

LYKES LAND & WATER RESOURCES PROJECTS

Brighton Valley

LARGE-SCALE STORMWATER STORAGE AND TREATMENT FOR LAKE OKEECHOBEE

The Brighton Valley Project is an 8,143-acre stormwater storage and treatment initiative on Lykes Ranch—one of the largest and most significant nutrient reduction projects in the Lake Okeechobee watershed. Designated a Basin Management Action Plan (BMAP) priority project, Brighton Valley treats stormwater before it enters the lake, reduces phosphorus and nitrogen loads, and helps manage lake levels to lessen harmful releases to coastal estuaries.

THE CHALLENGE

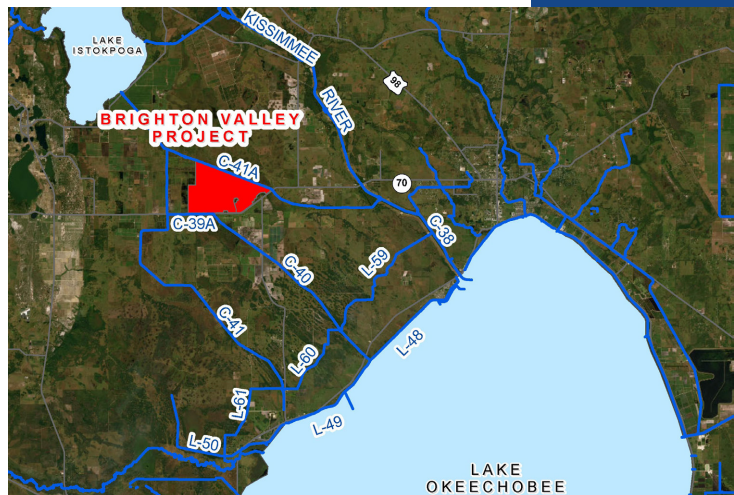
Elevated nutrient levels are a serious problem for Lake Okeechobee, affecting natural and human communities downstream—including coastal areas—when water is released from the lake. A Basin Management Action Plan has been adopted in accordance with the federal Clean Water Act, with a target of reducing average phosphorus inflow from 355 to 105 metric tons per year. Meeting this goal requires multiple innovative solutions.

THE SETTING

The Indian Prairie/Lake Istokpoga sub-watershed is one of the largest contributors of phosphorus to Lake Okeechobee, accounting for 24 percent of the total phosphorus load. Brighton Valley's unique location makes it one of the most significant, rapid, and cost-effective projects available to help achieve nutrient reduction targets.

THE PROJECT

Brighton Valley is a large-scale stormwater storage and treatment project designed to capture significant nutrients and help manage Lake Okeechobee levels and regulatory releases. The operational phase began in April 2020.



THE RESULTS

During its first five years of operation, Brighton Valley has treated an average of 94,000 acre-feet of stormwater annually before it enters the lake. The project reduces the phosphorus load to Lake Okeechobee by an average of 2.5 metric tons per year and the nitrogen load by an average of 35 metric tons per year—while lessening the need for high-water releases to the estuaries.

Like the Nicodemus Slough project, Brighton Valley retains rainfall and conserves excess surface water for beneficial uses that would otherwise be lost to tide. The project is comparable or lower in cost to other existing projects on private lands, making it a cost-efficient tool for nutrient reduction. Similar project experience has also shown direct benefits to wading birds and wetland-dependent species.

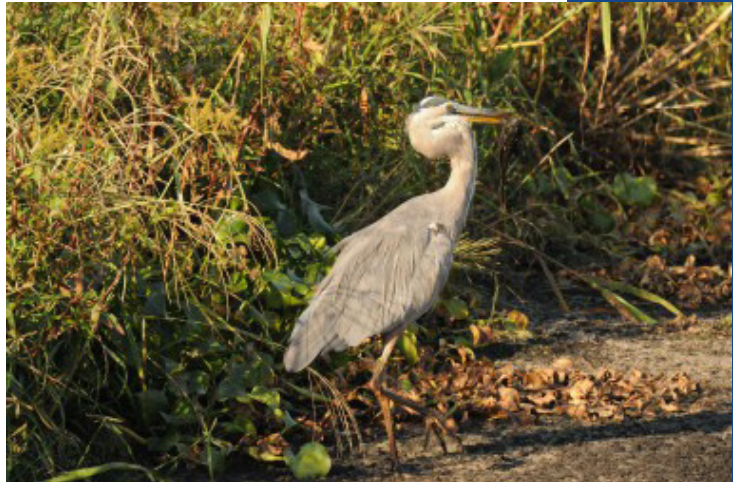


Deer by Linda McCarthy

A PROVEN PARTNERSHIP

Lykes Bros. Inc. is the largest private property owner in the Lake Okeechobee watershed and one of the largest in Florida, managing more than 339,000 acres for agriculture and conservation. The size and location of Lykes Ranch make it a logical and important site for regional water projects.

The Company is a proud partner with South Florida Water Management District on three water projects: the West Waterhole Project, Nicodemus Slough, and Brighton Valley. The hallmark of these Lykes-SFWMD partnerships is cost effectiveness, early implementation, strategic location, and flexible operational management. Lykes Bros. Inc. is an efficient and important cooperative partner in reaching both water quality and water storage goals for Lake Okeechobee.



Great Blue Heron by Linda McCarthy