

## PMLevyCOLPEm Resource

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**From:** Bruner, Douglas  
**Sent:** Wednesday, April 18, 2012 7:43 AM  
**To:** Snead, Paul  
**Cc:** Hambrick, Gordon A SAJ; David Pritchett; Kitchen, Robert; Dierolf, Amy C.; LevyCOL Resource  
**Subject:** FW: Meeting Minutes for 04/11/12 Meeting in Crystal River  
**Attachments:** April 11 2012 Meeting Minutes.pdf

Paul,

The first page of the attached states that, "Handouts for the site tour are attached." Please provide electronic copies of the handouts.

Thanks,

Doug

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**From:** Snead, Paul [<mailto:paul.snead@pgnmail.com>]  
**Sent:** Tuesday, April 17, 2012 2:49 PM  
**To:** Hambrick, Gordon A SAJ  
**Cc:** DavidA Pritchett; Bruner, Douglas; Kitchen, Robert; Dierolf, Amy C.  
**Subject:** Meeting Minutes for 04/11/12 Meeting in Crystal River

Don:

As you requested, attached are meeting minutes for the April 11<sup>th</sup> tour and meeting in Crystal River regarding the Levy groundwater monitoring and testing plans. Please let us know if you would like us to modify or change the minutes after your review.

Thanks,

***Paul Snead***  
**Supervisor**  
**Environmental Services, Projects & Construction**  
**Progress Energy**  
[paul.snead@pgnmail.com](mailto:paul.snead@pgnmail.com)  
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**Hearing Identifier:** Levy\_County\_COL\_Public  
**Email Number:** 1056

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**Subject:** FW: Meeting Minutes for 04/11/12 Meeting in Crystal River  
**Sent Date:** 4/18/2012 7:42:48 AM  
**Received Date:** 4/18/2012 7:43:39 AM  
**From:** Bruner, Douglas

**Created By:** Douglas.Bruner@nrc.gov

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## Meeting Minutes

### Meeting Regarding Groundwater Hydrogeologic Testing and Monitoring Plans For PEF – Levy Nuclear Plant (SAJ-2008-00490)

Progress Energy & U.S. Army Corps of Engineers  
Crystal River, Florida

April 11, 2012

#### Attendees

##### Progress Energy Florida

Amy Dierolf  
Bob Kitchen  
Paul Snead

##### US Army Corps of Engineers

Oswaldo Collazo  
Don Hambrick  
Susan Kemp  
Russ Weeks  
Andy Loschiavo

##### Environmental Protection Agency

David Prichett

##### CH2MHill

Jim Bays  
Martha Burlingame  
Steve Eakin  
Jeff Lehnen  
Bill Marsh

##### Water Resource Associates

Pete Hubbell

##### Nuclear Regulatory Commission

Doug Bruner  
Peyton Doub  
Pat Madden  
Rajiv Prasad  
Mallecia Sutton

**Safety** – Meeting commenced at 8 am with a safety briefing.

**Site Tour** – A tour of the Levy site commenced about 8:30. Handouts for the site tour are attached. Several stops were made on the north property to provide a general overview of the site and proposed improvements. All 4 water production wells were visited on the south property. Several wetlands in the vicinity of the wells were observed. Once the tour was concluded, we returned to the conference room for the presentations.

#### **Presentations/Discussion**

##### **Draft Environmental Monitoring Plan (EMP)**

PEF had provided copies of the Draft EMP prior to the meeting. Additional copies of the EMP were provided as well as copies of the presentation slides.

##### **EMP Comments**

1. **USACE** asked for better reference to the definition of “isolated” wetlands with respect to Wetland Assessment Procedure (WAP). **USACE** recommended referencing definition from WAP manual or background minimum flow and level (MFL) documentation. The procedures manual states that the WAP procedure is only applicable to isolated cypress wetlands. This needs further clarification and documentation to demonstrate that its use is clearly appropriate for the LNP wetland systems.

**CH2M HILL** provided discussion of definition of “palustrine” wetland systems and the relationship to the term “isolated” as it applies to WAP and USACE jurisdictional determination. Citation will be provided in revision to EMP.

2. **USACE** asked about historical assessments and aerial photography required by WAP.

**CH2M HILL** responded that the collection of information and aerial photography of the assessment wetlands has already begun and will continue through implementation of the EMP.

3. **USACE** questioned why the EMP did not include the construction well.

CH2MHill responded that the construction well was on the north property and was too small and would only be used temporarily so an EMP was not required for it.

4. **USACE** raised concern about only evaluating hydrologic data for detecting trends towards harm versus the use of ecological data. Concern that high trophic level species were not be included in the wetland monitoring described in the EMP.

**CH2M HILL** responded by reiterating that through the WAP methodology, ecological parameters such as the transition of vegetation communities and the occurrence of wetland dependent species are monitored. We will make sure this is emphasized in the EMP. However, since these ecological parameters are expressions of a wetland’s hydrology, and the ecological parameters responses lag behind changes in hydrology, hydrology is a more appropriate parameter to measure trends towards harm since it is a leading indicator.

5. **USEPA** asked if the terms “trend” or “harm” could be better defined in the EMP. The discussion trended towards the application of the Southwest Florida Water Management District (SWFWMD) MFL levels to wetlands that are already impacted. **USACE** stated that the margin for management thresholds may be too narrow for application in impacted wetlands.

**CH2M HILL** responded by further describing the establishment of management thresholds and how they were set prior to harm occurring and that the final threshold is the level below which harm occurs. The discussion expanded to the SWFWMD and Tampa Bay Water (TBW) MFL establishment and where/when it has been implemented. **CH2M HILL** and **PEF** agreed to provide background resources for MFL establishment.

6. **Group** expressed concern two years might not be adequate as a baseline. **USACE** asked about the availability of any additional (nearby) background wetland monitoring or long term hydrologic monitoring. Also need a better definition of when baseline begins and ends (construction v production wells/and when production wells are installed or when they plant starts production).

**CH2M HILL** clarified that EMP referred to a minimum of two years for baseline and suggested an approach to investigate whether nearest regional rain gage, or well, lake or wetland water elevation long-term data set can be monitored concurrently during the baseline and thereby be used to extrapolate (hind-cast) historic records to create a synthetic baseline. Use of this approach is contingent upon availability of data.

- a. This approach has been used by SWFWMD to develop long-term records for setting MFLs.
- b. This approach could be used to estimate a long-term “confidence interval” around the p50 value.

7. **USEPA** asked that the decision flow chart diagram clarify that the thresholds on the figure are for healthy systems.

**CH2M HILL** agreed that text could be added to the figure to clarify.

8. **USACE** asked about using a range of frequency exceedence (p25, p75) for comparisons of baseline and operation period data. They further expressed that the p50 value may be too limiting of seasonal fluctuations.

**CH2M HILL** provided a discussion of the usage of the p50 value through the MFL establishment. **CH2M HILL** agreed to consider other frequency exceedence values for comparisons.

9. **USEPA** asked for clarification about how and when the comparisons of the p50 values will be made between baseline and operation periods, and asked if each year's p50 value becomes fixed for comparison.

**CH2MHILL** clarified the comparison methodology by defining the p50 value as a "running average" which is calculated for the entire period (baseline and operational). **CH2M HILL** provided clarification that the threshold comparisons between the operational and baseline periods are made on a quarterly basis. Actions then follow the decision flow chart. **USACE** requested that potential wetland monitoring transect locations be randomized as much as possible to capture a range of conditions within the study area.

**CH2M HILL** responded by agreeing that transect locations could be randomized to the extent possible prior to final field verification.

10. **USACE** requested that the term "startup" (page 15, Section 3.4.2) in regards to the baseline period be better defined.

**CH2MHILL** agreed to provide clarification in the text as to when the baseline period ends and the operational period begins.

11. **USACE** asked what specific statistical analyses will be used to investigate trends in hydrological data.

**CH2M HILL** agreed to update text to propose specific analyses.

12. **Group** indicated the need to separate the ongoing ecological response to existing (long-term) hydrologic alteration from potential well field effects.

**CH2M HILL** suggested a preliminary approach that another reference and control wetland could be located outside of well field drawdown but in same zone of property of barge-canal effect for comparison. This might be in the area south of County Road 40 or otherwise located within the southern edge of the property.

13. **Group** asked that examples of how the p50 method and WAP monitoring has been used for well field monitoring elsewhere be provided.

**CH2MHILL** and **PEF** agreed to provide background resources on this topic.

14. **Group** asked for the background resources on basis of selection for the preliminary p50 threshold values for the EMP.

**CH2MHILL** and **PEF** agreed to provide background resources on this topic.

15. On "adaptive management" the **USEPA** asked to better describe the "transition" process and steps for implementing the alternative water supply, should the threshold be triggered.

**CH2M HILL** agreed to update the EMP to provide additional text describing this topic.

16. **USEPA** requested that **PEF** "tier" the proposed management strategies on EMP page 25 to show more clearly which would be implemented first. For example: Tier 1 – Strategies 1-3; Tier 2 –

Strategies 4 & 5; and Tier 3 - Strategy 6. The **USACE** also want an idea of how long some of these strategies may take to implement. For example, if we determine that a well needs to be abandoned and a new one drilled, how long would it take to modify the Water Use Permit (WUP) and bring the well into production?

**CH2M HILL** agreed to update the EMP to provide additional clarity.

17. **USACE recommended** that the EMP be made as defensible as possible by fortifying it with references to research (ex. Water Management Districts and USGS) as to wetland drawdown effects and thresholds and citations to sources be readily provided.

**CH2M HILL** agreed to provide additional references, citations, and examples.

### **Draft Aquifer Performance Test**

PEF had provided copies of the Draft Aquifer Performance Test (APT) prior to the meeting. Additional copies of the APT were provided as well as copies of the presentation slides.

### **Follow Up**

- PEF offered to meet again with the Corps after their review of the draft plans if they had additional questions.
- PEF will provide meeting minutes to the USACE.
- PEF and CH2M HILL will provide the Corps with background resources including water management district reference documents as noted in items 5, 13, and 14 above.
- CH2M HILL will provide clarifications and updates in the final revision to the EMP as noted in items 1, 4, 6, 7, 8, 9, 10, 11, 12, 15, 16, and 17 above.
- USACE will attempt to provide feedback to PEF on the APT and EMP plans within 3 weeks of the meeting.