

## PALMETTO

# Artificial reefs to turn city's riverfront into a 'living shoreline'

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A crumbling seawall turned out to be the catalyst for a project that will significantly alter the appearance and boost the popularity of Palmetto's riverfront.

As early as next month, pedestrians viewing the Manatee River from the rebuilt seawall flanking the Green Bridge will be able to step onto artificial reefs and peer below at the interacting marine life.

"It will be like viewing an aquarium," said Todd Barber, whose Nokomis-based Reef Ball Foundation designed the concrete reefs.



STAFF PHOTO / DALE WHITE

Left to right: Todd Barber of the Reef Ball Foundation, artist Vera Cole, Larry Beggs of Reef Innovations, Palmetto Mayor Shirley Groover Bryant and Bob Gause, consulting engineer for Palmetto's Community Redevelopment Agency with artificial reefs being created for Palmetto's riverfront.

Last summer, the city received an inspection report from Ray Mathur Construction & Engineering stating that the 90-year-old seawall needed to protect roadways close to the river had greatly deteriorated and was at a "near failure stage."

When the City Commission discussed getting the seawall rebuilt, they also mulled over the possibility of an enhancement: an artificial reef.

Yet they did not want just any artificial reef.

"They didn't just want a bunch of rubble," said Bob Gause, consulting engineer for the city's Community Redevelopment Agency. City officials wanted "a living shoreline that's ecologically functional and also interesting and nice to look at."

Noting that the Green Bridge (Business U.S. 41) area is "a gateway" into Palmetto, Mayor Shirley Groover Bryant said the city will be getting a marine life habitat that, for observers, will look "natural and calming."

The city awarded a \$341,600 contract to Quality Marine Construction to rebuild the seawall. That work got underway in January and should be completed in a few weeks.

The city also negotiated an agreement for roughly \$300,000 with Reef Innovations, a Sarasota-based contractor that Barber's foundation has used to build more than half of the 7,000 artificial reef projects it has done in 70 countries. City Clerk Jim Freeman said the expense will be eligible for a reimbursement of up to 50 percent from the Southwest Florida Water Management District.

Following Barber's specifications, Reef Innovations owner Larry Beggs and his crew have been constructing 102 reef "modules" to be installed along 970 feet of Palmetto's riverfront after the seawall is completed.

The reefs, each built around a ball-shaped base with holes for marine life to enter and exit, vary in sizes and height, Barber said — to simulate the rugged topography of a real shoreline. “No two are alike.”

Rather than the iron rebar that rusted in the existing seawall, Gause said, the artificial reefs are reinforced with fiberglass that will not erode beneath the porous concrete.

The submerged portion of each artificial reef will attract oysters, which remove pollutants from the water, Barber said. Fish will swim in and out of its honeycomb of holes.

The middle portion of the reef will be more subject to the tide. It will get covered by algae and attract crabs and snails. Ledges and shelves will retain water and serve as tidal pools.

Artist Vera Cole stains the upper portion of each reef to resemble natural rock. Salt tolerant cord grass will be planted in the surface. Actual seashells are embedded in the concrete for a realistic look.

Pedestrians will be able to stand atop the reefs and peer into its holes to see the marine life below.

The reefs will also protect the rebuilt seawall, Gause said.

The existing seawall took a pounding from decades of waves that eventually rusted the rebar and took out chunks of concrete.

The reefs will minimize that wave action.

The “living shoreline” is expected to be in place in March, Barber said. “We’ll have a grand opening over the summertime.”