

COURTESY OF CLEMSON UNIVERSITY

Recent Clemson graduate Ryan Medric designed a 400-square-foot floating wetland shaped like a Tiger paw.

Clemson's floating wetlands help ensure healthy waterways

THE JOURNAL STAFF

CLEMSON — A large, floating garden shaped like a tiger paw was recently installed in the old Seneca River Basin adjacent to Doug Kingsmore Stadium on the Clemson University campus, helping beautify the pond while also benefiting the environment.

Ryan Medric, a recent Clemson graduate who majored in environmental and natural resources, envisioned floating treatment wetland last fall. With help from members of Carolina Clear, a service of Clemson Cooperative Extension, he assembled the floating wetland April 29.

"It's a 400-square-foot, orange-colored tiger paw mat with about a thousand circular holes in it designed to contain potted plants," Medric said. "The roots of these plants will grow through the pots into the water and work like a sponge to absorb excess nutrients and pollutants, such as nitrogen and phosphorus. The garden will also provide habitat for wildlife.

"The dangling roots will be great hiding places for fish and frogs, and the plants will attract songbirds, bees, dragonflies and a variety of other creatures."

Floating treatment wetlands are made of a foam and nylon matrix that will remain afloat despite bearing a lot of weight. The matrix is a series of mats pieced together like a gigantic puzzle to form the paw.

While still in their pots, selected wetland plants that thrive in water and absorb pollutants are placed in the holes. As the roots grow and lengthen, they will consume the excess nutrients from lawn fertilizers, animal wastes, car-wash soaps and other sources, outcompeting the algae that might have otherwise thrived from nutrient-rich runoff.

Excessive algae growth leads to euthrophic conditions, which can cause fish kills, especially during hot summer months.

The state of South Carolina and S.C. Department of Health and Environmental Control have been delegated to protect waterways from polluted stormwater through a regulated permitting process. Clemson recently became the first university in South Carolina to obtain National Pollution Discharge Elimination System permit coverage.