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Sent: Thursday, July 07, 2011 4:39 PM
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Subject: Second Response to NRC Environmental Request for Additional Information Letter 1103101 (RAI 5562) Environmental Standard Review Plan Section 2.4.1 - Terrestrial and Wetlands Ecology
Attachments: L-2011-258 signed 07-07-2011 RAI Ltr 1103101 RAI 5562 Second response ESRP 2.4.1.pdf

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Re: Florida Power & Light Company
Proposed Turkey Point Units 6 and 7
Docket Nos. 52-040 and 52-041
Second Response to NRC Environmental Request for Additional Information Letter 1103101 (RAI 5562) Environmental Standard Review Plan
Section 2.4.1 – Terrestrial and Wetlands Ecology

Reference:

1. NRC Letter to FPL dated March 10, 2011, Environmental Request for Additional Information Letter 1103101 Related to ESRP Section 2.4.1, Terrestrial and Wetlands Ecology, for the Combined License Application Review for Turkey Point Units 6 and 7

2. FPL Letter L-2011-163 to NRC dated April 26, 2011, Response to NRC Environmental Request for Additional Information Letter 1103101 (RAI 5562) Environmental Standard Review Plan Section 2.4.1 – Terrestrial and Wetlands Ecology

Florida Power & Light Company (FPL) provides, as an attachment to this letter, its response to the Nuclear Regulatory Commission's (NRC) Environmental Request for Additional Information (RAI) 2.4.1-7 provided in Reference 1. FPL previously informed the NRC on the schedule for providing this response in Reference 2. The attachment identifies changes that will be made in a future revision of the Turkey Point Units 6 and 7 Combined License Application (if applicable).

The enclosed optical storage media (OSM) is not intended to comply with the recommendations for electronic submission in NRC Guidance Document, Guidance for Electronic Submissions to the NRC.

Ray Burski
New Nuclear Plant - Licensing
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Mail Envelope Properties (72D0A264A98553439ACF8FF3DFC07F4B3A95F3890A)

Subject: Second Response to NRC Environmental Request for Additional Information Letter 1103101 (RAI 5562) Environmental Standard Review Plan Section 2.4.1 - Terrestrial and Wetlands Ecology
Sent Date: 7/7/2011 4:39:14 PM
Received Date: 7/7/2011 4:39:29 PM
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Files	**Size**	**Date & Time**
MESSAGE	2429	7/7/2011 4:39:29 PM
L-2011-258 signed 07-07-2011 RAI Ltr 1103101 RAI 5562 Second response ESRP 2.4.1.pdf	577953	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
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Expiration Date:
Recipients Received:

L-2011-258
10 CFR 52.3

July 7, 2011

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Re: Florida Power & Light Company
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Docket Nos. 52-040 and 52-041
Second Response to NRC Environmental Request for Additional Information Letter 1103101 (RAI 5562) Environmental Standard Review Plan
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Reference:

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Florida Power & Light Company (FPL) provides, as an attachment to this letter, its response to the Nuclear Regulatory Commission's (NRC) Environmental Request for Additional Information (RAI) 2.4.1-7 provided in Reference 1. FPL previously informed the NRC on the schedule for providing this response in Reference 2. The attachment identifies changes that will be made in a future revision of the Turkey Point Units 6 and 7 Combined License Application (if applicable).

The enclosed optical storage media (OSM) is not intended to comply with the recommendations for electronic submission in NRC Guidance Document, Guidance for Electronic Submissions to the NRC.

If you have any questions, or need additional information, please contact me at 561-691-7490.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 7, 2011.

Sincerely,

William Maher
Senior Licensing Director – New Nuclear Projects

WDM/RFO

Attachment: FPL Response to NRC RAI No. 2.4.1-7 (RAI 5562)
Enclosure: FLUCCS GIS Files (1 OSM)

cc
PTN 6 & 7 Project Manager, AP1000 Projects Branch 1, USNRC DNRL/NRO (w/o enclosure)
Regional Administrator, Region II, USNRC (w/o enclosure)
Senior Resident Inspector, USNRC, Turkey Point Plant 3 & 4 (w/o enclosure)

NRC RAI Letter No. 1103101 Dated March 10, 2011

SRP Section: EIS 02.04.01 – Terrestrial and Wetland Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.01-7 (RAI 5562)

Provide a table of land-use / land-cover impacts, using 3-digit FLUCCS codes, for each on-site facility or building activity, each near-site non-transmission facility or activity, and the proposed transmission corridors. The table should indicate the current acreage of each cover type, the amount to be affected by the proposed activities, and the amount permanently altered by these activities – with an indication of end-state cover type. Provide GIS layers so that the review team can independently verify the data. Some of the requested information appears to be contained in various tables in the ER, Corps permit, and/or Site Certification Application or completeness responses. The request is to consolidate this disparate information into a single, citable table or source. Staff requests this information in order to accurately report and evaluate habitat and land use impacts of the proposed actions.

FPL RESPONSE:

A description of the Florida Land Use, Cover and Forms Classification System (FLUCCS) code for each disturbed area prior to construction alteration, including land use type, FLUCCS Code, FLUCCS description, area and percent of area for each FLUCCS code for the Turkey Point property, vicinity, and region are summarized in Tables 1, 2, and 3 respectively. The FLUCCS land use type and code were first obtained from the South Florida Water Management District. Field surveys were then performed at each disturbed area to either verify or revise the FLUCCS code for each disturbed area. Several linear features are presented currently as corridors (e.g. transmission and pipeline). As the design proceeds, the actual required land disturbance and pathway of each feature will be finalized. Therefore, the land use impacts and land cover presented for these features are bounding for licensing purposes and expected to be less once designs are finalized. It should be noted that wetland impact acreage presented in the US Army Corp of Engineers 404 permit and the Environmental Report are based upon jurisdictional wetland boundary survey, not FLUCCS boundaries.

The amount of coverage assumed impacted, both temporarily and permanent, by the proposed activities is summarized below and in Tables 1, 2, and 3 for the Turkey Point property, vicinity, and region, respectively:

<u>Turkey Point Property</u>

It was assumed that all areas described in Table 1 will be 100% permanently impacted by the proposed construction activities. The end-use land cover for all disturbed areas is FLUCCS Code 831 - Electric Power Facilities, with the exception of the spoils areas, which is FLUCCS Code 743.

Vicinity

Land disturbances within the vicinity consist of the FPL-owned fill source and several access road upgrades. The end-use land cover for the FPL-owned fill source, which will be 100% permanently impacted, is FLUCCS 532 (Reservoirs larger than 100 acres but less than 500 acres). Land impacts to the access roads will be temporary and these access roads will be returned to their previous lane configuration and/or impacted area land use type once construction activities are complete.

Region

Land disturbances within the region consist of the reclaimed water pipeline, the potable water pipeline, the western and eastern transmission corridors, substation upgrades, and transmission access roads. The end-use land cover for these regional features is discussed in the following paragraphs.

The land disturbed as part of the reclaimed water pipeline installation will be returned to its original land use. Although there will be temporary disturbance during installation activities, there are no permanent impacts to end-use land cover.

The land disturbed as part of the potable water pipeline installation will be returned to its original land use, where applicable. Although a corridor is listed for this pipeline, the installation will most likely follow existing roadway medians and the proposed construction access road installation. Therefore, the permanent end-use land cover is considered part of the existing roadways and proposed construction access road upgrades.

The western and eastern transmission corridors represent the maximum extent of land presented for certification as part of the Site Certification Application (SCA) state process. The actual required right-of-ways will be determined post-certification, as will the location and amount of actual land requirements/disturbances necessary for transmission line construction. Therefore, the end-use land cover for these transmission corridors cannot be determined at this time. However, where located, the tower pad locations will be FLUCCS Code 832 - Electrical Transmission Lines.

All substation upgrades represent 100% permanent impacts to end-use land cover. The end-use land cover for all substation upgrades is FLUCCS Code 831 - Electric Power Facilities.

It has been assumed that all transmission access roads will be 100% permanently impacted by the proposed construction activities. The end-use land cover for all transmission access roads is FLUCCS Code 814 - Roads and Highways.

Table 1
Turkey Point Property FLUCCS Summary

	Existing Conditions						End-Use Land Cover	
Disturbed Area	**Acres**	**Land Use Type**	**FLUCCS Code**	**FLUCCS Description**	**Area, Acres**	**Percent Area**	**Area Permanently Altered, percent**	**Land Use Type/FLUCCS Code/FLUCCS Description**
Turkey Point Units 6 & 7 Plant Area	218	WATER	510	Streams And Waterways	0.30	0.14	100	Utlity/831/Electric Power Facilities
		DITCH	511	Ditches	8.38	3.84		
		WETLAND	612-A	Mangrove Heads	12.14	5.56		
		BARREN	650	Non-Vegetated	182.05	83.41		
		DISTURB_AREA	743	Spoil Areas	6.35	2.91		
		DISTURB_AREA	743-WET	Wetland Spoils Areas	9.05	4.15		
Western Laydown Areas	52	WATER	510	Streams And Waterways	3.31	6.39	100	Utlity/831/Electric Power Facilities
		WATER	531	Reservoirs Larger Than 500 Acres (202 Hectares)	11.99	23.10		
		WETLAND	612-B	Dwarf Mangroves	16.87	32.52		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	19.55	37.68		
		ROAD	814	Roads And Highways	0.16	0.31		
Training Parking	9	WETLAND	612	Mangrove Swamps	5.61	61.50	100	Utlity/831/Electric Power Facilities
		WETLAND	612 / 618	Mangrove Swamps / Exotic Wetland Hardwoods/ Willow and Elderberry	1.85	20.33		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	1.64	17.97		
		UTILITY	831	Electric Power Facilities	0.02	0.19		
Nuclear/ Administration Parking	23	WETLAND	612	Mangrove Swamps	18.68	82.21	100	Utlity/831/Electric Power Facilities
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	3.39	14.91		
		ROAD	814	Roads And Highways	0.66	2.89		

Table 1 (continued)
Turkey Point Property FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
Heavy Haul Road	5	WATER	510	Streams And Waterways	0.15	2.99	100	Utlity/831/Electric Power Facilities
		BARREN	650	Non-Vegetated	<0.01	0.01		
		DISTURB_AREA	740	Disturbed Land	0.19	3.64		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	0.03	0.59		
		ROAD	814	Roads And Highways	1.05	20.26		
		UTILITY	831	Electric Power Facilities	3.75	72.51		
Transmission Laydown Area	3	DITCH	511	Ditches	0.02	0.62	100	Utlity/831/Electric Power Facilities
		WETLAND	612-B	Dwarf Mangroves	0.31	10.76		
		UTILITY	831	Electric Power Facilities	2.55	88.61		
Equipment Barge Unloading Area	0.75	WATER	510	Streams And Waterways	0.02	2.55	100	Utlity/831/Electric Power Facilities
		UTILITY	831	Electric Power Facilities	0.73	97.45		
Spoils Area A	77	WATER	510	Streams And Waterways	1.06	1.36	100	743/Spoils Areas
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	76.35	98.64		
Spoils Area B	18	WATER	510	Streams And Waterways	<0.01	0.03	100	743/Spoils Areas
		WATER	542	Embayments Not Opening Directly Into The Gulf Of Mexico Or The Atlantic Ocean	<0.01	0.02		
		DISTURB_AREA	740	Disturbed Land	10.27	57.40		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	4.19	23.42		
		ROAD	814	Roads And Highways	3.42	19.13		

Table 1 (continued)
Turkey Point Property FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
Spoils Area C	116	WATER	510	Streams And Waterways	4.39	3.78	100	743/Spoils Areas
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	111.64	96.22		
Radial Collector Well Area	3	DISTURB_AREA	744	Fill Areas <Highways-Railways>	3.28	100.00	100	Utlity/831/Electric Power Facilities
Radial Collector Well Laydown Area	3	DISTURB_AREA	744	Fill Areas <Highways-Railways>	2.72	100.00	100	Utlity/831/Electric Power Facilities
FPL Reclaimed Water Treatment Facility	44	WETLAND	612-B	Dwarf Mangroves	42.82	97.52	100	Utlity/831/Electric Power Facilities
		WETLAND	617	Mixed Wetland Hardwoods	0.78	1.78		
		ROAD	814	Roads And Highways	0.31	0.70		
Treated Reclaimed Water Delivery Pipelines	6	WATER	510	Streams And Waterways	0.45	8.03	100	Utlity/831/Electric Power Facilities
		WETLAND	612-B	Dwarf Mangroves	3.06	55.01		
		WETLAND	617	Mixed Wetland Hardwoods	0.43	7.79		
		BARREN	650	Non-Vegetated	<0.01	0.05		
		DISTURB_AREA	740	Disturbed Land	0.23	4.06		
		DISTURB_AREA	743-WET	Wetland Spoils Areas	<0.01	<0.01		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	0.08	1.51		
		ROAD	814	Roads And Highways	1.31	23.56		
Radial Collector Well Delivery Pipelines	13	WATER	510	Streams And Waterways	0.15	1.14	100	Utlity/831/Electric Power Facilities
		WETLAND	612	Mangrove Swamps	3.98	29.83		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	9.21	69.02		

Table 2
Vicinity Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Area	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
FPL-Owned Fill Source	300	FARM_ORCHARD	241	Tree Nurseries	243.78	81.70	100	532/Reservoirs larger than 100 acres but less than 500 acres
		TIMBER	422	Brazilian Pepper	0.25	0.08		
		DITCH	511	Ditches	5.19	1.74		
		WETLAND	619	Exotic Wetland Hardwoods	3.02	1.01		
		WETLAND	619 / 631	Exotic Wetland Hardwoods / Wetland Scrub	30.71	10.29		
		WETLAND	631	Wetland Shrub	4.42	1.48		
		WETLAND	641	Freshwater Marshes	8.76	2.94		
		ROAD	814	Roads And Highways	2.25	0.75		
SW 117th Ave. North	9	FARM_ORCHARD	241	Tree Nurseries	0.04	0.43	Disturbed Area will be restored to original land use	Not Applicable
		WATER	510	Streams And Waterways	<0.01	<0.01		
		DITCH	511	Ditches	1.57	18.01		
		WETLAND	619	Exotic Wetland Hardwoods	0.19	2.16		
		ROAD	814	Roads And Highways	6.91	79.40		
SW 117th Ave. South	8	WATER	510	Streams And Waterways	<0.01	0.05	Disturbed Area will be restored to original land use	Not Applicable
		WETLAND	617	Mixed Wetland Hardwoods	1.94	25.30		
		WETLAND	617 / 641	Mixed Wetland Hardwoods / Freshwater Marshes	1.95	25.34		
		WETLAND	641	Freshwater Marshes	2.62	34.18		
		ROAD	814	Roads And Highways	1.16	15.13		

Table 2 (continued)
Vicinity Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Area	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
SW 137th Ave.	7	RECREATIONAL	183	Race Tracks	0.63	8.54	Disturbed Area will be restored to original land use	Not Applicable
		WATER	510	Streams And Waterways	1.66	22.55		
		WETLAND	617	Mixed Wetland Hardwoods	0.75	10.17		
		WETLAND	617 / 641	Mixed Wetland Hardwoods / Freshwater Marshes	2.78	37.73		
		ROAD	814	Roads And Highways	1.55	21.01		
SW 328th St.	24	FAMILYHOUSNG	110	Residential, Low Density <Less Than Two Dwelling Units Per Acre>	0.53	2.18	Disturbed Area will be restored to orginal land use	Not Applicable
		FARM_CROPS	214	Row Crops	2.95	12.04		
		FARM_ORCHARD	222	Fruit Orchards	1.59	6.50		
		FARM_ORCHARD	241	Tree Nurseries	2.73	11.14		
		WATER	510	Streams And Waterways	0.67	2.72		
		DITCH	511	Ditches	1.40	5.73		
		WETLAND	619	Exotic Wetland Hardwoods	4.01	16.38		
		ROAD	814	Roads And Highways	10.60	43.31		
SW 344th St.	2	RECREATIONAL	183	Race Tracks	0.64	38.74	Disturbed Area will be restored to original land use	Not Applicable
		ROAD	814	Roads and Highways	1.02	61.26		
SW 359th Ave. East	47	TIMBER	437	Australian Pine	0.76	1.62	Disturbed Area will be restored to original land use	Not Applicable
		WATER	510	Streams And Waterways	1.54	3.28		
		DITCH	511	Ditches	0.32	0.68		

Table 2 (continued)
Vicinity Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
SW 359th Ave. East		WATER	534	Reservoirs Less Than 10 Acres (4 Hectares) Which Are Dominant Features	0.06	0.13	Disturbed Area will be restored to original land use	Not Applicable
		WETLAND	612	Mangrove Swamps	0.02	0.05		
		WETLAND	612-B	Dwarf Mangroves	6.26	13.37		
		WETLAND	617	Mixed Wetland Hardwoods	0.70	1.50		
		WETLAND	617-P	Mixed Wetland Hardwoods Planted	0.01	0.01		
		WETLAND	619-AP	Exotic Wetland Hardwoods-Australian Pine	<0.01	0.01		
		WETLAND	641	Freshwater Marshes	23.97	51.21		
		WETLAND	6411	Sawgrass Marsh	0.60	1.27		
		DISTURB_AREA	740	Disturbed Land	6.57	14.05		
		DISTURB_AREA	743	Spoil Areas	0.01	0.01		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	0.36	0.77		
		ROAD	814	Roads And Highways	4.31	9.20		
		UTILITY	831	Electric Power Facilities	1.33	2.85		
SW 359th Ave. West	31	WATER	510	Streams And Waterways	0.07	0.22	Disturbed Area will be restored to original land use	Not Applicable
		WETLAND	617	Mixed Wetland Hardwoods	5.71	18.44		
		WETLAND	617 / 641	Mixed Wetland Hardwoods / Freshwater Marshes	0.76	2.45		
		WETLAND	641	Freshwater Marshes	21.35	68.92		
		ROAD	814	Roads And Highways	3.09	9.98		

Table 3
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
Potable Water Pipeline Corridor	327	FAMILYHOUSNG	110	Residential, Low Density <Less Than Two Dwelling Units Per Acre>	1.19	0.37	Disturbed Area will be restored to original land use	Not Applicable
		FAMILYHOUSNG	131	Fixed Single Family Units <Six Or More Dwelling Units Per Acre>	3.51	1.07		
		FAMILYHOUSNG	133	Multiple Dwelling Units, Low Rise <Two Stories Or Less>	3.45	1.06		
		FAMILYHOUSNG	134	Multiple Dwelling Units, High Rise <Three Stories Or More>	4.76	1.46		
		FAMILYHOUSNG	139	High Density Under Construction	3.68	1.13		
		COMMSERVICES	140	Commercial And Services	1.33	0.41		
		COMMSERVICES	149	Commercial And Services Under Construction	1.75	0.53		
		FARM_CROPS	214	Row Crops	20.94	6.40		
		FARM_CROPS	215	Field Crops	6.98	2.14		
		FARM_ORCHARD	221	Citrus Groves	3.44	1.05		
		FARM_ORCHARD	222	Fruit Orchards	3.38	1.04		
		FARM_ORCHARD	241	Tree Nurseries	35.18	10.76		
		RANGE	320	Shrub And Brushland	1.63	0.50		
		TIMBER	422	Brazilian Pepper	6.93	2.12		
		TIMBER	437	Australian Pine	0.38	0.12		
		TIMBER	437	Australian Pines	0.38	0.12		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
Potable Water Pipeline Corridor		WATER	510	Streams And Waterways	20.25	6.19	Disturbed Area will be restored to original land use	Not Applicable
		DITCH	511	Ditches	2.17	0.66		
		WATER	530	Reservoirs	0.42	0.13		
		WATER	534	Reservoirs Less Than 10 Acres (4 Hectares) Which Are Dominant Features	1.91	0.59		
		WETLAND	612-B	Dwarf Mangroves	8.72	2.67		
		WETLAND	612-B	Dwarf Mangroves	0.07	0.02		
		WETLAND	617	Mixed Wetland Hardwoods	22.57	6.90		
		WETLAND	617	Mixed Wetland Hardwoods	0.47	0.14		
		WETLAND	617 / 641	Mixed Wetland Hardwoods / Freshwater Marshes	8.42	2.58		
		WETLAND	617-P	Mixed Wetland Hardwoods Planted	0.47	0.14		
		WETLAND	619	Exotic Wetland Hardwoods	24.51	7.50		
		WETLAND	619-AP	Exotic Wetland Hardwoods-Australian Pine	0.07	0.02		
		WETLAND	641	Freshwater Marshes	92.69	28.35		
		WETLAND	6411	Sawgrass Marsh	1.96	0.60		
		DISTURB_AREA	740	Disturbed Land	3.35	1.02		
		DISTURB_AREA	743	Spoil Areas	0.50	0.15		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	0.20	0.06		
		ROAD	814	Roads And Highways	39.18	11.98		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
Potable Water Pipeline Corridor		UTILITY	831	Electric Power Facilities	0.03	0.01	Disturbed Area will be restored to original land use	Not Applicable
Reclaimed Water Pipeline Corridor	1876	WATER	166	Holding Ponds	42.75	2.28	Disturbed Area will be restored to original land use	Not Applicable
		RECREATIONAL	184	Marinas And Fish Camps	8.61	0.46		
		FARM_CROPS	215	Field Crops	71.55	3.81		
		FARM_ORCHARD	241	Tree Nurseries	421.76	22.48		
		FARM_CROPS	242	Sod Farms	1.18	0.06		
		FARM_OTHER	243	Ornamentals	2.15	0.11		
		RANGE	310	Herbaceous (Dry Prairie)	26.35	1.40		
		RANGE	320	Shrub And Brushland	43.13	2.30		
		RANGE	330	Mixed Rangeland	29.80	1.59		
		TIMBER	422	Brazilian Pepper	2.06	0.11		
		WATER	510	Streams And Waterways	59.04	3.15		
		DITCH	511	Ditches	1.44	0.08		
		WATER	530	Reservoirs	13.69	0.73		
		WATER	534	Reservoirs Less Than 10 Acres (4 Hectares) Which Are Dominant Features	0.72	0.04		
		WETLAND	612	Mangrove Swamps	276.15	14.72		
		WETLAND	612 / 619	Mangrove Swamps / Exotic Wetland Hardwoods	4.47	0.24		
		WETLAND	612-B	Dwarf Mangroves	0.05	<0.01		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
Reclaimed Water Pipeline Corridor		WETLAND	617	Mixed Wetland Hardwoods	91.63	4.88	Disturbed Area will be restored to original land use	Not Applicable
		WETLAND	619	Exotic Wetland Hardwoods	3.02	0.16		
		WETLAND	630	Wetland Forested Mixed	2.52	0.13		
		WETLAND	631	Wetland Shrub	35.03	1.87		
		WETLAND	641	Freshwater Marshes	32.72	1.74		
		WETLAND	642	Saltwater Marshes	2.21	0.12		
		DISTURB_AREA	740	Disturbed Land	31.07	1.66		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	0.20	0.01		
		ROAD	814	Roads And Highways	49.54	2.64		
		UTILITY	831	Electric Power Facilities	24.57	1.31		
		UTILITY	834	Sewage Treatment	234.47	12.50		
		UTILITY	835	Solid Waste Disposal	363.99	19.40		
West Preferred Corridor--Clear Sky to Levee 1st leg	1379	FAMILYHOUSNG	120	Residential, Medium Density <Two-Five Dwelling Units Per Acre>	0.37	0.03	Not Applicable	Utlity/832/Electrical Transmission Lines
		FAMILYHOUSNG	121	Fixed Single Family Units	2.39	0.17		
		FAMILYHOUSNG	129	Medium Density Under Construction	0.46	0.03		
		PASTURE	211	Improved Pastures	37.36	2.71		
		FARM_CROPS	214	Row Crops	61.32	4.45		
		FARM_CROPS	215	Field Crops	157.05	11.39		
		FARM_ORCHARD	220	Tree Crops	40.37	2.93		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
West Preferred Corridor-- Clear Sky to Levee 1st leg		FARM_ORCHARD	221	Citrus Groves	123.67	8.97	Not Applicable	Utlity/832/Electrical Transmission Lines
		FARM_ORCHARD	222	Fruit Orchards	94.99	6.89		
		FARM_ORCHARD	223	Other Groves	63.53	4.61		
		FARM_VINEYRD	240	Nurseries And Vineyards	10.42	0.76		
		FARM_ORCHARD	241	Tree Nurseries	122.25	8.87		
		FARM_OTHER	243	Ornamentals	21.59	1.57		
		RANGE	310	Herbaceous (Dry Prairie)	1.22	0.09		
		RANGE	320	Shrub And Brushland	18.68	1.35		
		TIMBER	420	Upland Hardwood Forests	3.69	0.27		
		TIMBER	422	Brazilian Pepper	1.51	0.11		
		TIMBER	436	Upland Scrub, Pine And Hardwoods	0.35	0.03		
		TIMBER	437	Australian Pines	0.84	0.06		
		WATER	510	Streams And Waterways	219.01	15.88		
		DITCH	511	Ditches	0.92	0.07		
		DITCH	511 / 641	Ditches / Freshwater Marshes	2.99	0.22		
		WATER	531	Reservoirs Larger Than 500 Acres (202 Hectares)	0.85	0.06		
		WATER	534	Reservoirs Less Than 10 Acres (4 Hectares) Which Are Dominant Features	11.61	0.84		
		WETLAND	612	Mangrove Swamps	0.11	0.01		
		WETLAND	612-B	Dwarf Mangroves	73.16	5.31		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
West Preferred Corridor-- Clear Sky to Levee 1st leg		WETLAND	617	Mixed Wetland Hardwoods	57.46	4.17	Not Applicable	Utlity/832/Electrical Transmission Lines
		WETLAND	617 / 641	Mixed Wetland Hardwoods / Freshwater Marshes	8.09	0.59		
		WETLAND	617 / 643	Mixed Wetland Hardwoods / Wet Prairies	<0.01	<0.01		
		WETLAND	619	Exotic Wetland Hardwoods	57.07	4.14		
		WETLAND	619-AP	Exotic Wetland Hardwoods-Australian Pine	0.50	0.04		
		WETLAND	641	Freshwater Marshes	75.60	5.48		
		WETLAND	641 / 643	Freshwater Marshes / Wet Prairies	2.62	0.19		
		WETLAND	6411	Sawgrass Marsh	11.47	0.83		
		WETLAND	643	Wet Prairies	11.43	0.83		
		BARREN	650	Non-Vegetated	0.43	0.03		
		DISTURB_AREA	740	Disturbed Land	9.72	0.71		
		DISTURB_AREA	743	Spoil Areas	53.69	3.89		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	4.70	0.34		
		ROAD	814	Roads And Highways	12.27	0.89		
		UTILITY	831	Electric Power Facilities	3.09	0.22		
West Preferred Corridor-- Clear Sky to Levee 2nd Leg	1413	MINING	163	Rock Quarries	5.24	0.37	Not Applicable	Utlity/832/Electrical Transmission Lines
		PASTURE	211	Improved Pastures	1.34	0.09		
		FARM_CROPS	214	Row Crops	50.29	3.56		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
West Preferred Corridor--Clear Sky to Levee 2nd Leg		FARM_CROPS	215	Field Crops	63.03	4.46	Not Applicable	Utlity/832/Electrical Transmission Lines
		FARM_ORCHARD	222	Fruit Orchards	1.03	0.07		
		FARM_GRAZING	251	Horse Farms	0.68	0.05		
		RANGE	310	Herbaceous (Dry Prairie)	41.83	2.96		
		RANGE	320	Shrub And Brushland	27.58	1.95		
		TIMBER	422	Brazilian Pepper	61.67	4.36		
		WATER	510	Streams And Waterways	166.98	11.82		
		WATER	530	Reservoirs	0.08	0.01		
		WETLAND	617	Mixed Wetland Hardwoods	31.96	2.26		
		WETLAND	617 / 641	Mixed Wetland Hardwoods / Freshwater Marshes	408.00	28.88		
		WETLAND	618	Willow And Elderberry	1.61	0.11		
		WETLAND	619	Exotic Wetland Hardwoods	74.62	5.28		
		WETLAND	619 / 641	Exotic Wetland Hardwoods / Freshwater Marshes	19.07	1.35		
		WETLAND	641	Freshwater Marshes	254.04	17.98		
		WETLAND	643	Wet Prairies	41.62	2.95		
		ROAD	814	Roads And Highways	162.29	11.49		
West Preferred Corridor--Clear Sky to Levee 3rd Leg	252	WETLAND	617	Mixed Wetland Hardwoods	33.19	13.16	Not Applicable	Utlity/832/Electrical Transmission Lines
		WETLAND	619	Exotic Wetland Hardwoods	92.93	36.83		
		WETLAND	641	Freshwater Marshes	76.39	30.28		
		WETLAND	643	Wet Prairies	26.58	10.53		
		DISTURB_AREA	740	Disturbed Land	1.75	0.69		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

	Existing Conditions						End-Use Land Cover	
Disturbed Area	**Acres**	**Land Use Type**	**FLUCCS Code**	**FLUCCS Description**	**Area, Acres**	**Percent Area**	**Area Permanently Altered, percent**	**Land Use Type/FLUCCS Code/FLUCCS Description**
West Preferred Corridor-- Clear Sky to Levee 3rd Leg		ROAD	814	Roads And Highways	0.03	0.01	Not Applicable	Utlity/832/Electrical Transmission Lines
		UTILITY	831	Electric Power Facilities	17.44	6.91		
		UTILITY	832	Electrical Power Transmission Lines	3.98	1.58		
West Preferred Corridor-- Levee to Pennsuco	312	FAMILYHOUSNG	131	Fixed Single Family Units <Six Or More Dwelling Units Per Acre>	3.73	1.19	Not Applicable	Utlity/832/Electrical Transmission Lines
		FAMILYHOUSNG	133	Multiple Dwelling Units, Low Rise <Two Stories Or Less>	5.09	1.63		
		COMMSERVICES	140	Commercial And Services	9.14	2.93		
		COMMSERVICES	141	Retail Sales And Services	0.66	0.21		
		COMMSERVICES	149	Commercial And Services Under Construction	0.49	0.16		
		MINING	163	Rock Quarries	44.64	14.30		
		WATER	166	Holding Ponds	0.59	0.19		
		RECREATIONAL	182	Golf Courses	2.11	0.68		
		RANGE	190	Open Land	20.48	6.56		
		WATER	510	Streams And Waterways	0.71	0.23		
		DITCH	511	Ditches	0.53	0.17		
		WATER	534	Reservoirs Less Than 10 Acres (4 Hectares) Which Are Dominant Features	0.53	0.17		
		WETLAND	619	Exotic Wetland Hardwoods	26.08	8.35		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
West Preferred Corridor--Levee to Pennsuco		WETLAND	619 / 641	Exotic Wetland Hardwoods / Freshwater Marshes	19.23	6.16	Not Applicable	Utility/832/Electrical Transmission Lines
		WETLAND	631 / 641	Wetland Scrub / Freshwater Marshes	5.04	1.61		
		WETLAND	641	Freshwater Marshes	111.95	35.85		
		WETLAND	641 / 643	Freshwater Marshes / Wet Prairies	1.05	0.34		
		WETLAND	643	Wet Prairies	6.06	1.94		
		DISTURB_AREA	740	Disturbed Land	19.42	6.22		
		ROAD	814	Roads And Highways	10.96	3.51		
		UTILITY	831	Electric Power Facilities	2.40	0.77		
		UTILITY	832	Electrical Power Transmission Lines	21.40	6.85		
West Secondary Corridor--Clear Sky to Levee 2nd Leg	499	WATER	510	Streams And Waterways	0.99	0.20	Not Applicable	Utility/832/Electrical Transmission Lines
		WETLAND	617	Mixed Wetland Hardwoods	8.79	1.76		
		WETLAND	617 / 641	Mixed Wetland Hardwoods / Freshwater Marshes	302.37	60.61		
		WETLAND	619	Exotic Wetland Hardwoods	8.16	1.64		
		WETLAND	641	Freshwater Marshes	177.66	35.61		
		ROAD	814	Roads And Highways	0.92	0.18		
East Preferred Corridor--Clear Sky to Davis Corridor	635	FAMILYHOUSNG	111	Fixed Single Family Units	1.10	0.17	Not Applicable	Utility/832/Electrical Transmission Lines
		FAMILYHOUSNG	121	Fixed Single Family Units	3.07	0.48		
		FAMILYHOUSNG	131	Fixed Single Family Units <Six Or More Dwelling Units Per Acre>	1.67	0.26		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
East Preferred Corridor-- Clear Sky to Davis Corridor		FAMILYHOUSNG	132	Mobile Home Units <Six Or More Dwelling Units Per Acre>	0.21	0.03	Not Applicable	Utlity/832/Electrical Transmission Lines
		FAMILYHOUSNG	133	Multiple Dwelling Units, Low Rise <Two Stories Or Less>	0.59	0.09		
		FAMILYHOUSNG	139	High Density Under Construction	0.16	0.02		
		COMMSERVICES	140	Commercial And Services	0.38	0.06		
		COMMSERVICES	155	Other Light Industrial	0.14	0.02		
		COMMFACILITY	170	Institutional	1.28	0.20		
		RECREATIONAL	180	Recreational	0.33	0.05		
		RECREATIONAL	185	Parks And Zoos	0.48	0.08		
		FARM_CROPS	214	Row Crops	1.87	0.29		
		FARM_CROPS	215	Field Crops	0.30	0.05		
		FARM_ORCHARD	221	Citrus Groves	22.52	3.55		
		FARM_ORCHARD	222	Fruit Orchards	6.95	1.09		
		FARM_ORCHARD	241	Tree Nurseries	308.58	48.60		
		FARM_CROPS	242	Sod Farms	3.48	0.55		
		FARM_OTHER	243	Ornamentals	74.49	11.73		
		FARM_GRAZING	251	Horse Farms	0.12	0.02		
		RANGE	310	Herbaceous (Dry Prairie)	60.89	9.59		
		RANGE	320	Shrub And Brushland	14.87	2.34		
		RANGE	330	Mixed Rangeland	0.31	0.05		
		TIMBER	411	Pine Flatwoods	0.03	0.01		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
East Preferred Corridor--Clear Sky to Davis Corridor		TIMBER	420	Upland Hardwood Forests	0.36	0.06	Not Applicable	Utlity/832/Electrical Transmission Lines
		TIMBER	422	Brazilian Pepper	0.75	0.12		
		WATER	510	Streams And Waterways	13.79	2.17		
		DITCH	511	Ditches	0.31	0.05		
		WATER	530	Reservoirs	3.60	0.57		
		WETLAND	612	Mangrove Swamps	64.28	10.12		
		WETLAND	612 / 618	Mangrove Swamps / Willow and Elderberry	<0.01	<0.01		
		WETLAND	612-B	Dwarf Mangroves	4.84	0.76		
		WETLAND	619	Exotic Wetland Hardwoods	2.06	0.32		
		WETLAND	641	Freshwater Marshes	0.50	0.08		
		DISTURB_AREA	740	Disturbed Land	0.02	<0.01		
		DISTURB_AREA	744	Fill Areas <Highways-Railways>	1.62	0.25		
		ROAD	814	Roads And Highways	9.57	1.51		
		UTILITY	831	Electric Power Facilities	29.37	4.63		
East Preferred Corridor--Davis to Miami Corridor	1000	FAMILYHOUSNG	111	Fixed Single Family Units	0.84	0.08	Not Applicable	Utlity/832/Electrical Transmission Lines
		FAMILYHOUSNG	119	Low Density Under Construction	0.25	0.02		
		FAMILYHOUSNG	121	Fixed Single Family Units	61.08	6.11		
		FAMILYHOUSNG	131	Fixed Single Family Units <Six Or More Dwelling Units Per Acre>	0.50	0.05		
		FAMILYHOUSNG	133	Multiple Dwelling Units, Low Rise <Two Stories or Less>	63.68	6.37		
		FAMILYHOUSNG	134	Multiple Dwelling Units, High Rise <Three Stories or More>	33.74	3.37		

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
East Preferred Corridor--Davis to Miami Corridor		COMMSERVICES	140	Commercial And Services	224.39	22.44	Not Applicable	Utlity/832/Electrical Transmission Lines
		COMMSERVICES	141	Retail Sales And Services	79.35	7.94		
		COMMSERVICES	155	Other Light Industrial	1.92	0.19		
		COMMFACILITY	170	Institutional	16.41	1.64		
		SCHOOL	171	Educational Facilities	0.48	0.05		
		RECREATIONAL	180	Recreational	0.39	0.04		
		FARM_OTHER	243	Ornamentals	13.63	1.36		
		RANGE	310	Herbaceous (Dry Prairie)	11.35	1.13		
		RANGE	320	Shrub And Brushland	7.86	0.79		
		TIMBER	420	Upland Hardwood Forests	2.10	0.21		
		WATER	510	Streams And Waterways	15.42	1.54		
		WATER	530	Reservoirs	1.23	0.12		
		ROAD	810	Transportation	195.85	19.58		
		RAILROAD	812	Railroads	21.82	2.18		
		ROAD	814	Roads And Highways	187.32	18.73		
		UTILITY	831	Electric Power Facilities	4.90	0.49		
		UTILITY	832	Electrical Power Transmission Lines	55.49	5.55		
Davis Substation	1	FARM_ORCHARD	241	Tree Nurseries	1.12	100	100	Utlity/831/Electric Power Facilities
Levee Substation	2	UTILITY	831	Electric Power Facilities	0.52	22.3	100	Utlity/831/Electric Power Facilities
		WETLAND	619	Exotic Wetland Hardwoods	1.81	77.7		
Pennsuco Substation	2	MINING	163	Rock Quarries	2.42	100	100	Utlity/831/Electric Power Facilities
Turkey Point Substation	1	UTILITY	831	Electric Power Facilities	0.88	100	100	Utlity/831/Electric Power Facilities

Table 3 (continued)
Region Land Disturbance FLUCCS Summary

Disturbed Area	Existing Conditions						End-Use Land Cover	
	Acres	Land Use Type	FLUCCS Code	FLUCCS Description	Area, Acres	Percent Area	Area Permanently Altered, percent	Land Use Type/FLUCCS Code/FLUCCS Description
Transmission Access Road 1 (Tamiami Trail)	11	WATER	510	Streams and Waterways	2.74	26.08	100	Road/814/Roads and Highways
		WETLAND	641	Freshwater Marshes	3.06	29.16		
		ROAD	814	Roads and Highways	4.70	44.76		
Transmission Access Road 2 (Krome Avenue)	365	WATER	510	Streams and Waterways	85.33	23.40	100	Road/814/Roads and Highways
		WETLAND	619	Exotic Wetland Hardwoods	56.81	15.58		
		WETLAND	641	Freshwater Marshes	143.40	39.32		
		ROAD	814	Roads and Highways	79.19	21.71		

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

ER Sections 2.2, 2.4, and 4.3 will be updated in a future COLA revision to reflect the FPL response to this RAI.

ASSOCIATED ENCLOSURES:

1 OSM – ER land disturbance and FLUCCS GIS Layer Database. The contents on the OSM are summarized as follows:

LAYER_ID	LAYER_TITLE	LAYER_NAME
TURK-BD-000023-2011	Turkey Point Facilities for FLUCCS Code Land Use Analysis	VGIS_BD_FLUCCS_FACIL_AREA
TURK-LS-000003-2011	Turkey Point FLUCCS Codes for the Disturbed Areas	VGIS_LS_LAND_USE_AREA_FLUCCS

Enclosure

Turkey Point Nuclear Plant Units 6 and 7
COL Application

ENVIRONMENTAL REPORT
NRC RAI No. 2.4.1-7 (RAI 5562)
FLUCCS GIS Files
(1 OSM, July 2011)

Enclosure: 1 Total Page and 1 OSM