

Responding to Draft TMDLs – A successful Approach to Municipal-led Restoration Planning for Lake Orlando

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Abstract

The Florida Department of Environmental Protection is responsible for developing TMDLs for potentially dozens of impaired waters each year, often with limited data, resources, and background knowledge of the impaired system. As an alternative, municipalities that have invested in understanding the drivers of the impairment and commit to sound water quality planning through leadership efforts, can be empowered to develop municipal-led restoration activities without the adoption of a TMDL.

This presentation is a case study of Lake Orlando, a large lake in northwestern Orlando that is part of the Little Wekiva Watershed. In April 2019, FDEP published a draft TMDL for Lake Orlando, which is impaired for chlorophyll a, total nitrogen (TN), and total phosphorus (TP). The City of Orlando, with support from Orange County, directed their engineering and environmental consultants to perform a rapid peer review of the draft TMDL document to assess its validity and suitability to be used as a basis for future environmental restoration activities. Using available information collected and compiled by the City and County over a decade, the consultants were able to document numerous inconsistencies between this information and the assumptions and methodologies used in the draft-TMDL, concluding that the draft TMDL likely overestimated hydrologic and pollutant load inputs, overestimated the required TN and TP reductions required by the NPDES MS4 permittees, and did not consider potentially important loading sources including internal recycling and a large water fowl population thought to import nutrients to the lake.

Responding to the draft TMDL during the public comment period, the City of Orlando, in coordination with FDEP, was able to halt TMDL rulemaking for Lake Orlando and pursue a reasonable assurance plan (Type 4e, Impaired but restoration ongoing). During the 4e process, the City and County plan to coordinate a municipal-led alternative restoration strategy related to the impairment of nutrients and biology that may include avoiding TMDL rulemaking. This potential outcome is only made possible by the continued environmental planning, monitoring, and analyses performed at the lake and watershed level to develop an ecosystem-level approach to achieve agreed-upon restoration outcomes.