TABLE A

Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland 1	534	0.12	0.50	Redlevel fine sand	No	No	This is an isolated open water borrow pit with *Salix caroliniana* around the perimeter.
Wetland 2	641	2.86	0.60	Boca fine sand	No	No	This is a freshwater marsh in the maintained transmission line ROW. It is contiguous to Wetland 22 and appears to have been previously disturbed by excavation. The dominant species in this area are *Salix caroliniana, Phyla nodiflora, Centella asiatica,* and *Typha latifolia.*
Wetland 3&24	617	0.89	0.80	Boca fine sand	Yes	No	This is an area of mixed wetland hardwoods that grades into a wetland scrub community. Dominant species within the mixed wetland hardwood area include *Quercus laurifolia* and *Salix caroliniana.*
	631	2.78	0.60	Boca fine sand	Yes	No	This is a wetland scrub area within the maintained transmission line ROW that connects to an area of mixed wetland hardwoods. *Salix caroliniana, Typha latifolia*, and *Polygonum* sp. are the dominant species in the scrub wetland.
Wetland 4	641	0.01	0.67	Boca fine sand	No	No	This is a small, isolated freshwater marsh within the maintained transmission line ROW. *Dichromena colorata* and *Muhlenbergia* sp. are the dominant species in this area. *Solidago canadensis, Panicum rigidulum, Eupatorium capillifolium*, and *Carex* sp. are also present.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland 5	641	0.03	0.67	Boca fine sand	No	No	This is a small, isolated freshwater marsh within the maintained transmission line ROW. *Dichromena colorata* and *Centella asiatica* are the dominant species in this wetland.
Wetland 6	641	0.42	0.67	Boca fine sand	No	No	This is a small, isolated freshwater marsh within the maintained transmission line ROW, disturbed by mowing. It is dominated by *Cladium jamaicense*. *Dichromena colorata* and *Salix caroliniana* are also present.
Wetland 7	641	0.01	0.67	Boca fine sand	No	No	This is a small, isolated freshwater marsh in an area of upland forest. The wetland is dominated by *Myrica cerifera* and *Sagittaria latifolia*.
Wetland 8	617	0.30	0.80	Boca fine sand	No	No	This is an isolated area of mixed wetland hardwoods within an upland forest. The wetland is dominated *by Fraxinus caroliniana, Myrica cerifera*, and *Dichromena colorata*.
Wetland 9	641	0.22	0.67	Boca fine sand	No	No	This is an isolated freshwater marsh area within the maintained transmission line ROW. Dominant species in this area include *Cladium jamaicense, Cephalanthus occidentalus, Andropogon glomeratus, Panicum rigidulum*, and *Dichromena colorata*.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland 10	641	0.14	0.67	Boca fine sand	No	No	This is an isolated freshwater marsh in the maintained transmission line ROW that has been disturbed by mowing. Dominant vegetation includes *Salix caroliniana, Cephalanthus occidentalus, Centella asiatica*, and *Andropogon glomeratus.*
Wetland 11	617	0.24	0.80	Boca fine sand	No	No	This is an isolated area of mixed wetland hardwoods within an area of upland forest. The wetland is dominated by *Fraxinus caroliniana* and *Quercus laurifolia. Nyssa sylvatica* is also present.
Wetland 12	617	0.14	0.80	Boca fine sand	No	No	This is an isolated area of mixed wetland hardwoods within an area of upland forest. The wetland is dominated by *Nyssa sylvatica. Fraxinus caroliniana* and *Quercus laurifolia* are also present.
Wetland 13	641	0.64	0.67	Boca fine sand	No	No	This is an isolated freshwater marsh wetland located within the maintained transmission line ROW. Dominant species within this wetland include *Carex* sp., *Salix caroliniana, Cladium jamaicense*, and *Dichromena colorata.*

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland 14	641	0.14	0.67	Boca fine sand	No	No	This is an isolated freshwater marsh wetland located within the maintained transmission line ROW. *Dichromena colorata* is the dominant species within this wetland. Other species present include *Eustachys glauca, Ludwigia repens*, and *Centella asiatica*.
Wetland 15	631	0.01	0.67	Boca fine sand	No	No	This is a small, isolated wetland scrub area located within a forested upland. *Salix caroliniana* is the dominant species. *Fraxinus caroliniana* and *Quercus laurifolia* are also present.
Wetland 16	617	0.25	0.80	Boca fine sand	No	No	This is an isolated mixed hardwood wetland in an area of upland forest. The wetland is dominated by *Ilex cassine* and *Quercus laurifolia*. Tree trunks in this area have moss collars and show signs of buttressing.
Wetland 17	511	0.14	0.53	Boca fine sand	No	No	This is a north-south running ditch within the maintained transmission line ROW. *Dichromena colorata*, *Carex* spp., and *Juncus megacephalus* are the dominant species within the wetland.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland 18	617	0.26	0.80	Boca fine sand	No	No	This is an isolated mixed hardwood wetland in an area of upland forest. The wetland is dominated by *Fraxinus caroliniana* and *Quercus laurifolia*. Other species present include *Myrica cerifera, Sabal palmetto, Pontedaria cordata*, and *Salix caroliniana*.
Wetland 19	617	1.10	0.80	Boca fine sand	No	No	This is an isolated area of mixed wetland hardwoods that transitions into freshwater marsh within the maintained transmission line ROW. Dominant species within the forested wetland area include *Ilex cassine* and *Quercus laurifolia*.
	641	1.97	0.60	Boca fine sand	No	No	This is an isolated freshwater marsh located within the maintained transmission line ROW. The marsh connects to an area of mixed wetland hardwoods south of the maintained transmission line ROW. Within the marsh, *Erianthus* sp. and *Muhlenbergia capillaris* are dominant.
Wetland 20/21	511	2.35	0.53	Boca fine sand	No	No	This is a ditch along the north side of the North Access Road used for stormwater treatment. *Typha latifolia* is the dominant species within the ditch. Other species present include *Polygonum* sp., *Ludwigia* spp., and *Juncus* sp.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland 22	617	5.84	0.80	Boca fine sand	No	No	This is an area of mixed wetland hardwoods adjacent to Wetland 2 that appears to be an old borrow pit. There are numerous berms, rock piles, and spoil piles located within the wetland. *Salix caroliniana* and *Quercus laurifolia* are the dominant species within the wetland.
Wetland 23	631	1.40	0.67	Broward fine sand	No	No	This is an isolated wetland scrub area that is located partially within the maintained transmission line ROW. *Quercus laurifolia, Cephalanthus occidentalis*, and *Salix caroliniana* are the dominant species.
Wetland X	643	0.43	0.60	Broward fine sand	No	No	This is an isolated wet prairie within the maintained transmission line ROW east of US 19. *Andropogon glomeratus* and *Erianthus* sp. are the dominant species.
Wetland Y	511	0.22	0.57	Boca fine sand	Yes	No	This is a ditch within the maintained transmission line ROW east of US 19 that is connected through a culvert to Wetland Z. The ditch is dominated by *Andropogon glomeratus* and *Salix caroliniana*. Other species present include *Mikania scandens*, *Eupatorium capillifolium*, and *Centella asiatica*.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland Z	511	0.20	0.57	Boca and Redlevel fine sands	Yes	No	This is a ditch that is connected to Wetland Y and runs from a culvert under US 19 through a forested upland to a freshwater marsh. Species include *Andropogon glomeratus*, *Salix caroliniana*, *Mikania scandens*, *Eupatorium capillifolium*, and *Centella asiatica*.
	641	0.65	0.60	Boca and Redlevel fine sands	Yes	No	This is a freshwater marsh connected to a ditch. Dominant species include *Erianthus* sp., *Andropogon glomeratus*, and *Solidago canadensis*.
Wetland AA	511	0.32	0.53	Boca fine sand	Yes	No	This is a small ditch along Power Line Road. Dominant species within the ditch include *Erianthus* sp., *Andropogon glomeratus*, *Solidago canadensis*, and *Phyla nodiflora*.
Wetland AB	511	4.39	0.53	Boca and Redlevel fine sands	Yes	No	This is a long ditch along Power Line Road that connects to several areas of wet prairie within the maintained transmission line ROW. Dominant species within the ditch include *Fuirena pumila*, *Dichromena colorata*, and *Rhynchospora* sp.
	643	7.00	0.60	Boca and Redlevel fine sands	Yes	No	There are several wet prairie areas of Wetland AB within the maintained transmission line ROW that are disturbed from mowing and show signs of drought stress. Species composition is similar to the connecting ditch.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland AJ	641	0.05	0.40	Quartzipsamments, 0 to 5 percent slopes	No	No	This is an isolated stormwater retention area that receives runoff from a parking area within the Crystal River Energy Complex. Vegetation within the wetland is dominated by *Cladium jamaicense*, which appears to have been sprayed with herbicides.
Wetland AK	631	0.47	0.40	Quartzipsamments, 0 to 5 percent slopes	No	No	This is an isolated shrub wetland within the Crystal River Energy Complex that was previously logged. *Salix caroliniana* is the dominant species within the wetland. Other species present include *Mikania scandens* and *Ampelopsis arborea*.
Wetland AL	631	0.53	0.40	Quartzipsamments, 0 to 5 percent slopes	No	No	This is an isolated shrub wetland within the Crystal River Energy Complex that was previously logged. Species composition is similar to Wetland AK.
Wetland AM	534	0.18	0.40	Quartzipsamments, 0 to 5 percent slopes	No	No	This is an isolated stormwater retention pond within the Crystal River Energy Complex. Species present in the wetland include *Spilanthes* sp., *Cladium jamaicense*, *Sesbania* sp., *Diodia* sp., *Proserpinaca palustris*, and *Saururus cernuus*.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland AN	617	17.87	0.80	Boca fine sand	Yes	No	This is a large mixed wetland hardwood forest west of the mariculture center, connected to a scrub wetland. Species present include *Fraxinus* sp., *Acer rubrum*, *Ilex cassine*, and *Liquidambar styraciflua*.
	631	15.32	0.60	Boca fine sand	Yes	No	This is a large scrub wetland west of the mariculture center, within the maintained transmission line ROW, and is connected to a mixed wetland hardwood forest. *Baccharis halimifolia* and *Cladium jamaicense* are the dominant species in this wetland.
Wetland AO	511	0.27	0.53	Boca fine sand	Yes	No	This is a ditch west of the mariculture center. Species present include *Panicum repens*, *Eclipta alba*, *Setaria* sp., *Cyperus* sp., and *Typha latifolia*.
Wetland AP	511	1.30	0.57	Boca fine sand	Yes	No	This is a ditch along the north side of Power Line Road that connects to a scrub wetland within the maintained transmission line ROW. Dominant species within the ditch include *Cladium jamaicense, Solidago canadensis*, and *Andropogon glomeratus*.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
	631	13.77	0.60	Boca fine sand	Yes	No	This is a scrub wetland south of the mariculture center within the maintained transmission line ROW that connects to a ditch along Power Line Road. Species present within this area include *Ilex cassine, Acer rubrum, Salix caroliniana, Fraxinus* sp., and *Baccharis halimifolia*.
Wetland AQ	511	6.60	0.53	Boca and Redlevel fine sands	Yes	No	This is a ditch along the south side of Power Line Road that extends from south of the mariculture center east to US 19. Species present within the ditch include *Cladium jamaicense, Typha latifolia*, and *Erianthus* sp.
	617	2.50	0.80	Boca and Redlevel fine sands	Yes	No	This is a mixed wetland hardwoods forest connected to the ditch along the south side of Power Line Road. Dominant species include *Acer rubrum, Myrica cerifera, Liquidambar styraciflua*, and *Salix caroliniana*.
Wetland AR	631	0.47	0.60	Boca fine sand	No	No	This is a small scrub wetland south of the mariculture ponds and north of the maintained transmission line ROW. Dominant species include *Ilex cassine, Myrica cerifera, Fraxinus* sp. *Cladium jamaicense, Erianthus* sp., and *Flaveria* sp.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland AS	631	0.98	0.60	Boca fine sand	No	No	This is a small scrub wetland south of the mariculture ponds and north of the maintained transmission line ROW. Dominant species include *Ilex cassine, Myrica cerifera, Fraxinus* sp. *Cladium jamaicense, Erianthus* sp., and *Flaveria* sp.
Wetland AT	630	22.94	0.80	Boca fine sand	Yes	No	This is a large contiguous forested wetland located north of the mariculture center and east, adjacent on both sides of the maintained transmission line ROW. Dominant species within the wetland include *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
	641	29.83	0.67	Boca fine sand	Yes	No	This is a large, contiguous freshwater marsh within the maintained transmission line ROW. Dominant species within the wetland include *Flaveria* sp., *Andropogon virginiana, A. glomeratus, Centella asiatica*, and *Erianthus* sp.
Wetland AU	511	1.18	0.57	Boca fine sand	Yes	No	This is a ditch along the north side of Power Line Road that connects to several marsh areas within the maintained transmission line ROW. Species present within the ditch include *Agalinis* sp., *Andropogon* spp., and *Erianthus* sp.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
	641	9.50	0.60	Boca fine sand	Yes	No	There are several freshwater marshes along the north side of Power Line Road within the maintained transmission line ROW that connect to a roadside ditch. They are vegetated with a mixture of species including *Agalinis* sp., *Andropogon* spp., *Erianthus* sp., *Hyptis alata*, *Ilex cassine*, *Muhlenbergia* sp., and *Solidago canadensis*.
Wetland AV	631	0.10	0.60	Boca fine sand	No	No	This is a small, isolated scrub wetland within the maintained transmission line ROW. *Salix caroliniana* and *Erianthus* sp. are the dominant species in the wetland. Other species present include *Andropogon glomeratus, Pluchea* sp., and *Cephalanthus occidentalus*.
Wetland AW	617	0.58	0.80	Boca fine sand	No	No	This is an isolated mixed wetland hardwoods forest within an area of upland forest. Species present include *Salix caroliniana, Acer rubrum, Liquidambar styraciflua, Sabal palmetto*, and *Quercus laurifolia*.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland AX	641	0.44	0.60	Boca fine sand	No	No	This is a small, isolated freshwater marsh with the transmission line ROW. Species present within the wetland include *Solidago canadensis*, *Erianthus* sp., *Eryngium* sp., *Lobelia* sp., and *Muhlenbergia* sp.
Wetland AY	534	1.04	0.50	Boca fine sand	No	No	This is an isolated stormwater retention pond adjacent to the North Access Road. Dominant species within this area include *Juncus* sp., *Aster* sp., *Centella asiatica*, and *Typha latifolia*.
Wetland AZ	630	0.28	0.80	Boca fine sand	No	No	This is mixed wetland forest area west of the North Access Road that was disturbed during installation of a cell tower pad. Species present within the wetland include *Liquidambar styraciflua, Quercus laurifolia, Ilex cassine, Fraxinus* sp., and *Pinus elliottii*.
	641	0.18	0.60	Boca fine sand	No	No	This is a freshwater marsh area west of the North Access Road that was disturbed during installation of a cell tower pad. Species present within this wetland include *Dichromena colorata, Hydrocotyle umbellata, Centella asiatica, Andropogon glomeratus* and *Baccharis halimifolia*.

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Wetland Descriptions

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland BA	511	0.03	0.53	Boca fine sand	No	No	This is a ditch through an upland forest area west of the cell tower site and the North Access Road. *Hyptis alata* and *Eustachys glauca* are the dominant species within the wetland. *Lobelia* sp., *Erianthus* sp., and *Diospyros virginiana* are also present.
Wetland BB	641	0.21	0.60	Boca fine sand	No	No	This is an isolated freshwater marsh within the maintained transmission line ROW that has been disturbed by mowing. *Cladium jamaicense* and *Spilanthes* sp. are the dominant species in the wetland. Other species present include *Salix caroliniana, Diospyros virginiana, Hydrocotyle umbellata*, and *Erianthus* sp.
Wetland BC	641	0.37	0.60	Boca fine sand	No	No	This is an isolated freshwater marsh within the maintained transmission line ROW that has been disturbed by mowing. *Cyperus* sp. and *Muhlenbergia* sp. are dominant within the wetland. Other species present include *Diospyros virginiana*, *Fuirena* sp., and *Centella asiatica*.

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Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
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Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland BD	511	0.10	0.53	Boca fine sand	No	No	This is a small isolated ditch on the edge of the maintained transmission line ROW. The dominant species in the ditch include *Salix caroliniana, Eupatorium capillifolium, Cyperus surinamensis*, and *Dichromena colorata*.
Wetland BE	641	0.37	0.60	Boca fine sand	No	No	This is an isolated freshwater marsh within the maintained transmission line ROW that has been disturbed by mowing. Dominant species within the wetland include *Cladium jamaicense, Eustachys* sp., *Salix caroliniana*, and *Diospyros virginiana*.
Wetland BF	641	0.64	0.60	Boca fine sand	No	No	This is an isolated freshwater marsh within the maintained transmission line ROW that has been disturbed by mowing. Dominant species within the wetland include *Cladium jamaicense, Eustachys* sp., *Salix caroliniana*, and *Diospyros virginiana*.
Wetland BG	641	0.05	0.60	Boca fine sand	No	No	This is a small, isolated freshwater marsh within the maintained transmission line ROW that has been disturbed by mowing. Dominant species within the wetland include *Cladium jamaicense, Eustachys* sp., *Salix caroliniana*, and *Diospyros virginiana*.

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Florida Power Corporation d/b/a Progress Energy Florida, Inc.

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Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland BH	511	0.22	0.53	Boca fine sand	No	No	This is a small isolated ditch on the edge of the maintained transmission line ROW. *Cladium jamaicense* is the dominant species within the ditch. Other species present include *Fuirena* sp., *Andropogon glomeratus,* and *Hyptis alata*.
Wetland CS K	643	6.89	0.73	Boca fine sand	No	No	This is a wet prairie wetland in the maintained transmission line ROW south of the proposed Citrus Substation. Dominant vegetation includes *Erianthus* sp., *Pluchea* sp., and *Eupatorium capillifolium. Salix caroliniana, Sabal palmetto*, and *Myrica cerifera* are also present.
Wetland CS L	643	0.03	0.60	Boca fine sand	No	No	This is a small, isolated, marginal wet prairie wetland in the maintained transmission line ROW south of the proposed Citrus Substation. *Erianthus* sp., *Andropogon glomeratus*, and *Hyptis alata* are the dominant species within this wetland. Other species present include *Phyla nodiflora, Eupatorium capillifolium,* and *Mikania scandens*.

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Florida Power Corporation d/b/a Progress Energy Florida, Inc.

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Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland CS M	511	0.19	0.57	Boca fine sand	No	No	This is a ditch within the maintained transmission line ROW southwest of the proposed Citrus Substation. It contains a mixture of vegetation including *Salix caroliniana, Mikania scandens, Hypericum* sp., *Muhlenbergia* sp., *Juncus megacephalus*, and *Polygonum* spp.
Wetland CS S	643	0.32	0.60	Boca fine sand	No	No	This is a wet prairie wetland located southwest of the proposed Citrus Substation in an upland forest. The wetland shows signs of drought stress. *Panicum hemitomon* is the dominant species. Other species present in the wetland include *Muhlenbergia* sp., *Pluchea odorata*, and *Phyla nodiflora*.
Wetland CS T	511	0.19	0.53	Boca fine sand	No	No	This is a small, isolated depressional area/ditch around a transmission line structure within the maintained transmission line ROW southwest of the proposed Citrus Substation. *Andropogon glomeratus* is the dominant species within the wetland. Other species present include *Muhlenbergia* sp., *Phyla nodiflora*, and *Andropogon virginicus*.

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Levy - Crystal River Energy Complex Transmission Line
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Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland CS U	534	0.19	0.50	Boca fine sand	No	No	This is a small, isolated, man-made pit/ditch around a transmission line structure within the maintained transmission line ROW southwest of the proposed Citrus Substation. *Andropogon glomeratus* and *A. virginicus* are the dominant species in the wetland. *Phyla nodiflora*, *Centella asiatica*, and *Diodia* sp. are also present.
Wetland CS V	643	0.10	0.60	Boca fine sand	No	No	This is a small, marginal, isolated wet prairie within the maintained transmission line ROW southwest of the proposed Citrus Substation. *Urochloa plantaginea* is the dominant species within the wetland, followed by *Andropogon glomeratus* and *Erianthus* sp.
Wetland CS W	641	0.28	0.60	Tavares fine sand	No	No	This is an isolated depressional freshwater marsh area with marginal wetland soils in the maintained transmission line ROW south of the proposed Citrus Substation. *Solidago canadensis* is the dominant species within the wetland. Other species present include *Erianthus* sp., *Eleocharis* sp., and *Ambrosia* sp.

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Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Levy - Crystal River Energy Complex Transmission Line
Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland ZA	630	1.29	0.80	Boca fine sand	No	No	This is a forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
Wetland ZB	630	0.01	0.80	Boca fine sand	No	No	This is a forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
Wetland ZC	630	0.10	0.80	Boca fine sand	No	No	This is a forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
Wetland ZD	630	0.45	0.80	Boca fine sand	No	No	This is an isolated forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
Wetland ZDA	511	0.01	0.57	Boca fine sand	No	No	This is a ditch adjacent to the maintained transmission line ROW that connects to Wetland ZD. Dominant vegetation in the wetland includes *Cephalanthus occidentalis, Diospyros virginiana, Dichromena colorata*, and *Spilanthes* sp.

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Citrus County, Florida

Wetland ID	FLUCFCS Code	Acreage	UMAM Score	Soil Type	Corps Jurisdictional	OFW	Wetland Description
Wetland ZE	511	0.07	0.53	Boca fine sand	Yes	No	This is a ditch dominated by *Salix caroliniana, Eupatorium capillifolium, Cyperus surinamensis*, and *Dichromena colorata*
	630	0.15	0.80	Boca fine sand	Yes	No	This is a forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
Wetland ZF	630	0.09	0.80	Boca fine sand	No	No	This is an isolated forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
Wetland ZG	630	0.11	0.80	Boca fine sand	No	No	This is an isolated forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*
Wetland ZH	630	0.08	0.80	Boca fine sand	No	No	This is an isolated forested wetland adjacent to the maintained transmission line ROW. The wetland is dominated by *Liquidambar styraciflua*, *Carpinus caroliniana, Sabal palmetto*, and *Acer rubrum.*

TABLE B

Florida Power Corporation d/b/a Progress Energy Florida, Inc.
Levy - Crystal River Energy Complex Transmission Line

Protected Plants and Animals Potentially Occurring on the Transmission Line Right-of-Way
Citrus County, Florida

Species	Habitat of Occurrence	Likelihood of Occurrence on ROW	Status		Observed
			USFWS	FWC	
AMPHIBIANS					
Rana capito Gopher frog	Sandhill and scrub with isolated wetlands or large ponds; commensal with gopher tortoises	Medium	N	SSC	No
BIRDS					
Aramus guarauna Limpkin	Freshwater marshes, swamps, springs, spring runs, pond, river, and lake margins	Medium	N	SSC	No
Athene cunicularia floridana Florida burrowing owl	Dry prairie, sandhill, pastures	Low	N	SSC	No
Egretta caerulea Little blue heron	Freshwater lakes, marshes, swamps, and streams, cypress	High	N	SSC	No
Egretta thula Snowy egret	Wetlands, streams, lakes, and swamps, manmade impoundments, ditches	High	N	SSC	No
Egretta tricolor Tricolored heron	Wetlands, ditches, pond and lake edges, coastal areas	High	N	SSC	No
Eudocimus albus White ibis	Freshwater and brackish marshes, salt flats, forested wetlands, wet prairies, swales, man-made ditches	High	N	SSC	No
Falco sparverius paulus Southeastern American kestrel	Open pine habitats, woodland edges, prairies, pastures	Medium	N	T	No
Grus canadensis pratensis Florida sandhill crane	Prairies, freshwater marshes, and pastures	High	N	T	No
Haliaeetus leucocephalus Bald eagle	Coastal areas, bays, rivers, lakes, or other bodies of water	Medium	N	N	No
Mycteria americana Wood stork	Cypress strands and domes, mixed hardwood swamps, freshwater marshes	High	E	E	Yes
Platalea ajaja Roseate spoonbill	Tidal flats, coastal and freshwater marshes	Medium	N	SSC	No
MAMMALS					
Podomys floridanus Florida mouse	Xeric upland communities with sandy soils, including scrub, sandhill, and ruderal sites; commensal in gopher tortoise burrows	Medium	N	SSC	No

TABLE B

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Citrus County, Florida

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			USFWS	FWC	
Sciurus niger shermani Sherman's fox squirrel	Sandhills, pine flatwoods, pastures and other open, ruderal habitats with scattered pines and oaks	Low	N	SSC	No
Sorex longirostris eionis Homosassa shrew	Moist areas; forested wetlands, riparian forests, fields, brushy areas; near Homosassa Springs area	Medium	N	SSC	No
Ursus americanus floridanus Florida black bear	Large areas of forested uplands, forested wetlands	Low	N	T	No
REPTILES					
Alligator mississippiensis American alligator	Most permanent bodies of fresh water, including marshes, swamps, lakes, and rivers	High	T (SA)	SSC	Yes
Drymarchon couperi Eastern indigo snake	Broad range of habitats, from scrub and sandhill to wet prairies and mangrove swamps; often commensal with gopher tortoises	High	T	T	Yes*
Gopherus polyphemus Gopher tortoise	Dry upland habitats, including sandhills, scrub, xeric oak hammock, and dry pine flatwoods; also pastures, old fields	High	N	T	Yes
Stilosoma extenuatum Short-tailed snake	Sandhill, xeric hammock, sand pine scrub	Low	N	T	No
Pituophis melanoleucus mugitus Florida pine snake	Sandhill, old fields and pastures, sand pine scrub, scrubby flatwoods; often commensal with gopher tortoises and pocket gophers	Medium	N	SSC	No
PLANTS					
Adiantum tenerum Brittle maidenhair fern	Limestone outcrops, grottoes, sinkholes	Medium	N	E	No
Asplenium pumilum Dwarf spleenwort	Pinelands	Low	N	E	No
Asplenium verecundum Modest spleenwort	Rockland hammocks, limestone outcrops, grottoes, sinkholes	Medium	N	E	No
Blechnum occidentale Sinkhole fern	Moist woodlands, hammocks, rocky creek banks, woodlands with open shade	Medium	N	E	No
Centrosema arenicola Sand butterfly pea	Sandhill, scrubby flatwoods, dry upland woods	Medium	N	E	No

TABLE B

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Citrus County, Florida

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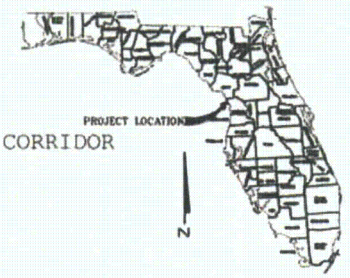
			USFWS	FWC	
Cheilanthes microphylla Southern lip fern	Crevices of limestone outcrops and terrestrial on shell mounds in partial to full sun	Medium	N	E	No
Glandularia tampensis Tampa vervain	Live oak-cabbage palm hammocks and pine-palmetto flatwoods	Low	N	E	No
Matelea floridana Florida spiny-pod	Pinelands, temperate forests	Medium	N	E	No
Monotropsis reynoldsiae Pygmy pipes	Upland mixed hardwood forest, mesic and xeric hammock, sand pine and oak scrub	High	N	E	No
Nolina brittoniana Britton's beargrass	Scrub, sandhill, scrubby flatwoods, and xeric hammock	Low	E	E	No
Pecluma ptilodon Swamp plume polypody	Rockland hammocks, strand swamps, wet woods	Medium	N	E	No
Pteroglossaspis ecristata Giant orchid	Sandhill, scrub, pine flatwoods, pine rocklands	Medium	N	T	No
Spiranthes polyantha Green ladies'-tresses	Rock outcrops in mesic hammock, rockland hammock, maritime hammock	High	N	E	No
Stylisma abdita Scrub stylisma	Pinelands, sandhills, scrub	Low	N	E	No
Thelypteris reptans Creeping maiden fern	Limestone grottoes and sinkholes	Low	N	E	No
Triphora craigheadii Craighead's nodding-caps	Mesic hardwood hammocks	Medium	N	E	No

Notes:
N = Not Listed
T = Threatened
E = Endangered
SSC = Species of Special Concern
T(SA) = Threatened due to similarity in appearance to a federally listed species
*Observation of potential Eastern indigo snake within ROW; positive identification was not confirmed

SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES
OF
PROGRESS ENERGY FLORIDA

LEVY to CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE

LOCATED IN
CITRUS COUNTY, FLORIDA



———	=	WETLANDS JURISDICTIONAL DELINEATION LINE WITHIN CORRIDOR
PEF	=	PROGRESS ENERGY FLORIDA
AB-1, AQ 2, AT3, WL3-4, etc.	=	WETLAND FLAG DELINEATOR
DGPS	=	DIFFERENTIAL GLOBAL POSITIONING SYSTEM
N.	=	NORTHING (coordinate)
E.	=	EASTING (coordinate)
P	=	PROPERTY LINE
GIS	=	GEOGRAPHIC INFORMATION SYSTEM
●	=	GOPHER TORTOISE BURROWS

HATCH LEGEND
DELINEATED WETLAND AREAS WITHIN CORRIDOR LIMITS

SURVEYOR'S NOTES:

1) THIS SPECIFIC PURPOSE SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF THE SIGNING FLORIDA LICENSED SURVEYOR AND MAPPER.

2) THE SPECIFIC PURPOSE OF THIS SURVEY WAS TO LOCATE AND MAP WETLAND JURISDICTIONAL DELINEATIONS AND LOCATION OF THREATENED AND ENDANGERED SPECIES (AS DETERMINED BY OTHERS) IN RELATION TO THE APPROXIMATE TRANSMISSION LINE CORRIDOR LIMITS, IN CONFORMANCE WITH U.S. ARMY CORPS OF ENGINEERS REQUIREMENTS.

3) LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR OWNERSHIP, RIGHTS-OF-WAY, EASEMENTS OR OTHER MATTERS OF TITLE BY THIS FIRM, NOR WERE ANY SUCH DOCUMENTS PROVIDED BY CLIENT.

4) THE DELINEATION OF THE TRANSMISSION LINE CORRIDOR SHOWN HEREON IS BASED ON GIS SHAPE FILES PROVIDED BY GOLDER ASSOCIATES. THIS SPECIFIC PURPOSE SURVEY IS NOT A BOUNDARY SURVEY OF THE TRANSMISSION LINE CORRIDOR.

5) THIS SURVEY WAS PERFORMED USING A COMBINATION OF GLOBAL POSITIONING SYSTEM AND CONVENTIONAL SURVEY METHODOLOGY. HORIZONTAL ACCURACY IS AT THE SUBMETER LEVEL.

6) COORDINATE LOCATIONS OF WETLAND DELINEATION AND THREATENED AND ENDANGERED SPECIES SHOWN HEREON ARE RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE (902), NORTH AMERICAN DATUM OF 1983/2007 ADJUSTMENT, EXPRESSED IN U.S. SURVEY FEET.

7) WETLAND JURISDICTIONAL DELINEATIONS AND THREATENED AND ENDANGERED SPECIES DESCRIPTIONS WERE DETERMINED AND FLAGGED BY GOLDER ASSOCIATES, GAINESVILLE, FLORIDA.

8) THE WETLAND FLAG AND THREATENED AND ENDANGERED SPECIES LOCATIONS SHOWN HEREON CORRESPOND TO THE NUMBERING / LETTERING SHOWN ON EACH FLAG LOCATED IN THE FIELD.

9) THIS SURVEY IS CERTIFIED TO PROGRESS ENERGY FLORIDA AND GOLDER ASSOCIATES, INC..

10) EXCEPT AS SHOWN HEREON, INTERIOR IMPROVEMENTS WERE NOT LOCATED.

11) THE GEOREFERENCED AERIAL PHOTOGRAPHY DEPICTED HEREON WAS FLOWN IN 2008. SOURCE OF DATA: SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT.

12) TOTAL WETLANDS AREA IS 187.37 ACRES±, SEE SHEETS 17 OF 17 FOR TABULATION.

SHEET INDEX:

ROBERT M. JONES
FLORIDA PROFESSIONAL SURVEYOR AND MAPPER
LICENSE No. LS 4201

THIS IS NOT A BOUNDARY SURVEY

LAST DATE IN FIELD: 12/15/2009

PROJECT TITLE:
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OF
PROGRESS ENERGY FLORIDA
LEVY-CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE
Citrus County, Florida

DATE	BY	REVISION DESCRIPTION
01/19/10	P.E.W.	WETLANDS "AN, AO & AT"
12/22/09		MISC. REVISIONS

DRAWN BY: P.E.W. DATE: 12/16/09
CHKD. BY: R.M.J. DATE: 12/16/09
JOB No. 6374090435
SCALE: n/a
SHT. 1 OF 17
DRAWING NAME: PHP Transmission Line.dwg

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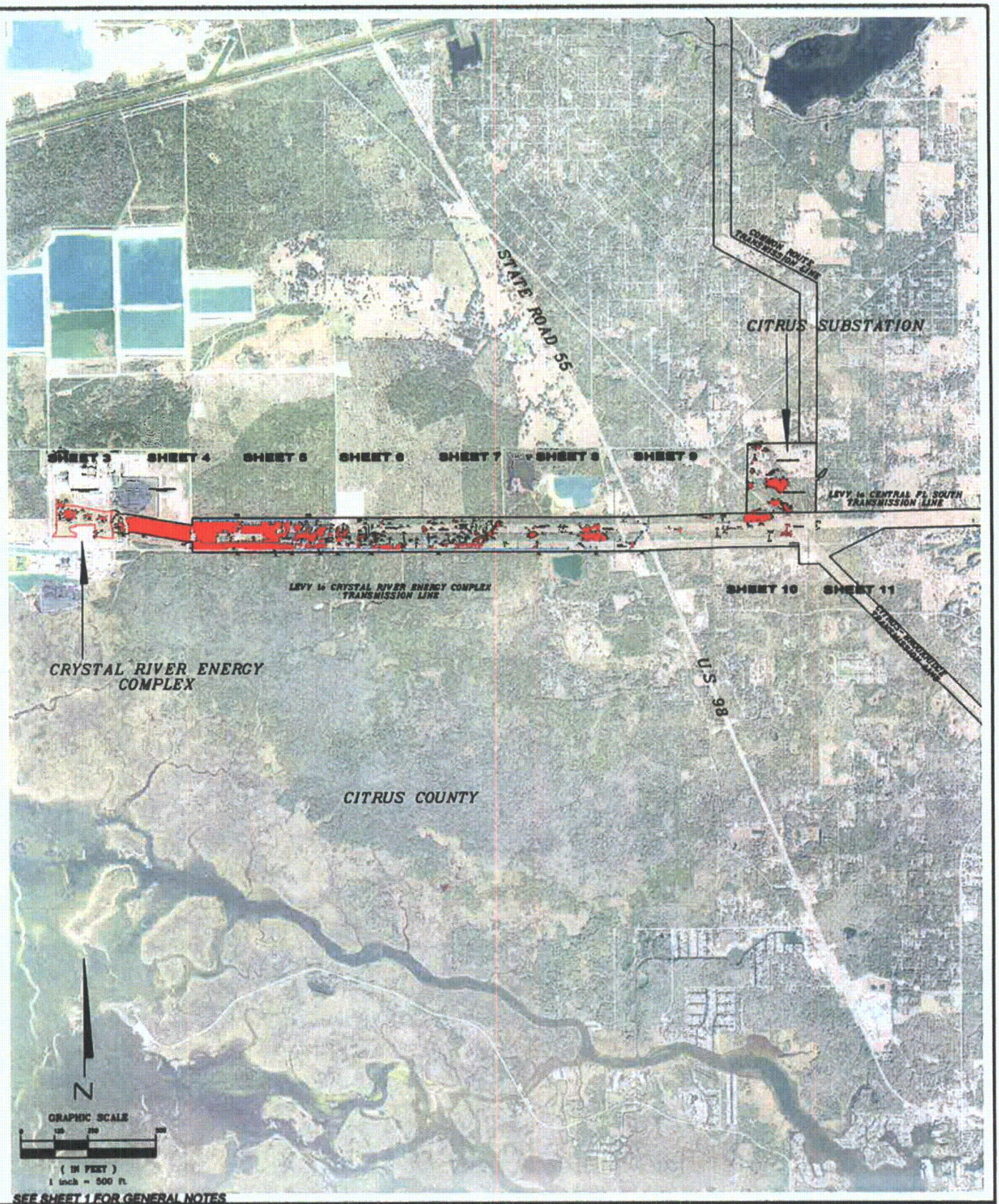

SEE SHEET 1 FOR GENERAL NOTES

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CHKD. BY: R.M.J. DATE: 12/16/09
JOB No. 63740090435
SCALE: 1"=500'
SHT. 2 OF 17
DRAWING NAME: Central Florida South Substation.dwg

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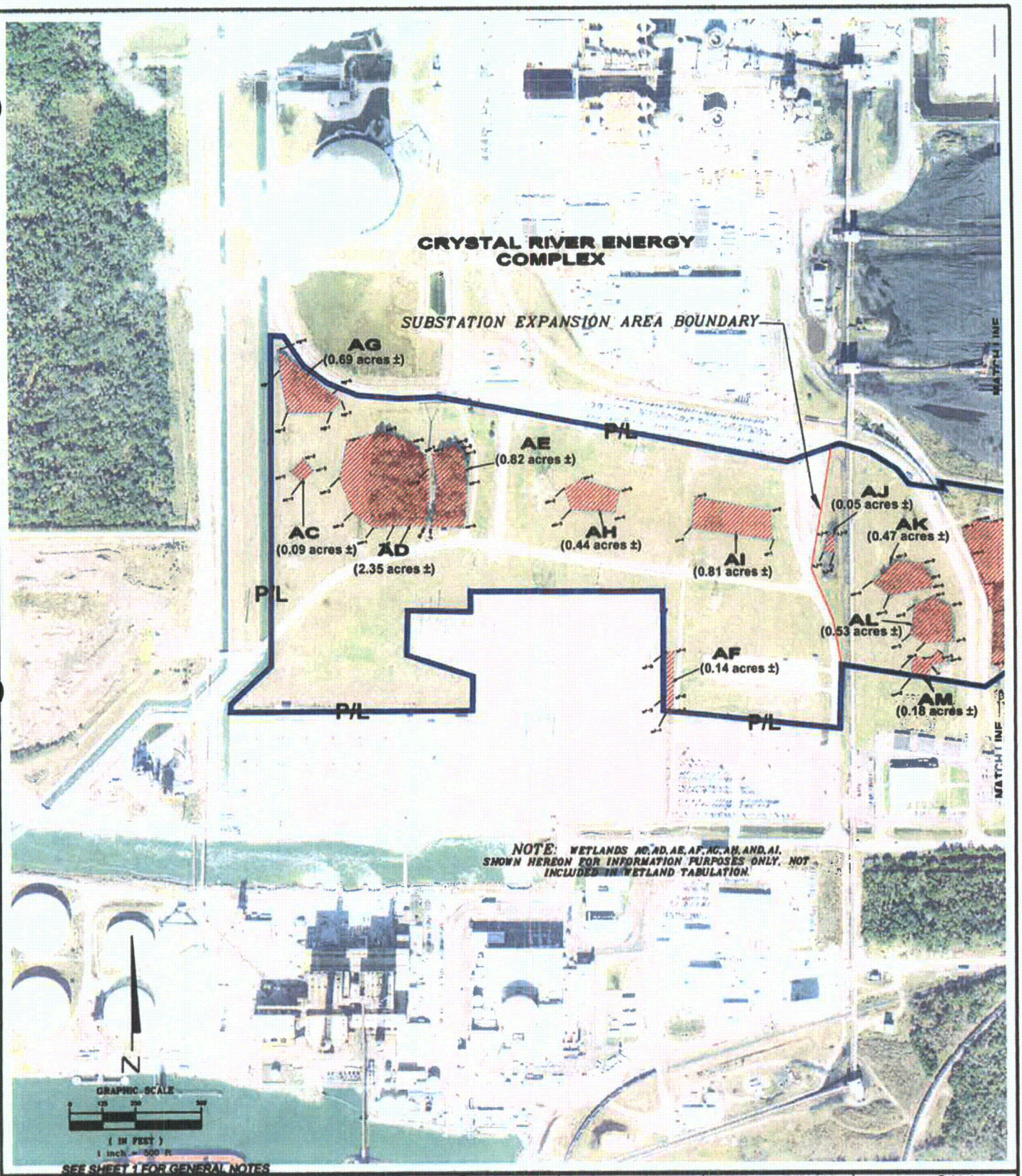

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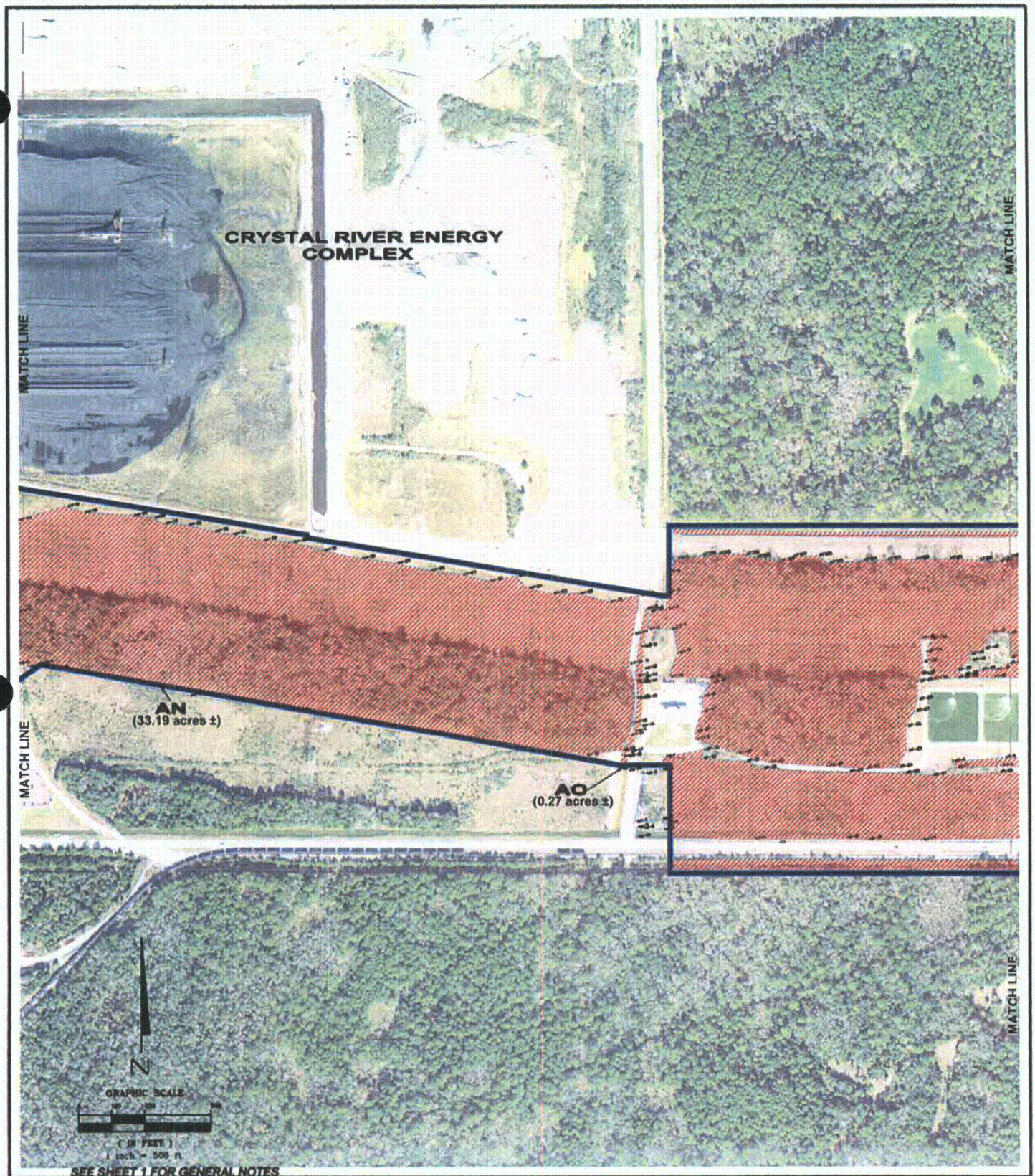

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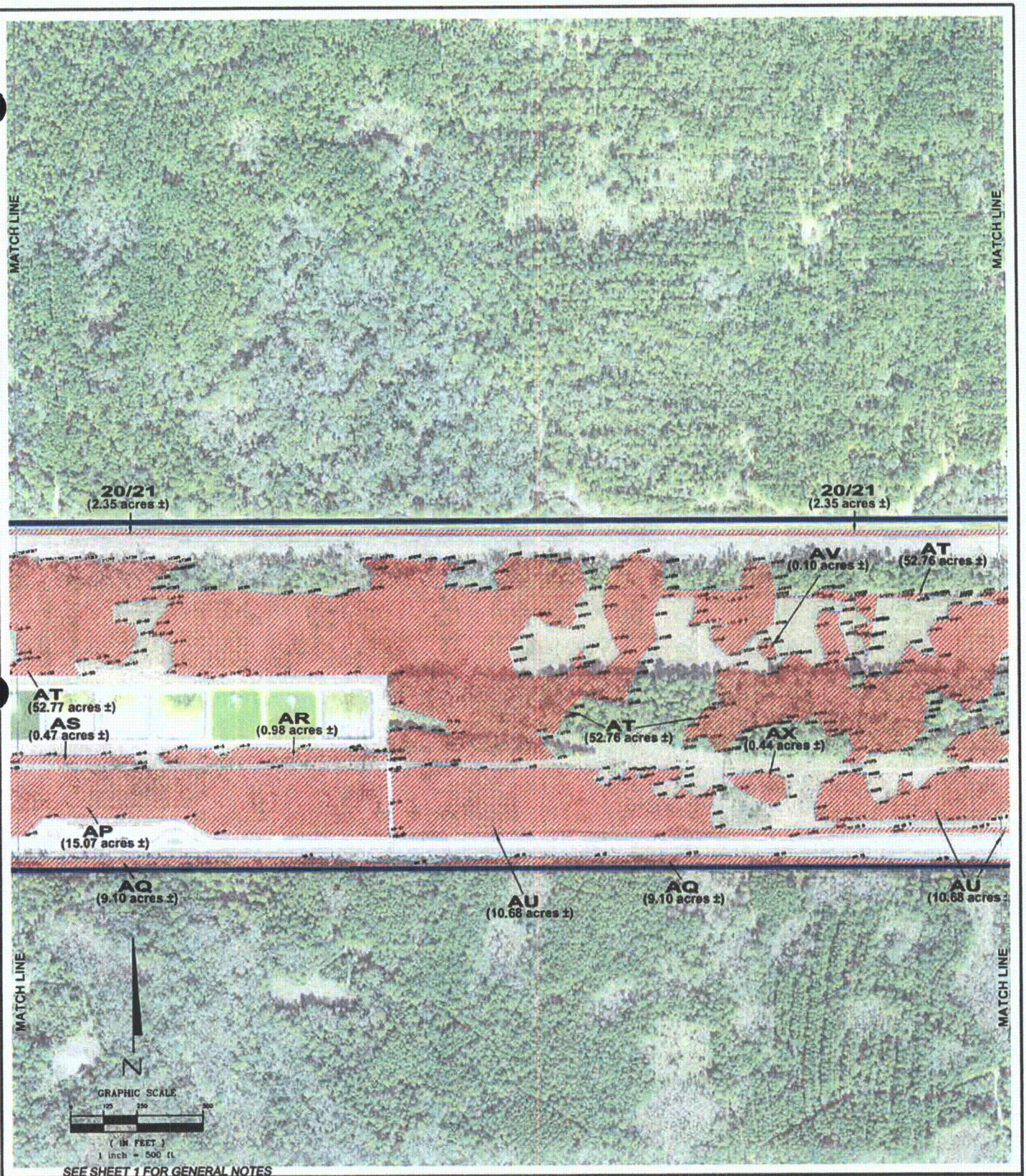

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SHT. 5 OF 17
DRAWING NAME: Central Florida South Substation.dwg

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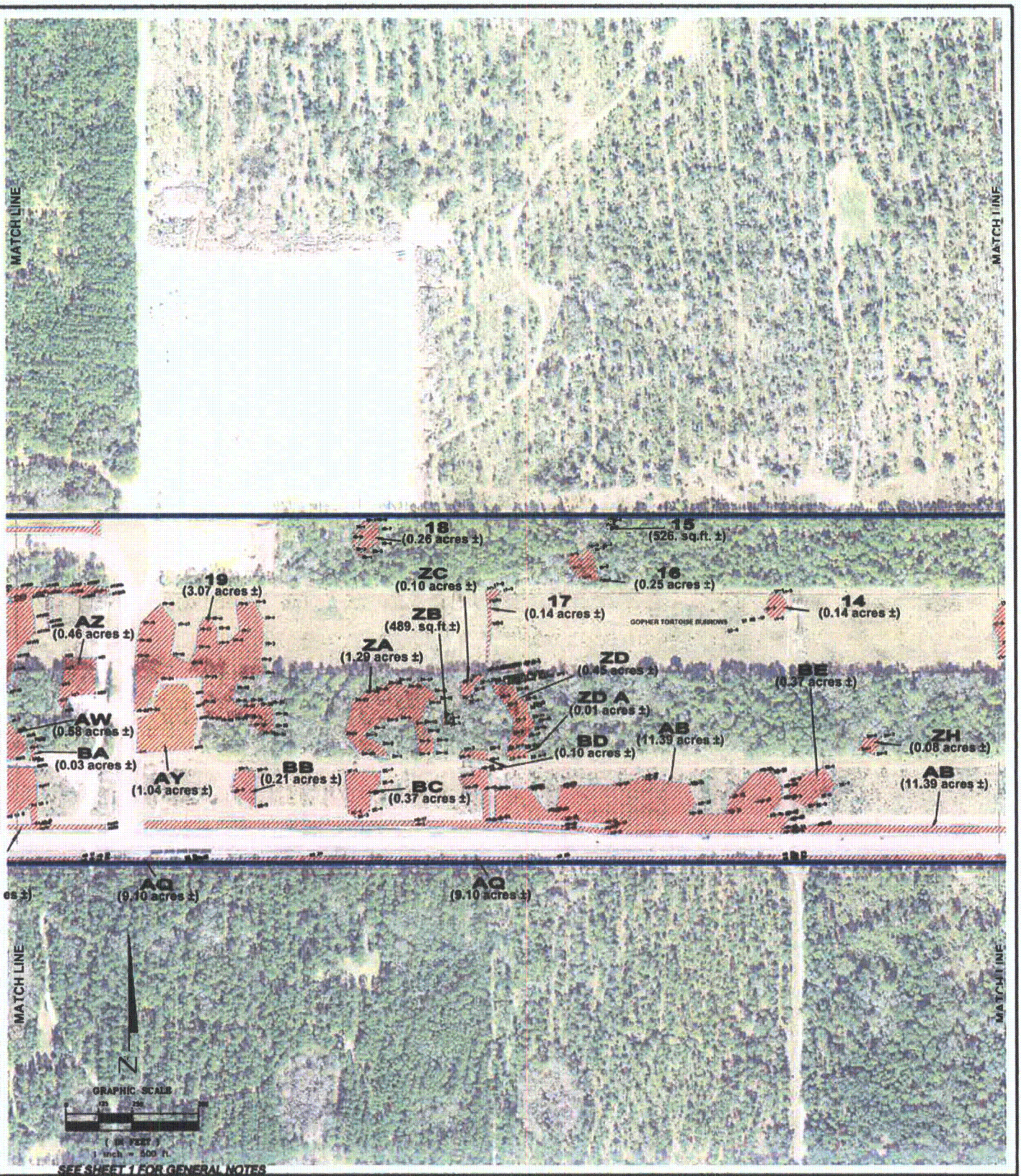

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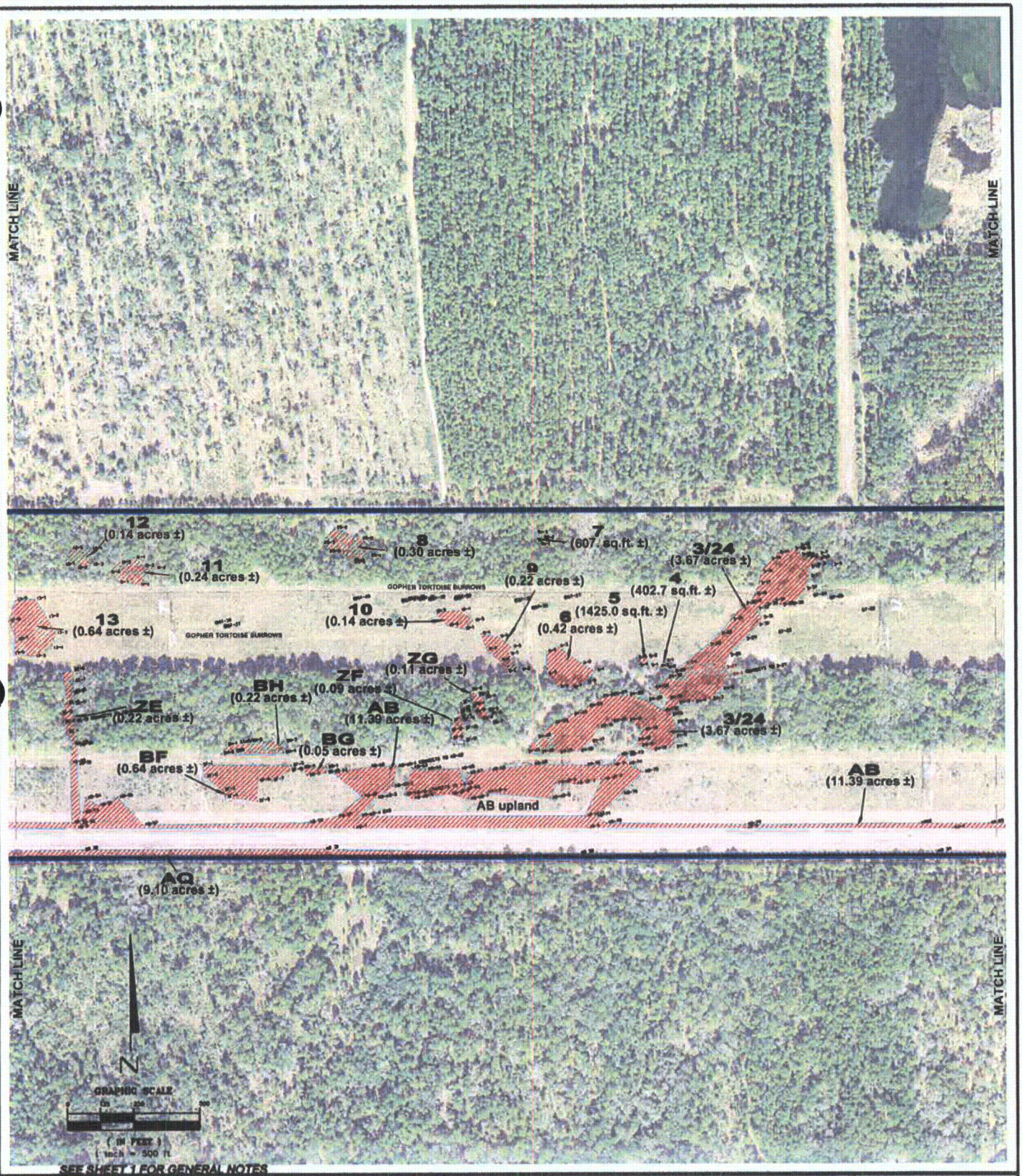

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SHT. 7 OF 17
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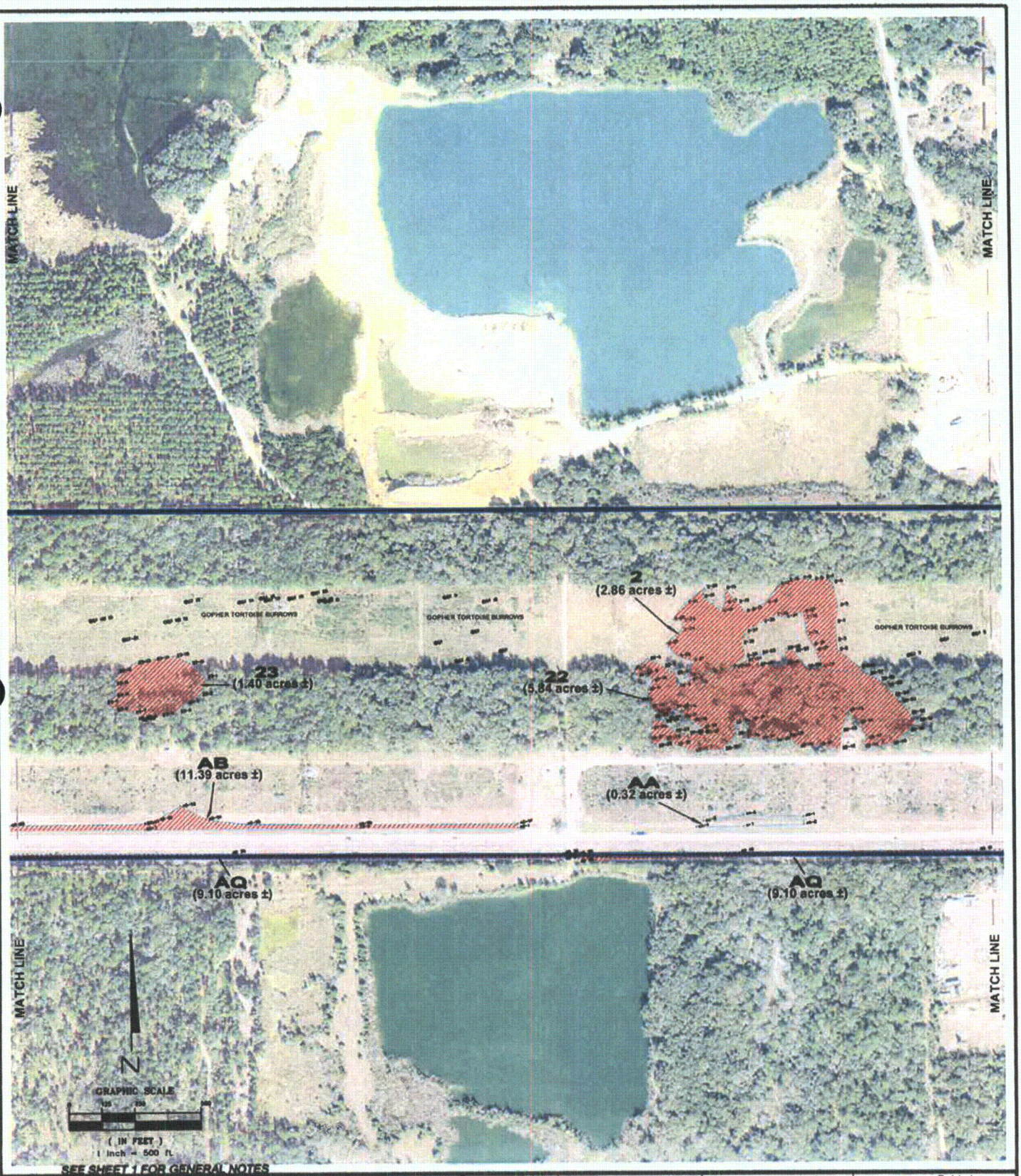

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SHT. 8 OF 17
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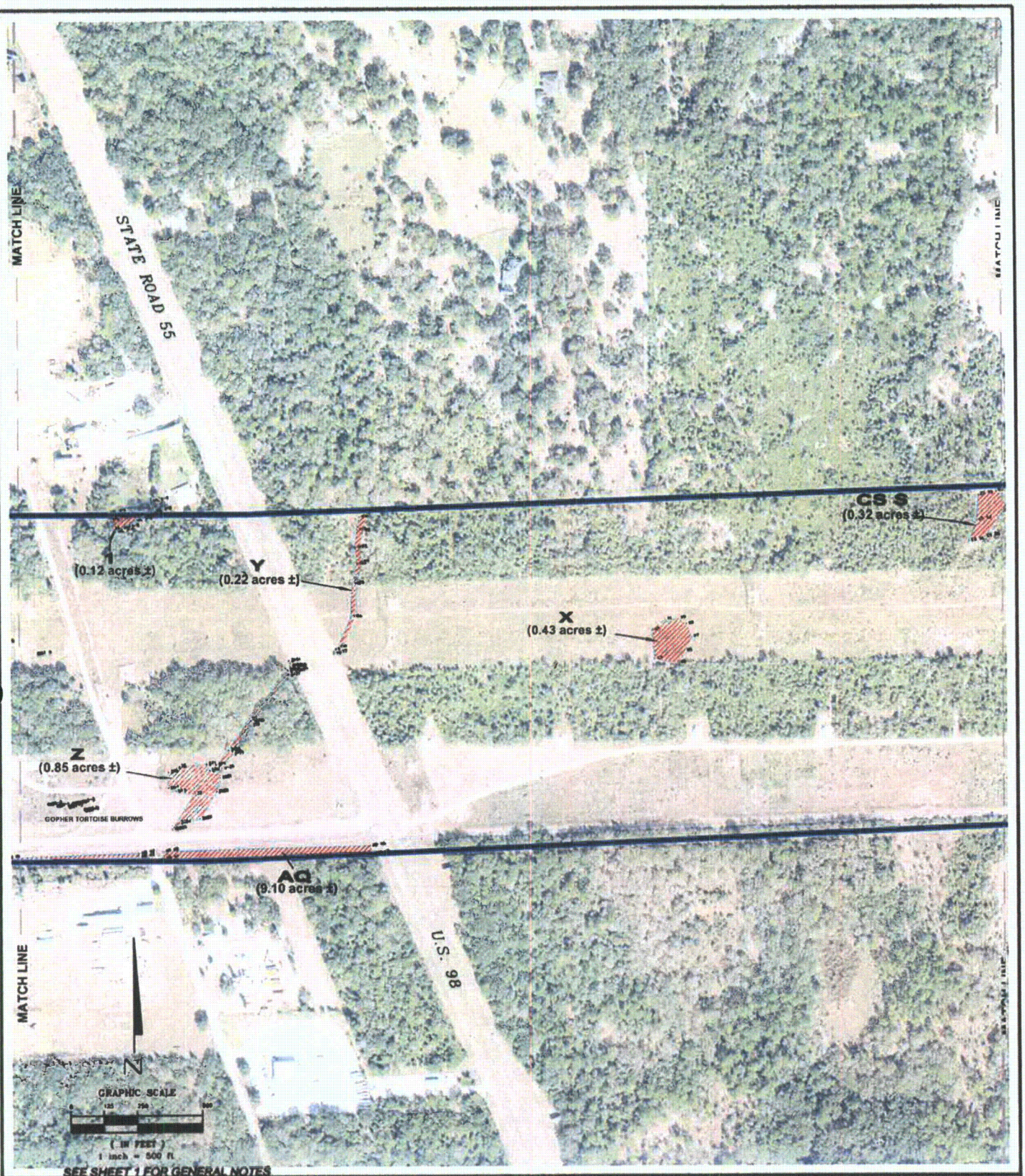

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SHT. 9 OF 17
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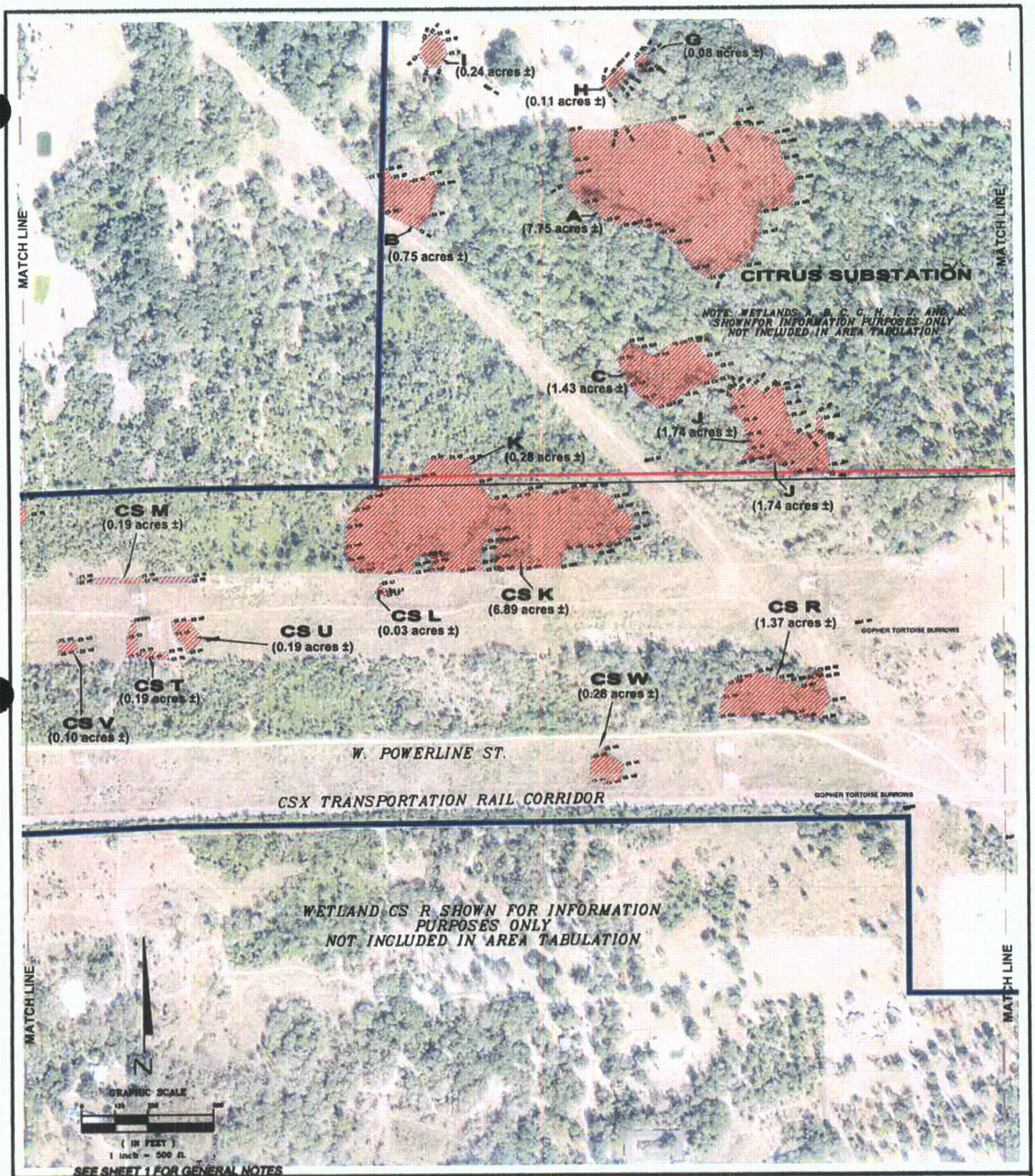

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SCALE: 1"=500'
SHT. 10 OF 17
DRAWING NAME: Central Florida South Substation.dwg

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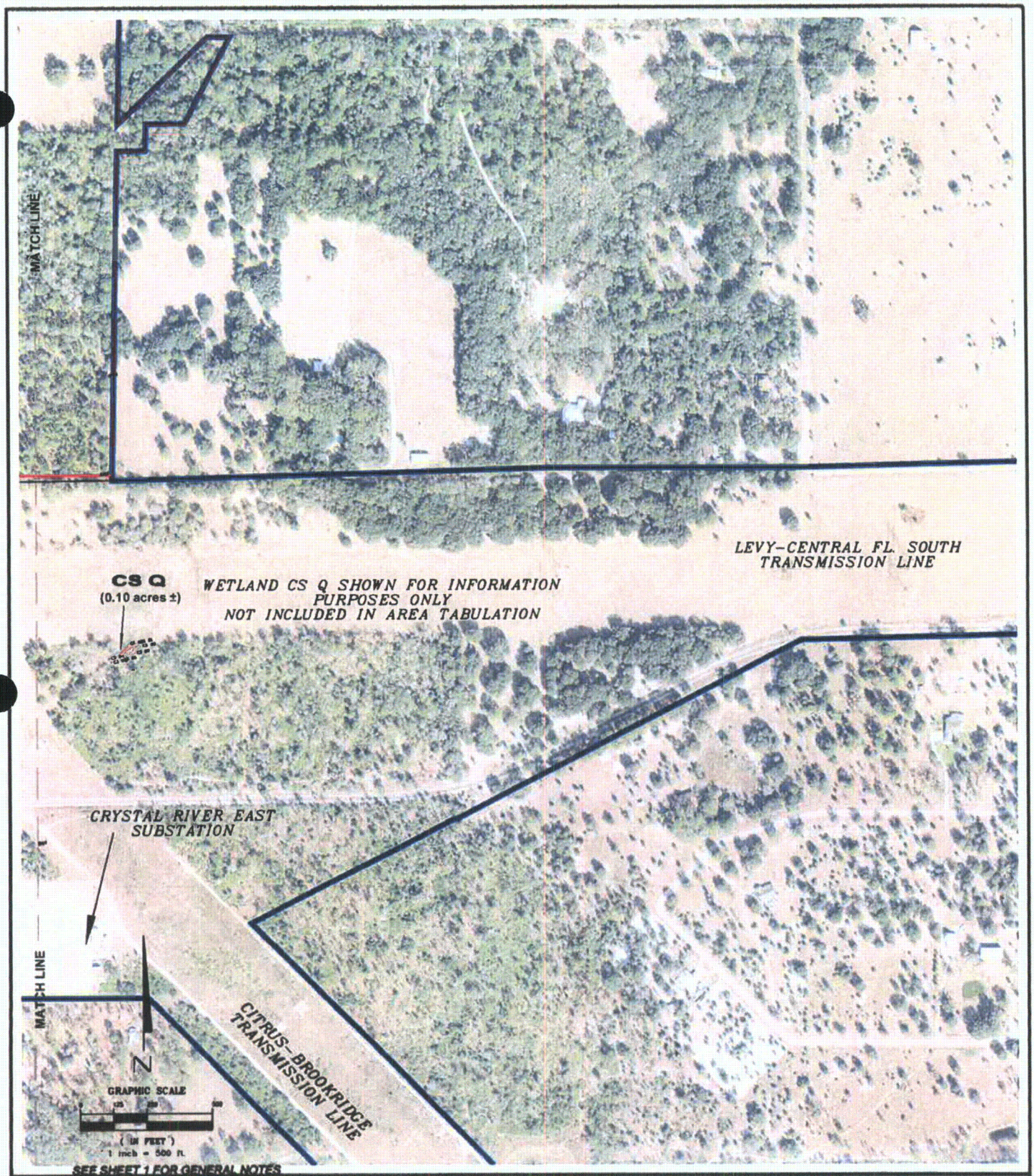

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LEVY–CRYSTAL RIVER ENERGY COMPLEX (LCR)
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DATE	BY	DESCRIPTION

REVISION

DRAWN BY: P.E.W. DATE: 12/16/09
CHKD. BY: R.M.J. DATE: 12/16/09
JOB No. 63740090435
SCALE: 1"=500'
SHT. 11 OF 17
DRAWING NAME: Central Florida South Substation.dwg

PREPARED BY:
MACTEC
MACTEC Engineering & Consulting, Inc.
4150 North John Young Parkway Orlando, Florida 32804-2620
Phone: 407.522.7570 Fax: 407.522.7578
CERTIFICATE OF AUTHORIZATION: LB 6989

PREPARED FOR:
Golder Associates
Gainesville, Florida
GOLDER ASSOCIATES
6026 NW 1st Place
GAINESVILLE, FLORIDA 32607

SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES
OF
PROGRESS ENERGY FLORIDA

LEVY to CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE

LOCATED IN
CITRUS COUNTY, FLORIDA

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
9a-1	1683156	447787
9A-2	1683180	447799
9A-3	1683200	447774
9A-4	1683171	447774
13-1	1682949	445878
13-2	1682880	445923
13-5	1682732	445874
13-4	1682764	445939
13-3	1682821	445955
13-6	1682740	445794
13-7	1682796	445808
13-8	1682866	445778
13-9	1682946	445804
14-2	1682886	444948
14-3	1682924	444917
14-4	1682991	444948
14-5	1682987	444981
15-1	1683232	444322
15-2	1683260	444332
15-3	1683269	444315
15-4	1683245	444307
16-1	1683032	444293
16-2	1683081	444282
16-3	1683151	444266
16-4	1683164	444296
16-5	1683162	444243
16-6	1683134	444167
16-7	1683083	444180
16-8	1683046	444216
17-1	1682954	443874
17-2	1682868	443878
17-3	1682698	443860
17-4	1682691	443854
17-5	1682867	443865
17-6	1682956	443862
17-7	1683002	443854
17-8	1683015	443882
17-9	1682995	443916
18-1	1683241	443364
18-2	1683202	443352
18-3	1683155	443363
18-4	1683124	443386
18-5	1683147	443425
18-6	1683177	443459
18-7	1683233	443458
18-8	1683268	443442
18-9	1683266	443402

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
19-1	1682686	443022
19-10	1682856	442842
19-11	1682892	442816
19-12	1682893	442789
19-13	1682852	442768
19-14	1682785	442764
19-15	1682724	442735
19-16	1682757	442666
19-17	1682870	442686
19-18	1682948	442626
19-19	1682876	442554
19-2	1682737	443007
19-20	1682809	442539
19-21	1682751	442533
19-22	1682542	442529
19-23	1682546	442570
19-24	1682663	442622
19-25	1682670	442787
19-26	1682576	442782
19-27	1682513	442803
19-28	1682507	442850
19-29	1682512	442903
19-3	1682797	443020
19-30	1682521	442939
19-31	1682516	442966
19-32	1682488	442976
19-33	1682458	443012
19-34	1682451	443053
19-35	1682485	443059
19-36	1682529	443060
19-37	1682572	443046
19-38	1682566	443002
19-39	1682581	442963
19-4	1682894	443020
19-40	1682559	442934
19-41	1682579	442906
19-42	1682629	442911
19-43	1682665	442931
19-5	1682955	442984
19-6	1682948	442916
19-7	1682846	442928
19-8	1682810	442896
19-9	1682800	442843

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
22-1	1682648	452075
22-10	1682629	451940
22-11	1682593	451920
22-12	1682527	451930
22-13	1682508	451953
22-14	1682482	451992
22-15	1682526	452022
22-16	1682524	452050
22-17	1682488	452053
22-18	1682473	452090
22-19	1682447	452128
22-2	1682629	452084
22-20	1682426	452133
22-21	1682424	452104
22-22	1682424	452073
22-23	1682433	452019
22-24	1682470	451982
22-25	1682488	451940
22-26	1682445	451935
22-27	1682405	451925
22-28	1682377	451953
22-29	1682405	451984
22-3	1682608	452035
22-30	1682383	452026
22-31	1682359	452094
22-32	1682365	452209
22-33	1682422	452258
22-34	1682464	452250
22-35	1682477	452311
22-36	1682410	452290
22-37	1682404	452350
22-38	1682397	452406
22-39	1682413	452455
22-4	1682654	452027
22-40	1682374	452497
22-41	1682378	452570
22-42	1682366	452656
22-43	1682433	452660
22-45	1682509	452686
22-46	1682463	452724
22-47	1682404	452756
22-48	1682372	452742
22-49	1682383	452848
22-5	1682682	451979
22-50	1682432	452915
22-51	1682470	452948
22-52	1682499	452919
22-53	1682543	452885
22-54	1682569	452857
22-55	1682606	452833
22-56	1682627	452806
22-57	1682649	452763
22-58	1682676	452528
22-59	1682737	452481
22-6	1682710	451924
22-60	1682747	452450
22-61	1682690	452449
22-62	1682684	452345
22-63	1682731	452353
22-64	1682702	452299
22-65	1682676	452257
22-7	1682674	451866
22-8	1682647	451880
22-9	1682657	451912

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
23-1	1682648	450240
23-10	1682580	449896
23-11	1682625	449894
23-12	1682673	449904
23-13	1682704	449977
23-14	1682718	450047
23-15	1682730	450122
23-16	1682701	450179
23-2	1682581	450217
23-3	1682552	450165
23-4	1682516	450135
23-5	1682504	450067
23-6	1682495	450007
23-7	1682516	449966
23-8	1682525	449897
23-9	1682553	449858
24-1	1682652	448517
24-10	1682370	448218
24-11	1682385	448171
24-12	1682406	448157
24-13	1682444	448184
24-14	1682481	448125
24-15	1682477	448064
24-16	1682457	448015
24-17	1682402	447983
24-18	1682366	447939
24-19	1682361	447860
24-2	1682599	448480
24-20	1682359	447786
24-21	1682361	447734
24-22	1682417	447774
24-23	1682472	447841
24-24	1682505	447913
24-25	1682535	447973
24-26	1682572	448024
24-27	1682579	448065
24-28	1682577	448125
24-29	1682558	448198
24-3	1682561	448441
24-30	1682518	448260
24-31	1682565	448276
24-32	1682606	448223
24-33	1682641	448272
24-4	1682550	448375
24-5	1682547	448312
24-6	1682502	448286
24-7	1682472	448304
24-8	1682419	448300
24-9	1682379	448301
25-1	1683114	447142
25-2	1683180	447110
25-2	1683221	447014
25-3	1683163	446967
25-4	1683131	446987
25-5	1683095	447078
25-6	1683089	4470802

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
AA-3	1682070	452284
AA-1	1682107	452513
AA-2	1682076	452516
aa-4	1682068	452101
aa-5	1682092	452129
AA-6	1682113	452284
AB-1	1682068	451421
AB-10	1682075	444979
AB-11	1682071	444321
AB-12	1682087	444149
AB-13	1682103	443578
AB-17	1682121	443575
AB-18	1682104	444148
AB-19	1682090	444300
AB-2	1682071	450813
AB-20	1682107	444336
AB-21	1682114	444303
AB-22	1682129	444148
AB-23	1682128	443890
AB-24	1682239	443891
AB-25	1682247	444020
AB-26	1682159	444093
AB-27	1682156	444112
AB-28	1682247	444143
AB-29	1682255	444345
AB-3	1682068	450003
AB-30	1682275	444453
AB-31	1682257	444633
AB-32	1682184	444655
AB-33	1682144	444622
AB-34	1682156	444770
AB-35	1682213	444785
AB-36	1682310	444894
AB-37	1682308	444944
AB-38	1682192	444882
AB-39	1682251	444985
AB-4	1682068	449350
AB-40	1682206	444983
AB-41	1682139	444928
AB-42	1682144	444986
AB-43	1682092	444982
AB-44	1682085	445016
AB-45	1682127	445010
AB-46	1682103	445109
AB-47	1682098	446014
AB-48	1682327	446009
AB-49	1682397	446018
AB-5	1682072	448569
AB-50	1682393	446039
AB-51	1682321	446035
AB-52	1682094	446045
AB-53	1682136	446058
AB-54	1682191	446067
AB-55	1682163	446112
AB-55	1682163	446112
AB-56	1682193	446188
AB-56	1682193	446188
AB-57	1682087	446283
AB-58	1682095	446910
AB-59	1682118	447018

LAST DATE IN FIELD: 12/15/2009

PROJECT TITLE:
SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES
OF
PROGRESS ENERGY FLORIDA
LEVY-CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE
Citrus County, Florida

DATE	BY	DESCRIPTION

REVISION

DRAWN BY: P.E.W. DATE: 12/16/09
CHKD. BY: R.M.J. DATE: 12/16/09
JOB No. 6574090435
SCALE: n/a
SHT. 12 OF 17
DRAWING NAME: PHP Transmission Line.dwg

PREPARED BY:
MACTEC
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4150 North John Young Parkway Orlando, Florida 32804-2820
Phone: 407.522.7570 Fax: 407.522.7578
CERTIFICATE OF AUTHORIZATION: LB 6989

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SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES

OF

PROGRESS ENERGY FLORIDA

LEVY to CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE

LOCATED IN

CITRUS COUNTY, FLORIDA

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
AB-6	1682074	447970
AB-60	1682194	447113
AB-61	1682287	447003
AB-62	1682308	447139
AB-63	1682304	447300
AB-64	1682297	447351
AB-65	1682299	447478
AB-66	1682220	447499
AB-67	1682282	447511
AB-68	1682294	447596
AB-69	1682316	447759
AB-7	1682075	447083
AB-70	1682312	447963
AB-71	1682312	448064
AB-72	1682350	448092
AB-73	1682351	448126
AB-74	1682317	448122
AB-75	1682286	448182
AB-76	1682201	448103
AB-77	1682117	448001
AB-78	1682091	448042
AB-79	1682083	448571
AB-80	1682078	446028
AB-81	1682078	446028
AB-82	1682086	449225
AB-83	1682086	449489
AB-84	1682089	449993
AB-87	1682490	449976
AB-88	1682484	449989
AB-9	1682076	445016
AB-91	1682092	450005
AB-92	1682105	450051
AB-93	1682156	450139
AB-94	1682106	450238
AB-95	1682088	450387
AB-96	1682093	450811
AB-97	1682085	451421
AB-A1	1682121	443868
AB-A2	1682313	443862
AB-A3	1682320	443830
AB-A4	1682289	443751
AB-A5	1682245	443767
AB-A6	1682241	443840
AB-A-7	1682123	443846
AB-U21	1682118	447961
AB-U210	1682200	447270
AB-U22	1682258	448028
AB-U23	1682241	447924
AB-U24	1682244	447851
AB-U25	1682185	447828
AB-U26	1682208	447580
AB-U27	1682183	447513
AB-U28	1682203	447440
AB-U29	1682187	447300
AB-U31	1682310	447242
AB-U32	1682232	447228
AB-U33	1682188	447164
AB-U34	1682120	447104

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
ac-1	1683516	431946
ac-2	1683567	431994
ac-3	1683519	432036
ac-4	1683477	431988
ad-1	1683299	432261
ad-10	1683305	432460
ad-11	1683306	432338
ad-2	1683357	432184
ad-3	1683490	432133
ad-4	1683633	432162
ad-5	1683671	432302
ad-6	1683628	432405
ad-7	1683576	432460
ad-8	1683524	432471
ae-1	1683579	432486
ae-2	1683623	432569
ae-2	1683602	432586
ae-3	1683592	432600
ae-4	1683465	432614
ae-6	1683298	432598
ae-7	1683302	432479
af-1	1682822	433397
af-2	1682643	433393
af-3	1682591	433393
af-4	1682588	433367
af-5	1682648	433367
af-6	1682823	433370
ag-1	1683741	432103
ag-2	1683741	431935
ag-3	1683902	431907
ag-4	1683981	431907
ag-6	1683812	432110
ag-7	1683783	432142
ah-1	1683483	433050
ah-2	1683446	432986
ah-3	1683364	433010
ah-4	1683355	433176
ah-5	1683435	433194
ai-1	1683247	433784
ai-2	1683357	433773
ai-3	1683412	433482
ai-4	1683292	433465
aj-1	1683195	433974
aj-2	1683195	434017
aj-3	1683264	434020
aj-4	1683275	433995
ak-1	1683094	434385
ak-2	1683156	434346
ak-3	1683166	434243
ak-4	1683086	434158
ak-5	1683033	434222
ak-6	1683063	434378
al-1	1683032	434389
al-2	1682996	434318
al-3	1682984	434299
al-4	1682851	434354
al-5	1682857	434464
al-6	1682994	434451
am-1	1682714	434366
am-2	1682715	434299
am-3	1682800	434309
am-4	1682795	434373
am-5	1682823	434402
am-6	1682783	434441
am-7	1682769	434378

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
an-1	1683292	434494
an-10	1682581	435666
an-11	1682494	436159
an-12	1682414	436752
an-13	1682434	436888
an-14	1682490	436922
an-15	1682538	436934
an-16	1682631	436942
an-17	1682696	436941
an-19	1682877	436937
an-2	1683189	434530
an-21	1682998	436843
an-22	1683029	436728
an-23	1683029	436628
an-24	1683050	436533
an-25	1683097	436494
an-26	1683078	436385
an-28	1683118	436163
an-29	1683146	436036
an-3	1683072	434571
an-30	1683164	435907
an-31	1683195	435764
an-32	1683227	435650
an-33	1683234	435534
an-34	1683257	435417
an-35	1683267	435349
an-36	1683291	435247
an-37	1683298	435158
an38	1683320	435120
an-39	1683328	435043
an-4	1682967	434610
an-40	1683341	434855
an-41	1683364	434790
an-43	1683312	434604
an-44	1683318	434542
an-5	1682768	434604
an-6	1682758	434645
an-7	1682770	434695
an-8	1682749	434751
an-9	1682643	435253
ao-1	1682361	436888
ao-10	1682961	436998
ao-11	1682828	436977
ao-12	1682744	436973
ao-13	1682714	436974
ao-14	1682692	436973
ao-15	1682631	436973
ao-16	1682525	436963
ao-17	1682427	436920
ao-18	1682410	436913
ao-19	1682355	436913
ao-2	1682410	436893
ao-3	1682430	436896
ao-4	1682505	436938
ao-5	1682629	436954
ao-6	1682690	436952
ao-7	1682717	436947
ao-8	1682828	436959
ao-9	1682972	436983
ap-1	1682407	437053
ap-10	1682099	436947
ap-11	1682092	437392
ap-12	1682094	437736
ap-13	1682090	437819
ap-14	1682089	438024
ap-15	1682095	438385
ap-16	1682162	438464
ap-17	1682160	438723
ap-18	1682157	438983
ap-19	1682095	439097

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
ap-2	1682357	437042
AP-20	1682083	439771
AP-21	1682208	439763
AP-21	1682109	439766
AP-23	1682338	439757
AP-24	1682344	439314
AP-25	1682344	438796
AP-26	1682346	438315
AP-27	1682333	438062
AP-28	1682343	437960
AP-29	1682345	437748
AP-3	1682341	436979
AP-30	1682361	437426
AP-31	1682389	437363
AP-33	1682399	437196
AP-33	1682434	437206
AP-4	1682157	436941
AP-5	1682166	437040
AP-6	1682150	437060
AP-7	1682128	437046
AP-8	1682132	436968
AP-9	1682137	436946
AQ 10	1681979	439851
AQ 11	1682005	440233
AQ 12	1682005	440539
AQ 13	1682010	440883
AQ 14	1682004	441218
AQ 15	1681995	441515
AQ 16	1681985	441831
AQ 17	1681985	442325
AQ 18	1681968	442322
AQ 19	1681970	442378
AQ 20	1681986	442380
AQ 21	1681979	442708
AQ 22A	1681970	442711
AQ 22B	1681971	442738
AQ 23	1681977	442749
AQ 24	1681988	443186
AQ 25	1681981	444117
AQ 26	1681990	444975
AQ 27	1681974	444977
AQ 28	1681974	445015
AQ 29	1681989	445015
AQ 30	1681993	446056
AQ 31	1681992	446970
AQ 32	1681975	447936
AQ 34	1681979	449288
AQ 35	1681975	450329
AQ 36	1681970	451594
AQ 37	1681947	451596
AQ 38	1681937	451651
AQ 39	1681967	451649
AQ 40	1681972	452265
AQ 41	1681976	453171
AQ 42	1681993	453677
AQ 43	1681979	453675
AQ 44	1681972	453771
AQ 45	1681999	453769
AQ 46	1682019	454553
AQ 47	1681989	454567
AQ 9	1682006	439432
AR-1	1682376	439763
AR-10	1682422	439610
AR-11	1682412	439623
AR-12	1682406	439706
AR-13	1682408	439761
AR-2	1682366	439275
AR-3	1682367	438922
AR-4	1682401	438893
AR-47	1682761	438355
AR-5	1682423	438961
AR-6	1682422	439101
AR-7	1682393	439121
AR-72	1682701	439034
AR-8	1682425	439197
AR-9	1682423	439428

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
AS-1	1682366	438811
AS-2	1682372	438327
AS-3	1682364	438154
AS-4	1682389	438143
AS-5	1682402	438336
AS-6	1682400	438466
AS-7	1682402	438674
AS-8	1682402	438805
AT U1	1682981	440964
AT U1	1682893	440959
AT U1	1682891	441058
AT U1	1682977	441059
AT-1	1683163	437103
AT-10	1682712	437073
AT100	1682586	440671
AT101	1682633	440678
AT102	1682701	440703
AT103	1682741	440720
AT104	1682791	440745
AT105	1682834	440788
AT106	1682923	440774
AT107	1682991	440800
AT108	1682993	440932
AT109	1682932	440930
AT-11	1682708	437223
AT110	1682881	440901
AT111	1682873	440984
AT112	1682824	440992
AT113	1682770	441055
AT114	1682785	441108
AT115	1682850	441157
AT116	1682888	441232
AT117	1682987	441238
AT118	1682988	441408
AT119	1682974	441492
AT-12	1682693	437237
AT120	1682991	441531
AT121	1682938	441548
AT122	1682898	441596
AT123	1682872	441530
AT124	1682843	441539
AT125	1682836	441567
AT126	1682789	441581
AT127	1682685	441569
AT128	1682641	441561
AT129	1682646	441519
AT130	1682693	441521
AT131	1682748	441490
AT132	1682770	441518
AT133	1682846	441497
AT134	1682884	441476
AT135	1682935	441484
AT136	1682937	441407
AT137	1682878	441390
AT138	1682772	441428
AT139	1682736	441422
AT140	1682727	441380
AT141	1682775	441325
AT142	1682773	441285
AT143	1682716	441237
AT144	1682695	441195
AT145	1682732	441079
AT146	1682707	441007
AT147	1682618	441011
AT148	1682577	441032
AT149	1682581	440985
AT150	1682561	440954

LAST DATE IN FIELD: 12/15/2009

PROJECT TITLE:
SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES
OF
PROGRESS ENERGY FLORIDA
LEVY-CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE
Citrus County, Florida

DATE	BY	DESCRIPTION

REVISION

DRAWN BY: P.E.W. DATE: 12/16/09
CHKD. BY: R.M.J. DATE: 12/16/09
JOB No. 6374090435
SCALE: n/a
SHT. 13 OF 17
DRAWING NAME: PHP Transmission Line.dwg

PREPARED BY:

MACTEC
MACTEC Engineering & Consulting, Inc.
4150 North John Young Parkway Orlando, Florida 32804-3620
Phone: 407.522.7570 Fax: 407.522.7578
CERTIFICATE OF AUTHORIZATION: LB 6989

PREPARED FOR:

Golder Associates
Gainesville, Florida.
GOLDER ASSOCIATES
6026 NW 1st Place
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SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES

OF

PROGRESS ENERGY FLORIDA

LEVY to CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE

LOCATED IN

CITRUS COUNTY, FLORIDA

WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS		
Desc	Northing	Easting	Desc	Northing	Easting	Desc	Northing	Easting	Desc	Northing	Easting	Desc	Northing	Easting
AT151	1682528	440933	AT211	1683009	442016	AT-28	1682624	438011	AT-4	1682971	437065	AU1	1682332	439777
AT152	1682498	440892	AT212	1682992	442003	AT280	1683146	440354	AT-40	1682773	438212	AU10	1682295	440644
AT153	1682442	440884	AT213	1682972	442068	AT281	1683145	440316	AT-41	1682798	438207	AU11	1682335	440669
AT154	1682414	440878	AT214	1682960	442068	AT282	1683154	440220	AT-42	1682819	438261	AU12	1682333	440701
AT155	1682455	440919	AT215	1682956	441966	AT283	1683088	440166	AT-43	1682880	438288	AU13	1682304	440711
AT156	1682455	440978	AT216	1682958	441889	AT284	1683024	440186	AT-44	1682879	438362	AU14	1682309	440730
AT157	1682402	441006	AT217	1682898	441887	AT285	1683021	440103	AT-45	1682786	438364	AU15	1682335	440737
AT158	1682408	441049	AT218	1682901	441837	AT285	1683023	440104	AT-46	1682767	438400	AU16	1682337	440825
AT159	1682444	441073	AT219	1682859	441812	AT286	1683035	440051	AT-48	1682738	438305	AU17	1682335	440882
AT-16	1682639	437199	AT-22	1682372	437675	AT287	1683035	439975	AT-49	1682738	438248	AU18	1682307	440878
AT160	1682476	441096	AT220	1682760	441845	AT288	1683098	439999	at-5	1682968	437006	AU19	1682294	440827
AT161	1682489	441124	AT221	1682780	441779	AT289	1683124	440046	AT-50	1682708	438183	AU2	1682355	439892
AT162	1682496	441166	AT222	1682813	441735	AT-29	1682693	438014	AT-51	1682709	438293	AU20	1682277	440761
AT163	1682507	441209	AT223	1682737	441703	AT290	1683140	439967	AT-52	1682708	438450	AU21	1682235	440777
AT164	1682508	441244	AT224	1682696	441658	AT291	1683135	439900	AT-53	1682706	438604	AU22	1682225	440843
AT165	1682529	441270	AT225	1682690	441581	AT292	1683144	439836	AT-54	1682757	438582	AU23	1682268	440877
AT166	1682506	441341	AT226	1682789	441590	AT293	1683145	439730	AT-55	1682768	438659	AU24	1682230	440932
AT167	1682541	441376	AT227	1682843	441600	AT294	1683137	439654	AT-56	1682749	438701	AU25	1682234	440959
AT168	1682508	441411	AT228	1682898	441610	AT295	1683101	439712	AT-57	1682742	438766	AU26	1682264	440985
AT169	1682474	441418	AT229	1682987	441625	AT296	1683027	439695	AT-58	1682789	438799	AU27	1682252	441001
AT-17	1682581	437200	AT-23	1682361	437811	AT297	1683019	439605	AT-59	1682858	438824	AU28	1682164	440984
AT170	1682459	441439	AT230	1682989	441705	AT298	1683000	439561	at-6	1682894	436992	AU29	1682112	440993
AT171	1682475	441475	AT231	1682974	441766	AT299	1683016	439459	AT-60	1682903	438810	AU3	1682354	439991
AT172	1682464	441516	AT232	1682992	441792	AT-3	1683034	437068	AT-61	1682906	438731	AU30	1682103	441172
AT173	1682405	441525	AT233	1682994	441838	AT-30	1682722	438022	AT-62	1682974	438731	AU31	1682111	441457
AT174	1682359	441480	AT234	1682989	441924	AT300	1683010	439358	AT-63	1682989	438833	AU32	1682137	441468
AT175	1682356	441560	AT235	1682998	441927	AT301	1683030	439195	AT-64	1682995	438939	AU33	1682139	441388
AT176	1682396	441578	AT236	1683001	441839	AT302	1683028	439068	AT-65	1682970	438935	AU34	1682184	441383
AT177	1682394	441634	AT237	1683004	441707	AT303	1683030	438923	AT-66	1682898	438886	AU35	1682282	441409
AT178	1682402	441697	AT238	1682999	441528	AT304	1683032	438864	AT-67	1682853	438868	AU36	1682314	441463
AT179	1682440	441752	AT239	1683022	441445	AT305	1683071	438891	AT-68	1682856	438899	AU37	1682324	441516
AT-18	1682503	437172	AT-24	1682367	437935	AT306	1683104	438939	AT-69	1682826	438948	AU38	1682311	441578
AT-18T	1682762	436918	AT240	1683022	441407	AT307	1683110	438984	at-7	1682893	437078	AU39	1682247	441584
AT180	1682474	441803	AT241	1682995	441370	AT308	1683133	438971	AT-70	1682738	438952	AU4	1682341	440102
AT181	1682525	441789	AT242	1682998	441234	AT309	1683141	438929	AT-73	1682692	439090	AU40	1682202	441616
AT182	1682553	441805	AT243	1683018	441243	AT-31	1682768	438031	AT-74	1682700	439133	AU41	1682235	441694
AT183	1682582	441812	AT244	1683063	441230	AT310	1683141	438836	AT-75	1682711	439191	AU42	1682307	441703
AT184	1682622	441794	AT245	1683119	441216	AT311	1683145	438771	AT-76	1682700	439224	AU43	1682255	441769
AT185	1682639	441836	AT246	1683130	441145	AT312	1683137	438683	AT-77	1682701	439342	AU44	1682312	441832
AT186	1682607	441884	AT247	1683093	441110	AT313	1683145	438619	AT-78	1682702	439465	AU45	1682331	441917
AT187	1682586	441925	AT248	1683021	441102	AT314	1683143	438558	AT-79	1682704	439605	AU46	1682330	442153
AT188	1682549	441960	AT249	1683020	440952	AT315	1683141	438492	at-8	1682907	437093	AU47	1682252	442159
AT189	1682584	441985	AT-25	1682429	437970	AT316	1683139	438449	AT-80	1682702	439771	AU48	1682109	442162
AT-19	1682475	437172	AT250	1683021	440815	AT317	1683172	438392	AT-81	1682588	439769	AU49	1682108	442418
AT190	1682612	442050	AT251	1683066	440813	AT318	1683164	438344	AT-86	1682484	439763	AU5	1682345	440290
AT191	1682697	442067	AT252	1683125	440816	AT319	1683149	438319	AT-87	1682403	439769	AU50	1682091	442420
AT192	1682748	442079	AT253	1683162	440706	AT-32	1682858	438021	AT88	1682374	439774	AU51	1682091	442162
AT193	1682798	442115	AT254	1683127	440641	AT320	1683155	438240	AT-88	1682375	439773	AU52	1682092	441669
AT194	1682841	442156	AT255	1683100	440609	AT321	1683159	438127	AT89	1682366	439989	AU53	1682086	441349
AT195	1682898	442153	AT256	1683024	440593	AT322	1683157	438001	at-9	1682806	437107	AU54	1682078	441277
AT196	1682973	442136	AT257	1682954	440583	AT323	1683156	437894	AT90	1682368	440229	AU55	1682079	440767
AT197	1682987	442150	AT258	1682834	440622	AT324	1683152	437804	AT91	1682379	440399	AU56	1682085	440262
AT198	1682987	442193	AT259	1682779	440653	AT325	1683143	437679	AT92	1682454	440343	AU57	1682083	439785
AT199	1682878	442201	AT-26	1682523	437968	AT326	1683172	437638	AT93	1682482	440321			
AT-2	1683110	437069	AT260	1682700	440554	AT327	1683169	437543	AT94	1682473	440411			
AT-20	1682420	437332	AT261	1682739	440500	AT328	1683152	437497	AT95	1682536	440429			
AT-20	1683022	436961	AT262	1682801	440512	AT329	1683166	437403	AT96	1682571	440464			
AT200	1682860	442208	AT263	1682755	440458	AT-33	1682856	438064	AT97	1682617	440514			
AT201	1682988	442206	AT264	1682723	440475	AT330	1683177	437364	AT98	1682602	440556			
AT202	1682990	442284	AT265	1682694	440390	AT331	1683179	437259	AT99	1682596	440612			
AT203	1682972	442327	AT266	1682696	440254	AT332	1683174	437197	AUU1 1	1682181	442130			
AT204	1682992	442369	AT267	1682751	440236	AT-34	1682808	438048	AUU1 2	1682138	442038			
AT205	1682985	442438	AT268	1682795	440221	AT-35	1682730	438033	AUU1 3	1682138	441875			
AT206	1683013	442431	AT269	1682839	440260	AT-36	1682702	438066	AUU1 4	1682142	441687			
AT207	1683024	442344	AT-27	1683102	436283	AT-37	1682707	438156	AUU1 5	1682138	441499			
AT208	1683015	442277	AT270	1682924	440310	AT-38	1682719	438183	AUU1 6	1682106	441497			
AT209	1683014	442188	AT271	1682922	440336	AT-39	1682736	438156	AUU1 7	1682110	441670			
AT-21	1682385	437456	AT272	1682889	440369				AUU1 8	1682107	441966			
AT210	1683015	442093	AT273	1682873	440457				AUU1 9	1682112	442141			
			AT274	1682919	440483									
			AT275	1682959	440469									
			AT276	1683022	440524									
			AT277	1683084	440510									
			AT278	1683133	440497									
			AT279	1683131	440407									

LAST DATE IN FIELD: 12/15/2009

PROJECT TITLE:
SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES
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LEVY-CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE
Citrus County, Florida

DATE	BY	DESCRIPTION

REVISION

DRAWN BY: P.E.W. DATE: 12/16/09 | CHKD. BY: R.M.J. DATE: 12/16/09

JOB No. 6374090435 | SCALE: n/a | SHT. 14 OF 17

DRAWING NAME: PHP Transmission Line.dwg

PREPARED BY:
MACTEC
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Phone: 407.522.7570 Fax: 407.522.7578
CERTIFICATE OF AUTHORIZATION: LB 0000

PREPARED FOR:
Golder Associates
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GOLDER ASSOCIATES
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GAINESVILLE, FLORIDA 32607

SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES

OF

PROGRESS ENERGY FLORIDA

LEVY to CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE

LOCATED IN

CITRUS COUNTY, FLORIDA

WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS			WETLAND FLAG LOCATIONS		
Desc	Northing	Easting	Desc	Northing	Easting	Desc	Northing	Easting	Desc	Northing	Easting	Desc	Northing	Easting
AU6	1682339	440571	BD-1	1682352	443862	CB-B1	1678254	464254	CS C1	1683956	459509	CS J1	1683486	459831
AU7	1682294	440546	BD-2	1682396	443863	CB-B2	1678176	464278	CS C10	1683791	459256	CS J10	1683775	459645
AU8	1682273	440578	BD-3	1682392	443764	CB-B3	1678240	464392	CS C11	1683889	459213	CS J11	1683771	459677
AU9	1682299	440609	BD-4	1682361	443747	CB-B4	1678293	464415	CS C12	1683957	459252	CS J12	1683788	459731
AV1	1682826	441184	BE-1	1682323	445136	CB-B5	1678313	464333	CS C13	1683934	459299	CS J13	1683761	459771
AV2	1682795	441167	BE-1	1682323	445136	CB-C6	1677808	464889	CS C14	1683899	459346	CS J14	1683786	459807
AV3	1682753	441199	BE-2	1682274	445009	CB-C7	1677729	464905	CS C15	1683944	459415	CS J15	1683773	459846
AV4	1682768	441246	BE-2	1682274	445009	CB-F1	1678222	464922	CS C16	1683961	459476	CS J16	1683716	459850
AV5	1682816	441229	BE-3	1682207	445010	CB-F2	1678249	464900	CS C2	1683900	459549	CS J17	1683671	459868
AW1	1682378	441886	BE-3	1682207	445010	CB-F3	1678233	464878	CS C3	1683861	459599	CS J18	1683605	459889
AW10	1682404	441866	BE-4	1682176	445072	CB-F4	1678175	464868	CS C4	1683811	459597	CS J19	1683606	459934
AW2	1682360	441938	BE-4	1682176	445072	CB-F5	1678133	464834	CS C5	1683795	459536	CS J2	1683509	459743
AW3	1682358	442073	BE-5	1682178	445103	CB-F6	1678080	464874	CS C6	1683753	459463	CS J20	1683612	459967
AW4	1682400	442125	BE-5	1682178	445103	CB-F7	1678103	464966	CS C7	1683719	459406	CS J21	1683684	459972
AW5	1682445	442114	BE-6	1682213	445121	CB-F8	1678184	464936	CS C8	1683705	459361	CS J22	1683660	459990
AW6	1682469	442080	BE-6	1682213	445121	CS A1	1684761	459034	CS C9	1683743	459302	CS J23	1683590	460005
AW7	1682504	442058	BE-7	1682256	445190	CS A10	1684394	459323	CS D1	1685837	458948	CS J24	1683486	460018
AW8	1682486	441998	BE-7	1682256	445190	CS A11	1684371	459379	CS D2	1685822	458969	CS J25	1683454	460010
AW9	1682463	441927	BF-1	1682317	446506	CS A12	1684332	459437	CS D3	1685815	459025	CS J26	1683456	459888
AX1	1682304	441269	BF-1	1682317	446506	CS A13	1684234	459503	CS D4	1685857	459067	CS J3	1683494	459674
AX2	1682328	441213	BF-2	1682272	446521	CS A14	1684198	459563	CS D5	1685928	459038	CS J4	1683548	459714
AX3	1682321	441148	BF-2	1682272	446521	CS A15	1684220	459619	CS D6	1685890	458984	CS J5	1683599	459702
AX4	1682311	441042	BF-3	1682219	446589	CS A16	1684242	459702	CS E1	1685948	458838	CS J6	1683652	459687
AX5	1682259	441094	BF-3	1682219	446589	CS A17	1684367	459766	CS E2	1685998	458840	CS J7	1683698	459640
AX7	1682194	441215	BF-4	1682193	446599	CS A18	1684447	459769	CS E3	1686047	458785	CS J8	1683744	459654
AX8	1682225	441278	BF-4	1682193	446599	CS A19	1684476	459887	CS E4	1686061	458713	CS J9	1683767	459631
AY1	1682382	442538	BF-5	1682177	446720	CS A2	1684646	459054	CS E5	1686047	458662	CS K1	1683397	458288
AY10	1682511	442766	BF-5	1682177	446720	CS A20	1684573	459901	CS E6	1685969	458619	CS K10	1683397	458863
AY11	1682399	442746	BF-6	1682255	446722	CS A21	1684649	459850	CS E7	1685889	458646	CS K11	1683379	458958
AY8	1682606	442753	BF-6	1682255	446722	CS A22	1684709	459839	CS E8	1685933	458710	CS K12	1683403	459030
AY9	1682558	442754	BF-7	1682258	446775	CS A23	1684746	459814	CS E9	1685924	458800	CS K13	1683405	459108
AZ1	1682742	442387	BF-7	1682258	446775	CS A24	1684774	459715	CS F1	1686165	458874	CS K14	1683367	459190
AZ2	1682748	442260	BF-8	1682293	446843	CS A25	1684827	459676	CS F2	1686116	458883	CS K15	1683326	459204
AZ3	1682700	442263	BF-8	1682293	446843	CS A26	1684779	459665	CS F3	1686099	458872	CS K16	1683298	459265
AZ4	1682639	442248	BF-9	1682314	446849	CS A27	1684734	459610	CS F4	1686093	458818	CS K17	1683250	459268
AZ5	1682579	442240	BF-9	1682314	446849	CS A28	1684701	459565	CS F5	1686096	458691	CS K18	1683201	459232
AZ6	1682541	442261	BG-1	1682307	446980	CS A29	1684737	459524	CS F6	1686108	458627	CS K19	1683179	459159
AZ7	1682599	442283	BG-1	1682307	446980	CS A3	1684598	459065	CS F7	1686155	458627	CS K2	1683432	458397
AZ8	1682607	442383	BG-2	1682286	446979	CS A30	1684799	459419	CS F8	1686173	458725	CS K20	1683151	459129
B-25	1682246	444015	BG-2	1682286	446979	CS A31	1684774	459252	CS F9	1686170	458827	CS K21	1683177	459090
BA1	1682352	442152	BG-3	1682276	446909	CS A32	1684762	459222	CS G1	1684981	459307	CS K22	1683171	459012
BA2	1682429	442156	BG-3	1682276	446909	CS A4	1684556	459018	CS G2	1684982	459335	CS K23	1683100	458987
BA3	1682431	442144	BG-4	1682306	446891	CS A5	1684488	459087	CS G3	1685010	459361	CS K24	1683094	458853
BA4	1682357	442134	BG-4	1682306	446891	CS A7	1684420	459172	CS G4	1685046	459349	CS K25	1683089	458749
BB-1	1682317	442915	BH-1	1682390	446601	CS A8	1684399	459236	CS G5	1685050	459320	CS K26	1683136	458733
BB-2	1682232	442899	BH-1	1682390	446601	CS A9	1684411	459288	CS G6	1685027	459291	CS K27	1683199	458747
BB-5	1682176	442989	BH-2	1682404	446694	CS B1	1684585	458265	CS G7	1685000	459294	CS K28	1683205	458767
BB-6	1682313	442988	BH-2	1682404	446694	CS B2	1684452	458324	CS GT	1683506	459321	CS K29	1683242	458734
BC-1	1682307	443329	BH-3	1682403	446823	CS B3	1684389	458454	CS H1	1684928	459233	CS K3	1683449	458455
BC-2	1682150	443341	BH-3	1682403	446823	CS B4	1684442	458500	CS H2	1684952	459245	CS K30	1683201	458708
BC-3	1682136	443367	BH-4	1682360	446820	CS B4A	1684556	458532	CS H3	1684970	459262	CS K31	1683169	458684
BC-4	1682160	443419	BH-4	1682360	446820	CS B5	1684596	458492	CS H4	1685007	459231	CS K32	1683118	458685
BC-5	1682226	443423	BH-5	1682357	446585	CS B6	1684572	458427	CS H5	1684971	459198	CS K33	1683089	458700
BC-6	1682264	443459	BH-5	1682357	446585	CS B7	1684586	458357	CS H6	1684940	459167	CS K34	1683086	458598
BC-7	1682309	443459				CS B8	1684616	458338	CS H7	1684908	459186	CS K35	1683087	458481
									CS I1	1685051	458572	CS K36	1683122	458497
									CS I2	1685102	458560	CS K37	1683141	458493
									CS I3	1685126	458527	CS K38	1683149	458472
									CS I4	1685124	458505	CS K39	1683148	458449
									CS I5	1685100	458478	CS K4	1683517	458489
									CS I6	1685048	458460	CS K40	1683111	458426
									CS I7	1684998	458495	CS K41	1683081	458428
									CS I8	1685002	458545	CS K42	1683080	458320
									CS IB2	1685640	458625	CS K43	1683086	458215
									CS IB2	1685377	458519	CS K44	1683131	458178
									CS IB3	1685571	458618	CS K45	1683180	458169
									CS IB6	1685644	458606	CS K46	1683255	458172
									CS IB7	1685563	458591	CS K47	1683320	458200
									CS IB8	1685375	458497	CS K48	1683367	458249
												CS K5	1683518	458562
												CS K6	1683518	458639
												CS K7	1683426	458676
												CS K8	1683362	458733
												CS K9	1683370	458819

LAST DATE IN FIELD: 12/15/2009

PROJECT TITLE:
SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES
OF
PROGRESS ENERGY FLORIDA
LEVY-CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE
Citrus County, Florida

DATE	BY	DESCRIPTION

REVISION

DRAWN BY: P.E.W. DATE: 12/16/09 | CHKD. BY: R.M.J. DATE: 12/16/09

JOB No. 6374090435 | SCALE: n/a | SHT. 15 OF 17

DRAWING NAME: PHP Transmission Line.dwg

PREPARED BY:
MACTEC
MACTEC Engineering & Consulting, Inc.
4150 North John Young Parkway Orlando, Florida 32804-3820
Phone: 407.522.7570, Fax: 407.522.7578.
CERTIFICATE OF AUTHORIZATION: LB 6989

PREPARED FOR:
Golder Associates
Gainesville, Florida
GOLDER ASSOCIATES
6026 NW 1st Place
GAINESVILLE, FLORIDA 32607

SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES

OF

PROGRESS ENERGY FLORIDA

LEVY to CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISION LINE

LOCATED IN

CITRUS COUNTY, FLORIDA

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
CS L1	1683040	458302
CS L2	1683008	458285
CS L3	1682995	458317
CS L4	1683008	458332
CS M1	1683071	457592
CS M2	1683051	457586
CS M3	1683051	457406
CS M4	1683047	457157
CS M5	1683067	457157
CS M6	1683070	457394
CS N1	1683412	462408
CS N2	1683359	462388
CS N3	1683356	462416
CS N4	1683369	462446
CS N5	1683406	462430
CS O1	1683072	463501
CS O2	1683080	463527
CS O3	1683112	463522
CS O4	1683098	463490
CS P1	1683265	463976
CS P2	1683279	464006
CS P3	1683293	464015
CS P4	1683322	464002
CS P5	1683338	463975
CS P6	1683310	463944
CS P7	1683285	463951
AJ-1	1683195	433974
AJ-2	1683195	434017
AJ-3	1683264	434020
AJ-4	1683275	433995
AK-1	1683094	434385
AK-2	1683156	434346
AK-3	1683166	434243
AK-4	1683086	434158
AK-5	1683033	434222
AK-6	1683063	434378
AL-1	1683032	434389
AL-2	1682996	434318
AL-3	1682884	434299
AL-4	1682851	434354
AL-5	1682857	434464
AL-6	1682994	434451
AM-1	1682714	434366
AM-2	1682715	434299
AM-3	1682800	434309
AM-4	1682795	434373
AM-5	1682823	434402
AM-6	1682783	434441
AM-7	1682769	434378

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
CS S1	1683177	456834
CS S2	1683255	456862
CS S3	1683351	456868
CS S4	1683367	456938
CS S5	1683309	456977
CS S6	1683192	456893
CS T1	1682905	457379
CS T2	1682903	457363
CS T3	1682839	457344
CS T4	1682763	457341
CS T5	1682757	457418
CS T6	1682751	457505
CS T8	1682782	457497
CS T9	1682784	457386
CS U1	1682898	457514
CS U2	1682903	457580
CS U3	1682825	457637
CS U4	1682779	457575
CS U5	1682851	457524
CS V1	1682775	457084
CS V2	1682783	457158
CS V3	1682829	457151
CS V4	1682826	457079
CS W1	1682343	459227
CS W2	1682288	459215
CS W3	1682270	459153
CS W4	1682277	459097
CS W5	1682372	459103
CS W6	1682400	459147
WL10-1	1682832	447497
WL10-2	1682845	447434
WL10-3	1682897	447385
WL10-4	1682902	447481
WL10-5	1682863	447533
WL11-1	1683005	446271
WL11-2	1683070	446332
WL11-3	1683077	446287
WL11-4	1683110	446253
WL11-5	1683090	446200
WL11-6	1683053	446159
WL11-7	1683014	446192
WL12-1	1683081	445987
WL12-2	1683071	446032
WL12-3	1683083	446092
WL12-4	1683144	446089
WL12-5	1683147	446016
ZF-1	1682414	447447
ZF-10	1682451	447494
ZF-11	1682407	447495
ZF-2	1682444	447441
ZF-3	1682483	447450
ZF-4	1682510	447475
ZF-5	1682496	447479
ZF-6	1682517	447474
ZF-7	1682550	447484
ZF-8	1682529	447494
ZF-9	1682485	447488
ZG-1	1682543	447529
ZG-2	1682599	447519
ZG-3	1682579	447546
ZG-4	1682570	447571
ZG-5	1682520	447582
ZG-6	1682508	447593
ZG-7	1682472	447598
ZG-8	1682488	447559
ZG-9	1682515	447529
ZH-1	1682392	445273
ZH-2	1682373	445331
ZH-3	1682443	445358
ZH-4	1682439	445293

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
WL2-1	1682674	452733
WL2-10	1683010	452459
WL2-11	1682996	452426
WL2-12	1682926	452376
WL2-13	1682898	452315
WL2-14	1682891	452294
WL2-15	1682927	452266
WL2-16	1682980	452216
WL2-17	1682927	452221
WL2-17	1682703	452090
WL2-18	1682893	452203
WL2-19	1682948	452132
WL2-2	1682741	452650
WL2-20	1682984	452142
WL2-21	1682925	452069
WL2-22	1682861	452016
WL2-23	1682857	452055
WL2-24	1682819	452054
WL2-25	1682769	451990
WL2-26	1682720	452037
WL2-28	1682680	452588
WL2-29	1682742	452565
WL2-3	1682779	452643
WL2-30	1682763	452553
WL2-31	1682802	452531
WL2-32	1682866	452524
WL2-33	1682890	452518
WL2-34	1682869	452448
WL2-35	1682877	452411
WL2-36	1682852	452361
WL2-37	1682812	452296
WL2-38	1682769	452281
WL2-39	1682718	452293
WL2-4	1682849	452642
WL2-40	1682678	452241
WL2-41	1682662	452164
WL2-5	1682912	452652
WL2-6	1683002	452631
WL2-7	1683021	452600
WL2-8	1683013	452557
WL2-9	1683018	452512
WL3-1	1683031	448815
WL3-10	1683112	448782
WL3-11	1683134	448784
WL3-12	1683148	448776
WL3-13	1683135	448755
WL3-14	1683121	448697
WL3-15	1683096	448665
WL3-16	1683046	448633
WL3-17	1683002	448625
WL3-18	1682960	448610
WL3-19	1682929	448590
WL3-2	1683064	448818
WL3-20	1682924	448568
WL3-21	1682863	448518
WL3-22	1682810	448473
WL3-23	1682767	448430
WL3-24	1682695	448339
WL3-25	1682663	448295
WL3-27	1682679	448492
WL3-28	1682726	448507
WL3-29	1682788	448568
WL3-3	1683073	448841
WL3-30	1682842	448616
WL3-31	1682871	448634
WL3-32	1682904	448615
WL3-33	1682919	448648
WL3-34	1682936	448678
WL3-35	1682919	448709
WL3-36	1682923	448748
WL3-37	1682981	448800
WL3-4	1683097	448850
WL3-5	1683071	448903
WL3-6	1683103	448859
WL3-7	1683117	448851
WL3-8	1683102	448812
WL3-9	1683109	448800

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
WL4-1	1682706	448264
WL4-2	1682677	448270
WL4-3	1682682	448242
WL5-1	1682685	448206
WL5-2	1682722	448199
WL5-3	1682719	448160
WL5-4	1682686	448164
WL6-1	1682669	448002
WL6-2	1682699	447949
WL6-3	1682765	447861
WL6-4	1682744	447815
WL6-5	1682659	447817
WL6-6	1682609	447862
WL6-7	1682608	447913
WL6-8	1682628	447968
WL9-1	1682663	447660
WL9-2	1682712	447634
WL9-3	1682752	447585
WL9-4	1682813	447561
WL9-5	1682800	447630
WL9-6	1682762	447680
WL9-7	1682733	447670
WL9-8	1682670	447713
X1	1682875	455679
X2	1682838	455631
X3	1682727	455640
X5	1682712	455728
X6	1682757	455752
X7	1682810	455779
X8	1682859	455759
X9	1682880	455728
Y1	1683298	454553
Y10	1682773	454436
Y11	1682890	454486
Y12	1683016	454490
Y13	1683096	454509
Y14	1683158	454501
Y15	1683226	454510
Y16	1683275	454517
Y17	1683297	454533
Y2	1683223	454532
Y3	1683159	454519
Y4	1683104	454527
Y5	1683019	454507
Y6	1682890	454499
Y7	1682755	454444
Y8	1682749	454422
Y9	1682762	454417
Z1	1682084	453804
Z10	1682385	454021
Z11	1682501	454101
Z12	1682686	454247
Z13	1682702	454256
Z14	1682724	454254
Z15	1682700	454274
Z16	1682685	454280
Z17	1682669	454252
Z18	1682477	454106
Z19	1682373	454036
Z2	1682216	453890
Z21	1682278	453988
Z22	1682225	453975
Z23	1682121	453910
Z24	1682108	453830
Z25	1682083	453811
Z3	1682226	453817
Z4	1682238	453788
Z5	1682302	453791
Z6	1682322	453831
Z7	1682331	453938
Z8	1682307	453948
Z9	1682329	453973

WETLAND FLAG LOCATIONS

Desc	Northing	Easting
ZA-1	1682368	443494
ZA-2	1682416	443459
ZA-3	1682450	443398
ZA-4	1682476	443427
ZA-5	1682507	443476
ZA-6	1682515	443526
ZA-7	1682494	443583
ZA-8	1682426	443595
ZA-9	1682377	443595
ZA-10	1682381	443658
ZA-11	1682429	443661
ZA-12	1682465	443626
ZA-13	1682500	443615
ZA-14	1682572	443631
ZA-15	1682588	443673
ZA-16	1682618	443653
ZA-17	1682659	443598
ZA-18	1682634	443555
ZA-19	1682658	443519
ZA-20	1682647	443481
ZA-21	1682624	443434
ZA-22	1682614	443398
ZA-23	1682581	443358
ZA24	1682455	443324
ZA-25	1682378	443382
ZB-1	1682521	443688
ZB-2	1682491	443691
ZB-3	1682485	443712
ZB-4	1682509	443709
ZC-1	1682671	443793
ZC-2	1682648	443758
ZC-3	1682588	443759
ZC-4	1682572	443783
ZC-5	1682619	443803
ZC-6	1682646	443827
ZD A-1	1682400	443998
ZD A-2	1682362	444018
ZD A-3	1682356	443937
ZD A-4	1682399	443932
ZD-1	1682391	443928
ZD-10	1682620	443964
ZD-11	1682582	443998
ZD-12	1682563	444028
ZD-13	1682552	444015
ZD-14	1682515	444025
ZD-15	1682502	444049
ZD-16	1682470	444032
ZD-17	1682444	444010
ZD-18	1682402	443994
ZD-2	1682454	443951
ZD-3	1682503	443960
ZD-4	1682562	443928
ZD-5	1682590	443901
ZD-6	1682654	443867
ZD-7	1682647	443882
ZD-9	1682645	443962
ZE-1	1682442	445996
ZE-10	1682484	446026
ZE-2	1682480	445982
ZE-3	1682514	445970
ZE-4	1682553	445997
ZE-5	1682591	446016
ZE-6	1682675	446017
ZE-7	1682633	446022
ZE-8	1682596	446022
ZE-9	1682550	446023

LAST DATE IN FIELD: 12/15/2009

PROJECT TITLE:
SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES
OF
PROGRESS ENERGY FLORIDA
LEVY-CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE
Citrus County, Florida

DATE	BY	DESCRIPTION

REVISION

DRAWN BY: P.E.W. DATE: 12/16/09
CHKD. BY: R.M.J. DATE: 12/15/09
JOB No. 6374090435
SCALE: n/a
SHT. 16 OF 17
DRAWING NAME: PHP Transmission Line.dwg

PREPARED BY:
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CERTIFICATE OF AUTHORIZATION: LB 6988

PREPARED FOR:
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Gainesville, Florida
GOLDER ASSOCIATES
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SPECIFIC PURPOSE SURVEY OF WETLAND JURISDICTIONAL DELINEATION AND THREATENED AND ENDANGERED SPECIES

OF

PROGRESS ENERGY FLORIDA

LEVY to CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISION LINE

LOCATED IN

CITRUS COUNTY, FLORIDA

GOPHER TORTOISE BURROWS

Desc	Northing	Easting
GT NO ID	1683038	460955
GT NO ID	1683465	460919
GT NO ID	1682056	460680
GT NO ID	1682777	453040
GT NO ID	1682743	451359
GT NO ID	1682816	451252
GT NO ID	1682774	451111
GT NO ID	1682939	450675
GT 1	1682174	453370
GT 10	1682934	451296
GT 11	1682936	450700
GT 12	1682939	450674
GT 13	1682942	450471
GT 14	1682935	450370
GT 15	1682938	450166
GT 18	1682950	450452
GT 19	1682948	450561
GT 2	1682180	453338
GT 20	1682968	450651
GT 3	1682170	453417
GT 4	1682182	453429
GT 5	1682188	453463
GT 5	1682799	453161
GT-6	1682158	453472
GT-7	1678335	464631
GT 6	1682159	453474
GT 6	1682754	453302
GT 7	1682155	453479
GT 7	1682720	452915
GT 8	1682704	451190
GT 9	1682950	451147
GTAA1	1684928	458720
GTAA2	1682880	460114
GT NO ID	1682860	450088
GT NO ID	1682866	449805
GT NO ID	1682878	444825
GTA1	1678523	464453
GT-1	1682174	453367
GT-2	1678422	464418
GTA2	1682180	453337
GT-21	1682793	449931
GT-22	1682896	449007
GT-23	1682815	448691
GT-24	1682954	448825
GT-25	1682944	448887
GT-26	1682945	448888
GT-27	1682950	447891
GT-28	1682945	447089
GT-29	1682939	447268
GT-3	1678469	464392
GTA3	1682171	453408
GT-30	1682947	447294
GT-31	1682946	447333
GT-32	1682945	447369
GT-33	1682947	447467
GT-34	1682952	447469
GT-35	1682938	447699
GT-36	1682911	447764
GT-37	1682841	446601
GT-38	1682856	446567
GTA4	1682167	460291
GT-4	1682169	460287
GT4	1678335	464600
GT-4	1682182	453424
GT5	1678103	465002
GT6	1678114	465012
GT-7	1682191	453463
GT-8	1682840	444771
GT-71	1682711	438922
INDIGO SNAKE	1682642	443929

WETLAND SQUARE FEET ACREAGE

1	5227	0.12
2	124582	2.86
4	402	0.01
5	1425	0.03
6	18295	0.42
7	607	0.01
8	13068	0.30
9	9583	0.22
10	6098	0.14
11	10454	0.24
12	6098	0.14
13	27878	0.64
14	6098	0.14
15	527	0.01
16	10890	0.25
17	6045	0.14
18	11326	0.26
19	133729	3.07
22	254390	5.84
23	60984	1.40
3&24	159865	3.67
AA	13939	0.32
AB	496148	11.39
AJ	2583	0.05
AK	20343	0.47
AL	22968	0.53
AM	7771	0.18
AO	11901	0.27
AP	656449	15.07
AN	1445564	33.19
AQ	396396	9.10
AR	20473	0.47
AS	42689	0.98
AT	2298531	52.77
AU	465221	10.68
AV	4356	0.10
AW	25265	0.58
AX	19166	0.44
AY	45302	1.04
AZ	20038	0.46
BA	1307	0.03
BB	9148	0.21
BC	16117	0.37
BD	4356	0.10
BE	16117	0.37
BF	27878	0.64
BG	2178	0.05
BH	9583	0.22
CS K	300128	6.89
CS L	1307	0.03
CS M	8276	0.19
CS S	13939	0.32
CS T	8276	0.19
CS U	8276	0.19
CS V	4356	0.10
CS W	12197	0.28
20/21	102366	2.35
X	18731	0.43
Y	9583	0.22
Z	37026	0.85
ZA	56192	1.29
ZB	489	0.01
ZG	4792	0.11
ZC	4356	0.10
ZD	19602	0.45
ZDA	436	0.01
ZE	9583	0.22
ZF	3920	0.09
ZH	3485	0.08
TOTAL	75596013	174.38

LAST DATE IN FIELD: 12/15/2009

PROJECT TITLE:
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OF
PROGRESS ENERGY FLORIDA
LEVY-CRYSTAL RIVER ENERGY COMPLEX (LCR) TRANSMISSION LINE
Citrus County, Florida

DATE	BY	DESCRIPTION
01/19/10	P.E.W.	WETLANDS "AN, AO & AT"

REVISION

DRAWN BY: P.E.W. DATE: 12/16/09 | CHKD. BY: R.M.J. DATE: 12/16/09

JOB No. 6374090435 | SCALE: n/a | SHT. 17 OF 17

DRAWING NAME: PHP Transmission Line.dwg

PREPARED BY:
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Phone: 407.522.7570 Fax: 407.522.7578
CERTIFICATE OF AUTHORIZATION: LB 6969

PREPARED FOR:
Golder Associates
Gainesville, Florida.
GOLDER ASSOCIATES
6026 NW 1st Place
GAINESVILLE, FLORIDA 32607

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/2/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 31 17S 17E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962709 Long: -82.633678 Datum: WGS84

Soil Map Unit Name: Redlevel 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 ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	____Surface Soil Cracks (B6)
____ High Water Table (A2)	____Aquatic Fauna (B13)	____Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Drainage Patterns (B10)
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	____Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓ No _____	Depth (inches): 0-36	
Water Table Present?	Yes ✓ No _____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 0	**Wetland Hydrology Present?** Yes ✓ No _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 1

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	25	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation1 (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Redlevel

SOIL Sampling Point: 1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 3/3							dark brown fine sand
3-7	10 YR 4/2							dark grayish brown fine sand
7-15	10 YR 5/8							yellowish brown fine sand
15-26	7.5 YR 5/8		5 YR 5/8				few medium distinct mottles	strong brown fine sand

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

Hydric Soil Indicators:

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

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/2/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961326 Long: -82.637549 Datum: WGS84

Soil Map Unit Name: Boca 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 ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 2

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	35	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	35	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Phyla nodiflora	50	yes	FACW
2. Centella asiatica	25	yes	FACW
3. Typha spp.	25	yes	OBL
4. Andropogon glomeratus	20	yes	FACW
5. Rhynchospora colorata	20	yes	OBL
6. Eupatorium capillifolium	15	no	FACU
7. Laportea sp.	15	no	FACW
8. Pluchea spp.	10	no	FACW
9. Euthamia spp.	10	no	FAC
10. Eustachys glauca	10	no	FACW
11.			
12.			
	200	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/2/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 3&24

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961799 Long: -82.648889 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: Freshwater Emergent 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 ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? **Yes ✓ No**

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 3&24

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	10	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	20	yes	FACW
2. Quercus laurifolia	10	yes	FACW
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	5	yes	FAC
2. Viburnum obovatum	2	yes	FACW
3.			
4.			
5.			
6.			
7.			
	7	= Total Cover	
Herb Stratum (Plot size:___)			
1. Polygonum spp.	35	yes	FAC
2. Eupatorium capillifolium	25	yes	FACU
3. Typha spp.	20	yes	OBL
4. Sagittaria lancifolia	10	no	OBL
5. Solidago spp.	10	no	FACU
6. Andropogon glomeratus	5	no	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: 3&24

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961037 Long: -82.650338 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 4

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	2	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	2	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:___)			
1. Rhynchospora colorata	30	yes	OBL
2. Muhlenbergia capillaris	25	yes	FACU
3. Solidago spp.	20	yes	FACU
4. Panicum rigidulum	10	no	FACW
5. Eupatorium capillifolium	10	no	FACU
6. Carex spp.	10	no	FACW
7. Rhyncospora spp.	5	no	FACW
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

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

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

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

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: 4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

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

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961010 Long: -82.650861 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 5

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Rhynchospora colorata	35	yes	OBL
2. Centella asiatica	30	yes	FACW
3. Muhlenbergia capillaris	25	yes	FACU
4. Andropogon glomeratus	10	no	FACW
5. Rhynchospora miliacea	10	no	OBL
6. Dichanthelium spp.	10	no	FAC
7. Panicum rigidulum	10	no	FACW
8.			
9.			
10.			
11.			
12.			
	130	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 5

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.960945 Long: -82.651304 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 2

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 6

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	15	yes	FACW
2. Sabal palmetto	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	5	yes	FACW
2. Myrica cerifera	5	yes	FAC
3. Viburnum obovatum	2	no	FACW
4.			
5.			
6.			
7.			
	12	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium jamaicense	40	yes	OBL
2. Rhynchospora colorata	20	yes	OBL
3. Andropogon glomeratus	10	no	FACW
4. Amphicarpum muhlenbergianu	10	no	FACW
5. Carex spp.	5	no	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 6

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

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

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962331 Long: -82.652708 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 3

Wetland Hydrology Present? Yes ✓ No

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 7

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	60	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	60	= Total Cover	
Herb Stratum (Plot size:___)			
1. Sagittaria lancifolia	15	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

County/soil: Citrus- Boca

SOIL Sampling Point: 7

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

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

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962273 Long: -82.653841 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: Freshwater Emergent 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 ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 3

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 8

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Fraxinus caroliniana	20	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	25	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
Herb Stratum (Plot size:___)			
1. Rhynchospora colorata	15	yes	OBL
2. Muhlenbergia capillaris	10	yes	FACU
3. Pluchea odorata	10	yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 8

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961228 Long: -82.652137 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 9

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	10	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	15	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium jamaicense	15	yes	OBL
2. Amphicarpum muhlenbergianu	10	yes	FACW
3. Rhynchospora colorata	10	yes	OBL
4. Andropogon glomeratus	10	yes	FACW
5. Panicum rigidulum	10	yes	FACW
6. Rhynchospora miliacea	5	no	OBL
7. Euthamia spp.	5	no	FAC
8. Carex spp.	5	no	FACW
9.			
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____.

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: 9

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961503 Long: -82.652503 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 3

Wetland Hydrology Present? Yes ✓ No

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 10

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	15	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	10	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:___)			
1. Centella asiatica	20	yes	FACW
2. Andropogon glomeratus	15	yes	FACW
3. Cladium jamaicense	10	no	OBL
4. Rhynchospora colorata	10	no	OBL
5. Rhyncospora spp.	5	no	FACW
6. Muhlenbergia capillaris	5	no	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: 10

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

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

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962091 Long: -82.656719 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 3

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 11

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	20	yes	FACW
2. Fraxinus caroliniana	10	yes	OBL
3. Nyssa sylvatica var. biflora	5	no	FAC
4.			
5.			
6.			
7.			
	35	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 11

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962198 Long: -82.657342 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 3

Wetland Hydrology Present? **Yes ✓ No**

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 12

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	10	yes	FACW
2. Fraxinus caroliniana	15	yes	OBL
3. Nyssa sylvatica var. biflora	10	yes	FAC
4.			
5.			
6.			
7.			
	35	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	15	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 12

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

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

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 35 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961348 Long: -82.657720 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 3-6

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 13

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	10	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Carex spp.	25	yes	FACW
2. Centella asiatica	20	yes	FACW
3. Cyperus spp.	20	yes	FACW
4. Cirsium spp.	10	no	FAC
5. Rhynchospora colorata	10	no	OBL
6. Muhlenbergia capillaris	5	no	FACU
7. Andropogon glomeratus	5	no	FACW
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

County/soil: Citrus- Boca

SOIL

Sampling Point: 13

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 35 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961554 Long: -82.660493 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 14

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Rhynchospora colorata	20	yes	OBL
2. Eustachys glauca	15	yes	FACW
3. Centella asiatica	15	yes	FACW
4. Ludwigia repens	15	yes	OBL
5. Phyla nodiflora	10	no	FACW
6. Andropogon glomeratus	10	no	FACW
7. Amphicarpum muhlenbergianu	5	no	FACW
8. Carex spp.	5	no	FACW
9. Rhyncospora spp.	5	no	FACW
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: 14

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 35 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962476 Long: -82.660921 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 3

Wetland Hydrology Present? **Yes ✓ No**

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 15

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix caroliniana	30	yes	OBL
2. Fraxinus caroliniana	15	yes	OBL
3. Quercus laurifolia	15	yes	FACW
4.			
5.			
6.			
7.			
	60	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 15

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

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke, Amy Piko Section, Township, Range: 35 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962204 Long: -82.662865 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 16

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	30	yes	FACW
2. Sabal palmetto	20	yes	FAC
3. Fraxinus caroliniana	10	no	OBL
4. Magnolia virginiana	5	no	FACW
5.			
6.			
7.			
	65	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	20	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size:___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 16

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke Section, Township, Range: 35 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961452 Long: -82.663889 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

Surface Water Present?	Yes _____ No ✓ Depth (inches): _____	
Water Table Present?	Yes _____ No ✓ Depth (inches): _____	
Saturation Present?	Yes ✓ No _____ Depth (inches): 0	**Wetland Hydrology Present?** Yes ✓ No _____
(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: 17

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	5	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Rhynchospora colorata	30	yes	OBL
2. Ludwigia repens	15	yes	OBL
3. Carex spp.	15	yes	FACW
4. Centella asiatica	15	yes	FACW
5. Juncus megacephalus	10	no	OBL
6. Amphicarpum muhlenbergianu	5	no	FACW
7. Pluchea odorata	5	no	FACW
8. Eupatorium capillifolium	5	no	FACU
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 17

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke Section, Township, Range: 35 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962404 Long: -82.666120 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 18

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	40	yes	FACW
2. Fraxinus caroliniana	20	yes	OBL
3. Salix caroliniana	10	no	OBL
4. Sabal palmetto	10	no	FAC
5. Persea palustris	5	no	NL
6.			
7.			
	85	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	15	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:___)			
1. Pontederia cordata	10	yes	OBL
2. Eupatorium capillifolium	5	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 18

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke Section, Township, Range: 35 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961301 Long: -82.667899 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 19

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	2	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:___)			
1. Erianthus spp.	20	yes	FAC
2. Muhlenbergia capillaris	20	yes	FACU
3. Eustachys glauca	15	yes	FACW
4. Andropogon glomeratus	10	yes	FACW
5. Panicum rigidulum	10	yes	FACW
6. Cladium jamaicense	10	yes	OBL
7. Rhynchospora colorata	10	yes	OBL
8. Pluchea odorata	5	no	FACW
9. Carex spp.	5	no	FACW
10. Rhynchospora miliacea	5	no	OBL
11. Eupatorium capillifolium	5	no	FACU
12. Centella asiatica	5	no	FACW
	120	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 19

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

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: 20/21

Investigator(s): Blake Meineke Section, Township, Range: 35 17S 16E/ 34 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961750 Long: -82.671575 Datum: WGS84

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

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	____Surface Soil Cracks (B6)
____ High Water Table (A2)	____Aquatic Fauna (B13)	____Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Drainage Patterns (B10)
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	____Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓ No _____	Depth (inches): 0-2	
Water Table Present?	Yes ✓ No _____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): 0	**Wetland Hydrology Present?** **Yes** ✓ **No** _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 20/21

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Typha spp.	60	yes	OBL
2. Polygonum punctatum	30	yes	FACW
3. Ludwigia peruviana	10	no	OBL
4. Juncus effusus	5	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: 20/21

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.960593 Long: -82.637390 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? **Yes ✓ No**

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 22

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	35	yes	FACW
2. Sabal palmetto	20	yes	FAC
3. Carya glabra	5	no	FACU
4. Nyssa sylvatica var. biflora	1	no	FAC
5.			
6.			
7.			
	61	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	70	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	25	yes	FAC
2. Ilex cassine	5	no	FACW
3. Baccharis halimifolia	5	no	FAC
4. Viburnum obovatum	5	no	FACW
5.			
6.			
7.			
	40	= Total Cover	
Herb Stratum (Plot size:___)			
1. Eupatorium capillifolium	2	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	2	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	20	yes	FAC
2. Rubus spp.	2	no	FACU
3.			
4.			
5.			
	22	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 22

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.960927 Long: -82.644561 Datum: WGS84

Soil Map Unit Name: Broward fine sand NWI classification: Freshwater emergent 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 ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 23

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	20	yes	FACW
2. Sabal palmetto	20	yes	FAC
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	20	yes	OBL
2. Ilex cassine	15	yes	FACW
3. Myrica cerifera	10	yes	FAC
4.			
5.			
6.			
7.			
	45	= Total Cover	
Herb Stratum (Plot size:___)			
1. Eupatorium capillifolium	20	yes	FACU
2. Cladium jamaicense	15	yes	OBL
3. Ludwigia repens	10	no	OBL
4. Rhynchospora colorata	10	no	OBL
5. Pluchea odorata	5	no	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

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

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____.

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Broward

SOIL

Sampling Point: 23

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1		10 YR 8/1				mixed grains	very dark gray fine sand
5-15	10 YR 5/1							gray fine sand
15-35	10 YR 6/6							brownish yellow fine sand
35+	10 YR 8/1							hard white limestone with solution holes and fractures

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

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

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

Investigator(s): Blake Meineke/ Amy Piko Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.960332 Long: -82.650278 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: Freshwater emergent 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 ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 24

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	70	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	10	yes	FAC
2. Ilex cassine	5	yes	FACW
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:___)			
1. Typha spp.	60	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

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

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: 24

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/15/09

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

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 31 17S 17E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961474 Long: -82.626914 Datum: WGS84

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

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

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

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

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

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

Remarks: Depressional wetland within transmission line, soils marginal

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes No ✓	Depth (inches):	
Water Table Present?	Yes ✓ No	Depth (inches): > 10	**Wetland Hydrology Present?** Yes ✓ No
Saturation Present? (includes capillary fringe)	Yes ✓ No	Depth (inches): > 5	

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: __X

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	1	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Herb Stratum (Plot size:___)			
1. Andropogon glomeratus	60	yes	FACW
2. Erianthus giganteus	20	yes	FACW
3. Solidago canadensis	5	no	FACU
4. Phyla nodiflora	5	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	1	yes	FAC
2.			
3.			
4.			
5.			
	1	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Broward

SOIL

Sampling Point: X

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/1							very dark gray fine sand
5-15	10 YR 5/1							gray fine sand
15-35	10 YR 6/6							brownish yellow fine sand
35+	10 YR 8/1							hard white limestone

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/15/09

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

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 31 17S 17E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961977 Long: -82.630643 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: Y

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus laurifolia	1	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	15	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	1	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Herb Stratum (Plot size:___)			
1. Andropogon glomeratus	50	yes	FACW
2. Eupatorium capillifolium	5	no	FACU
3. Sagittaria lancifolia	5	no	OBL
4. Hyptis alata	1	no	OBL
5. Andropogon virginicus	1	no	FAC
6. Erianthus giganteus	1	no	FACW
7. Phyla nodiflora	1	no	FACW
8. Dichromena spp.	1	no	FACW
9. Pluchea spp.	1	no	FACW
10. Centella asiatica	1	no	FACW
11. Urochloa plantaginea	1	no	NL
12. Coreopsis spp.	1	no	FACW
	69	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Mikania scandens	5	yes	FACW
2. Ampelopsis arborea	1	no	FAC
3.			
4.			
5.			
	6	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: Y

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/26/09

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

Investigator(s): Mike Arrants, Stacy Rizzo Section, Township, Range: 31 17S 17E

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

Subregion (LRR or MLRA): LRR U Lat: 28.960063 Long: -82.632261 Datum: WGS84

Soil Map Unit Name: Boca and Redlevel fine sands NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: Z

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	1	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	10	yes	OBL
2. Baccharis sp.	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:___)			
1. Erianthus giganteus	60	yes	FACW
2. Andropogon glomeratus	40	yes	FACW
3. Solidago spp.	40	yes	FACU
4. Urochloa plantaginea	40	yes	NL
5. Phyla nodiflora	25	yes	FACW
6. Centella asiatica	20	yes	FACW
7. Eupatorium capillifolium	10	no	FACU
8. Hydrocotyle spp.	5	no	OBL
9. Polypremum procumbens	5	no	FACU
10. Hyptis alata	2	no	OBL
11. Sagittaria spp.	1	no	OBL
12. Pontederia cordata	1	no	OBL
	249	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	5	yes	FAC
2. Mikania scandens	1	no	FACW
3.			
4.			
5.			
	6	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 77.78 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: Z

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/26/09

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

Investigator(s): Mike Arrants, Stacy Rizzo Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.959414 Long: -82.637358 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AA

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	5	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Erianthus giganteus	50	yes	FACW
2. Andropogon glomeratus	40	yes	FACW
3. Solidago canadensis	40	yes	FACU
4. Phyla nodiflora	20	yes	FACW
5. Polygonum spp.	5	no	FAC
6. Hyptis alata	5	no	OBL
7. Eragrostis spp.	5	no	FAC
8. Rhynchospora colorata	5	no	OBL
9. Eupatorium fistulosum	1	no	NL
10.			
11.			
12.			
	171	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	1	yes	FAC
2. Mikania scandens	1	yes	FACW
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AA

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

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

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/26-28/09

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

Investigator(s): Mike Arrants, Stacy Rizzo, Tony Davanzo Section, Township, Range: 36 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.959358 Long: -82.647488 Datum: WGS84

Soil Map Unit Name: Boca and Redlevel fine sands NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AB

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	1	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Rhyncospora spp.	60	yes	FACW
2. Fuirena pumila	40	yes	OBL
3. Bacopa spp.	25	yes	OBL
4. Bidens spp.	25	yes	FACW
5. Rhynchospora colorata	20	yes	OBL
6. Phyla nodiflora	10	no	FACW
7. Andropogon glomeratus	10	no	FACW
8. Leptochloa spp.	10	no	FACW
9. Hydrocotyle spp.	5	no	OBL
10. Sagittaria graminea	5	no	OBL
11. Solidago canadensis	5	no	FACU
12. Galium spp.	5	no	FACU
	220	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	1	yes	FAC
2. Mikania scandens	1	yes	FACW
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AB

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/29/09

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

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 33 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.962111 Long: -82.694738 Datum: WGS84

Soil Map Unit Name: Quartzipsamments, 0 to 5 percent slopes NWI classification: N/A

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

Surface Water Present?	Yes _____ No ✓ Depth (inches): 0	
Water Table Present?	Yes _____ No ✓ Depth (inches): _____	**Wetland Hydrology Present?** Yes ✓ No _____
Saturation Present? (includes capillary fringe)	Yes ✓ No _____ Depth (inches): 0	

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AJ

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Cladium spp.	50	yes	OBL
2. Cyperus spp.	5	no	FACW
3. Ludwigia leptocarpa	1	no	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	56	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

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

County/soil: Citrus- Quartzipsamments

SOIL

Sampling Point: AJ

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2	100						dark grayish brown sand
6-32	N 5/0; 10 YR 7/1	80	10 YR 6/2; 10 YR 8/1; 10 YR 5/2	20	RM	M	splotches and pockets	gray and light gray sand
32-42	7.5 YR 5/8	80	5 YR 3/4	20	RM	M	splotches	strong brown sand
42-60	10 YR 5/2	100						grayish brown sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/29/09

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

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 33 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961976 Long: -82.693900 Datum: WGS84

Soil Map Unit Name: Quartzipsamments, 0 to 5 percent slopes NWI classification: N/A

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

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

VEGETATION - Use scientific names of plants

Sampling Point: AK

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix caroliniana	40	yes	OBL
2. Sabal palmetto	5	no	FAC
3. Fraxinus caroliniana	1	no	OBL
4.			
5.			
6.			
7.			
	46	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Baccharis sp.	1	no	FAC
3.			
4.			
5.			
6.			
7.			
	6	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Typha spp.	10	yes	OBL
2. Diodia spp.	5	no	FAC
3. Cyperus spp.	5	no	FACW
4. Sagittaria spp.	5	no	OBL
5. Pluchea odorata	5	no	FACW
6. Ludwigia peruviana	2	no	OBL
7. Spilanthes spp.	2	no	FACW
8. Eupatorium serotinum	1	no	FAC
9. Cladium spp.	1	no	OBL
10. Erianthus spp.	1	no	FAC
11.			
12.			
	37	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Mikania scandens	20	yes	FACW
2. Ampelopsis arborea	20	yes	FAC
3. Parthenocissus quinquefolia	5	no	FAC
4.			
5.			
	45	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

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

County/soil: Citrus- Quartzipsamments

SOIL Sampling Point: AK

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2	100						dark grayish brown sand
6-32	N 5/0; 10 YR 7/1	80	10 YR 6/2; 10 YR 8/1; 10 YR 5/2	20	RM	M	splotches and pockets	gray and light gray sand
32-42	7.5 YR 5/8	80	5 YR 3/4	20	RM	M	splotches	strong brown sand
42-60	10 YR 5/2	100						grayish brown sand

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

Hydric Soil Indicators:

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

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/29/09

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

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 33 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961446 Long: -82.693500 Datum: WGS84

Soil Map Unit Name: Quartzipsamments, 0 to 5 percent slopes NWI classification: N/A

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

_____ Surface Water (A1)	____Water-Stained Leaves (B9)	____Surface Soil Cracks (B6)
_____ High Water Table (A2)	____Aquatic Fauna (B13)	____Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Drainage Patterns (B10)
_____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Moss Trim Lines (B16)
_____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Dry-Season Water Table (C2)
_____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Crayfish Burrows (C8)
_____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Saturation Visible on Aerial Imagery (C9)
_____ Iron Deposits (B5)	____Thin Muck Surface (C7)	____Geomorphic Position (D2)
✓ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Shallow Aquitard (D3)
		____FAC Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AL

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1. Salix caroliniana	40	yes	OBL
2. Sabal palmetto	5	no	FAC
3. Fraxinus caroliniana	1	no	OBL
4.			
5.			
6.			
7.			
	46	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Baccharis sp.	1	no	FAC
3.			
4.			
5.			
6.			
7.			
	6	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Typha spp.	10	yes	OBL
2. Diodia spp.	5	no	FAC
3. Cyperus spp.	5	no	FACW
4. Sagittaria spp.	5	no	OBL
5. Pluchea odorata	5	no	FACW
6. Ludwigia peruviana	2	no	OBL
7. Spilanthes spp.	2	no	FACW
8. Eupatorium serotinum	1	no	FAC
9. Cladium spp.	1	no	OBL
10. Erianthus spp.	1	no	FAC
11.			
12.			
	37	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1. Mikania scandens	20	yes	FACW
2. Ampelopsis arborea	20	yes	FAC
3. Parthenocissus quinquefolia	5	no	FAC
4.			
5.			
	45	= Total Cover	

Dominance Test Worksheet:

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

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

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

County/soil: Citrus- Quartzipsamments

SOIL Sampling Point: AL

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2	100						dark grayish brown sand
6-32	N 5/0; 10 YR 7/1	80	10 YR 6/2; 10 YR 8/1; 10 YR 5/2	20	RM	M	splotches and pockets	gray and light gray sand
32-42	7.5 YR 5/8	80	5 YR 3/4	20	RM	M	splotches	strong brown sand
42-60	10 YR 5/2	100						grayish brown sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/29/09

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

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 33 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.960983 Long: -82.693680 Datum: WGS84

Soil Map Unit Name: Quartzipsamments, 0 to 5 percent slopes NWI classification: N/A

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	____Surface Soil Cracks (B6)
____ High Water Table (A2)	____Aquatic Fauna (B13)	____Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Drainage Patterns (B10)
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	____Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Shallow Aquitard (D3)
		____FAC Neutral Test (D5)

Field Observations:

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: _____AM

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:_____)			
1. Cladium spp.	10	yes	OBL
2. Spilanthes spp.	5	yes	FACW
3. Proserpinaca spp.	5	yes	OBL
4. Sesbania spp.	2	no	FAC
5. Saururus cernuus	1	no	OBL
6. Diodia spp.	1	no	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	24	= Total Cover	
Woody Vine Stratum (Plot size:____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

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

County/soil: Citrus- Quartzipsamments

SOIL Sampling Point: AM

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/2	100						dark grayish brown sand
6-32	N 5/0; 10 YR 7/1	80	10 YR 6/2; 10 YR 8/1; 10 YR 5/2	20	RM	M	splotches and pockets	gray and light gray sand
32-42	7.5 YR 5/8	80	5 YR 3/4	20	RM	M	splotches	strong brown sand
42-60	10 YR 5/2	100						grayish brown sand

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

Hydric Soil Indicators:

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

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

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

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/29/09

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

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 33 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.960433 Long: -82.689096 Datum: WGS84

Soil Map Unit Name: Boca 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 ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

Surface Water Present?	Yes _____ No ✓ Depth (inches): _____	
Water Table Present?	Yes _____ No ✓ Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____ Depth (inches): 0	**Wetland Hydrology Present?** Yes ✓ No _____

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AN

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Sabal palmetto	10	yes	FAC
2. Salix caroliniana	10	yes	OBL
3. Pinus elliottii	10	yes	FACW
4. Chamaecyparis thyoides	10	yes	OBL
5. Acer rubrum	5	no	OBL
6.			
7.			
	45	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	60	yes	FAC
2. Myrica cerifera	30	yes	FAC
3. Ilex cassine	10	no	FACW
4.			
5.			
6.			
7.			
	100	= Total Cover	
Herb Stratum (Plot size:___)			
1. Andropogon glomeratus	20	yes	FACW
2. Flaveria spp.	10	yes	FACW
3. Lobelia spp.	10	yes	OBL
4. Cladium spp.	5	no	OBL
5. Erianthus spp.	5	no	FAC
6. Solidago spp.	5	no	FACU
7. Hyptis alata	5	no	OBL
8. Andropogon virginicus	5	no	FAC
9. Rhynchospora colorata	2	no	OBL
10. Eupatorium serotinum	1	no	FAC
11.			
12.			
	68	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AN

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/29/09

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

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 33 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.961136 Long: -82.685416 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

✓ Surface Water (A1)	____Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____Aquatic Fauna (B13)	____Surface Soil Cracks (B6)
✓ Saturation (A3)	____Marl Deposits (B15) **(LRR U)**	____Sparsely Vegetated Concave Surface (B8)
____ Water Marks (B1)	____Hydrogen Sulfide Odor (C1)	____Drainage Patterns (B10)
____ Sediment Deposits (B2)	____Oxidized Rhizospheres on Living Roots (C3)	____Moss Trim Lines (B16)
____ Drift Deposits (B3)	____Presence of Reduced Iron (C4)	____Dry-Season Water Table (C2)
____ Algal Mat or Crust (B4)	____Recent Iron Reduction in Tilled Soils (C6)	____Crayfish Burrows (C8)
____ Iron Deposits (B5)	____Thin Muck Surface (C7)	____Saturation Visible on Aerial Imagery (C9)
____ Inundation Visible on Aerial Imagery (B7)	____Other (Explain in Remarks)	____Geomorphic Position (D2)
		____Shallow Aquitard (D3)
		____FAC Neutral Test (D5)

Field Observations:

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AO

Tree Stratum (Plot size:____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Chara spp.	10	yes	NL
2. Setaria spp.	5	yes	FAC
3. Panicum repens	5	yes	FACW
4. Cyperus spp.	2	no	FACW
5. Typha spp.	2	no	OBL
6. Eclipta alba	2	no	FACW
7. Pluchea spp.	1	no	FACW
8.			
9.			
10.			
11.			
12.			
	27	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** .

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AO

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils [3]:

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

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

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/2/09

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

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

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

Subregion (LRR or MLRA): LRR U Lat: 28.959682 Long: -82.680804 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

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

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

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

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AP

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Persea palustris	10	yes	NL
2. Acer rubrum	10	yes	OBL
3. Salix caroliniana	10	yes	OBL
4. Fraxinus caroliniana	10	yes	OBL
5. Diospyros virginiana	10	yes	FAC
6. Sabal palmetto	5	no	FAC
7.			
	55	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	10	yes	FACW
2. Baccharis sp.	10	yes	FAC
3. Myrica cerifera	5	yes	FAC
4.			
5.			
6.			
7.			
	25	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium spp.	20	yes	OBL
2. Solidago spp.	15	yes	FACU
3. Panicum repens	10	no	FACW
4. Andropogon glomeratus	10	no	FACW
5. Erianthus giganteus	10	no	FACW
6. Imperata cylindrica	5	no	NL
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	10	yes	FAC
2. Mikania scandens	5	yes	FACW
3.			
4.			
5.			
	15	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 10 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 90.91 (A/B)

Prevalance Index worksheet:

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

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: AP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/2/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AQ

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 31 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.959305 Long: -82.631790 Datum: WGS84

Soil Map Unit Name: Boca and Redlevel fine sands NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AQ

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	20	yes	FAC
2. Salix caroliniana	15	yes	OBL
3. Acer rubrum	10	yes	OBL
4.			
5.			
6.			
7.			
	45	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	20	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium spp.	20	yes	OBL
2. Erianthus giganteus	10	yes	FACW
3. Typha spp.	5	no	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AQ

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/2/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AR

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960110 Long: -82.677790 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Drainage Patterns (B10)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Moss Trim Lines (B16)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Dry-Season Water Table (C2)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Crayfish Burrows (C8)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: AR

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Fraxinus caroliniana	10	yes	OBL
2. Diospyros virginiana	10	yes	FAC
3. Persea palustris	10	yes	NL
4. Sabal palmetto	5	no	FAC
5.			
6.			
7.			
	35	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	10	yes	FACW
2. Myrica cerifera	10	yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size:___)			
1. Imperata cylindrica	15	yes	NL
2. Flaveria spp.	10	yes	FACW
3. Cladium spp.	10	yes	OBL
4. Erianthus spp.	10	yes	FAC
5. Lobelia spp.	5	no	OBL
6. Sagittaria spp.	5	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: AR

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/2/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AS

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.960094 Long: -82.680652 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AS

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Fraxinus caroliniana	10	yes	OBL
2. Diospyros virginiana	10	yes	FAC
3. Persea palustris	10	yes	NL
4. Sabal palmetto	5	no	FAC
5.			
6.			
7.			
	35	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	10	yes	FACW
2. Myrica cerifera	10	yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size:___)			
1. Imperata cylindrica	15	yes	NL
2. Flaveria spp.	10	yes	FACW
3. Cladium spp.	10	yes	OBL
4. Erianthus spp.	10	yes	FAC
5. Lobelia spp.	5	no	OBL
6. Sagittaria spp.	5	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	7	(A)
Total Number of Dominant Species Across All Strata:	7	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/3/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AT

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960845 Long: -82.671111 Datum: WGS84

Soil Map Unit Name: Boca 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 ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes ✓ No _____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: AT

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	13	(A)
Total Number of Dominant Species Across All Strata:	13	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1=	
FACW species		x2=	
FAC species		x3=	
FACU species		x4=	
UPL species		x5=	
Column Totals:		(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____.

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: AT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AU

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.959567 Long: -82.671469 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
High Water Table (A2)	Aquatic Fauna (B13)	Surface Soil Cracks (B6)
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	Sparsely Vegetated Concave Surface (B8)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Iron Deposits (B5)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Geomorphic Position (D2)
		Shallow Aquitard (D3)
		FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes_____	No ✓	Depth (inches):_____
Water Table Present?	Yes_____	No ✓	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AU

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	5	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Erianthus spp.	15	yes	FAC
2. Muhlenbergia spp.	15	yes	FAC
3. Hyptis alata	10	yes	OBL
4. Cladium spp.	10	yes	OBL
5. Andropogon spp.	10	yes	FAC
6. Solidago spp.	10	yes	FACU
7. Eryngium spp.	10	yes	FACW
8. Eupatorium mikanioides	5	no	FACW
9. Tripsacum sp.	5	no	FAC
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 88.89 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: AU

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/4/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AV

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.981202 Long: -82.672224 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes ✓ No _____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AV

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	30	yes	OBL
2. Quercus virginiana	5	no	FACU
3. Persea palustris	5	no	NL
4.			
5.			
6.			
7.			
	40	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Erianthus spp.	40	yes	FAC
2. Andropogon glomeratus	5	no	FACW
3. Pluchea spp.	5	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: AV

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AW

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.980206 Long: -82.669587 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AW

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	40	yes	OBL
2. Acer rubrum	15	yes	OBL
3. Sabal palmetto	15	yes	FAC
4. Persea palustris	15	yes	NL
5. Quercus laurifolia	10	no	FACW
6.			
7.			
	95	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AW

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AX

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.959857 Long: -82.672568 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AX

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Solidago spp.	30	yes	FACU
2. Erianthus spp.	30	yes	FAC
3. Eryngium spp.	15	no	FACW
4. Muhlenbergia spp.	10	no	FAC
5. Lobelia spp.	5	no	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	50.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No_____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: AX

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/5/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AY

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960417 Long: -82.668148 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓ Depth (inches): _____	
Water Table Present?	Yes _____ No ✓ Depth (inches): _____	
Saturation Present?	Yes ✓ No _____ Depth (inches): 0-6	**Wetland Hydrology Present?** Yes ✓ No _____
(includes capillary fringe)		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: AY

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix caroliniana	2	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Aster spp.	30	yes	FAC
2. Juncus spp.	20	yes	OBL
3. Centella asiatica	10	no	FACW
4. Typha spp.	10	no	OBL
5. Bacopa spp.	5	no	OBL
6. Solidago spp.	1	no	FACU
7. Ludwigia spp.	1	no	OBL
8. Hydrocotyle spp.	1	no	OBL
9. Rhynchospora colorata	1	no	OBL
10. Phyla nodiflora	1	no	FACW
11. Spilanthes spp.	1	no	FACW
12.			
	81	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AY

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: AZ

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.960859 Long: -82.668928 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: AZ

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Persea palustris	20	yes	NL
2. Quercus laurifolia	15	yes	FACW
3. Persea palustris	10	no	NL
4. Fraxinus caroliniana	10	no	OBL
5. Diospyros virginiana	10	no	FAC
6.			
7.			
	65	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Sabal palmetto	5	yes	FAC
2. Persea palustris	5	yes	NL
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	10	yes	FACW
2. Baccharis sp.	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size:___)			
1. Dichromena spp.	10	yes	FACW
2. Hydrocotyle spp.	10	yes	OBL
3. Andropogon glomeratus	10	yes	FACW
4. Centella spp.	10	yes	FACW
5. Hypericum spp.	5	no	FACW
6. Solidago spp.	5	no	FACU
7. Erianthus spp.	5	no	FAC
8. Hyptis alata	5	no	OBL
9. Lobelia spp.	5	no	OBL
10.			
11.			
12.			
	65	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: AZ

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BA

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 34 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960207 Long: -82.669187 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes ✓ No _____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: BA

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Diospyros virginiana	5	yes	FAC
2. Salix spp.	2	yes	FACW
3.			
4.			
5.			
6.			
7.			
	7	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Hyptis alata	20	yes	OBL
2. Eustachys glauca	20	yes	FACW
3. Lobelia spp.	5	no	OBL
4. Erianthus spp.	5	no	FAC
5. Dichromena spp.	1	no	FACW
6. Spilanthes spp.	1	no	FACW
7. Fuirena spp.	1	no	OBL
8.			
9.			
10.			
11.			
12.			
	53	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

Prevalence Index is ≤3.0[1]

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: BA

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BB

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.959661 Long: -82.666712 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Drainage Patterns (B10)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Moss Trim Lines (B16)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Dry-Season Water Table (C2)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Crayfish Burrows (C8)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: BB

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Diospyros virginiana	10	yes	FAC
2. Salix spp.	5	yes	FACW
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium spp.	40	yes	OBL
2. Spilanthes spp.	40	yes	FACW
3. Hydrocotyle spp.	10	no	OBL
4. Erianthus spp.	5	no	FAC
5. Eustachys glauca	5	no	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1= _____
FACW species _____	x2= _____
FAC species _____	x3= _____
FACU species _____	x4= _____
UPL species _____	x5= _____
Column Totals: _____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: BB

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BC

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.959571 Long: -82.665386 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓ Depth (inches): _____	
Water Table Present?	Yes _____ No ✓ Depth (inches): _____	
Saturation Present?	Yes ✓ No _____ Depth (inches): 0-12	**Wetland Hydrology Present?** Yes ✓ No _____
(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: BC

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Diospyros virginiana	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	1	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cyperus spp.	30	yes	FACW
2. Muhlenbergia spp.	30	yes	FAC
3. Centella spp.	10	no	FACW
4. Cladium spp.	10	no	OBL
5. Dichromena spp.	5	no	FACW
6. Spartina patens	5	no	FACW
7. Pluchea spp.	2	no	FACW
8. Hyptis alata	1	no	OBL
9. Spilanthes spp.	1	no	FACW
10.			
11.			
12.			
	94	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: BC

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/8/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BD

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.960028 Long: -82.663905 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: BD

Tree Stratum (Plot size:____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	30	yes	FACW
2. Diospyros virginiana	5	no	FAC
3. Cornus foemina	5	no	FACW
4.			
5.			
6.			
7.			
	40	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Myrica cerifera	5	yes	FAC
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:___)			
1. Dichromena spp.	10	yes	FACW
2. Cyperus surinamensis	10	yes	FACW
3. Eupatorium capillifolium	10	yes	FACU
4. Pontederia cordata	5	no	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: BD

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/8/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BE

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.959853 Long: -82.660182 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: BE

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	10	yes	FACW
2. Diospyros virginiana	10	yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	2	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium spp.	30	yes	OBL
2. Erianthus spp.	10	yes	FAC
3. Eustachys glauca	10	yes	FACW
4. Hyptis alata	5	no	OBL
5. Lobelia spp.	5	no	OBL
6. Dichromena spp.	5	no	FACW
7. Setaria spp.	5	no	FAC
8. Hydrocotyle spp.	5	no	OBL
9. Spilanthes spp.	5	no	FACW
10. Conoclium coelstinum	5	no	FAC
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Mikania scandens	2	yes	FACW
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1=	
FACW species		x2=	
FAC species		x3=	
FACU species		x4=	
UPL species		x5=	
Column Totals:	(A)		(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: BE

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/8/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BF

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.959845 Long: -82.655275 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: BF

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	10	yes	FACW
2. Diospyros virginiana	10	yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	2	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium spp.	30	yes	OBL
2. Erianthus spp.	10	yes	FAC
3. Eustachys glauca	10	yes	FACW
4. Hyptis alata	5	no	OBL
5. Lobelia spp.	5	no	OBL
6. Dichromena spp.	5	no	FACW
7. Setaria spp.	5	no	FAC
8. Hydrocotyle spp.	5	no	OBL
9. Spilanthes spp.	5	no	FACW
10. Conoclium coelstinum	5	no	FAC
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Mikania scandens	2	yes	FACW
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: BF

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/8/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BG

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.959837 Long: -82.653510 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes ✓ No _____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: BG

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Salix spp.	10	yes	FACW
2. Diospyros virginiana	10	yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	2	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium spp.	30	yes	OBL
2. Erianthus spp.	10	yes	FAC
3. Eustachys glauca	10	yes	FACW
4. Hyptis alata	5	no	OBL
5. Lobelia spp.	5	no	OBL
6. Dichromena spp.	5	no	FACW
7. Setaria spp.	5	no	FAC
8. Hydrocotyle spp.	5	no	OBL
9. Spilanthes spp.	5	no	FACW
10. Conoclium coelstinum	5	no	FAC
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Mikania scandens	2	yes	FACW
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1= _____
FACW species _____	x2= _____
FAC species _____	x3= _____
FACU species _____	x4= _____
UPL species _____	x5= _____
Column Totals: _____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: BG

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/8/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: BH

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U 28.960046 Long: -82.654719 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0-12

Wetland Hydrology Present? **Yes ✓ No _____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: BH

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Ilex cassine	5	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Cladium spp.	50	yes	OBL
2. Fuirena spp.	10	no	OBL
3. Andropogon glomeratus	10	no	FACW
4. Hyptis alata	5	no	OBL
5. Erianthus spp.	5	no	FAC
6. Lobelia spp.	5	no	OBL
7. Oxypolis spp.	5	no	OBL
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: BH

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZA

Investigator(s): Stacy Rizzo, Tony Davanzo, Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.960548 Long: -82.664533 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZA

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 13 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: ZA

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZB

Investigator(s): Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960309 Long: -82.664244 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZB

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 13 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x1=
FACW species	x2=
FAC species	x3=
FACU species	x4=
UPL species	x5=
Column Totals:	(A) (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: ZB

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZC

Investigator(s): Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.960866 Long: -82.663914 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZC

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	13	(A)
Total Number of Dominant Species Across All Strata:	13	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1=	
FACW species		x2=	
FAC species		x3=	
FACU species		x4=	
UPL species		x5=	
Column Totals:	(A)		(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: ZC

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZD

Investigator(s): Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960584 Long: -82.663517 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes ✓** **No _____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZD

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1= _____
FACW species _____	x2= _____
FAC species _____	x3= _____
FACU species _____	x4= _____
UPL species _____	x5= _____
Column Totals: _____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: ZD

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZDA

Investigator(s): Stacy Rizzo, Tony Davanzo Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.960584 Long: -82.663517 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): 0-12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZDA

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Diospyros virginiana	10	yes	FAC
2. Acer rubrum	5	yes	OBL
3. Salix spp.	5	yes	FACW
4.			
5.			
6.			
7.			
	20	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Cephalanthus occidentalis	5	yes	OBL
2. Ilex cassine	5	yes	FACW
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size:___)			
1. Dichromena spp.	10	yes	FACW
2. Spilanthes spp.	10	yes	FACW
3. Eustachys glauca	5	yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	25	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: ZDA

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZE

Investigator(s): Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960555 Long: -82.657238 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes_____	No ✓	Depth (inches):_____
Water Table Present?	Yes_____	No ✓	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZE

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 13 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1= _____
FACW species _____	x2= _____
FAC species _____	x3= _____
FACU species _____	x4= _____
UPL species _____	x5= _____
Column Totals: _____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: ZE

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZF

Investigator(s): Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960333 Long: -82.652566 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZF

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 13 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: ZF

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZG

Investigator(s): Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960548 Long: -82.652236 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZG

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	13	(A)
Total Number of Dominant Species Across All Strata:	13	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.00	(A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1=	
FACW species		x2=	
FAC species		x3=	
FACU species		x4=	
UPL species		x5=	
Column Totals:	(A)		(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: ZG

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 11/6/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: ZH

Investigator(s): Karl Bullock Section, Township, Range: 35 17S 16E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.960175 Long: -82.659844 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: ZH

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Liquidambar styraciflua	25	yes	FAC
2. Acer rubrum	20	yes	OBL
3. Carpinus caroliniana	20	yes	FAC
4. Sabal palmetto	20	yes	FAC
5. Ulmus americana	20	yes	FACW
6. Quercus laurifolia	20	yes	FACW
7. Diospyros virginiana	15	no	FAC
	140	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	5	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size:___)			
1. Flaveria spp.	10	yes	FACW
2. Andropogon virginicus	10	yes	FAC
3. Andropogon glomeratus	10	yes	FACW
4. Centella asiatica	10	yes	FACW
5. Erianthus spp.	10	yes	FAC
6. Thelypteris spp.	5	no	FACW
7. Lobelia spp.	5	no	OBL
8. Rhynchospora colorata	5	no	OBL
9. Cladium spp.	5	no	OBL
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Vitus rotundifolia	2	yes	FAC
2.			
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 13 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1=	
FACW species		x2=	
FAC species		x3=	
FACU species		x4=	
UPL species		x5=	
Column Totals:	(A)		(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: ZH

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 4/2		10 YR 3/1				few fine roots	dark grayish brown fine sand
7-20	10 YR 6/4		10 YR 6/6; 10 YR 7/2				few medium distinct mottles and streaks	light yellowish brown fine sand
20-39	10 YR 7/4		10 YR 6/6				common medium distinct mottles	very pale brown fine sand
39-80	10 YR 7/3							very pale brown fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____.

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/13/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS K

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 32 17S 17E/ 31 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.962916 Long: -82.617954 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes No ✓	Depth (inches):	
Water Table Present?	Yes ✓ No	Depth (inches): >10	
Saturation Present? (includes capillary fringe)	Yes ✓ No	Depth (inches): >10	**Wetland Hydrology Present?** Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CS K

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix spp.	20	yes	FACW
2. Sabal palmetto	15	yes	FAC
3. Quercus laurifolia	10	yes	FACW
4.			
5.			
6.			
7.			
	45	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Sabal palmetto	1	yes	FAC
2. Diospyros virginiana	1	yes	FAC
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	10	yes	FAC
2. Viburnum obovatum	5	yes	FACW
3. Ilex cassine	1	no	FACW
4. Hypericum spp.	1	no	FACW
5. Bromelia pinguin	1	no	NL
6. Cephalanthus occidentalis	1	no	OBL
7. Callicarpa americana	1	no	FACU
	20	= Total Cover	
Herb Stratum (Plot size:___)			
1. Erianthus giganteus	25	yes	FACW
2. Pluchea spp.	5	no	FACW
3. Eupatorium capillifolium	5	no	FACU
4. Andropogon glomeratus	1	no	FACW
5. Andropogon virginicus	1	no	FAC
6. Hyptis alata	1	no	OBL
7. Dichromena spp.	1	no	FACW
8. Muhlenbergia spp.	1	no	FAC
9. Phyla nodiflora	1	no	FACW
10. Setaria spp.	1	no	FAC
11. Solidago spp.	1	no	FACU
12. Urochloa plantaginea	1	no	NL
	44	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Toxicodendron radicans	1	yes	FAC
2. Ampelopsis arborea	1	yes	FAC
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 10 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x1=
FACW species	x2=
FAC species	x3=
FACU species	x4=
UPL species	x5=
Column Totals:	(A) (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: CS K

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2							dark grayish brown fine sand
5-19	10 YR 7/1							light gray fine sand
19-21	10 YR 7/8							yellow fine sand
21-38	10 YR 5/2		10 YR 5/6				common fine and medium distinct mottles	grayish brown sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/14/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS L

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: 28.961977 Long: -82.619076 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks: Marginal, Isolated, depressional wetland in maintained Right-of-Way

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes No ✓	Depth (inches):	
Water Table Present?	Yes ✓ No	Depth (inches): >10	
Saturation Present? (includes capillary fringe)	Yes ✓ No	Depth (inches): >10	**Wetland Hydrology Present?** Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CS L

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Erianthus giganteus	30	yes	FACW
2. Hyptis alata	20	yes	OBL
3. Andropogon glomeratus	20	yes	FACW
4. Phyla nodiflora	10	no	FACW
5. Eupatorium capillifolium	5	no	FACU
6. Chasmanthium spp.	1	no	FAC
7. Chenopodium ambrosioides	1	no	FACU
8. Polygonum spp.	1	no	FAC
9. Eleusine indica	1	no	FACU
10.			
11.			
12.			
	89	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	1	yes	FAC
2. Mikania scandens	1	yes	FACW
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: CS L

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2							dark grayish brown fine sand
5-19	10 YR 7/1							light gray fine sand
19-21	10 YR 7/8							yellow fine sand
21-38	10 YR 5/2		10 YR 5/6				common fine and medium distinct mottles	grayish brown sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/14/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS M

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 31 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.962163 Long: -82.621790 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes No ✓	Depth (inches):	
Water Table Present?	Yes ✓ No	Depth (inches): <10	
Saturation Present? (includes capillary fringe)	Yes ✓ No	Depth (inches): <2	**Wetland Hydrology Present?** Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CS M

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix spp.	1	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Hypericum spp.	1	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Herb Stratum (Plot size:___)			
1. Hyptis alata	1	no	OBL
2. Andropogon glomeratus	1	no	FACW
3. Dichromena spp.	1	no	FACW
4. Phyla nodiflora	1	no	FACW
5. Pluchea spp.	1	no	FACW
6. Muhlenbergia spp.	1	no	FAC
7. Hydrocotyle spp.	1	no	OBL
8. Juncus megacephalus	1	no	OBL
9. Polygonum spp.	1	no	FAC
10. Centella spp.	1	no	FACW
11. Micromeria spp.	1	no	NL
12. Fuirena pumila	1	no	OBL
	12	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Mikania scandens	1	yes	FACW
2.			
3.			
4.			
5.			
	1	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

	Total % Cover of:	Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____.

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: CS M

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2							dark grayish brown fine sand
5-19	10 YR 7/1							light gray fine sand
19-21	10 YR 7/8							yellow fine sand
21-38	10 YR 5/2		10 YR 5/6				common fine and medium distinct mottles	grayish brown sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/14/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS S

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 31 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.962738 Long: -82.623140 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Drought conditions have lowered water table considerably; soils are also extremely marginal but majority of wetland species.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Surface Soil Cracks (B6)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Sparsely Vegetated Concave Surface (B8)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Geomorphic Position (D2)
		_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes ✓	No _____	Depth (inches): > 12
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): > 12

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: CS S

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus virginiana	1	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Sapling Stratum (Plot size:_____)			
1. Sabal palmetto	1	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Myrica cerifera	1	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Herb Stratum (Plot size:___)			
1. Panicum hemitomon	75	yes	OBL
2. Muhlenbergia spp.	10	no	FAC
3. Pluchea odorata	5	no	FACW
4. Phyla nodiflora	5	no	FACW
5. Andropogon virginicus	1	no	FAC
6. Hyptis alata	1	no	OBL
7. Rhexia spp.	1	no	FACW
8. Eleocharis spp.	1	no	OBL
9.			
10.			
11.			
12.			
	99	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalance Index worksheet:

	Total % Cover of:	Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).
Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL Sampling Point: CS S

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2							dark grayish brown fine sand
5-19	10 YR 7/1							light gray fine sand
19-21	10 YR 7/8							yellow fine sand
21-38	10 YR 5/2		10 YR 5/6				common fine and medium distinct mottles	grayish brown sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
___Polyvalue Below Surface (S8) **(LRR S, T, U)**
___Thin Dark Surface (S9) **(LRR S, T, U)**
___Loamy Mucky Mineral (F1) **(LRR O)**
___Loamy Gleyed Matrix (F2)
___Depleted Matrix (F3)
___Redox Dark Surface (F6)
___Depleted Dark Surface (F7)
___Redox Depressions (F8)
___Marl (F10) **(LRR U)**
___Depleted Orchric (F11) **(MLRA 151)**
___Iron-Manganese Masses (F12) **(LRR O, P,T)**
___Umbric Surface (F13) **(LRR P, T, U)**
___Delta Orchric (F17) **(MLRA 151)**
___Reduced Vertic (F18) **(MLRA 150A, 150B)**
___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

___1 cm Muck (a9) **(LRR O)**
___2 cm Muck (A10) **(LRR S)**
___Reduced Vertic (F18) **(outside MLRA 150A, B)**
___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/15/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS T

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 31 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%):

Subregion (LRR or MLRA): LRR U Lat: 28.961485 Long: -82.621672 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed? Are circumstances normal? Yes ✓ No

Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	**Is the Sampled Area within a Wetland?** Yes ✓ No
Hydric Soil Present?	Yes ✓ No	
Wetland Hydrology Present?	Yes ✓ No	

Remarks: Depressional area/ditch around transmission line structure

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Surface Water (A1)	Water-Stained Leaves (B9)	
High Water Table (A2)	Aquatic Fauna (B13)	
✓ Saturation (A3)	Marl Deposits (B15) **(LRR U)**	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	Thin Muck Surface (C7)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes ✓	No	Depth (inches): > 10
Saturation Present? (includes capillary fringe)	Yes ✓	No	Depth (inches): > 5

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CS T

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Andropogon glomeratus	70	yes	FACW
2. Muhlenbergia spp.	20	yes	FAC
3. Phyla nodiflora	5	no	FACW
4. Andropogon virginicus	5	no	FAC
5. Sagittaria latifolia	1	no	OBL
6. Eupatorium capillifolium	1	no	FACU
7. Erianthus giganteus	1	no	FACW
8. Hyptis alata	1	no	OBL
9. Dichromena spp.	1	no	FACW
10. Rhexia spp.	1	no	FACW
11. Micromeria spp.	1	no	NL
12. Cyperus spp.	1	no	FACW
	108	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	1	yes	FAC
2.			
3.			
4.			
5.			
	1	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	x1=	
FACW species	x2=	
FAC species	x3=	
FACU species	x4=	
UPL species	x5=	
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: CS T

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2							dark grayish brown fine sand
5-19	10 YR 7/1							light gray fine sand
19-21	10 YR 7/8							yellow fine sand
21-38	10 YR 5/2		10 YR 5/6				common fine and medium distinct mottles	grayish brown sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/15/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS U

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 31 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.961568 Long: -82.621079 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Isolated, man-made pit/ditch around transmission line structure

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Drainage Patterns (B10)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Moss Trim Lines (B16)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Dry-Season Water Table (C2)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Crayfish Burrows (C8)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓	Depth (inches): _____	
Water Table Present?	Yes ✓ No _____	Depth (inches): > 10	**Wetland Hydrology Present?** Yes ✓ No _____
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): > 5	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

VEGETATION - Use scientific names of plants

Sampling Point: CS U

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Andropogon glomeratus	20	yes	FACW
2. Andropogon virginicus	20	yes	FAC
3. Phyla nodiflora	10	no	FACW
4. Centella asiatica	10	no	FACW
5. Diodia virginiana	10	no	FACW
6. Fuirena spp.	1	no	OBL
7. Eupatorium capillifolium	1	no	FACU
8. Dichromena spp.	1	no	FACW
9. Urochloa plantaginea	1	no	NL
10. Hydrocotyle spp.	1	no	OBL
11. Hyptis alata	1	no	OBL
12. Cyperus spp.	1	no	FACW
	77	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x1= _____
FACW species	_____	x2= _____
FAC species	_____	x3= _____
FACU species	_____	x4= _____
UPL species	_____	x5= _____
Column Totals:	_____ (A)	_____ (B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

_____ Prevalence Index is ≤3.0[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: CS U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2							dark grayish brown fine sand
5-19	10 YR 7/1							light gray fine sand
19-21	10 YR 7/8							yellow fine sand
21-38	10 YR 5/2		10 YR 5/6				common fine and medium distinct mottles	grayish brown sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/15/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS V

Investigator(s): Mike Arrants, Colleen Cunningham Section, Township, Range: 31 17S 17E

Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): _____

Subregion (LRR or MLRA): LRR U Lat: 28.961502 Long: -82.622161 Datum: WGS84

Soil Map Unit Name: Boca fine sand NWI classification: palustrine emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are circumstances normal? Yes ✓ No_____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Isolated, depressional wetland, very marginal

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	_____ Marl Deposits (B15) **(LRR U)**	_____ Drainage Patterns (B10)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Moss Trim Lines (B16)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Dry-Season Water Table (C2)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Crayfish Burrows (C8)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
		_____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓	Depth (inches): _____	
Water Table Present?	Yes ✓ No _____	Depth (inches): > 10	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): > 10	**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CS V

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size:___)			
1. Urochloa plantaginea	40	yes	NL
2. Erianthus giganteus	20	yes	FACW
3. Andropogon glomeratus	20	yes	FACW
4. Andropogon virginicus	5	no	FAC
5. Hyptis alata	5	no	OBL
6. Smilax spp.	1	no	FAC
7. Phyla nodiflora	1	no	FACW
8.			
9.			
10.			
11.			
12.			
	92	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Mikania scandens	1	yes	FACW
2. Ampelopsis arborea	1	yes	FAC
3.			
4.			
5.			
	2	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

____ Prevalence Index is ≤3.0[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling- Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Boca

SOIL

Sampling Point: CS V

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2							dark grayish brown fine sand
5-19	10 YR 7/1							light gray fine sand
19-21	10 YR 7/8							yellow fine sand
21-38	10 YR 5/2		10 YR 5/6				common fine and medium distinct mottles	grayish brown sandy clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___Histol (A1)
- ___Histic Epidon (A2)
- ___Black Histic (A3)
- ___Hydrogen Sulfide (A4)
- ___Stratified Layers (A5)
- ___Organic Bodies (A6) **(LRR P, T, U)**
- ___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
- ✓ Muck Presence (A8) **(LRR U)**
- ___1 cm Muck (A9) **(LRR P,T)**
- ___Depleted Below Dark Surface (A11)
- ___Thick Dark Surface (A12)
- ___Coast Prairie Redox (A16) **(MLRA 150A)**
- ___Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___Sandy Gleyed Matrix (S4)
- ___Sandy Redox (S5)
- ___Stripped Matrix (S6)
- ___Dark Surface (S7) **(LRR P, S, T, U)**
- ___Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___Thin Dark Surface (S9) **(LRR S, T, U)**
- ___Loamy Mucky Mineral (F1) **(LRR O)**
- ___Loamy Gleyed Matrix (F2)
- ___Depleted Matrix (F3)
- ___Redox Dark Surface (F6)
- ___Depleted Dark Surface (F7)
- ___Redox Depressions (F8)
- ___Marl (F10) **(LRR U)**
- ___Depleted Orchric (F11) **(MLRA 151)**
- ___Iron-Manganese Masses (F12) **(LRR O, P,T)**
- ___Umbric Surface (F13) **(LRR P, T, U)**
- ___Delta Orchric (F17) **(MLRA 151)**
- ___Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils [3]:

- ___1 cm Muck (a9) **(LRR O)**
- ___2 cm Muck (A10) **(LRR S)**
- ___Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ___Red Parent Material (TF2)
- ___Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

Adapted from U.S. Army Corps of Engineers
Atlantic and Gulf Coastal Plain Region- Interim Version

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Levy Baseload Transmission Program, LCR City/County: Citrus Sampling Date: 10/15/09

Applicant/Owner: Progress Energy Florida, Inc. State: FL Sampling Point: CS W

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: 28.960162 Long: -82.616142 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 ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks: Depressional wetland within transmission line, soils marginal

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Marl Deposits (B15) **(LRR U)**	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
		____ FAC Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ✓	Depth (inches): _____	
Water Table Present?	Yes ✓ No _____	Depth (inches): > 10	
Saturation Present? (includes capillary fringe)	Yes ✓ No _____	Depth (inches): > 5	**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: CS W

Tree Stratum (Plot size:_____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling Stratum (Plot size:_____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Shrub Stratum (Plot size:_____)			
1. Baccharis sp.	1	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	1	= Total Cover	
Herb Stratum (Plot size:___)			
1. Solidago canadensis	65	yes	FACU
2. Erianthus giganteus	15	no	FACW
3. Ambrosia spp.	5	no	FAC
4. Eleocharis spp.	5	no	OBL
5. Chasmanthium spp.	5	no	FAC
6. Andropogon glomeratus	1	no	FACW
7. Hyptis alata	1	no	OBL
8. Andropogon virginicus	1	no	FAC
9. Sagittaria latifolia	1	no	OBL
10. Polypremum procumbens	1	no	FACU
11. Pluchea spp.	1	no	FACW
12. Dichanthelium spp.	1	no	FAC
	102	= Total Cover	
Woody Vine Stratum (Plot size:_____)			
1. Ampelopsis arborea	1	yes	FAC
2.			
3.			
4.			
5.			
	1	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalance Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x1=
FACW species		x2=
FAC species		x3=
FACU species		x4=
UPL species		x5=
Column Totals:	(A)	(B)

Prevalance Index = B/A =

Hydrophytic Vegetation Indicators:

✓ Dominance Test is 50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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Shrub- Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb- All herbaceous (non-woody)plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine- All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

Percent cover estimates based on meandering survey of the broader community.

County/soil: Citrus- Tavares

SOIL Sampling Point: CS W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 4/2							dark grayish brown fine sand
3-41	10 YR 7/4							very pale brown fine sand
41-63	10 YR 7/4							very pale brown fine sand
63-80	10 YR 8/1		10 YR 7/4				few medium distinct mottles	white fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___Histol (A1)
___Histic Epidon (A2)
___Black Histic (A3)
___Hydrogen Sulfide (A4)
___Stratified Layers (A5)
___Organic Bodies (A6) **(LRR P, T, U)**
___5 cm Mucky Mineral (A7) **(LRR P,T,U)**
✓ Muck Presence (A8) **(LRR U)**
___1 cm Muck (A9) **(LRR P,T)**
___Depleted Below Dark Surface (A11)
___Thick Dark Surface (A12)
___Coast Prairie Redox (A16) **(MLRA 150A)**
___Sandy Mucky Mineral (S1) **(LRR O, S)**
___Sandy Gleyed Matrix (S4)
___Sandy Redox (S5)
___Stripped Matrix (S6)
___Dark Surface (S7) **(LRR P, S, T, U)**
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___Thin Dark Surface (S9) **(LRR S, T, U)**
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___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)**
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Indicators for Problematic Hydric Soils [3]:

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___Anomalous Bright Loamy Soils (F20) (MLRA 153B)
___Red Parent Material (TF2)
___Very Shallow Dark Surface (TF12) **(LRR T, U)**
___Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No .

Remarks:

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Atlantic and Gulf Coastal Plain Region- Interim Version