Project Name: Lake Yale Basin Study
Client: Lake County Public Works

Lake Yale is part of the upper Ocklawaha Chain of Lakes, and discharges into Lake Griffin near the mouth of the Ocklawaha River. A TMDL has been established for Lake Yale equating to a 10% reduction in phosphorus from stormwater runoff sources. The Lake Yale Basin Study was undertaken to address reduction of pollutant loads from stormwater entering Lake Yale from the approximately 50+ square mile contributing area. The project goal was to identify the priority pollutant contribution areas and conceptualize Best Management Practices (BMPs) that could be implemented to reduce pollutant loadings from surface runoff.

The project was undertaken in three main tasks. The first was a data collection task which included a detailed drainage infrastructure inventory throughout the basin area. The second phase was to develop a detailed pollutant model to identify priority subbasins which contribute phosphorus and other pollutants to the lake. This task included a detailed delineation of subbasins and analysis of land uses and soil types using GIS tools. The third task of the project was to conceptualize BMP projects that could be implemented in the priority subbasins to reduce phosphorus loadings. Recommended BMPs included wet detention ponds, enhanced swales, water quality units and wetland enhancement. The BMP recommendations were prioritized to achieve compliance with the TMDL goal if fully implemented.

A Technical Advisory Committee (TAC) of interested stakeholders was formed at the beginning of the project to guide the project's progress. Representatives from Lake County, the Lake County Water Authority, the St. Johns River Water Management District, the City of Eustis, the City of Umatilla, and the Florida Department of Transportation attended the meetings and provided input into the conceptualization of improvement projects.