PMLevyCOLPEm Resource

From: Bruner, Douglas
Sent: Monday, August 17, 2009 3:18 PM
To: Snead, Paul
Cc: Moser, Michelle; LevyCOL Resource
Subject: Summary of Levy Teleconference 081309 - Final
Attachments: GIS_figure_requests Cross Ref 081309.revised.xls; Teleconference Summary 081309 - Levy- Final.doc; Questions and Clarifications Rev 1.doc; TE Clarifications Part I rev3.doc

Paul,

Attached is the summary for the teleconference held on August 13, 2009. For reference, the questions and clarifications sheet is also provided.

Vince Vermeul reviewed the figure request spreadsheet (PEF's path forward for responding to 8-6-09 teleconference question 4) and made the corrections highlighted in yellow. That document is also attached.

Thanks,

Doug

Hearing Identifier: Levy_County_COL_Public
Email Number: 424

Mail Envelope Properties (5A7F273F3E481245BC055B36939D34632559F3BF12)

Subject: Summary of Levy Teleconference 081309 - Final
Sent Date: 8/17/2009 3:17:41 PM
Received Date: 8/17/2009 3:17:43 PM
From: Bruner, Douglas

Created By: Douglas.Bruner@nrc.gov

Recipients:
"Moser, Michelle" <Michelle.Moser@nrc.gov>
Tracking Status: None
"LevyCOL Resource" <LevyCOL.Resource@nrc.gov>
Tracking Status: None
"Snead, Paul" <paul.snead@pgnmail.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	408	8/17/2009 3:17:43 PM
GIS_figure_requests Cross Ref 081309.revised.xls	36858	
Teleconference Summary 081309 - Levy- Final.doc	81914	
Questions and Clarifications Rev 1.doc	220666	
TE Clarifications Part I rev3.doc	76282	

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

Question	Part		Figure	Notes
4	a	wetlands and project features	RAI 2.4.1-3 (L-404) Attachment 2.4.1-3A	GIS files only
	b	operational pumping water drawdown	RAI 2.4.1-3 (L-404) Attachment 2.4.1-3D	GIS files only
	c 1st bullet	updated model water budget	RAI 5.2.2-3 (L-522) Attachment I, (Fig. 8)	GIS files only
	c 2nd bullet	potentiometric contour map for stress period 2 steady state results for projected future usage	RAI 5.2.2-3 (L-522) Attachment N, (Fig. 13)	GIS files only
	c 3rd bullet	potentiometric contour map which define baseline (i.e. 2001)	RAI 5.2.2-3 (L-522) Attachment M (Fig.12)	GIS files only
	c 4th bullet	contour map(s) showing incremental drawdown impacts associated with LNP operations	Not provided in RAI 5.2.2-3 (L-522), PEF will provide in new RAI supplement	GIS files only
	c 5th bullet	a wetlands map with SAS incremental drawdown impacts	RAI 2.4.1-3 (L-404) Attachment 2.4.1-3D	GIS files only
			RAI 5.2.2-3 (L-522) Attachment P (Exhibit 13) - 1 yr incremental	
			RAI 5.2.2-3 (L-522) Attachment Q (Exhibit 14) - 60 yr incremental	
	c 6th bullet	contour map(s) showing incremental drawdown impacts associated with the maximum-week withdrawal	RAI 5.2.2-3 (L-522) Attachment O (Exhibit 12)	GIS files only
	d	Permitted wells in TMR model domain	RAI 5.2.2-3 (L-522) Attachment L (Fig.11)	GIS files only
	additional request	new attachment based on TMEM-074 Exhibit 8	Exhibit 8 of TMEM-074 - Simulated Incremental Surfical and Upper Floridan Aquifer Drawdown, ft: 60 years; 1.58 mgd, Exhibit 8	new PDF and GIS files
5	a	a GIS file containing the FLUCCS cover types and project features used to prepare Figure 4.4.1-1 (no RAI 4.4.1-1, assume 4.3.1-1)	RAI 4.3.1-1 (L-406) Attachment A	GIS files only

Teleconference Summary with PEF
Levy COLA
August 13, 2009, 1:00 PM EDT

Discussion Topic

Introductions

Shearon Harris Environmental Review

- The tech memo on construction related emissions is identified as non-publicly available in the footer of the document. Although PEF has indicated that the document can be publicly released, the Documents Processing Center is requesting that the footer be omitted and that the document be resubmitted, which is contrary to previous submittals. Don Palmrose will continue to work the issue with the applicant and Document Processing Center /ADAMS.

- Reviewers have noticed discrepancies with values (e.g., acreage) in the ER. Don Palmrose will follow up on the issue with PEF within the next 2 to 3 weeks.

Levy County Environmental Review

- USACE Project Needs and Clarifications
    - LEDPA
        - USACE is reviewing the LEDPA submittal.

    - Jurisdictional Determination
        - USACE has received package from CH2M Hill, which provides responses to questions on the onsite areas. Don estimates that an initial decision will be made sometime from the end of August into mid-September, which will be forwarded to USACE Headquarters and EPA for review. Don will notify NRC when the initial decision is forwarded to USACE Headquarters and EPA.

- Requests and Clarifications
    - NRC RAI 2.4.1-3 (Land Use)
      Provide a definition as to what constitutes temporary construction impacts for the LNP site and for the associated offsite facilities, as referenced in Table 2.4.1-3-002 and Table 4.3.1.1-001 of the 6-12-09 *NRC* RAI Response. Confirm that temporary impacts resulting from transmission line construction are treated as permanent impacts for analysis purposes, per Table 2.4.1-3-003 and Table 2.4.1-3-004 from the 6-12-09 *NRC* RAI Response, and in Table 1 of the 3-27-09 *Corps* RAI Response.
        - PEF will provide a definition as to what constitutes temporary construction impacts for the LNP site and for the associated offsite facilities, and will provide confirmation that temporary impacts resulting from transmission line construction are treated as permanent impacts for analysis purposes.

    - NRC RAI 2.4.1-3 (Dewatering)
      Provide a copy of the Rizzo model for nuclear island construction dewatering in the Levy reading room. Clarify the 6-12-09 dewatering response to state the time period over which dewatering would occur (e.g., 24 months).

- The Rizzo model for nuclear island construction dewatering is already in the reading room and available for review. PEF will provide a supplemental response to the RAI to address the time period over which dewatering is expected to occur.

Provide an evaluation of the effects on adjacent wetlands of dewatering to construct the makeup/blowdown pipeline.

- PEF will supplement the RAI to provide an evaluation of the effects of dewatering on adjacent wetlands for construction of the make-up and blowdown lines.

- NRC RAI 5.3.3.2-1 (Salt Drift)
  Provide a copy of the CREC 1993/1994 annual salt drift report.
  - PEF will provide a copy of the CREC 1993/1994 annual salt drift report.

- NRC RAI 2.4.1-3
  Provide Terrestrial GIS files for Attachments 2.4.1-3A and 2.4.1-3D of June 12, 2009 supplemental response, as updated to account for current refinements to wetland and upland cover mapping.
  - See GIS_figure_requests Cross Ref 081309 for figures that PEF will provide to the NRC (per the August 6, 2009 teleconference).

- NRC RAI 4.3.1-1
  Provide Terrestrial GIS files for Attachment 4.3.1-1A of June 12, 2009 supplemental response, as updated to account for current refinements to wetland and upland cover mapping.
  - See GIS_figure_requests Cross Ref 081309 for figures that PEF will provide to the NRC (per the August 6, 2009 teleconference).

- NRC RAI 5.2.2-3
  Provide groundwater files as described in 8-6-09 teleconference question 4(c).
  - NRC will provide clarification to PEF on the specific files needed (per the August 6, 2009 teleconference).

- Follow-up Questions and Clarifications (see attached)

9. Icing / Fogging – This question / clarification is expected to fall under RAI 5.3.3-1 (NPD-NRC-2009-044). Technical Memorandum 057 is available in the reading room and describes how the model to address ground-level fogging and icing was used. NRC will follow up with the applicant on this issue if more information is found to be necessary after reviewing available documents.

10. Transmission Lines – PEF confirmed that construction impacts by cover types up to the first substation are greater than that beyond the first substation. PEF will clarify the associated question in a supplemental response to RAI 2.4.1-3.

11. Threatened and Endangered Species – PEF will elaborate on the consideration and accommodation of threatened and endangered species along transmission lines post construction, to the NRC, as a supplement to the Environmental Report.

12. FLUCCS Cover Types – PEF will evaluate possible quantitative inconsistencies regarding FLUCCS cover types along the transmission corridors up to and beyond the first substations. Revised tables will be provided to the NRC that eliminates potential inconsistencies and addresses double counting. This request will be addressed through a supplement to RAI 2.4.1-3.

13. Wetlands / FLUCCS
    a. PEF will supplement RAI 2.4.1-3 to provide information on the date for completion of the field delineations.
    b. PEF provided clarification on changes to wetland cover types during the call.
    c. PEF will supplement RAI 2.4.1-3 with site specific descriptions for new wetland cover types identified on the LNP site.
    d. PEF will provide confirmation for the validity of assumptions on derivation of coniferous plantation and acreages for the remaining cover types. PEF will evaluate this further but a supplemental response will not be necessary if there are no changes.

- Floodplains Storage Loss / Floodplains Compensation (to be submitted to the NRC by August 17, 2009).
    - NRC received information on floodplains storage loss / floodplains compensation on August 13, 2009. The information has been forwarded to NRC technical staff for review.

- Status of PEF Environmental Report Update (to be submitted to the NRC on September 25, 2009).
    - The updated Environmental Report is on schedule to be submitted to the NRC. Changes to the document have already been conveyed to the NRC through responses to information needs from the site audit and the RAI process. The approximate cutoff for revisions to the ER was the May to early June 2009 time frame.

Other

- Next Teleconference: August 20, 2009, 1:00pm EDT (proposed).

- Participants on Teleconference (August 13, 2009):

Paul Snead (PEC)	Douglas Bruner (NRC)
Joseph Pavletich (PEC)	Michelle Moser (NRC)
Arun Kapur (PEC)	Donald Palmrose (NRC)
Amy Dierolf (PEC)	Michael Smith (PNNL)
Loren Young (CH2M Hill)	Linda Fassbender (PNNL)
George Howroyd (CH2M Hill)	Steve Wyngarden (ICF)
Jeff Lehnen (CH2M Hill)	Bill Baber (ICF)
Scott Freeman (CH2M Hill)	Don Hambrick (USACE)
	Paul Gagliano (USEPA)

Follow-up questions/clarifications to PEF's 6-12-09 RAI Supplemental Responses (Part II)

Icing/Fogging

9. New Information Request:
    a) The ER (page 5-38) refers to modeling completed for ground-level fogging and icing at the proposed LNP site, which indicates no predicted instances of ground-level fogging or icing beyond 3280 ft from the nearest cooling tower bank. Provide a copy of the modeling study or, if available as part of the SCA application, provide Internet link. Staff will use this information to document the predicted frequency of icing during operation as it relates to the potential for icing damage to vegetation.

Transmission Lines

10. PEF Response to NRC RAI USACE-5 (NPD-NRC-2009-043):
    a) Tables 1 (uplands) and 2 (wetlands) provide estimates of construction impacts by cover types for transmission lines beyond the first substation (about 97.8 ac over 89 miles of line). The reported construction impacts beyond the first substation are much lower than the reported construction impacts for transmission lines up to the first substation (about 1011.6 ac over about 91 miles) (see Table 4-7 below). Clarify why and whether this is a result of much more of the transmission line beyond the first substation being co-located with existing line. Clarify whether Tables 1 and 2 impacts include clearing impacts. Clarify whether there were no impacts to Residential – Low Density (FLUCCS 110) and other 100 to 300 series land cover types for any of the transmission lines.

Table 4-7. Extent of Construction-Related Impacts on Cover Types for the Associated Offsite Facilities[a].

Cover Type	FLUCCS Code[(b)]	Associated Facilities Excluding Transmission Line (acres)		Transmission Line up to First Substation (acres)		Transmission Line Beyond First Substation (acres)		Total Impacts	
		Permanent	Temporary[c]	Permanent	Temporary[c]	Permanent	Temporary[c]	Permanent	Temporary[c]
Institutional	170								
Recreational	180								
Open land	190	2.0						2.0	
Cropland and pastureland	210								
Row crops	214								
Specialty farms	250								
Other open lands (rural)	260	0.7						0.7	
Shrub and brushland	320								
Mixed rangeland	330								
Upland coniferous forest	410	3.1	0.5					3.1	0.5
Pine flatwoods	411			22.3		3.4		25.7	
Longleaf pine-xeric oak	412			97.1		7.4		104.5	
Sand pine	413			31.3		1.3		32.6	
Upland hardwood Forests	420								
Xeric oak	421			56.4		0.3		56.7	
Live oak	427			6.7				6.7	
Hardwood conifer mixed	434	2.8	1.2	306.3		31.9		341.0	1.2
Coniferous plantations	441	56.8	14.2	201.2		1.1		259.1	14.2
Streams and waterways	510	0.8		1.5		0.6		2.9	
Lakes	520			0.9		0.9		1.8	
Reservoirs	530	0.3		0.3		6.3		6.9	
Reservoirs < 10 ac	534					0.4		0.4	
Bays and estuaries	540								
Wetland hardwood forests	610								
Stream and lake swamps (bottomland)	615			38.6		3.4		42.0	
Mixed wetland hardwoods	617	3.8	1.4					3.8	1.4
Wetland coniferous forests	620								
Cypress	621	1.2	1.4	189.3		2.4		192.9	1.4
Cypress-pine-cabbage palm	624			2.6				2.6	
Wet planted pine	629	42.4	5.4					42.4	5.4
Wetland forested mixed	630	9.2	1.3	26.8		3.8		39.8	1.3

Cover Type	FLUCCS Code[b]	Associated Facilities Excluding Transmission Line (acres)		Transmission Line up to First Substation (acres)		Transmission Line Beyond First Substation (acres)		Total Impacts	
		Permanent	Temporary[c]	Permanent	Temporary[c]	Permanent	Temporary[c]	Permanent	Temporary[c]
Wetland scrub	631					0.1		0.1	
Freshwater marshes	641	8.0	0.8	25.8		33.5		67.3	0.8
Saltwater marshes	642	4.4						4.4	
Wet prairies	643	0.2	0.1	4.5		0.9		5.6	0.1
Emergent aquatic vegetation	644								
Treeless hydric savannah	646	2.6						2.6	
Intermittent ponds	653								
Disturbed land	740								
Transportation	810	1.3						1.3	
Utilities	830								
Totals		**139.5**	**26.4**	**1011.6**		**97.8**		**1249.0**	**26.4**

(a) Associated Offsite Facilities include the heavy haul road, makeup and blowdown pipeline, barge slip and barge slip access road, site access roads, and miscellaneous pipeline. Temporary impacts include a 50 foot buffer adjacent to the CFBC.

(b) FLUCCS = Florida Land Use Cover Classification System

(c) Temporary impacts are represented by a 50-foot buffer adjacent to the pipeline corridor and heavy haul road between the LNP site and the CFBC. All impacts associated with the transmission lines are treated as permanent impacts.

Source: PEF 2009| NRC RAI - Column 3 & 4 = Table 2.4.1-3-002, p70; Column 5 = Table 2.4.1-3-003, p79 & Table 2.4.1-3-004, p80; Column 7=Corps RAI Table 1, p11 & Table 2, p12| and CH2M Hill 2008| CH2M HILL 2008. Ecological report for the Cross Florida Greenway recreational improvement project. Report prepared for Progress Energy| (source for barge slip impacts added to Column 3)|

11. New Information Request:
    a) SCA Volumes 2–6 contain reports for each of the proposed LNP transmission line segments. Each report contains a chapter on "Post Construction Impacts and Effects of Maintenance." The "Maintenance Techniques" subsection in each report states "Endangered or threatened species, if present, are considered and accommodated in the maintenance program." For example, see page 9-A3-62 from the report for the LNP to Proposed Central Florida South Substation. Elaborate on how endangered and threatened species are considered and accommodated.

12. New Information Request:
    a) Using information from the ER and the SCA transmission line reports, staff attempted to prepare a table containing the acreages of FLUCCS cover types within Associated Offsite Facilities corridors, broken down by "Corridors up to the First Transmission Line Substation" and "Corridors Beyond the First Transmission Line Substation." Independent geographic data checking by staff revealed possible quantitative inconsistencies in the data provided in the last RAI response package regarding terrestrial and wetland habitats along the proposed transmission lines. Elaborate on these potential inconsistencies and whether they derive from overlaps in parallel transmission corridors and possible use of multiple FLUCCS baseline cover type data sets. Provide a revised table that quantifies baseline FLUCCS cover types for (1) the transmission lines and other offsite corridors up to the first substation and (2) transmission lines beyond the first substation. Although the ER and the SCA information available for "Corridors Beyond the First Transmission Line Substation" would have been adequate for staff purposes (no overlap between individual corridor segments), staff followed a similar approach (new consolidated shape file, query SWFWMD 2006 database) to maintain consistency in the DEIS (see Table 2-8 below).

Table 2-8. FLUCCS Cover Types within Associated Facilities Corridors

FLUCCS Cover Type	FLUCCS Code[a]	Corridors up to the First Transmission Line Substation		Corridors Beyond the First Transmission Line Substation[b]	
		Acres	Percent	Acres	Percent
Residential, low density	110	1547	6.6	2123	23.4
Residential, medium density	120	24	0.1	376	4.3
Residential high density	130	55	0.2	115	1.3
Commercial and services	140	184	0.8	115	1.3
Industrial	150	103	0.4	35	0.4
Extractive	160	216	0.9	41	0.5
Institutional	170	2	0.1	16	0.2
Recreational	180	59	0.3	19	0.2
Golf courses	182			29	0.3
Open land	190	2097	8.9	843	9.7
Cropland and pastureland	210	5737	24.5	757	8.7
Row crops	214	292.0	1.2	17	0.2

FLUCCS Cover Type	FLUCCS Code[a]	Corridors up to the First Transmission Line Substation		Corridors Beyond the First Transmission Line Substation[b]	
		Acres	Percent	Acres	Percent
Citrus groves	221			79	0.9
Feeding operations	230			13	0.2
Nurseries and vineyards	240	3.0	0.1	17	0.2
Specialty farms	250	22	0.1	8	0.1
Other open lands – rural	260	990	4.2	102	1.2
Herbaceous	310			5	0.1
Shrub and brushland	320	248	1.1	147	1.7
Mixed rangeland	330	24	0.1	4	>0.1
Upland coniferous forest	410	201	0.9	44	0.5
Pine flatwoods	411	202	0.9	75	0.9
Longleaf pine-xeric oak	412	833	3.5	1394	16.0
Upland hardwood forest	420	62	0.3		
Hardwood-conifer mixed	434	2816	11,9	272	3.1
Coniferous plantations	441	1946	8.2	179	2.1
Streams and waterways	510	243	1.0	4	>0.1
Lakes	520	73	0.3	58	0.7
Reservoirs	530	68	0.3	60	0.7
Bays and estuaries	540	3	>0.1		
Stream and lake swamps (bottomland)	615	716	3.0	103	1.2
Wetland coniferous forest	620			6	0.1
Cypress	621	192	0.8	120	1.4
Wetland forested mixed	630	492	2.1	97	1.1
Freshwater marshes	641	794	3.4	211	2.4
Saltwater marshes	642	100	0.4		
Wet prairies	643	234	1.0	16	0.2
Emergent aquatic vegetation	644	73	0.3	8	0.1
Intermittent ponds	653	26	0.1	16	0.2
Disturbed lands	740	114	0.5	32	0.4
Transportation	810	585	2.5	46	0.5
Utilities	830	2069	8.6	1113	12.8
Not classified	n/a	195	0.8	3	>0.1
Total		**23,663**	**100**	**8719**	**100**

(a) FLUCCS = Florida Land Use Cover Classification System.

(b) Excludes acreage of FLUCCS cover types already accounted for in corridors up to the first transmission line substation because of corridor overlap.

Source: FFWCC (2009).

Wetlands/FLUCCS

13. PEF Supplemental Response to NRC RAI 2.4.1-3:
    a) Provide the date (month/year) when wetland field delineations were completed on the LNP site.
    b) Clarify why there were substantial changes to some wetland cover types and acreages on the LNP site (presented in Table 2.4.1-3-001) when compared to the ER (Table 2.4-1). For example, area of Cypress (FLUCCS 621) declined from 717 ac to 402.61 ac; area of Freshwater Marshes (FLUCCS 641) declined from 143 ac to 23.51 ac; Stream and Lake Swamps (Bottomland) (FLUCCS 615) is eliminated; a new cover type, Treeless Hydric Savannah (FLUCCS 646) is identified at 274.37 ac (does this represent recently logged wetland forest or reclassified freshwater marsh?); a new cover type, Mixed Wetland Hardwoods (FLUCCS 617) is identified at 317.62 ac (does this replace Wetland Forested Mixed, FLUCCS 630, which is eliminated?), etc .
    c) Provide site specific descriptions for the following new wetland cover types identified on the LNP site, including predominant onsite vegetation noted in each: Wet Planted Pine (FLUCCS 629), Treeless Hydric Savannah (FLUCCS 646), and Mixed Wetland Hardwoods (FLUCCS 617).
    d) These revised wetland cover types and acreages were used to create an updated DEIS table of FLUCCS cover types for the LNP site (see Table 2-6 below) similar to ER Table 2.4-1. NRC staff assumed that the area of remaining coniferous plantation (FLUCCS 441) can be derived by subtracting area for new wet planted pine from original ER estimate for tree plantations (FLUCCS 440)? Confirm the validity of this assumption. NRC staff assumed that the acreages for the remaining upland cover types are the same as denoted in ER Table 2.4-1 – i.e., that these upland areas were not modified by the final wetland delineation boundaries. Confirm the validity of this assumption. Note that when staff used this approach, the total area for the LNP site is 3109.4 ac vs. 3105 ac, a very minor discrepancy. NRC staff would like to discuss an appropriate resolution for this discrepancy (e.g., reduce area of coniferous plantation by 4.4 ac).

Table 2-6. Area of Cover Types at the LNP Site

Cover Type	FLUCCS Code[(a)]	Approximate Acres	Approximate Percent of LNP Site
Coniferous plantations	441	967.3	31.1
Wet planted pine	629	812.7	26.1
Cypress swamp	621	402.6	12.9
Mixed wetland hardwoods	617	317.6	10.2
Treeless hydric savannah	646	274.4	8.8
Wetland forested mixed	630	156.4	5.0
Other open lands (rural)	260	106	3.4
Freshwater marshes	641	23.5	0.8
Hardwood conifer mixed	434	16	0.5
Wet prairie	643	14.3	0.5
Upland coniferous forest	410	11	0.4
Utilities	830	4.0	0.1
Pine flatwoods	411	3.0	0.1
Shrub and brushland	320	0.6	<0.1
Total cover types		3109.4 vs. 3105	

(a) FLUCCS = Florida Land Use, Cover and Forms Classification System.
Source: PEF (2008a|ER Table 2.4-1|and 2009|6/12/09 RAI Supplemental Response – Table 2.4.1-3-001|).

Follow-up questions/clarifications to PEF's June 12, 2009 RAI Supplemental Responses (Part I)

Land Use

1. PEF Supplemental Response to NRC RAI 2.4.1-3:
    a) Table 2.4.1-3-002 (also repeated as Table 4.3.1-1-001) presents estimated impacts to cover types by facility for the Levy Nuclear Plant (LNP) site, and for those associated offsite facility impacts exclusive of transmission lines beyond the Cross Florida Barge Canal (CFBC). Confirm whether the cooling towers are accounted for in the LNP on-site impacts (perhaps they are included with the impact estimates for Unit 1 and Unit 2). Confirm whether construction lay down/staging/spoils areas are captured in the permanent and/or temporary impact estimates. Clarify whether impacts from construction of the barge slip and barge slip access road are included in the off-site impacts.
    b) Elaborate further on the 50-foot buffer to the CFBC denoted in Table 2.4.1-3-002 (also repeated as Table 4.3.1-1-001). Progress Energy Florida, Inc. (PEF) described this in the April 29 teleconference and in the June 12 RAI responses as a 50-foot zone along the shoreline of the CFBC where mechanical equipment may be operating that could result in temporary impacts to vegetation. The buffer is described as consisting of spoil material side cast from the original dredging of the CFBC. However, impacts from this 50-foot buffer are denoted on Table 2.4.1-3-002 as occurring on the LNP site as well, which is over a mile from the CFBC. Clarify whether this is a 50-foot buffer along the CFBC or a buffer along the entire length of the blowdown pipeline.

2. PEF Supplemental Response to NRC RAI 2.4.1-4:
    a) Clarify the intent of future forest management on the remaining undeveloped lands on the LNP site. It was the staff understanding that commercial forest management would cease on most remaining undeveloped lands, and that these lands would be used for mitigation. This was based on discussion presented in the environmental report (ER), in the Wetland Mitigation Plan, at the site audit, and in prior conversations with PEF. Most of PEF's response to NRC RAI 2.4.1-4 appears to reinforce this. However, the Forest Management Plan submitted with PEF's response suggests a multiple resource management approach for remaining undeveloped lands that focuses on timber management to maximize net present value. We recognize that the opening paragraph of PEF's response to NRC RAI 2.4.1-4 states that the Forest Management Plan does not include details on mitigation. However, the Forest Management strategy has confused a number of staff reviewers. Clarify management intent for the majority of remaining undeveloped lands on the LNP site.

3. PEF Supplemental Response 4.3.1-1.
    a) PEF notes that the land use/cover type categories presented in Table 4.3.1-1-002 (onsite impacts compared to the vicinity) differ from the on-site impacts presented in Table 4.3.2-1-001 (also repeated as Table 2.4.1-3-002), but that the total acreage of the on-site impacts is the same. [Note – the impacts presented in Table 4.3.1-1-002 correspond to the permanent impacts presented in Table 4.3.1-1-001; temporary impacts are not addressed.] The differences in land use categories are attributed to the site-specific field work used to delineate the wetlands presented in Table 4.3.2-1-001. However, there are substantial differences between the two that are confounding. For example, area of Cypress

impact is provided as 125.5 ac (Table 4.3.1-1-002) and 53.8 ac (Table 4.3.2-1-001); area of Other Open Lands (Rural) impact is provided as 63.1 ac (Table 4.3.1-1-002) and 31 ac (Table 4.3.2-1-001); area of Treeless Hydric Savannah (73.5 ac in Table 4.3.1-1-001) does not correlate with a cover type in Table 4.3.1-1-002; area of Tree Plantations impact is provided as 394.4 ac (Table 4.3.1-1-002) and the sum of Coniferous Plantations and Wet Planted Pine is 412.5 ac (Table 4.3.2-1-001). Please clarify apparent inconsistencies and, if necessary, provide a resolution approach.

Figures

4. PEF Supplemental Response to NRC RAI 2.4.1-3 and NRC RAI 5.2.2-3:
   a) During the 29 April 2009 teleconference with PEF to discuss staff supplemental RAI clarifications, PEF agreed to provide (as part of its June 12 response) a GIS file containing the delineated wetlands and project features that were used to produce the new wetlands map (Attachment 2.4.1-3A). This GIS file was not provided with the June 12 response. Provide this file, as updated to reflect wetland cover type revisions.
   b) During the 29 April 2009 teleconference with PEF to discuss staff supplemental RAI clarifications, PEF agreed to provide (as part of its June 12 response) a GIS file containing the modeled operational pumping groundwater drawdown isopleths (Attachment 2.4.1-3D). This GIS file was not provided with the June 12 response. Provide this file.
   c) During the 29 April and 6 May 2009 teleconferences with PEF to discuss staff supplemental RAI clarifications, PEF agreed to provide GIS and native files for the following figure. Staff intended to include this request with a generic figure request; however, inadvertently left this off that generic request. Provide the following publication quality graphics:

      - updated model water budget (see clarification H-L) for LNP and permitted users (Figure 8 in June 12, 2009 RAI response),
      - potentiometric contour map (showing surficial aquifer system [SAS] and Upper Floridan Aquifer [UFA]) for stress period 2 steady state results (permitted users only) that accounts for projected increases in adjacent permitted usage within the model domain over the life of the project,
      - potentiometric contour map (showing SAS and UFA) for stress period 2 steady state results (permitted users only), which define baseline (i.e. 2001) conditions,
      - contour map(s) (SAS and UFA) showing incremental drawdown impacts associated with LNP operations, either assuming steady state conditions or for a 60-year transient run, relative to baseline conditions (i.e., the potentiometric surfaces presented in the first bullet, not predevelopment),
      - a wetlands map with SAS incremental drawdown impacts associated with LNP operations overlaid (scaled to impacted area), and
      - contour map(s) (SAS and UFA) showing incremental drawdown impacts associated with the maximum-week withdrawal conditions of 5.8 mgd relative to baseline condition.

   d) During the 29 April and 6 May 2009 teleconferences with PEF to discuss staff supplemental RAI clarifications, PEF agreed to provide GIS and native files for the following figure. Staff intended to include this request with a generic figure request; however, inadvertently left this off that generic request. Provide a

publication quality figure showing the location of all permitted well locations within the TMR model domain.

5. PEF Supplemental Response 4.3.1-1.
    a) During the 29 April 2009 teleconference with PEF to discuss staff supplemental RAI clarifications, PEF agreed to provide (as part of its June 12 response) a GIS file containing the FLUCCS cover types and project features used to prepare Figure 4.4.1-1 (the Habitat Impacts Map for the LNP site). Staff requested that all individual cover types be shown and that they not be consolidated as in the 3/19/09 version of Figure 4.4.1-1. Staff request that the FLUCCS cover types correspond with the cover types in Table 4.3.1-1-001. This GIS file was not provided with the June 12 response. Provide this file, as updated to reflect all current adjustments to wetland and upland cover boundaries. In summary, staff is requesting an updated cover map (uplands and wetlands) for the LNP site that includes an overlay of the limits of ground disturbance, and with LNP facilities and features depicted on the map.

Dewatering

6. PEF Supplemental Response to NRC RAI 2.4.1-3:
    a) The June 12 RAI response includes a discussion referring to groundwater modeling for the nuclear island construction dewatering. How long will construction dewatering occur for the nuclear islands? Provide groundwater isopleths derived from the modeling. Confirm that groundwater levels would be restored to pre-development conditions after the dewatering pumping ceases.
    b) Would any other substantial dewatering occur during construction (e.g., for makeup/blowdown pipelines, etc)? If so, describe the effect. Provide an analysis of the potential effect of any other dewatering on adjacent wetlands.
    c) Pumped water from construction dewatering will be “discharged to an infiltration basin sized for the estimated flow rate.” Clarify whether this infiltration basin would become part of the stormwater retention ponds that would ultimately handle operational stormwater runoff, or would it be a new pond located at a new site.

CREC Unit 3 Uprate

7. PEF Supplemental Response to NRC RAI 5.3.2.1-2:
    a) Does the Crystal River Energy Complex (CREC) Unit 3 power uprate project include plans for new transmission lines or transmission line upgrades? If new transmission lines or transmission line upgrades are planned, a description is needed to support the staff analysis of cumulative impacts.
    b) Previously, PEF indicated the CREC Unit 3 uprate application would be submitted to the Florida Department of Environmental Protection (FDEP) in the July/August 2009 timeframe. When was (will) the application submitted to FDEP?
    c) Previously, PEF indicated the CREC Unit 3 uprate application would be submitted to the NRC in the September/October 2009 timeframe. Is the application still anticipated to be submitted to NRC in September/October 2009?

Salt Drift

8. PEF Supplemental Response to NRC RAI 5.3.3.2-1:
    a) In response to staff prior inquiry, PEF located the 1992–1993 annual report for the Crystal River Salt Drift Study, the *12th year* of the study. Unfortunately, this annual report covered only a 3-month period of operation for the newly installed mechanical draft cooling towers (similar cooling towers as proposed for Levy). Clarify whether this was the final Salt Drift annual report prepared for CREC. The PEF RAI response and the ER text refer to a *14-year* study (1981-1995); and the FDEP letter granting termination of the salt drift study was dated March 20, 1996. This suggests that 1993–1994 and 1994–1995 annual reports may have been prepared that could provide several more years of data to aid in the interpretation of potential salt drift effects from mechanical draft cooling towers. Provide the 1994–95 report, if available.
    b) Did the CREC mechanical draft cooling towers have drift eliminators installed? Would the LNP cooling towers have drift eliminators? This information is required for staff to determine applicability of previous CREC studies to the LNP.