



USF Civil & Environmental Engineering Teams Win Environmental Design Competition

TAMPA, Fla (October 15, 2012) Two student teams from the University of South Florida's civil and environmental engineering program competed in the Water Environment Federation Technical Exhibition and Conference (WEFTEC) national student design competition in New Orleans on September 29, 2012. One of those teams won the environmental division.

Green Solutions, consisting of students Micah Blate, Danielle Bertini and Lyudmila Haralampieva, took first place in the Environmental Division. Emily Patrick and Gabriele Dionne contributed to the project but could not attend WEFTEC. The clients for the project were City of Tampa Stormwater and Parks and Recreation Departments.



Green Solutions Team l. to r.: Emily Patrick, Lyudmila Haralampieva, Gabriele Dionne, and Micah Blate and Danielle Bertini at Regan Park.

Regan Park in East Tampa had problems with flooded parking lots and grassy areas as well as excessive vegetation growth and odors in a stormwater pond. The students recommended a number of improvements, including the use of porous concrete in parking areas and construction of rain gardens. Dredging and installation of a fountain and floating wetlands were recommended to mitigate problems in the pond.

The team worked closely with students from the USF anthropology department who surveyed community members about their use of the park and amenities they would like to see there.



BioBull Solutions Team l. to r.: Robert Gaylord, Matthew Munz, Yasmin Eskandari, Esteban Zajia Biera and Justin Terry.

BioBull Solutions, consisting of students Robert Gaylord, Matthew Munz, Yasmin Eskandari, Esteban Zajia Viera and Justin Terry, took third place in the Wastewater Division. Their team worked on improvements to the Hillsborough County Biosolids Management Facility (BMF).

After an analysis of a number of different anaerobic digestion alternatives, the team recommended conversion of existing aerobic digesters to thermophillic anaerobic digesters. Biogas produced in the digesters would be used to fuel thermal dryers currently in use to produce Class A biosolids pellets.

Savings would be accrued from reduced use of natural gas, reduced aeration requirements, and reduced biosolids volume. In addition, the implementation of anaerobic digestion is expected to reduce odors at the BMF and reduce greenhouse gas emissions.

The team sends many thanks to the Florida Water Environment Association, the American Society of Civil Engineers, Hillsborough County, the City of Tampa, and the many mentors who supported the teams in these projects.

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The University of South Florida is a high-impact, global research university dedicated to student success. USF ranks 50th in the nation for federal expenditures in research and total expenditures in research among all U.S. universities, public or private, according to the National Science Foundation. Serving more than 47,000 students, the USF System has an annual budget of \$1.5 billion and an annual economic impact of \$3.7 billion. USF is a member of the Big East Athletic Conference.

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