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To: St. Johns River Water Management District

From: Lee Wilson, Ph.D.

Date: August 10, 2009

Re: Minimum Levels Reevaluation, Indian Lake, Volusia County, Florida

On March 20 I provided initial comments on the data, methodologies and assumptions related to MFL development for several lakes, including Indian Lake. 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 Indian Lake 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 Indian 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 Indian Lake report did a good job in this respect, though I found the discussion of "classification" buried a bit deeply, and thought that overall the write-up was not as enlightening as some other lake rewrites (e.g. Sylvan).
4. The response document indicates that "Indian Lake is very unusual for its lake class in that it has extensive areas of deep organics. As a result, a minimum average level was set focusing on protection of these soils". This is an important point; however the report itself does not make this linkage as clear as it is made in the response.
5. 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!). Indian Lake is much improved, but could be better still. Sylvan Lake is perhaps the best model in this regard.
6. 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.
7. 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. For Indian lake, I particularly appreciate the text tables which summarize the criteria and hope the concept will be incorporated into the master guidance for any future MFL report.
8. 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.

9. I was quite astonished (and very pleased) with the amount of information now presented on the 10 factors. For Indian Lake, I note the acronym WRV is used (twice) without definition.
10. 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.
11. 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.
12. I now understand the importance of organic soil protection at Indian Lake, but am a bit confused as to how an MFL of 35.0 relates to such soils given the steepness of the stage curve at that elevation.
13. With respect to SWIDs, the general response indicated that more explanations were included in the methods section of each report. I didn’t find that for Indian Lake. Which is okay if they were not used.
14. My comments that were specific to Indian lake all seem to have been addressed sufficiently for now.
15. Not sure you need the new paragraph on page 2 (it is also on p. 13).
16. There are two extra words, “An explanation”, at the bottom of p. 15.
17. Finally, as I complete this assignment I wonder if we did better under the old approach whereby the peer review was done as a team effort. I’m not endorsing the part of that approach whereby we had to fill out a pre-fab matrix, but rather that the process required more effective interactions that benefitted the final product. Working in isolation this time around was not as satisfying and perhaps it was less effective.