PMLevyCOLPEm Resource

From: Sutton, Mallecia
Sent: Wednesday, May 30, 2012 1:57 PM
To: Bruner, Douglas
Subject: FW: Levy Response to Corps e-mail of March 26, 2012
Attachments: NPD-MISC-2012-016 - Final.pdf

FYI

Mallecia Sutton
U.S.Nuclear Regulatory Commission
NRO/DNRL/EPB1
301-415-0673

From: Wilkins, Tillie [mailto:tillie.wilkins@pgnmail.com]
Sent: Wednesday, May 30, 2012 1:43 PM
To: 'gordon.a.hambrick@usace.army.mil'
Cc: 'osvaldo.collazo@usace.army.mil'; Sutton, Mallecia; Snead, Paul
Subject: Levy Response to Corps e-mail of March 26, 2012

An advance copy of PEF's response to your e-mail dated 3/26/12 is attached. Formal response (hard copy) is being distributed separately.

Tillie Wilkins
Nuclear Plant Licensing
New Generation Programs & Projects
Progress Energy
VNet: 770-6754
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Hearing Identifier: Levy_County_COL_Public
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Progress Energy

Serial: NPD-MISC-2012-016
May 30, 2012

Mr. Gordon Hambrick
Senior Project Manager
Department of the Army
Jacksonville District Corps of Engineers
Panama City Regulatory Office
1002 West 23rd Street, Suite 350
Panama City, FL 32401

Levy Nuclear Plant/PEF
SAJ-2008-00490 (IP-GAH)
Response to Corps Email of March 26, 2012

Dear Mr. Hambrick:

The purpose of this letter is to provide responses to your email of March 26, 2012 which resulted from a conference call between you and Paul Snead and Amy Dierolf of my staff. The items that are addressed in this letter are only the ones requiring a response by Progress Energy. The Corps comment is in italics below and the PEF response is in bold.

Corps Comment #1 (Item II.1.)
Kathleen Substation and BBW transmission line for Transmission Lines JD. Reference Corps JD letter dated 11/01/2011. Wetland Table attached to letter, as provided by PEF does not show wetlands for Kathleen substation (around 107 acres of wetlands at the Kathleen substation that were subject of Corps JD review I believe). Also would like an entry in table to explicitly show for BBW line that there are 0 acres of wetlands. Need revised table to show the two items above. Corps will have to send out a revised JD letter for transmission lines.

PEF Response #1
On the transmission line jurisdictional wetland tables, the Kathleen Substation (which includes all fee owned property) has been moved from the location in the Polk-Hillsborough-Pinellas (PHP) line to the end of the table with the substations. This has reduced the total JD wetlands in the PHP section but added them in the Kathleen Substation section at the end of the table with the substations. It has not reduced the overall acreage of the JD wetlands for the project. The BBW transmission line, showing no jurisdictional wetlands has been added. The revised tables are included as Attachment 1 to this letter.

Corps Comment #2 (Item III.1.)
UMAM quantification of secondary impacts. Establish secondary (indirect) impact wetland polygons in wetlands adjacent and within 300' of the permit areas' lines of impact/construction. For the facility site work, 300' from limits of construction. For transmission lines, 300' out from limits of fill impacts.

Progress Energy Florida, Inc.
P.O. Box 14042
St. Petersburg, FL 33733

PEF Response #2
PEF maintains that quantification of secondary impacts has already been adequately addressed without further quantification needed as noted below.

To address secondary impacts, the State of Florida requirements for environmental resource permits (ERPs) provide a "safe harbor" of upland buffers of an average of 25 feet wide, with a minimum width of 15 feet where secondary impacts are presumed to be avoided. The Corps has no analogous safe harbor buffer, but PEF maintains that compliance with these ERP buffers will avoid secondary impacts at the Levy Nuclear Plant as discussed below.

The Corps' Clean Water Act § 404 program does not have a quantifiable secondary impact/buffer requirement in Florida. The Corps' regulations generally address secondary impacts in 40 C.F.R. 230.11(h); for this project, secondary impacts include surface runoff from fill areas. However, the regulations do not define this further or quantify the area. Those who have been practicing in Florida for some time will remember the Joint State/Federal Mitigation Bank Review Team Process for Florida (the Green Book) from 1998 and the corresponding Wetland Rapid Assessment Procedure (WRAP) from September 1997 with its buffer matrix which gave the highest score to buffers of more than 300 feet on average. [WRAP p. 15.] Even though it gave the highest score to 300+ foot buffers, the authors of WRAP acknowledged that "[t]he criteria for determining adequate buffer sizes should be partly based on the quality of the wetland and the intensity of the adjacent land use." [WRAP p. 13.] In Florida, the Uniform Mitigation Assessment Method (UMAM) has supplanted use of WRAP by state agencies and the Corps. Because UMAM does not define a minimum buffer width or secondary impact area, the ERP rules default to the average 25 foot, minimum 15 foot buffers as mentioned above. See Rule 40D-40.301, Florida Administrative Code; see also Basis of Review for ERP Applications within the Southwest Florida Water Management District, section 3.2.7.

For its Levy Nuclear Plant, PEF is proposing buffers of an average of 25 feet with a minimum of 15 feet. PEF maintains that these buffer widths are sufficient to avoid secondary impacts, especially when combined with the use of hay bales, silt screens, and other erosion control measures or appropriate engineering tools designed to avoid secondary impacts. Much of the area included within the limits of construction is currently in silviculture and the Levy Nuclear Plant construction will improve many of those areas. Further, a number of the proposed impacts, such as those associated with transmission lines, will not inhibit animal mobility, which also reduces the need for large buffers for secondary impact purposes.

In addition, PEF has submitted to the Corps a Temporary Impacts Restoration Plan (submitted via letter NPD-MISC-2011-019 on November 10, 2011) which lays out how the temporary impact areas will be restored after construction. These areas were also included in the acreages of impact for our mitigation plan and as a result the areas will be restored and mitigated thus eliminating the need to quantify any additional secondary impacts.

Corps Comment #3 (Item III.2)
Need location maps of UMAM impact polygons tied to UMAM sheets for all of the project (except transmission lines as provided in the 9-volume JD set, since polygon locations for those specific transmission lines, are provided in the 9-volume set). We discussed that polygon selection for UMAM assessments should be based on veg. community, and the level of "lumping" to be appropriate to reasonably account for assessment differences based on site conditions.

PEF Response #3
Revised UMAM forms to tie the UMAM impact polygons to the UMAM sheets are included as Attachment 2.

Corps Comment #4 (Item IV.1.)
The Corps questioned the timing of final drawings that would incorporate any changes. [This refers to response #1 in PEF letter dated February 27, 2012; NPD-MISC-2012-008.]

PEF Response #4
As was discussed at our meeting on January 19, 2012 and noted in our letter NPD-MISC-2012-008, dated February 27, 2012, PEF will provide a final set of project drawings once all comments are received from the Corps. PEF would prefer to prepare any needed revisions once and provide a final set to the Corps once the Corps' reviews are complete rather than revising individual drawings.

Corps Comment #5 (Item IV.2.)
PEF to provide a list of dewatering BMPs. [This refers to response #2 in PEF letter dated February 27, 2012; NPD-MISC-2012-008.]

PEF Response #5
A list of likely best management practices (BMPs) to be used during construction at the LNP site is included as Attachment 3.

Corps Comment #6 (Item IV.9)
The Corps is continuing the review of PEF's proposed MOA for mitigation on government owned lands. [This refers to response #9 in PEF letter dated February 27, 2012; NPD-MISC-2012-008.]

PEF Response #6
PEF is requesting feedback on the proposed MOA submitted as part of letter NPD-MISC-2012-008. Any modifications requested by the Corps need to be incorporated in the MOA document before we can begin formal discussions with the State of Florida, Florida Forest Service, Pasco County and Pinellas County to secure more formal agreements for mitigation on their lands.

If you have any questions regarding this letter or need additional information, please contact me at (919) 546-6992 or Paul Snead at (919) 546-2836.

Sincerely,

Robert Kitchen
Manager, Nuclear Plant Licensing
New Generation Programs & Projects

Attachments

cc: Osvaldo Collazo, USACE
Mallecia Sutton, USNRC

ATTACHMENT 1

PEF Levy Nuclear Plant Project
Preferred Transmission Line ROWs and Substations Wetland JD Summary
Updated April 2012

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Brookridge-Brooksvile West Transmission Line	No Wetlands	N/A	N/A
Subtotal		**N/A**	**N/A**
Citrus-Brookridge Transmission Line	Wetland CB-A	0.46	
Citrus-Brookridge Transmission Line	Wetland CB-B	0.20	
Citrus-Brookridge Transmission Line	Wetland CB-C	1.38	
Citrus-Brookridge Transmission Line	Wetland CB-D	0.41	
Citrus-Brookridge Transmission Line	Wetland CB-E	1.21	
Citrus-Brookridge Transmission Line	Wetland CB-F	0.28	
Citrus-Brookridge Transmission Line	Wetland CB-G	0.50	
Citrus-Brookridge Transmission Line	Wetland CB-H	0.76	
Citrus-Brookridge Transmission Line	Wetland CB-I	1.29	
Citrus-Brookridge Transmission Line	Wetland CB-J	0.96	
Citrus-Brookridge Transmission Line	Wetland CB-K	4.55	
Citrus-Brookridge Transmission Line	Wetland CB-L	1.04	
Citrus-Brookridge Transmission Line	Wetland CB-M	0.33	
Citrus-Brookridge Transmission Line	Wetland CB-N	0.99	
Citrus-Brookridge Transmission Line	Wetland CB-O	0.21	
Citrus-Brookridge Transmission Line	Wetland CB-P	0.30	
Citrus-Brookridge Transmission Line	Wetland CB-Q	1.33	
Citrus-Brookridge Transmission Line	Wetland CB-R	1.56	
Citrus-Brookridge Transmission Line	Wetland CB-S	0.71	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Citrus-Brookridge Transmission Line	Wetland CB-T	0.05	
Citrus-Brookridge Transmission Line	Wetland CB-U	0.61	
Citrus-Brookridge Transmission Line	Wetland CB-V	0.49	
Citrus-Brookridge Transmission Line	Wetland CB-W	0.62	
Citrus-Brookridge Transmission Line	Wetland CB-X	2.35	
Citrus-Brookridge Transmission Line	Wetland CS-Q	0.10	
Citrus-Brookridge Transmission Line	Wetland CS-R	1.37	
Subtotal		**24.06**	**0.00**
Citrus Common Route	Wetland A	0.60	
Citrus Common Route	Wetland B	1.72	
Citrus Common Route	Wetland C	3.03	
Citrus Common Route	Wetland D	0.35	
Citrus Common Route	Wetland E	3.27	
Citrus Common Route	Wetland F	0.04	
Citrus Common Route	Wetland G1/G2		0.38
Citrus Common Route	Wetland H		4.96
Citrus Common Route	Wetland I/I2/I3		8.83
Citrus Common Route	Wetland J	1.0	
Citrus Common Route	Wetland K-L		31.2
Citrus Common Route	Wetland M		7.28
Citrus Common Route	Wetland N		3.14
Subtotal		**10.01**	**55.79**
Levy-Central Florida South Transmission Line	Wetland 1	0.46	
Levy-Central Florida South Transmission Line	Wetland 2	1.05	
Levy-Central Florida South Transmission Line	Wetland 4	0.22	
Levy-Central Florida South Transmission Line	Wetland 5/6		1.67
Levy-Central Florida South Transmission Line	Wetland 7		1.42
Levy-Central Florida South Transmission Line	Wetland 8	0.07	
Levy-Central Florida South Transmission Line	Wetland 9	0.13	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Central Florida South Transmission Line	Wetland 10	1.16	
Levy-Central Florida South Transmission Line	Wetland 11	0.20	
Levy-Central Florida South Transmission Line	Wetland 12	0.07	
Levy-Central Florida South Transmission Line	Wetland 13	1.31	
Levy-Central Florida South Transmission Line	Wetland 14	0.66	
Levy-Central Florida South Transmission Line	Wetland 15		0.47
Levy-Central Florida South Transmission Line	Wetland 16		4.55
Levy-Central Florida South Transmission Line	Wetland 17		4.26
Levy-Central Florida South Transmission Line	Wetland 18		0.15
Levy-Central Florida South Transmission Line	Wetland 19	0.86	
Levy-Central Florida South Transmission Line	Wetland 20	0.58	
Levy-Central Florida South Transmission Line	Wetland 21		2.40
Levy-Central Florida South Transmission Line	Wetland 22	0.21	
Levy-Central Florida South Transmission Line	Wetland 23	2.38	
Levy-Central Florida South Transmission Line	Wetland 24	0.87	
Levy-Central Florida South Transmission Line	Wetland 25		0.13
Levy-Central Florida South Transmission Line	Wetland 26	0.10	
Levy-Central Florida South Transmission Line	Wetland 27	0.94	
Levy-Central Florida South Transmission Line	Wetland 28	0.69	
Levy-Central Florida South Transmission Line	Wetland 29	0.71	
Levy-Central Florida South Transmission Line	Wetland 30	0.10	
Levy-Central Florida South Transmission Line	Wetland 31	0.40	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Central Florida South Transmission Line	Wetland 32		0.31
Levy-Central Florida South Transmission Line	Wetland 32A		0.03
Levy-Central Florida South Transmission Line	Wetland 33	0.54	
Levy-Central Florida South Transmission Line	Wetland 34		1.14
Levy-Central Florida South Transmission Line	Wetland 35	0.05	
Levy-Central Florida South Transmission Line	Wetland 36		6.51
Levy-Central Florida South Transmission Line	Wetland 37	0.06	
Levy-Central Florida South Transmission Line	Wetland 38		37.73
Levy-Central Florida South Transmission Line	Wetland 39	0.01	
Levy-Central Florida South Transmission Line	Wetland 40		0.55
Levy-Central Florida South Transmission Line	Wetland 41		0.68
Levy-Central Florida South Transmission Line	Wetland 42		0.28
Levy-Central Florida South Transmission Line	Wetland 43	0.03	
Levy-Central Florida South Transmission Line	Wetland 44		0.31
Levy-Central Florida South Transmission Line	Wetland 45		3.73
Levy-Central Florida South Transmission Line	Wetland 45A	0.01	
Levy-Central Florida South Transmission Line	Wetland 46	1.29	
Levy-Central Florida South Transmission Line	Wetland 47		0.74
Levy-Central Florida South Transmission Line	Wetland 48	0.24	
Levy-Central Florida South Transmission Line	Wetland 49		1.83
Levy-Central Florida South Transmission Line	Wetland 49A		0.36
Levy-Central Florida South Transmission Line	Wetland 50	0.03	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Central Florida South Transmission Line	Wetland 51		2.39
Levy-Central Florida South Transmission Line	Wetland 52		0.15
Levy-Central Florida South Transmission Line	Wetland 53	0.47	
Levy-Central Florida South Transmission Line	Wetland 54	7.78	
Levy-Central Florida South Transmission Line	Wetland 55	1.07	
Levy-Central Florida South Transmission Line	Wetland 56	0.22	
Levy-Central Florida South Transmission Line	Wetland 57	0.14	
Levy-Central Florida South Transmission Line	Wetland 58	1.29	
Levy-Central Florida South Transmission Line	Wetland 59	0.72	
Levy-Central Florida South Transmission Line	Wetland 60	4.03	
Levy-Central Florida South Transmission Line	Wetland 61	0.07	
Levy-Central Florida South Transmission Line	Wetland 62	0.44	
Levy-Central Florida South Transmission Line	Wetland 63	0.12	
Levy-Central Florida South Transmission Line	Wetland 64	0.70	
Levy-Central Florida South Transmission Line	Wetland 65	0.01	
Levy-Central Florida South Transmission Line	Wetland 66		0.92
Levy-Central Florida South Transmission Line	Wetland A	3.54	
Levy-Central Florida South Transmission Line	Wetland B	2.72	
Levy-Central Florida South Transmission Line	Wetland C	0.05	
Levy-Central Florida South Transmission Line	Wetland D	5.96	
Levy-Central Florida South Transmission Line	Wetland E	1.82	
Levy-Central Florida South Transmission Line	Wetland F	0.06	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Central Florida South Transmission Line	Wetland G	0.10	
Levy-Central Florida South Transmission Line	Wetland H	1.45	
Levy-Central Florida South Transmission Line	Wetland I	0.18	
Levy-Central Florida South Transmission Line	Wetland J	0.04	
Levy-Central Florida South Transmission Line	Wetland K		18.40
Levy-Central Florida South Transmission Line	Wetland L	1.33	
Levy-Central Florida South Transmission Line	Wetland M		8.63
Levy-Central Florida South Transmission Line	Wetland N	0.16	
Levy-Central Florida South Transmission Line	Wetland O	1.60	
Levy-Central Florida South Transmission Line	Wetland P	0.40	
Levy-Central Florida South Transmission Line	Wetland Q	2.63	
Levy-Central Florida South Transmission Line	Wetland R	0.53	
Levy-Central Florida South Transmission Line	Wetland S	0.29	
Levy-Central Florida South Transmission Line	Wetland T	1.45	
Levy-Central Florida South Transmission Line	Wetland U	0.82	
Levy-Central Florida South Transmission Line	Wetland V	0.19	
Levy-Central Florida South Transmission Line	Wetland W	1.69	
Levy-Central Florida South Transmission Line	Wetland X	3.85	
Levy-Central Florida South Transmission Line	Wetland XA	0.50	
Levy-Central Florida South Transmission Line	Wetland XB	1.03	
Levy-Central Florida South Transmission Line	Wetland Y	0.53	
Levy-Central Florida South Transmission Line	Wetland Z	0.06	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Central Florida South Transmission Line	Wetland AA	0.77	
Levy-Central Florida South Transmission Line	Wetland AA1	0.004	
Levy-Central Florida South Transmission Line	Wetland AA2	0.01	
Levy-Central Florida South Transmission Line	Wetland AB	0.41	
Levy-Central Florida South Transmission Line	Wetland CS N	0.05	
Levy-Central Florida South Transmission Line	Wetland CS O	0.02	
Levy-Central Florida South Transmission Line	Wetland CS P	0.07	
Subtotal		**66.80**	**99.74**
Levy-Crystal River Energy Complex Transmission Line	Wetland 1	0.12	
Levy-Crystal River Energy Complex Transmission Line	Wetland 2	2.86	
Levy-Crystal River Energy Complex Transmission Line	Wetland 3 & 24		3.67
Levy-Crystal River Energy Complex Transmission Line	Wetland 4	0.01	
Levy-Crystal River Energy Complex Transmission Line	Wetland 5	0.03	
Levy-Crystal River Energy Complex Transmission Line	Wetland 6	0.42	
Levy-Crystal River Energy Complex Transmission Line	Wetland 7	0.01	
Levy-Crystal River Energy Complex Transmission Line	Wetland 8	0.30	
Levy-Crystal River Energy Complex Transmission Line	Wetland 9	0.22	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Crystal River Energy Complex Transmission Line	Wetland 10	0.14	
Levy-Crystal River Energy Complex Transmission Line	Wetland 11	0.24	
Levy-Crystal River Energy Complex Transmission Line	Wetland 12	0.14	
Levy-Crystal River Energy Complex Transmission Line	Wetland 13	0.64	
Levy-Crystal River Energy Complex Transmission Line	Wetland 14	0.14	
Levy-Crystal River Energy Complex Transmission Line	Wetland 15	0.01	
Levy-Crystal River Energy Complex Transmission Line	Wetland 16	0.25	
Levy-Crystal River Energy Complex Transmission Line	Wetland 17	0.14	
Levy-Crystal River Energy Complex Transmission Line	Wetland 18	0.26	
Levy-Crystal River Energy Complex Transmission Line	Wetland 19	3.07	
Levy-Crystal River Energy Complex Transmission Line	Wetland 20/21	2.35	
Levy-Crystal River Energy Complex Transmission Line	Wetland 22	5.84	
Levy-Crystal River Energy Complex Transmission Line	Wetland 23	1.40	
Levy-Crystal River Energy Complex Transmission Line	Wetland X	0.43	
Levy-Crystal River Energy Complex Transmission Line	Wetland Y		0.22

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Crystal River Energy Complex Transmission Line	Wetland Z		0.85
Levy-Crystal River Energy Complex Transmission Line	Wetland AA		0.32
Levy-Crystal River Energy Complex Transmission Line	Wetland AB		11.39
Levy-Crystal River Energy Complex Transmission Line	Wetland AJ	0.05	
Levy-Crystal River Energy Complex Transmission Line	Wetland AK	0.47	
Levy-Crystal River Energy Complex Transmission Line	Wetland AL	0.53	
Levy-Crystal River Energy Complex Transmission Line	Wetland AM	0.18	
Levy-Crystal River Energy Complex Transmission Line	Wetland AN		33.19
Levy-Crystal River Energy Complex Transmission Line	Wetland AO		0.27
Levy-Crystal River Energy Complex Transmission Line	Wetland AP		15.07
Levy-Crystal River Energy Complex Transmission Line	Wetland AQ		9.10
Levy-Crystal River Energy Complex Transmission Line	Wetland AR	0.98	
Levy-Crystal River Energy Complex Transmission Line	Wetland AS	0.47	
Levy-Crystal River Energy Complex Transmission Line	Wetland AT		52.76
Levy-Crystal River Energy Complex Transmission Line	Wetland AU		10.68

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Crystal River Energy Complex Transmission Line	Wetland AV	0.10	
Levy-Crystal River Energy Complex Transmission Line	Wetland AW	0.58	
Levy-Crystal River Energy Complex Transmission Line	Wetland AX		0.44
Levy-Crystal River Energy Complex Transmission Line	Wetland AY	1.04	
Levy-Crystal River Energy Complex Transmission Line	Wetland LCR Ditch 1	0.10	
Levy-Crystal River Energy Complex Transmission Line	Wetland AZ	0.46	
Levy-Crystal River Energy Complex Transmission Line	Wetland BA	0.03	
Levy-Crystal River Energy Complex Transmission Line	Wetland BB		0.21
Levy-Crystal River Energy Complex Transmission Line	Wetland BC		0.37
Levy-Crystal River Energy Complex Transmission Line	Wetland BD		0.10
Levy-Crystal River Energy Complex Transmission Line	Wetland BE		0.37
Levy-Crystal River Energy Complex Transmission Line	Wetland BF		0.64
Levy-Crystal River Energy Complex Transmission Line	Wetland BG		0.05
Levy-Crystal River Energy Complex Transmission Line	Wetland BH	0.22	
Levy-Crystal River Energy Complex Transmission Line	Wetland CS K	6.89	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Crystal River Energy Complex Transmission Line	Wetland CS L	0.03	
Levy-Crystal River Energy Complex Transmission Line	Wetland CS M	0.19	
Levy-Crystal River Energy Complex Transmission Line	Wetland CS S	0.32	
Levy-Crystal River Energy Complex Transmission Line	Wetland CS T	0.19	
Levy-Crystal River Energy Complex Transmission Line	Wetland CS U	0.19	
Levy-Crystal River Energy Complex Transmission Line	Wetland CS V	0.10	
Levy-Crystal River Energy Complex Transmission Line	Wetland CS W	0.28	
Levy-Crystal River Energy Complex Transmission Line	Wetland ZA	1.29	
Levy-Crystal River Energy Complex Transmission Line	Wetland ZB	0.01	
Levy-Crystal River Energy Complex Transmission Line	Wetland ZC	0.10	
Levy-Crystal River Energy Complex Transmission Line	Wetland ZD	0.45	
Levy-Crystal River Energy Complex Transmission Line	Wetland ZDA	0.01	
Levy-Crystal River Energy Complex Transmission Line	Wetland ZE		0.22
Levy-Crystal River Energy Complex Transmission Line	Wetland ZF	0.09	
Levy-Crystal River Energy Complex Transmission Line	Wetland ZG	0.11	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Levy-Crystal River Energy Complex Transmission Line	Wetland ZH	0.08	
Subtotal		**34.56**	**139.92**
Polk-Hillsborough-Pinellas Transmission Line	Wetland 1		0.15
Polk-Hillsborough-Pinellas Transmission Line	Wetland 2		2.63
Polk-Hillsborough-Pinellas Transmission Line	Wetland 3	0.52	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 4	0.71	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 5	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 6	3.81	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 7	0.17	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 8	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 9		0.01
Polk-Hillsborough-Pinellas Transmission Line	Wetland 10	1.22	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 11	0.12	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 12	0.79	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 13	1.34	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 14	0.14	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 15		1.31
Polk-Hillsborough-Pinellas Transmission Line	Wetland 16	0.31	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 17	0.19	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 18	0.61	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 19	0.05	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 20A/20B		0.47

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland 21A/21B		0.82
Polk-Hillsborough-Pinellas Transmission Line	Wetland 22A/22B	0.39	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 23A/23B		0.49
Polk-Hillsborough-Pinellas Transmission Line	Wetland 24	1.33	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 25A/25B		0.03
Polk-Hillsborough-Pinellas Transmission Line	Wetland 26	0.04	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 27	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 28	0.08	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 29	0.04	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 30A/30B		2.23
Polk-Hillsborough-Pinellas Transmission Line	Wetland 32-33	1.55	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 34	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 35	0.45	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 36		1.38
Polk-Hillsborough-Pinellas Transmission Line	Wetland 37		0.10
Polk-Hillsborough-Pinellas Transmission Line	Wetland 38		0.68
Polk-Hillsborough-Pinellas Transmission Line	Wetland 39	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 40		1.42
Polk-Hillsborough-Pinellas Transmission Line	Wetland 41		1.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland 42		3.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland 43		1.55
Polk-Hillsborough-Pinellas Transmission Line	Wetland 44	0.02	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland 45		1.02
Polk-Hillsborough-Pinellas Transmission Line	Wetland 46		0.02
Polk-Hillsborough-Pinellas Transmission Line	Wetland 47/47A	0.13	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 49/49A		0.05
Polk-Hillsborough-Pinellas Transmission Line	Wetland 50/50A	0.26	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 51		0.10
Polk-Hillsborough-Pinellas Transmission Line	Wetland 52		0.15
Polk-Hillsborough-Pinellas Transmission Line	Wetland 53	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 54		0.47
Polk-Hillsborough-Pinellas Transmission Line	Wetland 55	0.21	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 56		0.10
Polk-Hillsborough-Pinellas Transmission Line	Wetland 57		0.17
Polk-Hillsborough-Pinellas Transmission Line	Wetland 58		0.76
Polk-Hillsborough-Pinellas Transmission Line	Wetland 59	0.15	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 60		0.44
Polk-Hillsborough-Pinellas Transmission Line	Wetland 61		0.20
Polk-Hillsborough-Pinellas Transmission Line	Wetland 62		0.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland 63	0.07	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 64	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 65		0.33
Polk-Hillsborough-Pinellas Transmission Line	Wetland 66	0.44	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 67	0.12	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland 68	0.43	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 69		0.01
Polk-Hillsborough-Pinellas Transmission Line	Wetland 70	0.06	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 71		1.69
Polk-Hillsborough-Pinellas Transmission Line	Wetland 72		0.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland 73	0.35	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 73A	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 74A/B		0.02
Polk-Hillsborough-Pinellas Transmission Line	Wetland 74C		0.02
Polk-Hillsborough-Pinellas Transmission Line	Wetland 75		0.06
Polk-Hillsborough-Pinellas Transmission Line	Wetland 76		0.12
Polk-Hillsborough-Pinellas Transmission Line	Wetland 77	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 78		0.05
Polk-Hillsborough-Pinellas Transmission Line	Wetland 79		0.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland 80		0.07
Polk-Hillsborough-Pinellas Transmission Line	Wetland 81	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 82	0.08	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 83	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 84	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 85	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 86	0.22	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 87	0.001	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland 89	0.39	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 90	0.16	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 91		0.46
Polk-Hillsborough-Pinellas Transmission Line	Wetland 92		1.26
Polk-Hillsborough-Pinellas Transmission Line	Wetland 93		0.06
Polk-Hillsborough-Pinellas Transmission Line	Wetland 94		0.08
Polk-Hillsborough-Pinellas Transmission Line	Wetland 95		0.10
Polk-Hillsborough-Pinellas Transmission Line	Wetland 95A		0.71
Polk-Hillsborough-Pinellas Transmission Line	Wetland 96	0.07	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 97		0.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland 98		0.07
Polk-Hillsborough-Pinellas Transmission Line	Wetland 99	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 100	0.37	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 101	0.12	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 102	0.11	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 103	0.15	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 104	0.18	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 106	0.15	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 107	1.24	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 108	0.25	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 109	0.53	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 110A	0.03	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland 111		0.03
Polk-Hillsborough-Pinellas Transmission Line	Wetland 112A/112B		0.78
Polk-Hillsborough-Pinellas Transmission Line	Wetland 113	0.24	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 114	0.21	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 115	0.09	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 117	0.06	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 118		0.06
Polk-Hillsborough-Pinellas Transmission Line	Wetland 119		0.21
Polk-Hillsborough-Pinellas Transmission Line	Wetland 120		0.14
Polk-Hillsborough-Pinellas Transmission Line	Wetland 121	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 123	1.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 124		0.08
Polk-Hillsborough-Pinellas Transmission Line	Wetland 125		0.02
Polk-Hillsborough-Pinellas Transmission Line	Wetland 126		2.47
Polk-Hillsborough-Pinellas Transmission Line	Wetland 127		0.46
Polk-Hillsborough-Pinellas Transmission Line	Wetland 128		0.16
Polk-Hillsborough-Pinellas Transmission Line	Wetland 129		2.88
Polk-Hillsborough-Pinellas Transmission Line	Wetland 130	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland 131		0.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland 132		0.45
Polk-Hillsborough-Pinellas Transmission Line	Wetland A	3.87	
Polk-Hillsborough-Pinellas Transmission Line	Wetland B	2.99	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland C	0.26	
Polk-Hillsborough-Pinellas Transmission Line	Wetland D	0.51	
Polk-Hillsborough-Pinellas Transmission Line	Wetland E	0.23	
Polk-Hillsborough-Pinellas Transmission Line	Wetland F	1.32	
Polk-Hillsborough-Pinellas Transmission Line	Wetland G	0.25	
Polk-Hillsborough-Pinellas Transmission Line	Wetland H		0.05
Polk-Hillsborough-Pinellas Transmission Line	Wetland I	0.05	
Polk-Hillsborough-Pinellas Transmission Line	Wetland J		0.98
Polk-Hillsborough-Pinellas Transmission Line	Wetland K		0.04
Polk-Hillsborough-Pinellas Transmission Line	Wetland L	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland M	0.71	
Polk-Hillsborough-Pinellas Transmission Line	Wetland N	1.77	
Polk-Hillsborough-Pinellas Transmission Line	Wetland O	0.85	
Polk-Hillsborough-Pinellas Transmission Line	Wetland P	0.20	
Polk-Hillsborough-Pinellas Transmission Line	Wetland Q	0.10	
Polk-Hillsborough-Pinellas Transmission Line	Wetland R	0.90	
Polk-Hillsborough-Pinellas Transmission Line	Wetland S		0.13
Polk-Hillsborough-Pinellas Transmission Line	Wetland T	0.75	
Polk-Hillsborough-Pinellas Transmission Line	Wetland U	0.36	
Polk-Hillsborough-Pinellas Transmission Line	Wetland V		0.60
Polk-Hillsborough-Pinellas Transmission Line	Wetland W		0.71
Polk-Hillsborough-Pinellas Transmission Line	Wetland X		0.82

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland Y		0.21
Polk-Hillsborough-Pinellas Transmission Line	Wetland Z	0.17	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AA	0.33	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BB	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland CC	2.86	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DD	0.09	
Polk-Hillsborough-Pinellas Transmission Line	Wetland EE	0.84	
Polk-Hillsborough-Pinellas Transmission Line	Wetland FF	1.53	
Polk-Hillsborough-Pinellas Transmission Line	Wetland GG	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland HH	1.66	
Polk-Hillsborough-Pinellas Transmission Line	Wetland II	0.79	
Polk-Hillsborough-Pinellas Transmission Line	Wetland JJ		0.08
Polk-Hillsborough-Pinellas Transmission Line	Wetland KK		0.51
Polk-Hillsborough-Pinellas Transmission Line	Wetland LL		0.42
Polk-Hillsborough-Pinellas Transmission Line	Wetland MM	0.30	
Polk-Hillsborough-Pinellas Transmission Line	Wetland NN		0.50
Polk-Hillsborough-Pinellas Transmission Line	Wetland OO		2.27
Polk-Hillsborough-Pinellas Transmission Line	Wetland PP		0.25
Polk-Hillsborough-Pinellas Transmission Line	Wetland QQ		0.60
Polk-Hillsborough-Pinellas Transmission Line	Wetland RR		0.76
Polk-Hillsborough-Pinellas Transmission Line	Wetland SS	0.24	
Polk-Hillsborough-Pinellas Transmission Line	Wetland TT	0.27	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland UU/VV		0.82
Polk-Hillsborough-Pinellas Transmission Line	Wetland WW		0.43
Polk-Hillsborough-Pinellas Transmission Line	Wetland XX		0.14
Polk-Hillsborough-Pinellas Transmission Line	Wetland YY	0.26	
Polk-Hillsborough-Pinellas Transmission Line	Wetland ZZ	0.74	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AB		1.16
Polk-Hillsborough-Pinellas Transmission Line	Wetland AC	0.08	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AD	0.19	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AE	0.07	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AF	0.05	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AG	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AH	0.74	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AI	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AJ	0.52	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AK	1.33	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AL		0.89
Polk-Hillsborough-Pinellas Transmission Line	Wetland AM		1.94
Polk-Hillsborough-Pinellas Transmission Line	Wetland AN		0.02
Polk-Hillsborough-Pinellas Transmission Line	Wetland AO		0.19
Polk-Hillsborough-Pinellas Transmission Line	Wetland AP		0.03
Polk-Hillsborough-Pinellas Transmission Line	Wetland AQ		0.28
Polk-Hillsborough-Pinellas Transmission Line	Wetland AR		0.001

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland AS		0.13
Polk-Hillsborough-Pinellas Transmission Line	Wetland AT-1/AT-2		0.22
Polk-Hillsborough-Pinellas Transmission Line	Wetland AU		0.02
Polk-Hillsborough-Pinellas Transmission Line	Wetland AV	0.24	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AW	0.27	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AX		0.16
Polk-Hillsborough-Pinellas Transmission Line	Wetland AY	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland AZ		0.15
Polk-Hillsborough-Pinellas Transmission Line	Wetland BA		0.41
Polk-Hillsborough-Pinellas Transmission Line	Wetland BBa	0.25	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BC		0.47
Polk-Hillsborough-Pinellas Transmission Line	Wetland BD		2.76
Polk-Hillsborough-Pinellas Transmission Line	Wetland BE	0.25	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BF	0.15	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BG	0.01	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BH		0.30
Polk-Hillsborough-Pinellas Transmission Line	Wetland BI		0.31
Polk-Hillsborough-Pinellas Transmission Line	Wetland BJ	0.76	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BK	0.15	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BL	0.38	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BM	2.21	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BN	0.55	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland BO	1.69	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BP	0.06	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BQ	0.11	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BR	0.67	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BS		2.72
Polk-Hillsborough-Pinellas Transmission Line	Wetland BT	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BU	0.04	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BV	0.17	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BW	0.05	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BX	0.30	
Polk-Hillsborough-Pinellas Transmission Line	Wetland BZ		3.25
Polk-Hillsborough-Pinellas Transmission Line	Wetland CA		1.50
Polk-Hillsborough-Pinellas Transmission Line	Wetland CB		0.20
Polk-Hillsborough-Pinellas Transmission Line	Wetland CCa		0.98
Polk-Hillsborough-Pinellas Transmission Line	Wetland CD		2.05
Polk-Hillsborough-Pinellas Transmission Line	Wetland CE		1.71
Polk-Hillsborough-Pinellas Transmission Line	Wetland CF		0.62
Polk-Hillsborough-Pinellas Transmission Line	Wetland CG		0.23
Polk-Hillsborough-Pinellas Transmission Line	Wetland CH		0.78
Polk-Hillsborough-Pinellas Transmission Line	Wetland CI		1.03
Polk-Hillsborough-Pinellas Transmission Line	Wetland CJ	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland CK/CL		2.01

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland CM		1.97
Polk-Hillsborough-Pinellas Transmission Line	Wetland CN		0.03
Polk-Hillsborough-Pinellas Transmission Line	Wetland CO		0.50
Polk-Hillsborough-Pinellas Transmission Line	Wetland CP		0.72
Polk-Hillsborough-Pinellas Transmission Line	Wetland CQ	0.11	
Polk-Hillsborough-Pinellas Transmission Line	Wetland CR	0.32	
Polk-Hillsborough-Pinellas Transmission Line	Wetland CS		0.07
Polk-Hillsborough-Pinellas Transmission Line	Wetland CT		0.41
Polk-Hillsborough-Pinellas Transmission Line	Wetland CU		0.06
Polk-Hillsborough-Pinellas Transmission Line	Wetland CV		2.00
Polk-Hillsborough-Pinellas Transmission Line	Wetland CW		0.05
Polk-Hillsborough-Pinellas Transmission Line	Wetland CX		0.48
Polk-Hillsborough-Pinellas Transmission Line	Wetland CY		0.05
Polk-Hillsborough-Pinellas Transmission Line	Wetland CZ		0.75
Polk-Hillsborough-Pinellas Transmission Line	Wetland DA		0.11
Polk-Hillsborough-Pinellas Transmission Line	Wetland DB		3.21
Polk-Hillsborough-Pinellas Transmission Line	Wetland DC		0.17
Polk-Hillsborough-Pinellas Transmission Line	Wetland DDa		0.08
Polk-Hillsborough-Pinellas Transmission Line	Wetland DE		0.52
Polk-Hillsborough-Pinellas Transmission Line	Wetland DF		0.21
Polk-Hillsborough-Pinellas Transmission Line	Wetland DG	0.60	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DH	0.34	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland DI	0.32	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DJ	0.04	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DK	0.66	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DL	0.17	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DM		0.05
Polk-Hillsborough-Pinellas Transmission Line	Wetland DN	0.05	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DO		0.71
Polk-Hillsborough-Pinellas Transmission Line	Wetland DP	0.21	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DQ	0.02	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DR	0.23	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DS	0.16	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DT	0.21	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DU	0.04	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DV	0.12	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DW	0.61	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DX	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland DY		0.11
Polk-Hillsborough-Pinellas Transmission Line	Wetland DZ		0.17
Polk-Hillsborough-Pinellas Transmission Line	Wetland EA	0.03	
Polk-Hillsborough-Pinellas Transmission Line	Wetland EB	0.10	
Polk-Hillsborough-Pinellas Transmission Line	Wetland EC	0.32	
Polk-Hillsborough-Pinellas Transmission Line	Wetland ED	0.17	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Polk-Hillsborough-Pinellas Transmission Line	Wetland EEa	1.43	
Polk-Hillsborough-Pinellas Transmission Line	Wetland EF	0.11	
Polk-Hillsborough-Pinellas Transmission Line	Wetland EG		0.06
Polk-Hillsborough-Pinellas Transmission Line	Wetland EH		1.95
Subtotal		**65.11**	**85.16**
Proposed Central Florida South Substation	Wetland A	0.30	
Proposed Central Florida South Substation	Wetland B		0.17
Proposed Central Florida South Substation	Wetland 1	0.02	
Proposed Central Florida South Substation	Wetland 2		0.12
Proposed Central Florida South Substation	Wetland 3	0.99	
Proposed Central Florida South Substation	Wetland 4	0.08	
Proposed Central Florida South Substation	Wetland 5		0.35
Proposed Central Florida South Substation	Wetland 6		0.24
Proposed Central Florida South Substation	Wetland 7		2.73
Proposed Central Florida South Substation	Wetland 8		0.21
Subtotal		**1.39**	**3.82**
Proposed Citrus Substation	Wetland A	7.75	
Proposed Citrus Substation	Wetland B	0.75	
Proposed Citrus Substation	Wetland C	1.43	
Proposed Citrus Substation	Wetland D	0.18	
Proposed Citrus Substation	Wetland E	0.57	
Proposed Citrus Substation	Wetland F	0.03	

Location (Preferred ROW or Substation)	Wetland ID	Isolated Wetland Size in ROW/Substation (Acres)	Jurisdictional Wetland Size in ROW/Substation (Acres)
Proposed Citrus Substation	Wetland G	0.08	
Proposed Citrus Substation	Wetland H	0.11	
Proposed Citrus Substation	Wetland I	0.24	
Proposed Citrus Substation	Wetland IB	0.14	
Proposed Citrus Substation	Wetland J	1.74	
Proposed Citrus Substation	Wetland K	0.28	
Subtotal		**13.30**	**0.00**
Crystal River Energy Complex Substation Expansion	Wetland AC		0.09
Crystal River Energy Complex Substation Expansion	Wetland AD		2.35
Crystal River Energy Complex Substation Expansion	Wetland AE		0.82
Crystal River Energy Complex Substation Expansion	Wetland AF		0.14
Crystal River Energy Complex Substation Expansion	Wetland AG		0.69
Crystal River Energy Complex Substation Expansion	Wetland AH	0.44	
Crystal River Energy Complex Substation Expansion	Wetland AI	0.81	
Subtotal		**1.25**	**4.09**
Kathleen Substation property	Wetland A/B		107.93
Subtotal			**107.93**
All Transmission Line and Substation Totals		**216.49**	**496.45**

ATTACHMENT 2

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood - Permanent Impacts (# LNP-011, LNP-016)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
617		IMPACT	4.5

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa and Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands:

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

High quality forested wetland dominated by a mixture of hardwoods and conifers including pond cypress, slash pines, swamp tupelo, oaks, red maples, bays and cabbage palms with less coverage of naturally occurring conifer species (i.e., cypress) likely due to logging activities. Community structure is transitional based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Although some pines are naturally occurring, many appear to be recruits from the surrounding land uses. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood - Permanent Impacts (# LNP-011, LNP-016)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 5	with: 0	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0	**w/o pres or current** - Moderate hydrology based on disturbed hydroperiods, soils and community structure from years of silviculture practices. No distinct water level indicators. SHW appears at or below grade in some areas and 1-2 feet below historic seasonal high. Evidence of hydrologic stress (i.e., transitional vegetation, moderate pine recruitment and dying trees).
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 0	**w/o pres or current** - High quality forested wetland dominated by a mixture of hardwoods and conifers including pond cypress, slash pines, swamp tupelo, oaks, red maples, bays and cabbage palms with less coverage of naturally occurring conifer species (i.e., cypress) likely due to logging activities. Community structure is transitional based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Although some pines are naturally occurring, many appear to be recruits from the surrounding land uses. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.6	**0**

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

For impact assessment areas	
FL = delta x acres =	**2.7000**

Delta = [with-current]
0.6

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood - Temporary Impacts (# LNP-016)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
617		IMPACT	0.3

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

High quality forested wetland dominated by a mixture of hardwoods and conifers including pond cypress, slash pines, swamp tupelo, oaks, red maples, bays and cabbage palms with less coverage of naturally occurring conifer species (i.e., cypress) likely due to logging activities. Community structure is transitional based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Although some pines are naturally occurring, many appear to be recruits from the surrounding land uses. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	Mitigation for previous permit/other historic use
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood - Temporary Impacts (# LNP-016)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 5 / with: 5	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impact. Area to be restored.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6 / with: 6	**w/o pres or current** - Moderate hydrology based on disturbed hydroperiods, soils and community structure from years of silviculture practices. No distinct water level indicators. SHW appears at or below grade in some areas and 1-2 feet below historic seasonal high. Evidence of hydrologic stress (i.e., transitional vegetation, moderate pine recruitment and dying trees). **with -** No loss in hydrologic function anticipated. Area to be restored
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7 / with: 6	**w/o pres or current** - High quality forested wetland dominated by a mixture of hardwoods and conifers including pond cypress, slash pines, swamp tupelo, oaks, red maples, bays and cabbage palms with less coverage of naturally occurring conifer species (i.e., cypress) likely due to logging activities. Community structure is transitional based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Although some pines are naturally occurring, many appear to be recruits from the surrounding land uses. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout. **with** - Partial loss in community structure due to time lag of the restoration effort.

Score = sum of above scores/30 (if uplands/20)	
current or w/o pres	with
0.6	**0.56667**

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

For impact assessment areas	
FL = delta x acres =	**0.0100**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood(Logged) -Clearing Only Impacts (# LNP-018)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
617-1		IMPACT	5.3

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands:

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description:

Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood(Logged) -Clearing Only Impacts (# LNP-018)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 4	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impact. Area to be restored.
	with: 4	
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	**w/o pres or current** - Moderate hydrology based on disturbed hydroperiods, soils and community structure from years of silviculture practices. No distinct water level indicators. SHW appears at or below grade in some areas and 1-2 feet below historic seasonal high. Evidence of hydrologic stress (i.e., transitional vegetation, moderate pine recruitment and dying trees). **with -** No loss in hydrologic function anticipated. Area to be restored
	with: 6	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	**w/o pres or current** - Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent. **with** - Partial loss in community structure due to conversion from forested wetland to herbaceous system.
	with: 3	

Score = sum of above scores/30 (if uplands/20)	
current or w/o pres	with
0.5	**0.43333**

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

For impact assessment areas	
FL = delta x acres =	**0.3533**

Delta = [with-current]
0.066666667

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood(Logged) - Permanent Impacts (# LNP-003, LNP-016 & LNP-018)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
617-1		IMPACT	24.5

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood(Logged) - Permanent Impacts (# LNP-003, LNP-016 & LNP-018)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River.	4	0
.500(6)(b)Water Environment (n/a for uplands)	**w/o pres or current** - Moderate hydrology based on disturbed hydroperiods, soils and community structure from years of silviculture practices. No distinct water level indicators. SHW appears at or below grade in some areas and 1-2 feet below historic seasonal high. Evidence of hydrologic stress (i.e., transitional vegetation, moderate pine recruitment and dying trees).	6	0
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	**w/o pres or current** - Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent.	5	0

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.5	**0**

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

For impact assessment areas	
FL = delta x acres =	**12.2500**

Delta = [with-current]
0.5

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood(Logged) -Temporary Impacts (# LNP-003, LNP-016 & LNP-018)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
617-1		IMPACT	7.1

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands
Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Mixed Wetland Harwood(Logged) - Temporary Impacts (# LNP-003, LNP-016 & LNP-018)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impact. Area to be restored.	4	4
.500(6)(b)Water Environment (n/a for uplands)	**w/o pres or current** - Moderate hydrology based on disturbed hydroperiods, soils and community structure from years of silviculture practices. No distinct water level indicators. SHW appears at or below grade in some areas and 1-2 feet below historic seasonal high. Evidence of hydrologic stress (i.e., transitional vegetation, moderate pine recruitment and dying trees). **with -** No loss in hydrologic function anticipated. Area to be restored	6	6
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	**w/o pres or current** - Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent. **with** - Partial loss in community structure due to time lag of the restoration effort.	5	4

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.5	**0.46667**

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

For impact assessment areas	
FL = delta x acres =	**0.2367**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress - Clearing Only Impacts (# LNP-011)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
621		IMPACT	1.2

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

High quality cypress swamp dominated by pond cypress intermixed with other canopy species including slash pine, sweet bay, swamp bay, swamp tupelo and red maple. Understory vegetation consists of Virginia willow, dog hobble, dahoon holly, buttonbush, wax myrtle, fetterbush and gallberry. Groundcover species include saw grass, maidencane, lance-leafed arrowhead, pickerel weed, lizard's tail, royal fern, cinnamon fern, Virginia chain fern, red root and broomsedge scattered throughout the understory. Evidence of transitional vegetation, cypress logging (i.e., stumps) and hog rooting in some areas, but good community structure overall.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress - Clearing Only Impacts (# LNP-011)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	4	4	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from clearing only.
.500(6)(b)Water Environment (n/a for uplands)	6	6	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	4	**w/o pres or current** -High quality cypress swamp dominated by pond cypress intermixed with other canopy species including slash pine, sweet bay, swamp bay, swamp tupelo and red maple. Understory vegetation consists of Virginia willow, dog hobble, dahoon holly, buttonbush, wax myrtle, fetterbush and gallberry. Groundcover species include saw grass, maidencane, lance-leafed arrowhead, pickerel weed, lizard's tail, royal fern, cinnamon fern, Virginia chain fern, red root and broomsedge scattered throughout the understory. Evidence of transitional vegetation, cypress logging (i.e., stumps) and hog rooting in some areas, but good community structure overall. **with** - Partial loss in community structure due to conversion from forested wetland to herbaceous system.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.56667	**0.46667**

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

For impact assessment areas	
FL = delta x acres =	**0.1200**

Delta = [with-current]
0.1

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress - Permanent Impacts (# LNP-011, LNP-017, LNP-019, LNP-062, LNP-808 & LNP-831)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
621		IMPACT	31.3

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

High quality cypress swamp dominated by pond cypress intermixed with other canopy species including slash pine, sweet bay, swamp bay, swamp tupelo and red maple. Understory vegetation consists of Virginia willow, dog hobble, dahoon holly, buttonbush, wax myrtle, fetterbush and gallberry. Groundcover species include saw grass, maidencane, lance-leafed arrowhead, pickerel weed, lizard's tail, royal fern, cinnamon fern, Virginia chain fern, red root and broomsedge scattered throughout the understory. Evidence of transitional vegetation, cypress logging (i.e., stumps) and hog rooting in some areas, but good community structure overall.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress - Permanent Impacts (# LNP-011, LNP-017, LNP-019, LNP-062, LNP-808 & LNP-831)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 4	with: 0	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 0	**w/o pres or current** -High quality cypress swamp dominated by pond cypress intermixed with other canopy species including slash pine, sweet bay, swamp bay, swamp tupelo and red maple. Understory vegetation consists of Virginia willow, dog hobble, dahoon holly, buttonbush, wax myrtle, fetterbush and gallberry. Groundcover species include saw grass, maidencane, lance-leafed arrowhead, pickerel weed, lizard's tail, royal fern, cinnamon fern, Virginia chain fern, red root and broomsedge scattered throughout the understory. Evidence of transitional vegetation, cypress logging (i.e., stumps) and hog rooting in some areas, but good community structure overall.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.56667	**0**

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

For impact assessment areas	
FL = delta x acres =	**17.7367**

Delta = [with-current]
0.566666667

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress - Temporary Impacts (# LNP-011, LNP-017, LNP-019, LNP-062, LNP-808, LNP-829 & LNP-831)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
621		IMPACT	9

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

High quality cypress swamp dominated by pond cypress intermixed with other canopy species including slash pine, sweet bay, swamp bay, swamp tupelo and red maple. Understory vegetation consists of Virginia willow, dog hobble, dahoon holly, buttonbush, wax myrtle, fetterbush and gallberry. Groundcover species include saw grass, maidencane, lance-leafed arrowhead, pickerel weed, lizard's tail, royal fern, cinnamon fern, Virginia chain fern, red root and broomsedge scattered throughout the understory. Evidence of transitional vegetation, cypress logging (i.e., stumps) and hog rooting in some areas, but good community structure overall.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress - Temporary Impacts (# LNP-011, LNP-017, LNP-019, LNP-062, LNP-808, LNP-829 & LNP-831)
Impact or Mitigation: IMPACT	Assessment conducted by: Entrix - VAF/DDS, ESI - Gary Howalt	Assessment date: Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	4	4	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impact. Area to be restored.
.500(6)(b)Water Environment (n/a for uplands)	6	6	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated. Area to be restored.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	6	**w/o pres or current** -High quality cypress swamp dominated by pond cypress intermixed with other canopy species including slash pine, sweet bay, swamp bay, swamp tupelo and red maple. Understory vegetation consists of Virginia willow, dog hobble, dahoon holly, buttonbush, wax myrtle, fetterbush and gallberry. Groundcover species include saw grass, maidencane, lance-leafed arrowhead, pickerel weed, lizard's tail, royal fern, cinnamon fern, Virginia chain fern, red root and broomsedge scattered throughout the understory. Evidence of transitional vegetation, cypress logging (i.e., stumps) and hog rooting in some areas, but good community structure overall. **with** - Partial loss in community structure due to time lag from restoration effort.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.56667	**0.53333**

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

For impact assessment areas	
FL = delta x acres =	**0.3000**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress (Logged)- Clearing Only Impacts (# LNP-011, LNP-013, LNP-024 & LNP-046)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
621-1		IMPACT	30.8

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged cypress swamp characterized by transitional vegetation with less than 30% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in cypress swamps, although few cypress remaining (little seed source) and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species . Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress (Logged)- Clearing Only Impacts (# LNP-011, LNP-013, LNP-024 & LNP-046)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 4	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from clearing only.
	with: 4	
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
	with: 6	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	**w/o pres or current** -Heavily logged cypress swamp characterized by transitional vegetation with less than 30% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in cypress swamps, although few cypress remaining (little seed source) and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species . Dead trees and hog rooting also prevalent. **with** - Partial loss in community structure due to conversion from forested wetland to herbaceous system.
	with: 3	

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.5	**0.43333**

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

For impact assessment areas	
FL = delta x acres =	**2.0533**

Delta = [with-current]
0.066666667

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress (Logged) - Permanent Impacts (# LNP-011, LNP-012, LNP-013, LNP-016, LNP-019, LNP-024 & LNP-553)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
621-1		IMPACT	73.5

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged cypress swamp characterized by transitional vegetation with less than 30% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in cypress swamps, although few cypress remaining (little seed source) and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species . Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress (Logged) - Permanent Impacts (# LNP-011, LNP-012, LNP-013, LNP-016, LNP-019, LNP-024 & LNP-553)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current: 4 with: 0	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** -
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 6 with: 0	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -**
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 5 with: 0	**w/o pres or current** -Heavily logged cypress swamp characterized by transitional vegetation with less than 30% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in cypress swamps, although few cypress remaining (little seed source) and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species . Dead trees and hog rooting also prevalent. **with** -

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.5	**0**

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

For impact assessment areas	
FL = delta x acres =	**36.7500**

Delta = [with-current]
0.5

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress (Logged) - Temporary Impacts (# LNP-011, LNP-012, LNP-013, LNP-016, LNP-019, LNP-024, LNP-062 & LNP-553)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
621-1		IMPACT	7.5

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged cypress swamp characterized by transitional vegetation with less than 30% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in cypress swamps, although few cypress remaining (little seed source) and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species . Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Cypress (Logged) - Temporary Impacts (# LNP-011, LNP-012, LNP-013, LNP-016, LNP-019, LNP-024, LNP-062 & LNP-553)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 4	with: 4	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impacts.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 6	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 4	**w/o pres or current** -Heavily logged cypress swamp characterized by transitional vegetation with less than 30% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in cypress swamps, although few cypress remaining (little seed source) and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species . Dead trees and hog rooting also prevalent. **with** - Partial loss in community structure due to time lag from restoration effort.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.5	**0.46667**

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

For impact assessment areas	
FL = delta x acres =	**0.2500**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Planted Pine - Clearing Only Impacts (# LNP-011, LNP-013, LNP-018, LNP-034, LNP-047, LNP-048, LNP-049 & LNP-074)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
629		IMPACT	11.5

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands
Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Hydric planted pine area surrounded by pine plantation and subject to routine logging activities. Community structure varies throughout these areas, but generally consists of planted pine (predom. slash pine), bedded and furrowed, with occasional shrubs and wet prairie/marsh species growing in the furrows and at interface of wetlands including wax myrtle, saltbush, fetterbush, buttonbush, redroot, Virginia chain fern, maidencane, sedges, yellow-eyed grass, beakrush, broomsedge and soft rush. Some areas have no structure and are completely devoid of vegetation other than pines, while other areas are highly overgrown and show signs of fire suppression. Areas provide minimal wildlife habitat and also show evidence of hog rooting.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Planted Pine - Clearing Only Impacts (# LNP-011, LNP-013, LNP-018, LNP-034, LNP-047, LNP-048, LNP-049 & LNP-074)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	5	5	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from clearing only.
.500(6)(b)Water Environment (n/a for uplands)	4	4	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	4	2	**w/o pres or current** -Hydric planted pine area surrounded by pine plantation and subject to routine logging activities. Community structure varies throughout these areas, but generally consists of planted pine (predom. slash pine), bedded and furrowed, with occasional shrubs and wet prairie/marsh species growing in the furrows and at interface of wetlands including wax myrtle, saltbush, fetterbush, buttonbush, redroot, Virginia chain fern, maidencane, sedges, yellow-eyed grass, beakrush, broomsedge and soft rush. Some areas have no structure and are completely devoid of vegetation other than pines, while other areas are highly overgrown and show signs of fire suppression. Areas provide minimal wildlife habitat and also show evidence of hog rooting. **with** - Partial loss in community structure due to conversion from forested wetland to herbaceous system.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.43333	**0.36667**

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

For impact assessment areas	
FL = delta x acres =	**0.7667**

Delta = [with-current]
0.066666667

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Planted Pine - Permanent Impacts (# LNP-011, LNP-012, LNP-013, LNP-016, LNP-017, LNP-018, LNP-019, LNP-025, LNP-028, LNP-030, LNP-031, LNP-032, LNP-038, LNP-040, LNP-042, LNP-054, LNP-055, LNP-056, LNP-063 & LNP-558)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
629		IMPACT	135.2

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Hydric planted pine area surrounded by pine plantation and subject to routine logging activities. Community structure varies throughout these areas, but generally consists of planted pine (predom. slash pine), bedded and furrowed, with occasional shrubs and wet prairie/marsh species growing in the furrows and at interface of wetlands including wax myrtle, saltbush, fetterbush, buttonbush, redroot, Virginia chain fern, maidencane, sedges, yellow-eyed grass, beakrush, broomsedge and soft rush. Some areas have no structure and are completely devoid of vegetation other than pines, while other areas are highly overgrown and show signs of fire suppression. Areas provide minimal wildlife habitat and also show evidence of hog rooting.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Planted Pine - Permanent Impacts (# LNP-011, LNP-012, LNP-013, LNP-016, LNP-017, LNP-018, LNP-019, LNP-025, LNP-028, LNP-030, LNP-031, LNP-032, LNP-038, LNP-040, LNP-042, LNP-054, LNP-055, LNP-056, LNP-063 & LNP-558)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 5	with: 0	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** -
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 4	with: 0	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -**
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 4	with: 0	**w/o pres or current** -Hydric planted pine area surrounded by pine plantation and subject to routine logging activities. Community structure varies throughout these areas, but generally consists of planted pine (predom. slash pine), bedded and furrowed, with occasional shrubs and wet prairie/marsh species growing in the furrows and at interface of wetlands including wax myrtle, saltbush, fetterbush, buttonbush, redroot, Virginia chain fern, maidencane, sedges, yellow-eyed grass, beakrush, broomsedge and soft rush. Some areas have no structure and are completely devoid of vegetation other than pines, while other areas are highly overgrown and show signs of fire suppression. Areas provide minimal wildlife habitat and also show evidence of hog rooting. **with** -

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.43333	**0**

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

For impact assessment areas	
FL = delta x acres =	**58.5867**

Delta = [with-current]
0.433333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Planted Pine - Temporary Impacts (# LNP 009, LNP-011, LNP-012, LNP-016, LNP-017, LNP-018, LNP-019, LNP-025, LNP-028, LNP-038, LNP-063 & LNP-558)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
629		IMPACT	26.2

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Hydric planted pine area surrounded by pine plantation and subject to routine logging activities. Community structure varies throughout these areas, but generally consists of planted pine (predom. slash pine), bedded and furrowed, with occasional shrubs and wet prairie/marsh species growing in the furrows and at interface of wetlands including wax myrtle, saltbush, fetterbush, buttonbush, redroot, Virginia chain fern, maidencane, sedges, yellow-eyed grass, beakrush, broomsedge and soft rush. Some areas have no structure and are completely devoid of vegetation other than pines, while other areas are highly overgrown and show signs of fire suppression. Areas provide minimal wildlife habitat and also show evidence of hog rooting.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

PART II – Quantification of Assessment Area

w/o pres or current - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Planted Pine - Temporary Impacts (# LNP-009, LNP-011, LNP-012, LNP-016, LNP-017, LNP-018, LNP-019, LNP-025, LNP-028, LNP-038, LNP-063 & LNP-558)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	5	5	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impacts.
.500(6)(b)Water Environment (n/a for uplands)	4	4	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	4	3	**w/o pres or current** -Hydric planted pine area surrounded by pine plantation and subject to routine logging activities. Community structure varies throughout these areas, but generally consists of planted pine (predom. slash pine), bedded and furrowed, with occasional shrubs and wet prairie/marsh species growing in the furrows and at interface of wetlands including wax myrtle, saltbush, fetterbush, buttonbush, redroot, Virginia chain fern, maidencane, sedges, yellow-eyed grass, beakrush, broomsedge and soft rush. Some areas have no structure and are completely devoid of vegetation other than pines, while other areas are highly overgrown and show signs of fire suppression. Areas provide minimal wildlife habitat and also show evidence of hog rooting. **with** - Partial loss in community structure due to time lag from restoration effort.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.43333	**0.4**

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

For impact assessment areas	
FL = delta x acres =	**0.8733**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed - Clearing Only Impacts (# LNP-010, LNP-011, LNP-18 & LNP-051)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
630		IMPACT	46.9

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

This forested community is dominated by a mixture of hardwoods and conifers in the canopy including pond cypress, slash pines, swamp tupelo, oaks, red maple, bays, and cabbage palms. The understory consists of Virginia willow, dahoon holly, hackberry, sweet gum, loblolly bay, gallberry, fetterbush, saltbush, buttonbush, wax myrtle, titi, pop ash, persimmon and yaupon holly. Groundcover consists of sedges, bushy bluestem, broomsedge, redroot, iris, beakrush, soft rush, chain fern, sawgrass, sand cordgrass, cinnamon fern, and various opportunistic species. Community structure is transitioning based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed - Clearing Only Impacts (# LNP-010, LNP-011, LNP-18 & LNP-051)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 5	with: 5	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from clearing only.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 7	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 5	**w/o pres or current** -This forested community is dominated by a mixture of hardwoods and conifers in the canopy including pond cypress, slash pines, swamp tupelo, oaks, red maple, bays, and cabbage palms. The understory consists of Virginia willow, dahoon holly, hackberry, sweet gum, loblolly bay, gallberry, fetterbush, saltbush, buttonbush, wax myrtle, titi, pop ash, persimmon and yaupon holly. Groundcover consists of sedges, bushy bluestem, broomsedge, redroot, iris, beakrush, soft rush, chain fern, sawgrass, sand cordgrass, cinnamon fern, and various opportunistic species. Community structure is transitioning based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout. **with** - Partial loss in community structure due to conversion from forested wetland to herbaceous system.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.66667	**0.56667**

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

For impact assessment areas	
FL = delta x acres =	**4.6900**

Delta = [with-current]
0.1

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed - Permanent Impacts (# HI-150, LNP-010, LNP-011, LNP-016, LNP-018 & LNP-051)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
630		IMPACT	43.3

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa, Withlacoochee & Upper Coastal	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

This forested community is dominated by a mixture of hardwoods and conifers in the canopy including pond cypress, slash pines, swamp tupelo, oaks, red maple, bays, and cabbage palms. The understory consists of Virginia willow, dahoon holly, hackberry, sweet gum, loblolly bay, gallberry, fetterbush, saltbush, buttonbush, wax myrtle, titi, pop ash, persimmon and yaupon holly. Groundcover consists of sedges, bushy bluestem, broomsedge, redroot, iris, beakrush, soft rush, chain fern, sawgrass, sand cordgrass, cinnamon fern, and various opportunistic species. Community structure is transitioning based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed - Permanent Impacts (# HI-150, LNP-010, LNP-011, LNP-016, LNP-018 & LNP-051)
Impact or Mitigation: IMPACT	Assessment conducted by: Entrix - VAF/DDS, ESI - Gary Howalt	Assessment date: Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	5	0	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** -
.500(6)(b)Water Environment (n/a for uplands)	7	0	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -**
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	8	0	**w/o pres or current** -This forested community is dominated by a mixture of hardwoods and conifers in the canopy including pond cypress, slash pines, swamp tupelo, oaks, red maple, bays, and cabbage palms. The understory consists of Virginia willow, dahoon holly, hackberry, sweet gum, loblolly bay, gallberry, fetterbush, saltbush, buttonbush, wax myrtle, titi, pop ash, persimmon and yaupon holly. Groundcover consists of sedges, bushy bluestem, broomsedge, redroot, iris, beakrush, soft rush, chain fern, sawgrass, sand cordgrass, cinnamon fern, and various opportunistic species. Community structure is transitioning based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout. **with** -

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.66667	**0**

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

For impact assessment areas	
FL = delta x acres =	**28.8667**

Delta = [with-current]
0.666666667

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed - Temporary Impacts (# LNP-011, LNP-016 & LNP-051)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
630		IMPACT	9

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

This forested community is dominated by a mixture of hardwoods and conifers in the canopy including pond cypress, slash pines, swamp tupelo, oaks, red maple, bays, and cabbage palms. The understory consists of Virginia willow, dahoon holly, hackberry, sweet gum, loblolly bay, gallberry, fetterbush, saltbush, buttonbush, wax myrtle, titi, pop ash, persimmon and yaupon holly. Groundcover consists of sedges, bushy bluestem, broomsedge, redroot, iris, beakrush, soft rush, chain fern, sawgrass, sand cordgrass, cinnamon fern, and various opportunistic species. Community structure is transitioning based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed - Temporary Impacts (# LNP-011, LNP-016 & LNP-051)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 5	with: 5	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impacts.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 7	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 7	**w/o pres or current** -This forested community is dominated by a mixture of hardwoods and conifers in the canopy including pond cypress, slash pines, swamp tupelo, oaks, red maple, bays, and cabbage palms. The understory consists of Virginia willow, dahoon holly, hackberry, sweet gum, loblolly bay, gallberry, fetterbush, saltbush, buttonbush, wax myrtle, titi, pop ash, persimmon and yaupon holly. Groundcover consists of sedges, bushy bluestem, broomsedge, redroot, iris, beakrush, soft rush, chain fern, sawgrass, sand cordgrass, cinnamon fern, and various opportunistic species. Community structure is transitioning based on the coverage of slash pines and dense shrub layers (i.e., fetterbush) and opportunistic species such as Virginia creeper, dog fennel and greenbrier. Strong evidence of cypress logging (i.e., stumps) and hog rooting throughout. **with** - Partial loss in community structure due to time lag from restoration effort.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.66667	**0.63333**

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

For impact assessment areas	
FL = delta x acres =	**0.3000**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed (Logged) - Clearing Only Impacts (# LNP-002, LNP-010, LNP-011 & LNP-051)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
630-1		IMPACT	14.6

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed (Logged) - Clearing Only Impacts (# LNP-002, LNP-010, LNP-011 & LNP-051)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 4	with: 4	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from clearing only.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 7	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 6	with: 4	**w/o pres or current** -Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including mature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent. **with** - Partial loss in community structure due to conversion from forested wetland to herbaceous system.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.56667	**0.5**

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

For impact assessment areas	
FL = delta x acres =	**0.9733**

Delta = [with-current]
0.066666667

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed (Logged) - Permanent Impacts (# CR, HI-104, HI-106, HI-107, HI-108, HI-110, LNP-001, LNP-010, LNP-011, LNP-016, LNP-019, LNP-051 & LNP-504C)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
630-1		IMPACT	89.1

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	Mitigation for previous permit/other historic use
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed (Logged) - Permanent Impacts (# CR, HI-104, HI-106, HI-107, HI-108, HI-110, LNP-001, LNP-010, LNP-011, LNP-016, LNP-019, LNP-051 & LNP-504C)
Impact or Mitigation: IMPACT	Assessment conducted by: Entrix - VAF/DDS, ESI - Gary Howalt	Assessment date: w/o pres or current - Area is surrounded by pine plantation which provided minimal

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	4	0	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** -
.500(6)(b)Water Environment (n/a for uplands)	7	0	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -**
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	6	0	**w/o pres or current** -Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including mature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent. **with** -

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.56667	**0**

Delta = [with-current]
0.566666667

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

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

For impact assessment areas	
FL = delta x acres =	**50.4900**

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed (Logged) - Temporary Impacts (# LNP-010, LNP-011, LNP-016 & LNP-019)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
630-1		IMPACT	6.8

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa & Withlacoochee	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including immature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wetland Forested Mixed (Logged) - Temporary Impacts (# LNP-010, LNP-011, LNP-016 & LNP-019)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	4	4	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impacts.
.500(6)(b)Water Environment (n/a for uplands)	7	7	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	6	5	**w/o pres or current** -Heavily logged forested wetland characterized by transitional vegetation with less than 50% coverage of trees. Community structure is very disturbed from logging activities with stumps and furrows remaining from thinning activities. Similar species composition as those found in forested wetlands, although few cypress and hardwood trees remaining and most coverage provided by transitional vegetation in the shrub layer and groundcover including mature slash pine and oaks, sweetgum, fetterbush, wax myrtle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog fennel, chain fern, red root, and various opportunistic species. Most cypress have been logged and other trees have been logged indiscriminately as a result of thinning activities providing less of a seed source for natural recruitment. Dead trees and hog rooting also prevalent. **with** - Partial loss in community structure due to time lag from restoration effort.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.56667	**0.53333**

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

For impact assessment areas	
FL = delta x acres =	**0.2267**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Freshwater Marsh - Permanent Impact (# CR)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
640		IMPACT	1.3

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Upper Coastal	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

These wetlands are the adjacent freshwater wetland fringe of the Gulf of Mexico located in a maintained powerline right of way. They are immediately south, west and north of the perimeter fence of the Crystal River Nuclear Power Plant.

Assessment area description

These low quality freshwater vegetated non-forested wetlands support no canopy species and are primarily composed of low growing grasses and shrubs because of the continual mowing of the right of way. Specifically, the community is composed of arrowhead (*Sagittaria lancifolia*), beakrush (*Rhyncospora* spp.), cattails (*Typha* spp.), and various panic grasses (*Panicum* spp.), among others. They comprise five impact areas in the powerline right of way.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	Mitigation for previous permit/other historic use
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Gary Howalt, Michael Stowe & Brett Anderson - ESI	09/16/11

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Freshwater Marsh - Permanent Impact (# CR)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Gary Howalt, Michael Stowe & Brett Anderson - ESI	9/16/2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Wetland is saturated and hydric indicators and soils were observed. However rutting of the areas from the continual mowing of these	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	Low quality wetland in a maintained powerline right of way and adjacent on three side to the Crystal River Nuclear Power Plant.	3	0
.500(6)(b)Water Environment (n/a for uplands)	Wetland is saturated and hydric indicators and soils were observed. However rutting of the areas from the continual mowing of these areas and a dirt access road has altered the flow and hydrology of the areas.	4	0
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	The community is composed of arrowhead (*Sagittaria lancifolia*), beakrush (*Rhyncospora* spp.), cattails (*Typha* spp.), and various panic grasses (*Panicum* spp.), among others and is mowed.	5	0

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.4	**0**

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

For impact assessment areas	
FL = delta x acres =	**0.5200**

Delta = [with-current]
0.4

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Freshwater Marsh - Permanent Impact (# HI-51, HI-100, HI-101, HI-105, LNP-007, LNP-009A, LNP-028 & LNP-810)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
641		IMPACT	3.6

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa, Withlacoochee & Upper Coastal	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Successional marsh community converted from historic forested systems as a result of logging. Most have limited structure and poor zonation likely associated with poor hydrology; and therefore, provide minimal wildlife habitat. Vegetation consists of pickerelweed, smartweed, cattail and fireflag in the core with maidencane, rushes, beakrushes, sedges, yellow-eyed grasses, bog button, buttonbush, St. John's wort, saltbush and wax myrtle in the outer zones. Disturbed areas also contain broomsedge, bushy bluestem, red root, dog fennel, and ragweed.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	Mitigation for previous permit/other historic use None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Freshwater Marsh - Permanent Impact (# HI-51, HI-100, HI-101, HI-105, LNP-007, LNP-009A, LNP-028 & LNP-810)
Impact or Mitigation	Assessment conducted by:	Assessment date:
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 3	with: 0	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** -
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 5	with: 0	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -**
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0	**w/o pres or current** -Successional marsh community converted from historic forested systems as a result of logging. Most have limited structure and poor zonation likely associated with poor hydrology; and therefore, provide minimal wildlife habitat. Vegetation consists of pickerelweed, smartweed, cattail and fireflag in the core with maidencane, rushes, beakrushes, sedges, yellow-eyed grasses, bog button, buttonbush, St. John's wort, saltbush and wax myrtle in the outer zones. Disturbed areas also contain broomsedge, bushy bluestem, red root, dog fennel, and ragweed. **with** -

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.43333	**0**

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

For impact assessment areas	
FL = delta x acres =	**1.5600**

Delta = [with-current]
0.433333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Freshwater Marsh - Temporary Impact (# LNP-004, LNP-009A, LNP-028 & LNP-810)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
641		IMPACT	0.4

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Successional marsh community converted from historic forested systems as a result of logging. Most have limited structure and poor zonation likely associated with poor hydrology; and therefore, provide minimal wildlife habitat. Vegetation consists of pickerelweed, smartweed, cattail and fireflag in the core with maidencane, rushes, beakrushes, sedges, yellow-eyed grasses, bog button, buttonbush, St. John's wort, saltbush and wax myrtle in the outer zones. Disturbed areas also contain broomsedge, bushy bluestem, red root, dog fennel, and ragweed.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Freshwater Marsh - Temporary Impact (# LNP-004, LNP-009A, LNP-028 & LNP-810)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current: 3 with: 3	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impacts.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 5 with: 5	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 5 with: 4	**w/o pres or current** -Successional marsh community converted from historic forested systems as a result of logging. Most have limited structure and poor zonation likely associated with poor hydrology; and therefore, provide minimal wildlife habitat. Vegetation consists of pickerelweed, smartweed, cattail and fireflag in the core with maidencane, rushes, beakrushes, sedges, yellow-eyed grasses, bog button, buttonbush, St. John's wort, saltbush and wax myrtle in the outer zones. Disturbed areas also contain broomsedge, bushy bluestem, red root, dog fennel, and ragweed. **with** - Partial loss in community structure due to time lag from restoration effort.

Score = sum of above scores/30 (if uplands/20)	
current or w/o pres	with
0.43333	**0.4**

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

For impact assessment areas	
FL = delta x acres =	**0.0133**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Prairie - Permanent Impact (# LNP-037, LNP-040 & LNP-815)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
643		IMPACT	2

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Successional wet prairie community converted from historic forested systems as a result of logging. No defined structure or zonation and beds/furrows are still evident in some areas. Vegetation consists of maidencane, blue maidencane, bushy bluestem, sand cordgrass, yelloweyed grasses, redroot, bog buttons, red ludwigia, rushes, beakrushes, and sedges. Scattered bushes such as buttonbush, St. John's wort, saltbush and wax myrtle also occur.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Prairie - Permanent Impact (# LNP-037, LNP-040 & LNP-815)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** -	3	0
.500(6)(b)Water Environment (n/a for uplands)	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -**	6	0
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	**w/o pres or current** -Successional marsh community converted from historic forested systems as a result of logging. Most have limited structure and poor zonation likely associated with poor hydrology; and therefore, provide minimal wildlife habitat. Vegetation consists of pickerelweed, smartweed, cattail and fireflag in the core with maidencane, rushes, beakrushes, sedges, yellow-eyed grasses, bog button, buttonbush, St. John's wort, saltbush and wax myrtle in the outer zones. Disturbed areas also contain broomsedge, bushy bluestem, red root, dog fennel, and ragweed. **with** -	6	0

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.5	**0**

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

For impact assessment areas	
FL = delta x acres =	**1.0000**

Delta = [with-current]
0.5

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Prairie - Temporary Impact (# LNP-815)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
643		IMPACT	0.9

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Waccasassa	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Successional wet prairie community converted from historic forested systems as a result of logging. No defined structure or zonation and beds/furrows are still evident in some areas. Vegetation consists of maidencane, blue maidencane, bushy bluestem, sand cordgrass, yelloweyed grasses, redroot, bog buttons, red ludwigia, rushes, beakrushes, and sedges. Scattered bushes such as buttonbush, St. John's wort, saltbush and wax myrtle also occur.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

hog rooting

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Wet Prairie - Temporary Impact (# LNP-815)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	3	3	**w/o pres or current** - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacoochee River. **with** - No loss anticipated from temporary impacts.
.500(6)(b)Water Environment (n/a for uplands)	6	6	**w/o pres or current** - No standing water in most areas, but water level indicators, hydric soils and community structure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees. **with -** No loss in hydrologic function anticipated.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	6	5	**w/o pres or current** -Successional wet prairie community converted from historic forested systems as a result of logging. No defined structure or zonation and beds/furrows are still evident in some areas. Vegetation consists of maidencane, blue maidencane, bushy bluestem, sand cordgrass, yelloweyed grasses, redroot, bog buttons, red ludwigia, rushes, beakrushes, and sedges. Scattered bushes such as buttonbush, St. John's wort, saltbush and wax myrtle also occur. **with** - Partial loss in community structure due to time lag from restoration effort.

Score = sum of above scores/30 (if uplands/20)	current or w/o pres	with
	0.5	**0.46667**

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

For impact assessment areas	
FL = delta x acres =	**0.0300**

Delta = [with-current]
0.033333333

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Streams and Waterways - Permanent Impact (# CFBC & CRECDC)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
510		IMPACT	2.6

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacoochee & Upper Coastal	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are within the Cross Florida Barge Canal, the Inglis Lock Diversion Canal and the Crystal River Energy Complex Main Discharge Canal.

Assessment area description

Open water within the Cross Florida Barge Canal, the Inglis Lock Diversion Canal and the Crystal River Energy Complex Main Discharge Canal.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None
Functions	**Mitigation for previous permit/other historic use**
Functions include feeding and refuge for some aquatic fish and wildlife along with some water quality and storage benefits.	None
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to	**Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the**
fish, birds (passerine, raptor and wading birds), amphibians and reptiles	wading birds (SSC), manatee

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Streams and Waterways - Permanent Impact (# CFBC & CRECDC)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current	with
No mitigation require/necessary for open water impacts.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current	with
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current	with

Score = sum of above scores/30 (if uplands/20)		
current or w/o pres		with
0		**0**

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

For impact assessment areas	
FL = delta x acres =	**0.0000**

Delta = [with-current]
0

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Upland Cut Ditch - Permanent Impact (# HI-53)

FLUCFCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size (Acres)
511		IMPACT	0.1

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Upper Coastal	Class III	

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Areas are surrounded by pine plantation and a mosaic of forested wetlands that have been subjected to logging. Wetlands are either directly connected with each other or are interconnected through hydric pine plantation. Furrows serve as conveyances allowing for water to travel along them.

Assessment area description

Upland cut ditch that doesn't support wetland vegetation.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.	None

Functions	Mitigation for previous permit/other historic use
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.	None

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles	wading birds (SSC)

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Form 62-345.900(1), F.A.C. [02-04-2004]

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

IMPACT

Site/Project Name	Application Number	Assessment Area Name or Number
Progress Energy Florida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Upland Cut Ditch - Permanent Impact (# HI-53)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
IMPACT	Entrix - VAF/DDS, ESI - Gary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support			No mitigation required for impacts to upland cut ditches.
.500(6)(b)Water Environment (n/a for uplands)			
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community			

Score = sum of above scores/30 (if uplands/20)	
current or w/o pres	with
0	**0**

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

For impact assessment areas	
FL = delta x acres =	**0.0000**

Delta = [with-current]
0

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

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

Form 62-345.900(2), F.A.C. [02-04-2004]

ATTACHMENT 3

Progress Energy – Levy Nuclear Plant Project
Construction Dewatering
Best Management Practices

The detailed construction-related dewatering activities for the Levy Nuclear Plant (LNP) site will be evaluated and approved by Florida Department of Environmental Protection (FDEP) and the Southwest Florida Water Management District (SWFWMD) following submittal of final construction designs. As part of the State of Florida Conditions of Certification (COCs), PEF is required to submit a construction dewatering plan to SWFWMD for approval 6 months prior to the commencement of dewatering. The plan will include the details of the dewatering system, discharge quantities and locations, a monitoring plan, and other details as appropriate to demonstrate that the dewatering plans meet the SWFWMD's Conditions of Issuance as included in 40D-2.301. PEF is also required to submit post-certification Environmental Resource Permit application(s) to the FDEP. As part of the review of these documents the FDEP will review the detailed construction dewatering requirements to ensure protection of wetlands and other aquatic resources. No adverse impacts to wetlands resulting from construction dewatering are allowable under the COCs. These submittals will include the detailed best management practices (BMPs) to be employed during construction. The BMP to be used during construction will depend on field conditions during construction but the most often used BMPs are detailed below. BMPs will remain in place until the disturbed area is stabilized.

BMP	Brief Description
Sediment Filter Bag	Water is pumped through bag and sediment is removed. Sediment captured is removed and stabilized.
Staked Hay Bales	Often used in association with silt fence, hay bales are installed in a trench and staked into the ground.
Silt Fence	Geosynthetic material which is staked and installed around construction area.
Floating Turbidity Barrier	Commercially available product used to contain turbidity in open water areas.
Vehicle Tracking Pad	Area used to assist in removal of sediments on the trucks of tires entering and leaving the construction site. Designed to prevent tracking onto paved roads.
Vegetative Filter Strip	Leaving existing vegetation in place to remove suspended particles from sheet flow often used near watercourses.
Temporary Vegetation	Areas disturbed by construction are seeded or sodded to prevent erosion, prior to final grading.

The BMPs listed above are only a representation of the options that may be used during construction on the LNP site. All BMPs will be maintained and inspected on a regular basis to ensure they are functioning properly and ensure the protection of the wetlands on the site.