

West Waterhole



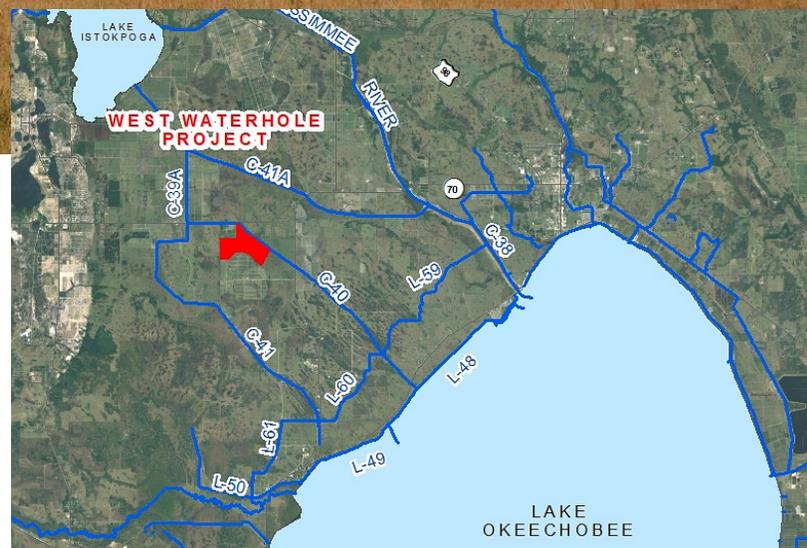
West Waterhole by Linda McCarthy

THE CHALLENGE

The phosphorus concentration in Lake Okeechobee has doubled since the 1970s and the total inflow of phosphorus is four times the regulatory target load set by the Florida Department of Environmental Protection. A Basin Management Action Plan (BMAP) has been adopted for Lake Okeechobee with the goal of reducing the average inflow of phosphorus in surface water from 420 to 105 metric tons a year.

THE SETTING

The Indian Prairie/Lake Istokpoga sub watershed was identified as one of the largest contributors of phosphorus to the Lake with 20% of the 420 metric tons coming from this basin. The West Waterhole (WWH) Project was initiated in 2006 as part of the Florida Ranchlands Environmental Services Project (FRESP) to remove excess nutrients from the water in the Indian Prairie Canal (IPC) before it enters Lake Okeechobee.



THE PROJECT

The project encompasses approximately 2,500 acres located in the Indian Prairie Basin, south of SR 70 and west of the Lykes Ranch headquarters at Brighton. IPC water is pumped into the project at the northeastern edge and runs south through the site before being returned, post-treatment to the canal further downstream.

THE BENEFITS

The goal of the project is to remove phosphorus from (off-ranch) water in the C-40 Canal. The West Waterhole FRESP

agreement has been extended until September 2020 by South Florida Water Management District (SFWMD).

The project has removed a total of 58.3 metric tons of phosphorus and 223 metric tons of nitrogen from C-40 Canal water from 2008-2016, capturing and retaining an average of 86% of the phosphorus and 47% of the nitrogen upstream of Lake Okeechobee. Phosphorus removal routinely exceeds the initial estimates with an annual average removal rate of 7.3 metric tons per year (versus the original estimate of 0.2 metric tons per year). The project has operated an average of 10 weeks per year for the last 8 years.



Great Egret by Linda McCarthy



Wood Storks by Linda McCarthy

ABOUT LYKES

Lykes Bros. is the largest private property owner in the Lake Okeechobee watershed and one of the largest in Florida, managing more than 300,000 acres for agriculture and conservation. Because of the size and location of the Lykes Ranch, it is not possible to meet the phosphorus reduction goals for Lake Okeechobee without locating significant projects on Lykes Property. Lykes is a proud partner with SFWMD on two water storage projects, West Waterhole Project and Nicodemus Slough, and is pursuing development of a third project called Brighton Valley. The hallmark of the Lykes-SFWMD joint projects is relatively low cost, early implementation, opportunity, and flexibility of operational management. Lykes is an efficient and important cooperative partner in reaching both water quality and upstream water storage goals for Lake Okeechobee.