

Turtle Rock Pond Management: A Brief Policy Summary

Turtle Rock Natural Assets Committee has a mandate from the Board of Governors to monitor and manage the community's 31 stormwater retention ponds.

The primary function of the retention ponds is flood control. The committee helps to assure the retention ponds function as designed by Sarasota County in conjunction with Palmer Ranch Master Development Plan to promote ecologically healthier ponds. The committee also strives to mitigate shoreline erosion behind homes.

Key to these efforts are planting and maintaining aquatic plants on littoral shelves and along pond shorelines; maintaining grass borders known as low maintenance zones (LMZs); and in severe cases of erosion, shoreline restoration.

Aquatic plants: Aquatic plants efficiently filter pond water and improve its quality. The Palmer Ranch Environmental Technical Manual requires a littoral shelf of no less than thirty percent of each stormwater retention pond or series of interconnected ponds. It also requires that at least three beneficial native species be maintained throughout each littoral zone. Having aquatic plants supports the food chain, allowing birds and other wildlife to live in and near the ponds. Pond plants help mitigate algae blooms, too.

LMZs: Current research specifies that an approximately two-foot-wide LMZ maintained at approximately 8-12 inches high reduces runoff and shoreline erosion. The committee maintains these specifications for Turtle Rock's LMZs.

Shoreline erosion restoration: The first phase of the shoreline restoration program is underway. The committee has categorized erosion based on recorded vertical drop-off measurements (Tiers 1-3). The most severe (Tier 1) are being addressed. Only those portions of shoreline that are badly eroded have been or will be recommended for restoration.

Challenges: Algae blooms, fish die-offs beyond natural attrition, or growth of non-native or invasive plants such as cattails are reviewed and removed as needed. Existing plant growth on littoral shelves is largely required to meet county standards and committee specifications for healthy ponds. Floating vegetation is often mistaken for grass clippings, when it is more likely to be beneficial native tape grass that has been severed by fish nibbling near the base of the stems.

Treatment: The committee is mindful of the types and quantities of chemical treatment our vendors use, and such treatment is applied only when needed to control invasive plants. Having aquatic plants in place *reduces* the need for chemical treatment. Turtle Rock pond vendors also employ manual removal of plant matter when appropriate.

*Natural Assets Committee
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