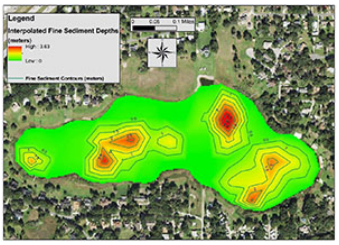
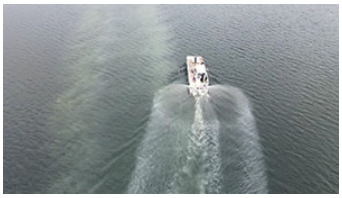
Polk County Projects Catalog

Lake Deeson Sediment Inactivation Project

Project Type	Sediment Inactivation
Status	Construction Pending
Description	The County has developed a water quality restoration plan for Lake Deeson with the priority project being sediment treatment. In many lakes in Polk County, legacy sediment is the main cause of poor lake water quality (i.e., sediment is constantly releasing phosphorus into the lake water). The Lake Deeson project will apply a phosphorus binding material to the lake thereby inactivating the phosphorus in the sediment and improving water quality. The County will apply ~125,000 pounds of lanthanum based product to mitigate an estimated 2,500 lbs. of phosphorus in the top 4-cm of sediment. A slurry will be applied evenly over the surface of the lake. Once applied, the lanthanum ions sorbed to the clay matrix react preferentially with free phosphate compounds in water removing soluble reactive phosphorus (SRP) and rapidly forms a highly stable insoluble mineral. The resulting mineral complex becomes integrated as an inert component into the natural sediments of the waterbody and is not bioavailable.
Completion Date	October 1, 2025

Site Photo(s)





Pollution Reduction Estimates

	Load Reductions (lbs.)				
WBID	**TN (lbs/yr)**	**TP (lbs/yr)**	**TSS (lbs/yr)**	**BOD**	**Fecal coliform (%)**
LAKE DEESON (1449A)					

Site Location