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To: St. Johns River Water Management District

From: Lee Wilson, Ph.D.

Date: August 10, 2009

Re: Minimum Levels Reevaluation, Lake Hiawassee, Orange County, Florida

On March 20 I provided initial comments on the data, methodologies and assumptions related to MFL development for several lakes, including Lake Hiawassee. A response to my initial comments and to those of other peer reviewers has now been provided. That response, dated July 8 2009, was accompanied by a revised report.

SJRWMD staff has done a good job in responding to my prior comments. For most instances where I might prefer a bit more be done, I don't see it necessary or appropriate that additional changes to the reports be made at this time. I have limited my comments to a few substantive issues, mostly for the record for the next round of reports, and to a few editorial matters specific to the Lake Hiawassee report. I do not anticipate any need for further review on my part and believe that once editorial changes are finished, the reports are ready to go public.

1. By far the most important aspect of the MFL reports is the need to give further thought to the issue of how much change should be allowed. There is a systematic outcome of these MFLs which will allow significantly less inundation, especially for the FH. The response to my concern about the "less inundation is okay" underpinning of the MFLs was

interesting and one I hope we will have a chance to discuss at some future time. In particular, while I agree with the response that the system is not steady state, that doesn't mean that systemic changes can be dismissed. We need some field data on modified systems to really figure this out.

2. The rewrites generally responded well to my request that the reports demonstrate an understanding of essential cause-effect hydrologic relationships for each lake. Certainly the information added to the Lake Hiawasse Lake report was helpful.
3. Regarding my general comment on the need to explain how sand hill lake hydrology relates to soils and vegetation, the response documents indicate that the reports have been substantially changed. The Lake Hiawasse report did a good job in this respect, though I wasn't clear about why Sylvan Lake was referenced in the response document.
4. Over and above the issue in No. 1, there is a need for the reports to explain the logic of what is being proposed, i.e. to justify the changes (even if I don't agree with them!). Hiawasse could be improved in this respect; refer to Sylvan Lake for a discussion that was more convincing.
5. Regarding my comment on the inconsistent organization of reports, the new versions are better but still show a fair amount of variation. There were many responses that attribute this problem (and other editorial issues) to an outside force. I'm not sure what your peer reviewers can do to help staff in this regard, but feel free to offer me up as an advocate for common sense and good practice, if that would help.
6. The reports generally did well in improving the executive summaries, the discussions of soils and land use, and more. I also appreciate the commitment to further improvements on future reports.
7. For future reference, it appears my comment regarding Figure 1 was not clear, as the response was not what I expected. My recommendation is that the hypothetical relationship in Figure 1 be made real in a separate figure, in which the actual exceedence curve is compared to one that has the frequency characteristics allowed by the proposed MFLs.
8. I was quite astonished (and very pleased) with the amount of information now presented on the 10 factors. The Hiawasse report was notable for not including the matrix table, which was a useful part of the other reports. Also, given the intensity of development at the lake, I wonder about the applicability of the general survey results as to what users will accept.
9. Some general comments on the 10 factors are as follows. First, I suggest some sort of continuation title for multi-page tables. Second, the District may want to reconsider whether it wants to conclude that recreation water depths are adequate for "safe operation" given the lack of substantive analysis. Third, I'm not sure "navigation" shouldn't be NA given all the issues are covered under recreation.

10. I appreciate the new compliance discussion. I still am concerned that the current approach is not sufficiently clear in explaining the extent to which pumping controls lake water levels, and not sufficiently transparent in revealing the implications of the MFLs to the regulatory community.
11. With respect to SWIDs, the general response indicated that more explanations were included in the methods section of each report.
12. My comments that were specific to Lake Hiawassee all seem to have been addressed sufficiently for now, although there is still no land use map. Good job especially in trimming the Executive Summary.
13. Note there is a font problem at the top of p. 6.
14. As a general comment, I thought the approach whereby the peer review was done as a team effort accomplished effective interactions that benefitted the final product. [I'm not endorsing the requirements to fit our comments into a pre-fab matrix, but rather that we were required to develop a consensus.] Perhaps the review process has matured to the point of no longer needing that approach, but this time around I thought working in isolation wasn't as effective.