Seven years ago, Collier County created a 50-acre wetland park just off of one of its busiest intersections. Now it's hoping to find out how to make it stronger.

Collier County will work with a team of researchers at Florida Gulf Coast University to study the impact the Freedom Park wetland at Golden Gate Boulevard and Goodlette-Frank Road is having on the water quality of Naples Bay and on flood control for the surrounding areas.

The research will be led by renowned wetlands ecologist Bill Mitsch, who runs the Everglades Wetland Research Park for FGCU. Mitsch, who was a professor for nearly 30 years at Ohio State University, was an early pioneer of creating wetland parks in urban centers. In 2004, Mitsch was awarded the Stockholm Water Prize, one of the world's highest honors in water research.

He designed a 50-acre wetland near the heart of Columbus while at Ohio State, and was surprised to learn after moving to Naples that Collier County had almost entirely copied his design to create Freedom Park.

"I had no idea this was here," Mitsch said. "It looked the same as mine, especially from the air. It's gorgeous and has these nice wide boardwalks. The one thing that was missing, from my view, is the park wasn't being researched. It wasn't being used to learn how wetlands work and test for ways to make them work better."

Mitsch will lead a group of graduate students working on their dissertations to study the water levels in the park, plant species, and sediment. The also will analyze the amount of phosphorous and nitrogen coming out of the water. The research will take two years and cost $50,000. At the end, the team will publish a report with a list of recommendations for ways the county can improve water quality or treat more water through the park.

The wetland was created in 2009 as part of an effort to restore Naples Bay. Wetlands act like great natural filters, collecting all the rain water and runoff from city streets and paved and drained lots, sucking up nutrients and pollutants before emitting clean water to Naples Bay and out to the Gulf.

Collier County has long operated its conservation lands under the principle that if people can't use and see natural lands, they won't care about them. The park is easily accessible, with miles of winding boardwalks and trails. It's noisy with wildlife, and filled with rippling ponds and quiet marshes.

The park cost $31.5 million to create.

The research will be key to the long-term management of one of the county's major water treatment investments, Jerry Kurtz, Collier County stormwater management project manager.

"We knew we really needed to spend some time to do a comprehensive review of the vegetation and water balance in the park," Kurtz said. "We think the park could treat more water."

Collier County and FGCU will host a kick-off celebration Thursday at 11 a.m. at Freedom Park that will be free to the public. Researchers will be on hand to give guided tours of the wetland. The event is an opportunity to inform the public about the partnership with FGCU and to show off what some believe to be Collier County's best hidden gem.

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