

Cost/Benefit of Implementing the Healthy Lakes Initiative

Healthy Lakes Initiative -- The purpose of this Initiative is to obtain ecologically stable ecosystems that are sustainable with minimal maintenance and reduction in chemical dependence, and to maintain aesthetically pleasing lakes that attract a diversity of shorebirds and flowering vegetation.

Current Situation of Our Lakes – Heritage Oaks has 25 lakes (or stormwater ponds) and 9 wetland/preservation areas. Our focus for the Healthy Lakes Initiative is the stormwater ponds. Our lakes are currently managed with monthly inspection by a professional Lake Management firm which uses chemical treatment in the form of herbicides to control noxious algal blooms and other invasive vegetation. Prior to the Healthy Lakes Initiative, our landscaping was to mow/trim to the edge of the water as we do with our lawns. The result was that our lakes are chemically dependent and run the risk of depleted oxygen causing fish kills. This maintenance also resulted in a substantial amount of bank erosion and soil loss requiring bank stabilization actions currently using installation of geotextile tubing to enclose sediment pulled from the lake bottom. Our estimate for this action was originally 1.3 million dollars; however, the cost has risen by 21%, and we know of future increases as we proceed with the project. With uncertainty on the longevity of the tubing, this procedure may require repeating sometime in the next 30 years, much as we do with our roofs. While we do have shorebirds around our lakes, the depauperate numbers indicate a struggle for them to find suitable habitat and feeding options.

Cost Savings for Stabilizing Our Banks – By developing a no mower zone (or buffer zone) along the perimeter of each of our lakes, we stabilize the banks by keeping the heavy equipment off the bank edges (particularly important where we have already installed geotextile tubing) and allowing the root structure of the turf to grow in proportion to its height thus strengthening the bank structure. This no-cost action will greatly reduce the need and expenditure for the geotextile tubing (currently \$55-75/linear ft).



Tubing to Stabilize the Bank

Cost Savings for Decreasing our Chemical Dependence – By creating a buffer zone of turf, the runoff of fertilizer and pesticides is minimized. In addition, the lessening of grass clippings and other organics in our waterbodies decreases the depletion of oxygen and algal blooms. The Healthy Lakes Initiative is also implementing aquatic plantings (currently \$3.75/linear ft) in various sections of our lakes to better utilize nitrogen and phosphorus in our waters, obtain a healthier water quality, and provide an ecological habitat for fish and other wildlife including our shorebirds. This minimizes the cost of chemical input into our lakes thus making our lakes sustainable.

End Result of a Healthy Lakes Initiative – Our stormwater ponds or lakes will become more ecologically independent with a cost savings realized by Heritage Oaks. Our outflow to the Dona Bay watershed is improved in water quality and adheres to Sarasota County's recommendations to association management. Increased shorebird occurrence with improved habitat follows our interest in continuing to be recognized by the Audubon Society.