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ENVIRONMENT

Caloosahatchee River seagrass restoration seeks to protect water quality, wildlife habitat

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A restoration project in the Caloosahatchee River has wrapped up its second phase as workers planted seagrass in three upstream areas.

To date, Sea & Shoreline, in partnership with the Angler Action Foundation, has planted just more than 20 acres in the area to address harmful algae blooms, rebuild essential fish habitat and provide refuge for manatees seeking warmer waters.

"The Caloosahatchee lost a lot of submerged aquatic vegetation, and we're continuing to work on getting to a tipping point where the plants start seeding and colonizing other areas," said Carter Henne, president of Sea & Shoreline, an aquatic restoration company based in Winter Garden.

Henne calls this the halo effect, when the plants start colonizing outside the planting footprint. The company saw success in Crystal River after planting nearly 50 acres and saw expansion in a 200-acre footprint, he said.

"Once you get that momentum, it's like running downhill," he said.

The project is being paid for by the nonprofit Angler Action Foundation through state money awarded by the Florida Department of Environmental Protection. Based in Lake Worth, its website said it is a platform for anglers and conservationists to preserve, protect and enhance snook and gamefish populations.

Money is available for two more phases of plantings in the Caloosahatchee, which happen about every three years with monitoring taking place to make sure the restoration was successful.

The first phase of the project, completed in 2018, cost about \$1 million. This year's project is estimated at \$100,000 and another \$2 million will cover the next two phases.

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The foundation's executive director, Brett Fitzgerald, said two of its members live on the Caloosahatchee and brought the seagrass problem forward.

"We had seen what Sea and Shoreline did with the Save the Crystal River folks and after talking with them realized the Caloosahatchee was good for a similar project," he said. "Both areas had a lot of vegetation and now there is none due to some bad luck events of nature: droughts and hurricanes."

The ultimate goal, he said, is to restore the grasses to a point where the vegetation naturally reproduces into the 2,000 acres that the river once held.

Jennifer Hecker, executive director at Coastal Heartland National Estuary Partnership, said there's been a tremendous loss of seagrass in the Caloosahatchee River.

"The water has become heavily polluted and we now have to help augment it to restore the seed source," Hecker said.

The partnership has also planted seagrasses in the river and is working on other long-term strategies to improve the water flow to maintain the natural salinity levels needed to keep vegetation healthy.

"(The partnership) is heading up the Lower Charlotte Harbor Flatwoods initiative to look at restoring flows in Charlotte that drained down into Lee and the river," she said. "They've historically been altered and redirected, so how do we restore those to get additional fresh water during the dry season."

Henne said Sea & Shoreline is using two types of seagrass: salt-tolerant freshwater plants and fresh-tolerant saltwater plants. Both grown at the company's nursery in Ruskin, the hope is to see the seagrasses flourish as the salinity levels fluctuate.

The plantings are fitted with exclusion devices since the area is prone to grazing pressures.

These devices are basically cages surrounding the newly planted seedlings and are meant to keep animals from devouring the seagrass as it grows, Fitzgerald said.

An independent third-party company, Johnson Engineering, is monitoring and documenting the success of the project, Henne said.

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Hecker said the waters of the Caloosahatchee have become heavily polluted, and the loss of seagrasses means a loss of nutrient filtration. Augmenting the natural grasses will help with water clarity, quality and flow.

“In this case we need to essentially keep this life-giving resource on life support to be able to sustain all the other fish, crabs and manatees, she said. “We can’t just wait. We have to continually hold the line if we’re trying to replenish and restore seagrasses so these critters can survive until we get the long-term strategies.”

Sea & Shoreline is planning another 40 acres of plantings in the Caloosahatchee, Henne said. The next phases of the project are in the permitting process.

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