

# Littoral Zone Scorecard

The Littoral Zone scorecard enables users to rank the health of their ponds and prioritize enhancement efforts. By examining the pond's structure, users will get a better idea of the pond's ability to provide

essential environmental benefits such as bank stability, improving water quality, and providing the physical habitat needed for wildlife.

## Description of the Selected Parameters

The parameters of this scorecard will guide users through a series of observations to determine whether pond best practices have been implemented and to what degree. It is recommended that you complete the scorecard in teams of two or more for discussion, consensus, and to limit subjectivity. A pond with an

“optimal” condition for both the buffer and littoral zones is likely the best one could expect. A diverse fish assemblage, a vibrant bird community, and the water quality necessary for reducing chemical inputs and protecting downstream waters would be expected in these ponds.

### Littoral Zone Coverage

The littoral zone is the portion of the waterbody that is shallow enough to accommodate aquatic plants. Typically, this zone is less than 5 feet deep. The littoral zone is critical to ecosystem sustainability, providing refuge, nursery function, and sources of food for much of the aquatic life. The zone also functions to break up shoreline damaging waves and remove nutrient pollution. This parameter is based on the extent of the littoral zone within the pond regardless of whether it contains plants.

### Littoral Zone Plant Abundance

In order to have a healthy littoral zone that provides the full suite of ecosystem services to your neighborhood and watershed, plants must be abundant. Sarasota County ordinance requires at least 65% of the littoral zone to be planted, and Harvey and Baker (2007) recommend the entire zone be planted with a combination of submerged and emergent vegetation. The score for this parameter is based on the percent of aquatic plant coverage in the littoral zone.

### Native Plant Diversity

Native aquatic vegetation is assessed in this parameter. Diverse native vegetation provides an optimal structure for a variety of native fish and other aquatic life. The percent coverage by invasive plants in the littoral zone is scored in this parameter.

### Invasive Plant Abundance

When aggressive non-native plants spread into aquatic areas, they displace native plants and disrupt natural processes. These invaders can outcompete native plants that provide food and important physical structure for aquatic life.

### Overall Plant Coverage Aquatic Plant Coverage

Research and observations suggest that neither too many, nor too little, plant coverage is good for healthy fish populations within ponds and lakes. This parameter looks at aquatic plant coverage across the entire surface area of the pond. Studies suggest that the optimal plant coverage range for healthy fish populations is between 15-85% (Florida LAKEWATCH, 2007).







# Overall Plant Coverage

**Optimal:** All aquatic plants (submerged, emergent, and floating) occupy more than 30%, but less than 85%, of the total surface area of the pond.

**Poor:** All aquatic plants (submerged, emergent and floating) occupy less than 30% or more than 85% of the total surface area of the pond.

**Examine the entire footprint of the pond and determine how much of the pond area is covered by aquatic vegetation.**

Plant Coverage	< 30% or > 85%	> 30% but < 85%
<b>Score</b>	1	4
		
Plant Coverage	○	○

## Total score \_\_\_\_\_

**Poor condition (< or = 10 points)** suggests the need to enhance your littoral zone by installing a variety of Florida native aquatic plants and controlling invasive species.

**Marginal condition (10.5 - 15.5 points)** suggests there are many opportunities for improvement by installing a variety of Florida native aquatic plants and reducing the impact of invasive species.

**Suboptimal condition (15 - 19 points)** suggests fair condition and modest improvements would likely enrich the pond ecosystem and enhance the production of environmental benefits.

**Optimal condition (19.5 - 24)** suggests that the pond is producing peak environmental benefits that lend to healthy and abundant wildlife, shoreline stabilization, and the removal of stormwater pollutants.