



Keeping it green: Scientists protect Blind Pass seagrass

Dredging doesn't have to mean death

By Kevin Lollar

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It takes GUTS to transplant 32,670 square feet of seagrass from Wulfert Channel to Dinkins Bayou.

GUTS would be the Giga Unit Transplant System, a barge-mounted tool that cuts a 20-square-foot section of seagrass, transfers it to a receiver site and replants it - the patented machine is owned and operated by Seagrass Recovery of Indian Rocks Beach.

"If you remember the old-school way: You grabbed sprigs of seagrass and replanted them," said Steve Boutelle, a Lee County Marine operations manager. "This is on a lot larger scale, hopefully with a larger impact."

By Dec. 1, dredging will begin to reopen Blind Pass, which has been closed since 2001. When the pass is closed, water on the bay side becomes stagnant, and water quality declines.

Because the dredging project will be through a 0.75-acre section of seagrass in Wulfert Channel, the state wants Lee County to mitigate the damage.

Instead of simply tearing up the seagrass, the county decided to transplant it.

"We're moving it out of the work area into a more suitable area where we think it will survive," Lee County coastal engineer Robert Neal said. "We're replanting three-quarters of an acre, and we expect it to expand to 2 to 3 acres over the next three years."

A Seagrass Recovery team and GUTS have been moving seagrass from Wulfert Channel since Oct. 28. They were scheduled to be done Monday.

For 20 days' work, Seagrass Recovery will receive \$92,000, paid in equal shares by the the Captiva Erosion Prevention District, the Lee County Tourist Development Council and the state Bureau of Beaches and Coastal Systems.

Since it was founded in 1995 by sod farmer Jim Anderson, Seagrass Recovery has completed more than 100 projects in Florida, Maryland and Texas. In addition to replanting seagrass for mitigation, the company restores seagrass beds damaged by prop scars and boat groundings.

Researchers from the Florida Fish and Wildlife Research Institute and National Oceanic and Atmospheric Administration monitored a 2003 project at Longboat Key, where Seagrass Recovery replanted 18 20-square-foot sections (or sods) of shoal grass (often called by its scientific name Halodule) and nine sods of turtle grass (Thalassia).

"What we found after three years is that they had very good success with Halodule," said Penny Hall of FWRI's seagrass research and restoration team. "We saw incredible expansion of Halodule in some sods. Thalassia grows so slowly, but by the end of the study, survival was 89 percent for Thalassia, 70 for Halodule.

"You can successfully transplant seagrass with other techniques, but if you're moving a whole bunch of grass, this is an attractive method."

GUTS is like a clamshell excavation bucket that's lowered through the deck of a small barge and digs out a 4-foot-by-5-foot section of grass.

An important part of the process is that GUTS digs below the grass and brings up 8 to 14 inches of sediment so the plants will get the same nutrients they fed on before the transplant.

As the bucket opens at the receiver site, which should have similar water quality and elevation, it scrapes away a 20-square-foot section of sediment into which the sod is placed; that way, the sod doesn't just lie on the bay bottom, where it can be moved around and beat up by wave and tidal action.

For the Blind Pass project, 75 percent of the transplanted grass is Halodule; the rest is Thalassia.

"We have a higher success rate with Thalassia, but Halodule expands faster than Thalassia," said Beau Williams, director of Seagrass Recovery's project affairs. "Halodule is like that crazy kid who runs around all over the place. Thalassia is like the old man who just sits there. So, if you're looking for acreage, Halodule is the one that's going to go wild."

Eventually, a replanted area dominated by shoal grass will become dominated by turtle grass, Williams said.

"The trick for success is size," Williams said. "If you hand-plant a small unit, fish will mow it down pretty quick. If you have a 4-by-5 unit, it takes a lot to go in and destroy it."