TECHNICAL MEMORANDUM

DATE: May 8, 2020

TO: Fatih Gordu, PE, Chief Water Resource Engineer
Division of Water Supply Planning & Assessment

THROUGH: Sherry Brandt-Williams, Ph.D., Bureau Chief
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FROM: Anne Elise Wester, Ph.D., Engineer III
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SUBJECT: Peer Review Response Lake Sylvan Model Reports

This technical memorandum provides responses to peer review comments provided by Dynamic Solutions on 1/21/2020 (Dynamic Solutions, 2020). Peer review comments were based on a review of hydrologic model development for Sylvan Lake Minimum Flows and Levels (MFLs). The following documentation and files provided by the District were peer reviewed:

- Lake Sylvan MFL Evaluation (CDM Smith, 2017)
- Lake Sylvan Long-term Simulation (Wester and Jobes, 2019)

Below are the peer review comments followed by our responses.

Comment #1. *Correct the Outflow Pre-Construction column of the FTABLE for Lake Sylvan in Table 4 by using the values in the model UCI file*

Response #1. The FTABLE for Sylvan Lake, including the outflow pre-construction column, represented in Table 4 is the same as the FTABLE used in the model UCI file. An earlier version of the CDM Smith Appendix B report had the incorrect values, but it had been updated since.

Comment #2. *Table 3 of Appendix A (CDM Smith, 2017) appears to present the percentage of the Sylvan Lake study area for each land use category for the whole basin shown in Figure 4 of Appendix A, rather than the area directly contributing to Lake Sylvan as the report stated*

Response #2. The caption for Table 3 states “Percentage of Sylvan Lake Study Area in each Land Use Category”, which implies that there was a typographic error. The original sentence on page 7 under Figure 5 (CDM Smith 2017 Appendix A), “Table 3 summarizes the land use in the area that is considered to be contributing directly to Sylvan Lake, subdivided into the 13 standard land use categories that have been used for HSPF modeling by the District.”, should have been, “Table 3

summarizes the land use in the study area, subdivided into the 13 standard land use categories that have been used for HSPF modeling by the District."

Comment #3. *Discuss and identify the topographic data used for development of the tributary areas/basin boundaries*

Response #3. Drainage boundary delineation was discussed in the section titled Tributary Basin Boundary in CDM Smith's Appendix A Task A Letter Report (page 13 and 14). In addition, the topographic map of the proposed basin boundaries is provided in Figure 4.

Comment #4. *Provide a reference for the 2005 HSPF hydrologic model in the letter report of Lake Sylvan MFL Evaluation (CDM Smith, 2017)*

Response #4. Thank you for the suggestion. The reference for the 2005 HSPF hydrologic model was added to the end of the Long-term simulation technical memorandum as follows:
"Intera 2005. *Minimum Levels Reevaluation: Sylvan Lake, Seminole County, FL Model Review*. Prepared for SJRWMD"

No comments were received on Lake Sylvan Long-term Simulation (Wester and Jobes, 2019).

References

CDM Smith (2017). *Lake Sylvan MFL Evaluation*. Prepared for SJRWMD

Wester, A. and Jobes, T. (2019). *Lake Sylvan Long-term Simulation*. St. Johns River Water Management District.