



Memorandum

To: *Florida Department of Environmental Protection*

From: *CDM Smith*

Date: *March 19, 2024*

Subject: *Lake Toho NRP Water Quality Assessment – Responses to FDEP Review Comments*

On December 11, 2023, the Lake Tohopekaliga Nutrient Reduction Plan (NRP) Basin Working Group submitted the draft water quality assessment technical memorandum to the Florida Department of Environmental Protection (FDEP) for review and comment. The water quality assessment summarized trend analyses using ambient water quality data collected over the past 10 years. FDEP provided review comments on January 23, 2024 which are captured in the bullets below with responses provided by the Basin Working Group.

- Comment No.1, Page 1, 1st paragraph: Recommend changing the word "modify" to "revise".
 - Response: This has been revised.
- Comment No.2, Page 1, 1st paragraph: Recommend changing the word "advent" to "adoption".
 - Response: This has been revised.
- Comment No. 3, Page 3, Table 2: Has biological sampling (in-lake: lake vegetation index (LVI)) and (in tributaries: Rapid Periphyton Survey (RPS) and linear vegetation survey (LVS)) as well as corrected chlorophyll-a for the tributaries been considered?
 - In 2010, the FDEP determined that the cause of impairment for Lake Toho was due to an imbalance of flora, based on abundant hydrilla. The development of the original and updated monitoring plan was based on this premise and was a collaborative effort between FDEP and the basin stakeholders. The NRP established that the management of in-lake concerns for Lake Toho (i.e., lake levels, hydrilla control, habitat improvement) is the responsibility of the state agencies with consideration and input from local municipalities. In the monitoring plan approved by FDEP, stakeholders agreed to monitor nutrient inputs into the lake as a concession. Biological sampling (i.e., LVI, RPS and LVS) was not considered, as the original intent of the NRP monitoring plan was to focus on parameters the stakeholders could control (i.e., land-based pollutants from their respective jurisdictions that are discharged into the tributaries and the lake itself). The core parameters selected are directly related to the parameters FDEP believed to be causing the impairment in Lake Toho. In-lake sampling of Lake Toho and East Lake Toho is conducted by the South Florida Water Management District (SFWMD) and not the municipal stakeholders.
 - Sampling of chlorophyll-a in tributaries was also not considered based on the original intent of the monitoring plan as discussed above. Due to the nature of the low flow tributaries in the watershed (of which many locations are channelized), there is concern by the

stakeholders about the validity of chlorophyll-a samples collected from these types of systems. For chlorophyll-a data collected in tributaries as part of NPDES MS4 permit requirements, stakeholders have observed high variability between sample results and quality control duplicate samples. Due to the observed lack of flow at many of the locations, there is also concern that sampling results may be influenced by downstream lakes based on proximity. For these reasons, the stakeholders have not considered the inclusion of chlorophyll-a in tributaries.

- Comment No. 4, Page 7, Table 5: We recommend also calculating the geometric means for the tributaries to be consistent with the IWR rule.
 - Response: Table 5 has been revised to include the geometric means.
- Comment No. 5, Page 7, Table 5: WBID 3171E (Hart Branch) has been retired and the geographical area has been revised to include multiple new WBIDs. Station locations may have changed.
 - Response: The Basin Working Group acknowledges that WBID boundaries have changed since the approval of the Lake Toho NRP. As the water quality trend analysis results are reported by WBID, a decision was made to retain the original WBID boundaries to be able to compare trends over time to determine if changes have occurred. Comparing the current WBIDs with the original NRP WBIDs, the most significant change is in the Hart Branch WBID (original WBID 3171E). Other WBID boundary adjustments are minor. As WBIDs change over time (and will continue to change), the monitoring plan will require continuous adjustments and the ability to perform an “apples to apples” comparison for trend analysis will be diminished. The memorandum will be revised to include an explanation of why the original WBID boundaries were maintained.
- Comment No. 6, Page 8, Figure 1: The NRP WBIDs have been modified.
 - Response: See response to Comment No. 5.
- Comment No. 7, Page 9, Table 6: Recommend including the criterion range for TN and TP for high color lakes.
 - Response: Table 6 has been revised to include the range the criterion range for TN and TP for high color lakes.
- Comment No. 8, Page 9, Table 6: Recommend changing the word "threshold" to "criteria".
 - Response: This has been revised.
- Comment No. 9, Page 9: In addition to this analysis, the lake WBIDs are attaining the applicable NNC for high color lakes. Based on DEP's most recent biennial assessment cycle (2022-2024), these lakes are not impaired.
 - Response: Acknowledged.