20) | |
| current | |
| or w/o pres | |
| with | |
| 0.60 | 0 |

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|----------------------------------|
| If preservation as mitigation, |
| Preservation adjustment factor = |
| Adjusted mitigation delta = |

| |
|------------------------------------|
| For impact assessment areas |
| FL = delta x acres = -0.60 x 0 = 0 |

| |
|------------------------|
| Delta = [with-current] |
| -0.60 |

| |
|-----------------------|
| 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 Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | | Application Number | | Assessment Area Name or Number FLUCFCS 641 - Wetlands CB O, CB P, CB Q, CB R, CB S | |
| FLUCCs code 641 - Freshwater Marshes | | Further classification (optional) | | Impact or Mitigation Site? Existing Condition | |
| | | | | Assessment Area Size 4.11 acres (CB O=0.21, CB P=0.30, CB Q=1.33, CB R=1.56, CB S=0.71) | |
| Basin/Watershed Name/Number Crystal River to St. Pete/03100207 | | Affected Waterbody (Class) | | Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Hydrologically isolated from other wetlands. Surrounded by upland forest and scrub, pasture, and cleared transmission line ROW. | | | | | |
| Assessment area description Isolated freshwater marshes vegetated with mixture of native and nuisance/exotic wetland species including bushy broomsedge (<i>Andropogon glomeratus</i>), dofennel (<i>Eupatorium capillifolium</i>), capeweed (<i>Phyla nodiflora</i>), carpetgrass (<i>Axonopus</i> sp.), slender flattop goldenrod (<i>Euthamia minor</i>), beaksedges (<i>Rhynchospora</i> sp.), coastal plain willow (<i>Salix caroliniana</i>), buttonbush (<i>Cephalanthus occidentalis</i>), torpedo grass (<i>Panicum repens</i>), cattail (<i>Typha latifolia</i>), coinwort (<i>Centella asiatica</i>), umbrellasedge (<i>Fuirena</i> sp), goldenrod (<i>Solidago canadensis</i>), needlepod rush (<i>Juncus scirpoides</i>), and buttonbush (<i>Cephalanthus occidentalis</i>). Sparse canopy of occasional laurel oak (<i>Quercus laurifolia</i>) and red maple (<i>Acer rubrum</i>) within wetland. Impacted by off-road vehicle disturbance. | | | | | |
| Significant nearby features Existing transmission line ROW | | | Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique | | |
| Functions Wildlife habitat, water storage, aquifer recharge | | | Mitigation for previous permit/other historic use 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) Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna | | | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) 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.): Green tree frog, cooper's hawk | | | | | |
| Additional relevant factors: | | | | | |
| Assessment conducted by: C. Cunningham, A. Davanzo | | | Assessment date(s): 10/22/2009 | | |

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

| | | |
|--|---|---|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | Application Number | Assessment Area Name or Number FLUCFCS 641 - Wetlands CB O, CB P, CB Q, CB R, CB S |
| Impact or Mitigation Existing Condition | Assessment conducted by: C. Cunningham, A. Davanzo | Assessment date: 10/22/2009 |

| | | | | |
|--|---|--|---|--|
| Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
| | 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 | Location and landscape support variable slightly reduced due to location within cleared transmission line and adjacent residential areas. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 6, reduced due to adjacent landuses; b) Invasive exotic species = 6, moderate coverage of torpedo grass and cattail; c) Wildlife access to and from outside = 6, decreased due to limitations imposed by surrounding residential areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 0, area isolated from other aquatic 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 = 0, no hydrologic connection; g) Dependency of downstream areas on assessment area = 0, no benefit to downstream areas. | |
| | w/o pres or current 6 | with 0 |
| .500(6)(b)Water Environment (n/a for uplands) | The water environment score is slightly reduced due to impacts from agricultural and residential areas, off-road vehicle impact, and drought conditions. Individual parameter scores: a) water levels and flows = 5, alterations in water level due to drought conditions; b) water level indicators = 4, less than expected; c) soil moisture = 4, less than expected; d) soil erosion or deposition = 8, minimal; e) evidence of fire history = N/A; f) vegetation community zonation = 6, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 7, not apparent; h) use by animal species with specific hydrological requirements = 7, beneficial ephemeral habitat; i) vegetative species tolerant of and associated with water quality degradation = 7, 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. | |
| | w/o pres or current 5 | with 0 |
| .500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community | The community structure variable is slightly reduced due to presence of nuisance/exotic species, encroachment of upland species, and off-road vehicle impacts. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, dominated by desirable native wetland species, exotic species present; b) invasive exotics or other invasive plant species = 5, moderate coverage by cattail and torpedo grass; c) regeneration and recruitment = 6, somewhat impacted by diminished hydroperiod; d) age & size distribution = 5, reduced; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 5, reduced due to drought; g) land management practices = 5, 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 | |
| | w/o pres or current 6 | with 0 |

| | |
|---|------|
| Score = sum of above scores/30 (if uplands, divide by 20) | |
| current | with |
| or w/o pres 0.57 | 0 |

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| If preservation as mitigation, |
| Preservation adjustment factor = |
| Adjusted mitigation delta = |

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|------------------------------------|
| For impact assessment areas |
| FL = delta x acres = -0.57 x 0 = 0 |

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|------------------------|
| 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 Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | | Application Number | | Assessment Area Name or Number FLUCFCS 641 - Wetlands CB C, CB F, CB G, CB H, CB I, CB T, CB V, CB W | |
| FLUCCs code 641 - Freshwater Marshes | | Further classification (optional) | | Impact or Mitigation Site? Existing Condition | |
| | | | | Assessment Area Size 5.37 acres (CB C=1.38, CB F=0.28, CB G=0.50, CB H=0.76, CB I=1.29, CB T=0.05, CB V=0.49, CB W=0.62) | |
| Basin/Watershed Name/Number Crystal River to St. Pete/03100207 | | Affected Waterbody (Class) | | Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Hydrologically isolated from other wetlands. Surrounded by upland forest and scrub, pasture, and cleared transmission line ROW. | | | | | |
| Assessment area description Isolated freshwater marshes vegetated with mixture of native wetland species including broomsedge bluestem (<i>Andropogon virginicus</i>), maidencane (<i>Panicum hemitomon</i>), umbrella sedge (<i>Fuirena</i> sp), beggarticks (<i>Bidens mitis</i>), goldenrod (<i>Solidago canadensis</i>), bushmint (<i>Hyptis</i> sp.), and redroot (<i>Lachnanthes caroliana</i>). Upland species have encroached within the wetlands, due to droughty conditions. | | | | | |
| Significant nearby features Existing transmission line ROW | | | Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique | | |
| Functions Wildlife habitat, water storage, aquifer recharge | | | Mitigation for previous permit/other historic use 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) Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna | | | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) 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.): | | | | | |
| Additional relevant factors: | | | | | |
| Assessment conducted by: C. Cunningham, A. Davanzo | | | Assessment date(s): 10/23/2009 | | |

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

| | | |
|--|---|---|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | Application Number | Assessment Area Name or Number FLUCFCS 641 - Wetlands CB C, CB F, CB G, CB H, CB I, CB T, CB V, CB W |
| Impact or Mitigation Existing Condition | Assessment conducted by: C. Cunningham, A. Davanzo | Assessment date: 10/12/2009 |

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|--|
| Scoring Guidance |
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed |

| Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|--|---|--|
| 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 | Location and landscape support variable is reduced somewhat due to location of wetland within transmission line and adjacent residential and agricultural development. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to disturbance from cattle or logging in some areas; b) Invasive exotic species = 7, minimal coverage; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by surrounding agricultural areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 0, area isolated from other habitats; 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 = 0, no hydrologic connection; g) Dependency of downstream areas on assessment area = 0, no benefit to downstream areas. | | | | |
| <table border="1"> <tr> <td>w/o pres or current</td> <td>with</td> </tr> <tr> <td align="center">7</td> <td align="center">0</td> </tr> </table> | w/o pres or current | with | 7 | 0 | |
| w/o pres or current | with | | | | |
| 7 | 0 | | | | |
| .500(6)(b) Water Environment (n/a for uplands) | The water environment score is slightly reduced due to impacts from landclearing for pasture and transmission line and drought conditions. Individual parameter scores: a) water levels and flows = 6, slight alterations in water level due to artificial nature of the surrounding areas and drought conditions; b) water level indicators = 4, less than expected; c) soil moisture = 4, less than expected; d) soil erosion or deposition = 5, erosion from cattle and ORVs; e) evidence of fire history = N/A; f) vegetation community zonation = 5, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 5; h) use by animal species with specific hydrological requirements = 4, due to lack of open water connection; i) vegetative species tolerant of and associated with water quality degradation = 7, community consists of typical species; j) direct observation of water quality = 7, none noted; k) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A. | | | | |
| <table border="1"> <tr> <td>w/o pres or current</td> <td>with</td> </tr> <tr> <td align="center">6</td> <td align="center">0</td> </tr> </table> | w/o pres or current | with | 6 | 0 | |
| w/o pres or current | with | | | | |
| 6 | 0 | | | | |
| .500(6)(c) Community structure | The community structure variable is slightly reduced due to impacts from grazing cattle and encroachment of upland species. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, dominated by native wetland species, but many facultative; b) invasive exotics or other invasive plant species = 6, some coverage; c) regeneration and recruitment = 5, somewhat impacted by cattle, ORV traffic, and diminished hydroperiod; d) age & size distribution = 7, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to grazing cattle and ORV damage; g) land management practices = 6, due to alteration of community structure by cattle and ORVs; h) topographic features = 7, typical for assessment area, slightly reduced; i) siltation or algal growth in submerged aquatic plant communities = N/A | | | | |
| <table border="1"> <tr> <td>w/o pres or current</td> <td>with</td> </tr> <tr> <td align="center">6</td> <td align="center">0</td> </tr> </table> | w/o pres or current | with | 6 | 0 | |
| w/o pres or current | with | | | | |
| 6 | 0 | | | | |

| | |
|---|------|
| Score = sum of above scores/30 (if uplands, divide by 20) | |
| current or w/o pres | with |
| 0.63 | 0 |

| |
|----------------------------------|
| If preservation as mitigation, |
| Preservation adjustment factor = |
| Adjusted mitigation delta = |

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|------------------------------------|
| For impact assessment areas |
| FL = delta x acres = -0.63 x 0 = 0 |

| |
|------------------------|
| Delta = [with-current] |
| -0.63 |

| |
|-----------------------|
| 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 Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | | Application Number | Assessment Area Name or Number FLUCFCS 641 - Wetlands CB E, CB K, CB U, CB X |
| FLUCCs code 641 - Freshwater Marshes | Further classification (optional) | Impact or Mitigation Site? Impact | Assessment Area Size 8.72 acres (CB E=1.21, CB K=4.55, CB U=0.61, CB X=2.35) |
| Basin/Watershed Name/Number Crystal River to St. Pete/03100207 | Affected Waterbody (Class) | Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Hydrologically isolated wetlands. Wetland U is cleared portion of forested wetland extending off of the ROW. Wetlands surrounded by upland forest and scrub, pasture, and cleared transmission line ROW | | | |
| Assessment area description Freshwater marshes vegetated with mixture of native wetland species including bushy broomsedge (<i>Andropogon glomeratus</i>), buttonbush (<i>Cephalanthus occidentalis</i>), coastal plain willow (<i>Salix caroliniana</i>), flattop goldenrod (<i>Euthamia caroliniana</i>), and redroot (<i>Lachnanthes caroliniana</i>). Upland species have encroached within the wetlands, due to droughty conditions. Some vegetation and soil disturbance due to off-road vehicle (ORV) traffic | | | |
| Significant nearby features Existing transmission line ROW | Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique | | |
| Functions Wildlife habitat, water storage, aquifer recharge | Mitigation for previous permit/other historic use 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) Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) 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.): Great blue heron, snipe, bobwhite quail | | | |
| Additional relevant factors: | | | |
| Assessment conducted by: C. Cunningham, A. Davanzo | | Assessment date(s): 10/22/2009 | |

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

| | | |
|--|---|---|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | Application Number | Assessment Area Name or Number FLUCFCS 641 - Wetlands CB E, CB K, CB U, CB X |
| Impact or Mitigation Impact - Fill | Assessment conducted by: C. Cunningham, A. Davanzo | Assessment date: 10/22/2009 |

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| Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed |
|---|

| Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|--|---|--|
| 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 |

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|---|---|
| <p>.500(6)(a) Location and Landscape Support</p> <p>w/o pres or current: 7 with: 0</p> | <p>Location and landscape support variable is reduced somewhat due to location of wetlands within transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, slightly reduced due to disturbance from cattle, selective logging, and off road vehicle (ORV) traffic ; b) Invasive exotic species = 8, minimal coverage; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by surrounding agricultural and residential areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 4, wetlands are isolated from downstream habitats; 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 = 4, wetlands have no hydrologic connection; g) Dependency of downstream areas on assessment area = 2, little to no benefit to downstream areas.</p> |
| <p>.500(6)(b) Water Environment (n/a for uplands)</p> <p>w/o pres or current: 6 with: 0</p> | <p>The water environment score is slightly reduced due to impacts from historical landclearing for transmission line ROW and drought conditions. Individual parameter scores: a) water levels and flows = 6, alterations in water level due to artificial nature of the surrounding areas and drought conditions; b) water level indicators = 6, less than expected; c) soil moisture = 4, less than expected; d) soil erosion or deposition = 6, erosion from recreational vehicle traffic; e) evidence of fire history = N/A; f) vegetation community zonation = 5, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 6, not apparent; h) use by animal species with specific hydrological requirements = 5, due to lack of open water connection; i) vegetative species tolerant of and associated with water quality degradation = 7, community consists of typical species; j) direct observation of water quality = 7, none noted; K) existing water quality data = N/A; l) water depth wave, wave energy, currents and light penetration = N/A.</p> |
| <p>.500(6)(c) Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>w/o pres or current: 7 with: 0</p> | <p>The community structure variable is slightly reduced due to impacts from ORV traffic and 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 = 7, minimal coverage; c) regeneration and recruitment = 5, somewhat impacted by ORV traffic and diminished hydroperiod; d) age & size distribution = 7, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, slightly reduced due to ORV traffic and drought conditions; g) land management practices = 6, due to alteration of community structure; h) topographic features = 7, typical for assessment area, slightly reduced due to ORV traffic uses; i) siltation or algal growth in submerged aquatic plant communities = N/A</p> |

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|---|
| Score = sum of above scores/30 (if uplands, divide by 20) |
| current or w/o pres: 0.67 with: 0 |

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| If preservation as mitigation, |
| Preservation adjustment factor = |
| Adjusted mitigation delta = |

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| For impact assessment areas |
| FL = delta x acres = -0.67 x 0.20 = 0.13 (Wetland CB K) |

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|------------------------|
| Delta = [with-current] |
| -0.67 |

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|-----------------------|
| 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.)**

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|---|-----------------------------------|--|--|--|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | | Application Number | Assessment Area Name or Number FLUCFCS 643 - Wetlands CB D, CB J, CB L, CB M | |
| FLUCCs code 643 - Wet Prairies | Further classification (optional) | | Impact or Mitigation Site? Existing Condition | Assessment Area Size 2.74 acres (CB D=0.41, CB J=0.96, CB L=1.04, CB M=0.33) |
| Basin/Watershed Name/Number Crystal River to St. Pete/03100207 | Affected Waterbody (Class) | Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None | | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Hydrologically isolated, surrounded by upland forest and scrub and limited residential development. | | | | |
| Assessment area description Isolated wet prairie vegetated with mixture of native wetland species including bushy broomsedge (<i>Andropogon glomeratus</i>), maidencane (<i>Panicum hemitomon</i>), redroot (<i>Lachnanthes caroliniana</i>), capeweed (<i>Phyla nodiflora</i>), Savannah false pimpernel (<i>Lindernia grandiflora</i>), marshpennywort (<i>Hydrocotyle umbellata</i>), buttonbush (<i>Cephalanthus occidentalis</i>), and groundsel bush (<i>Baccharis halimifolia</i>). Occasional cabbage palm (<i>Sabal palmetto</i>) and laurel oak (<i>Quercus laurifolia</i>) along wetland perimeter. | | | | |
| Significant nearby features Existing transmission line ROW | | Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique | | |
| Functions Wildlife habitat, water storage, aquifer recharge | | Mitigation for previous permit/other historic use 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) Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna | | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) 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.): None observed | | | | |
| Additional relevant factors: | | | | |
| Assessment conducted by: C. Cunningham, A. Davanzo | | Assessment date(s): 10/23/2009 | | |

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

| | | |
|--|---|---|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | Application Number | Assessment Area Name or Number FLUCFCS 643 - Wetlands CB D, CB J, CB L, CB M |
| Impact or Mitigation Existing Condition | Assessment conducted by: C. Cunningham, A. Davanzo | Assessment date: 10/23/2009 |

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|---|
| Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed |
|---|

| Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|--|---|--|
| 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 |

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|---|---|
| .500(6)(a) Location and Landscape Support | Location and landscape support variable slightly reduced due to location in cattle pasture, and proximity of residential areas and transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7, somewhat reduced due to adjacent landuses; b) Invasive exotic species = 7, some coverage; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by surrounding residential areas and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 4, area isolated from other habitats; 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 = 4, no hydrologic connection; g) Dependency of downstream areas on assessment area = 4, no benefit to downstream areas. |
| w/o pres or current | with |
| 7 | 0 |
| .500(6)(b)Water Environment (n/a for uplands) | The water environment score is slightly reduced due to impacts from drought conditions and clearing of the transmission line ROW. Individual parameter scores: a) water levels and flows = 5, alterations in water level due to drought conditions; b) water level indicators = 4, less than expected; c) soil moisture = 4, less than expected; d) soil erosion or deposition = 4, erosion from cattle; e) evidence of fire history = N/A; f) vegetation community zonation = 7, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 8, not apparent; h) use by animal species with specific hydrological requirements = 8, beneficial ephemeral 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. |
| w/o pres or current | with |
| 5 | 0 |
| .500(6)(c)Community structure | The community structure variable is slightly reduced due to encroachment of upland species and grazing impacts. Individual parameter scores: a) plant community species in the canopy, shrub, or ground stratum = 6, dominated by desirable native wetland species; b) invasive exotics or other invasive plant species = 5, some coverage; c) regeneration and recruitment = 5, impacted by diminished hydroperiod and cattle grazing; d) age & size distribution = 5, impacted by grazing; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 5, reduced due to drought and grazing; g) land management practices = 6, due to alteration of community structure by grazing; h) topographic features = 7, somewhat typical for assessment area; i) siltation or algal growth in submerged aquatic plant communities = N/A |
| w/o pres or current | with |
| 6 | 0 |

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|---|
| Score = sum of above scores/30 (if uplands, divide by 20) |
| current |
| or w/o pres |
| with |
| 0.60 |
| 0 |

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|----------------------------------|
| If preservation as mitigation, |
| Preservation adjustment factor = |
| Adjusted mitigation delta = |

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| For impact assessment areas |
| FL = delta x acres = -0.60 x 0 = 0 |

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|------------------------|
| Delta = [with-current] |
| -0.60 |

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|-----------------------|
| 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.)

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|--|-----------------------------------|--|--|------------------------------------|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | | Application Number | Assessment Area Name or Number FLUCFCS 643 - Wetland CB B | |
| FLUCCs code 643 - Wet Prairies | Further classification (optional) | | Impact or Mitigation Site? Existing Condition | Assessment Area Size 0.20 acres |
| Basin/Watershed Name/Number Crystal River to St. Pete/03100207 | Affected Waterbody (Class) | Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None | | |
| Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Hydrologically isolated from other wetlands. Surrounded by upland forest (recently burned) and cleared transmission line ROW | | | | |
| Assessment area description Isolated wet prairie vegetated with mixture of native wetland species including bushy bluestem (<i>Andropogon glomeratus</i>), witchgrass (<i>Dichanthelium</i> sp.), umbrellasedge (<i>Fuirena</i> sp.), Mohr's thoroughwort (<i>Eupatorium mohrii</i>), and bushmint (<i>Hyptis</i> sp.). Occasional live oak (<i>Quercus virginiana</i>) along wetland perimeter. | | | | |
| Significant nearby features Existing transmission line ROW | | Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique | | |
| Functions Wildlife habitat, water storage, aquifer recharge | | Mitigation for previous permit/other historic use 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) Wading birds, raccoon, white tailed deer, armadillo, various amphibians and herpetofauna | | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) 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.): Coachwhip snake | | | | |
| Additional relevant factors: | | | | |
| Assessment conducted by: C. Cunningham, A. Davanzo | | Assessment date(s): 10/18/2009 | | |

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

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|--|---|--|
| Site/Project Name Progress Energy Florida, Inc./Levy Baseload Transmission Program/CB Transmission Line | Application Number | Assessment Area Name or Number FLUCFCS 643 - Wetland CB B |
| Impact or Mitigation Existing Condition | Assessment conducted by: C. Cunningham, A. Davanzo | Assessment date: 10/18/2009 |

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| Scoring Guidance |
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed |

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|---|--|---|--|
| Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
| 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 |

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| .500(6)(a) Location and Landscape Support | Location and landscape support variable is reduced somewhat due to location of wetland adjacent to transmission line. Individual parameter scores: a) Support to wildlife listed in Part 1 by outside habitats = 7 slightly reduced due to fragmentation by dirt roads and transmission line ROW; b) Invasive exotic species = 9, minimal coverage; c) Wildlife access to and from outside = 7, slightly decreased due to limitations imposed by fragmentation and lack of hydrologic connection; d) functions that benefit fish & wildlife downstream-distance or barriers = 0, area isolated from other habitats; e) Impacts to wildlife listed in Part 1 by outside land uses = 8, slightly reduced due to surrounding habitat fragmentation; f) Hydrologically connected areas downstream of assessment area = 0, no hydrologic connection; g) Dependency of downstream areas on assessment area = 0, no benefit to downstream areas. | |
| | w/o pres or current 7 | with 0 |
| .500(6)(b)Water Environment (n/a for uplands) | The water environment score is slightly reduced due to impacts from historical landclearing (transmission line ROW) and drought conditions. Individual parameter scores: a) water levels and flows = 6, slight alterations in water level due to drought conditions; b) water level indicators = 6, less than expected; c) soil moisture = 6, less than expected; d) soil erosion or deposition = 8, none observed ; e) evidence of fire history = 8, surrounding area recently burned; f) vegetation community zonation = 6, somewhat altered - upland species encroachment; g) hydrologic stress on vegetation = 6, slight; h) use by animal species with specific hydrological requirements = 6, ephemeral 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. | |
| | w/o pres or current 6 | with 0 |
| .500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community | The community structure variable is slightly reduced due to encroachment of facultative 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 = 8, minimal coverage; c) regeneration and recruitment = 6, somewhat impacted by diminished hydroperiod; d) age & size distribution = 7, typical of system; e) density and quality of coarse woody debris, snag, den, and cavity = N/A; f) plant condition = 6, reduced due to drought; g) land management practices = 7, due to alteration of community structure by selective 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 | |
| | w/o pres or current 7 | with 0 |

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|---|------|
| Score = sum of above scores/30 (if uplands, divide by 20) | |
| current or w/o pres | with |
| 0.67 | 0 |

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| If preservation as mitigation, |
| Preservation adjustment factor = |
| Adjusted mitigation delta = |

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| For impact assessment areas |
| FL = delta x acres = -0.67 x 0 = 0 |

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|------------------------|
| Delta = [with-current] |
| -0.67 |

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|-----------------------|
| If mitigation |
| Time lag (t-factor) = |
| Risk factor = |

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|---------------------------------|
| For mitigation assessment areas |
| RFG = delta/(t-factor x risk) = |