SOUTH FLORIDA WATER MANAGEMENT DISTRICT

NEWS RELEASE

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CONTACT:
Gabe Margasak
South Florida Water Management District
Office: (561) 682-2800 or Cellular: (561) 670-1245

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Living Everglades Lab Adds New Formula: Students

Hands-on education program introduces high school students to SFWMD public lands


Forest Hill Community High School students conduct field research at an outdoor Everglades laboratory in the Arthur R. Marshall Loxahatchee National Wildlife Refuge. (Click on the pictures for larger versions.)

West Palm Beach, FL — Forest Hill Community High School students became environmental researchers one recent morning at a living Everglades laboratory, collecting water samples and aquatic invertebrates as part of a new South Florida Water Management District (SFWMD) education program known as Legacy.

The students conducted water quality testing and field identification of species at the Loxahatchee Impoundment Landscape Assessment (LILA), a working 80-acre model of the Everglades ecosystem on the grounds of the Arthur R. Marshall Loxahatchee National Wildlife Refuge. Legacy connects water resource and environmental education with land management activities. The program partners local high schools with District-managed public lands, where teachers and students learn by collecting information that will add to the knowledge and experience relied on by District land managers to make real-world decisions.

"This is real, hands-on field research that brings the classroom into the ecosystem," said SFWMD Governing Board Chairman Eric Buermann. "The Legacy program is a perfect match of learning and the special experience of enjoying public lands managed by the District for restoration."

VIDEO: Students test water quality samples at LILA during a Legacy event.

Originally developed by the St. Johns River Water Management District, the Legacy program utilizes the SFWMD's expertise in land management, water resource and environmental science to create classroom-specific activities tailored to certain sites. The goals of the program include:

- Strengthening the connection of District lands with water resource and environmental education
- Providing communities with new opportunities to benefit from public lands
- Enhancing environmental stewardship in youth
- Encouraging recreational use of public lands

Representing an ideal location for the Legacy program, LILA gives experts an opportunity to research and apply restoration techniques on a small, controlled scale before taking them into the 1.7 million-acre Everglades ecosystem.

Forest Hill Community High School student Aidan Arruza, 15, may just become one of those scientists.

"Actually, I've been thinking about it a lot. I want to do something with the environment," he said, while testing a water sample for pH and dissolved oxygen levels. "I love being out in the ecosystem."

That's exactly the right message for instructors at the school's Academy of Environmental Science and Technology.

"It's really good practical application of what we talk about in the classroom," said teacher Samara Osowiecki. "Legacy and the partnership with the District allow students to experience the natural environment around them."

Amid four, 20-acre cells filled with pickerelweed, spatterdock and sawgrass, one team of students dipped nets into the marshy areas to collect specimens later identified under the microscope as crayfish, dragonfly nymphs and shrimp. Another team used an

electrical probe to check dissolved oxygen levels that are vital to the health of aquatic species.

Such work mirrors the ongoing research at LILA, which is crucial to Everglades restoration success. Studies have included:

- Manipulating water levels while using bird decoys to draw birds in for closer study. This helps determine the optimum water levels for bird feeding.
- Monitoring how fast water must flow to move soil particles downstream. This will determine the critical velocity needed to sustain differing soil elevations or depths within the Everglades, factors that also affect water quality.
- Planting 6,000 trees on the created tree islands. This study will identify the necessary hydrology for tree survival and growth. It will also determine the range of water levels tolerated by tree species found in the Everglades.

The other three Legacy sites for 2010-2011 are:

- **DuPuis Management Area** – Martin County
- **Corkscrew Regional Ecosystem Watershed (CREW) –** Lee and Collier counties
- **Reedy Creek, Osceola Environmental Studies Center** – Osceola County

For more information on the Legacy program, please visit the District's Educational Programs website or read this fact sheet.

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About the South Florida Water Management District
The South Florida Water Management District is a regional, governmental agency that oversees the water resources in the southern half of the state – 16 counties from Orlando to the Keys. It is the oldest and largest of the state's five water management districts. The agency mission is to manage and protect water resources of the region by balancing and improving water quality, flood control, natural systems and water supply. A key initiative is cleanup and restoration of the Everglades.