Healthy Lakes Initiative at Heritage Oaks

The purpose is to (1) Maintain aesthetically pleasing lakes that attract a diversity of shorebirds and flowering vegetation, (2) Obtain ecologically stable ecosystems that are sustainable with minimal maintenance and reduction in chemical dependence, and (3) Provides a system that reduces noxious algae and periodic fish kills due to an imbalance in the oxygen and chemical makeup through an Ecosystem Balance Management Plan.

Benefits of No Mower or Buffer Zones (Low Maintenance Zones of reduced mowing and grass cutting) *{Recommend as wide as the geotextile tubing underneath, and height no more than 6-8" above natural grass height}*

- Protect and stabilize the shoreline against overland erosion (rain, irrigation, mechanical).
- Reduce bank failure and soil loss through increased root growth to stabilize banks.
- Keep the heavy lawn equipment off the banks, particularly where the geotextile tubing is installed.
- The last line of defense to pick up excess nutrients from lawn and landscape areas.
- Reduce influx of organic matter such as grass clippings, leaf litter, etc.

Benefits of Littoral Shelf plantings (submerged and emergent vegetation)
{Recommend emergent vegetation to be both height and depth limited for aesthetics}

- Maintain a desirable "macrophyte" based ecosystem rather than an undesirable "algae" dominated ecosystem.
- Contribute to better water clarity than algae-based.
- Protect against bank erosion due to wave action; shade/protect installed bank geo tubing.
- Help settle suspended solids when the waves do kick up sediment, or when transported via upland forces.
- Provide critical habitat for fish and other aquatic critters, particularly for nursery and reproductive functions, shelter, and food source.
- Help with the cycling of nutrients out of the pond.
- Shade the water and compete for the same nutrients as algae.
- These plants attract shorebirds and can provide nesting habitat for birds as well as food concentration.