



Sharing Erosion Control Experiences

Neighbors Helping Neighbors

By the Ponds & Preserves Committee

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The Chestnut Creek community, in nearby Venice, is facing serious pond shoreline erosion. Established in the late 1980's, this community has 670 homes, 25 lakes & ponds with five miles of shoreline. Deeply concerned in 2014, their Pond Committee chair reached out to Sarasota County, and several lake management and construction companies for various approaches and technologies to slow the erosion process and begin repairs.



Eldred pointing out shoreline erosion (2017)

In 2016, Chestnut Creek established a few pilot projects exploring different options. The previous Pond Committee chair and current chair, Eldred Schrofer, developed several 5 to 10-year plans with costs nearing a million dollars.

Finally, Eldred and their Pond Committee convinced the Board of Directors in 2017 that a Professional Engineer was needed to assess the entire system and provide a ten-year prioritized plan with costs; a staggering \$3.5 million. Convincing the entire community (over 300 individual homeowners and 3 sub-HOAs) and the Board to move forward and allocate budget proved challenging.

Eldred reached out to Mollie Holland, County NEST coordinator, who referred them to our P&P Committee and website with its wealth of materials. He was particularly interested in starting a "Pond Steward" initiative, similar to ours, to help engage and educate homeowners about the critical need to keep their ponds healthy.

As Eldred told us, *"While installing natural shorelines (LMZs) and aquatic plants was essential to slow erosion, in our case, that alone would not be effective for shorelines already exhibiting 4-foot+ benching. More aggressive action was needed."*

Currently, this community is undergoing an engineered remediation process called "Geoweb" (egg-crate shoreline stabilization), which is a relatively new technology for use in stormwater ponds, but has been used by the county and state for some time. The pond shoreline is re-built by dredging, drying, and reshaping to its original slope. An 8-inch square x 4-inch deep plastic grid is held in place with rebar and filled with a firm base (road base mixed with soil). As a final step, Floratam sod is installed and shoreline aquatic plants are planted on the perimeter littoral zone to help prevent undercutting and erosion.



Installing the Geoweb process.



Completed shoreline with remediation and aquatic plantings.

Typical shoreline remediation can run from \$100 to \$200+ per linear foot (LF) depending on the technology used and contractor cost. Chestnut Creek is currently paying just under \$100/LF for Geoweb. (For comparison, nearby Sawgrass community's "Geotubes" had an estimated cost of \$200/LF.)

"Restoring our shorelines is an extensive and costly process," Eldred confirmed. *"To date, three lakes have been remediated and we are pleased with results thus far. We have learned many lessons and hope to avoid further troubles in the future."* We thank Eldred and the folks at Chestnut Creek for their candid story and wish them continued success in their efforts to control shoreline erosion.



Rivendell has installed LMZs and continues with shoreline plantings to try and avoid such costly repairs. The experiences of nearby communities helps to guide our decisions. We thank our Board, homeowners, and P&P team for pulling together to help control pond erosion, keeping Rivendell beautiful and healthy, and our property values strong.