Proc. Fla. State Hort. Soc. 116:342-343. 2003.

INTERPRETIVE EDUCATIONAL SIGNS FOR STORMWATER PONDS

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Additional index words. habitat creation, recreation, water quality

Abstract. **A need existed for a way to provide educational information to a large number of citizens about the importance and function of stormwater ponds. Interpretive educational signs were created and installed around two stormwater ponds on the Pinellas County Extension/Florida Botanical Gardens campus to educate visitors and volunteers about the functions of a stormwater pond system and its value to water quality and as a habitat for wildlife. These signs address where the water comes from, the structures found in a stormwater pond along with their function, how stormwater ponds help to mitigate the pollution that enters the pond, native plants suitable for landscaping ponds and the role they play, wildlife around the pond, and habitat creation along with a sign that addresses what each person can do to reduce or eliminate pollution in stormwater run-off from his or her individual landscape. Publications pertaining to stormwater ponds are available in the kiosk at the pond. This project fills the role of providing education regarding the purpose and function of stormwater ponds to the thousands of visitors each year to the Pinellas County Extension Service and the Florida Botanical Gardens.**

Through environmental horticulture and Florida Yards & Neighborhoods public outreach programs, including landscape site visits, it was concluded that the public has little knowledge of the function of stormwater pond systems and the important role they play in mitigating polluted stormwater runoff. A series of interpretative signs were created to provide onsite permanent educational information around the stormwater pond at the Aquatic Habitat Demonstration Area (AHDA) of the Pinellas County Extension (PCE)/Florida Botanical Gardens (FBG) campus. The intended audience consists of volunteers (both maintenance and tour guide), visitors, and school groups. Annual attendance at PCE/FBG is estimated at 250,000, with 30% (75,000) being local residents (Hodges et. al., 2000). In addition, several major events occur at FBG annually that bring large numbers of visitors who may potentially be exposed to this educational venue. These include: Family EarthFest (10,000 estimated attendance), Florida African American Heritage Celebration (15,000 visitors), and Seasonal Sensations Holiday Light Display (10,000 visitors). All of these visitors are potential visitors to the AHDA, with exposure to these signs and their message.

After Extension staff conceptualized the project, they applied for a 2002 Community Education Grant from the Southwest Florida Water Management District (SWFWMD) to cover the costs of the project, which was granted.

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Materials and Methods

Staff from Pinellas County Extension, including the Horticulture Agent, FY&N Coordinator, two Program Assistants, Director of Horticulture of the Florida Botanical Gardens, Park Naturalist, Media Specialist, and Graphic Designer, formed the committee to create the signs. A senior environmental scientist with Berryman & Henigar volunteered 6 h of his time to help with this project. This committee met formally three times. After the first conceptual meeting, sign content research and writing was assigned to various members of the committee. At the second meeting, this information was reviewed and refined into the various signs. Pictures were taken at sites around the ponds to include in the signs to help with educational information. The final edition of the signs was then sent to the graphic designer for final production. A total of 11 signs were created with educational information about the functions and structures of a stormwater pond and their value to water quality and as a habitat for wildlife. These signs address where the water comes from, the structures you find in a stormwater pond along with their function, how stormwater ponds help to mitigate the pollution that enters the pond, native plants suitable for landscaping ponds and the role they play, wildlife around the pond, and habitat created. The last sign addresses what each person can do to reduce or eliminate pollution in stormwater runoff. Individual signs are located near pond structures and other features to explain their function and purpose.

Once the content of the signs was completed and reviewed by SWFWMD, the problem of how to mount or display the signs was tackled. One final goal was that the signs not intrude unduly on the pond's native landscaping. Display stands were fabricated to look like pine tree stumps so that they would blend into the surrounding landscape.

The final product consists of a series of 10 permanent 18 × 24 inch educational signs located at strategic locations around the Aquatic Habitat Demonstration Area pond. The eleventh sign is 24 × 36 inches and is an overview with directional information in a kiosk located near the main pathway. The kiosk also contains the following three publications for visitors to take with them: *A Citizen's Guide to Stormwater Ponds*, *How to Operate and Maintain Your Stormwater Management System*, and *Florida Friendly Landscaping*.

Results and Discussion

To facilitate the educational message, a group of volunteers (for both youth and adult tours) were trained to conduct guided tours and lectures in the AHDA. Additionally, many visitors take self-guided tours through the gardens. Since the signs were installed, 19 school groups or other youth tours (543 children), including one summer water camp, and 14 guided adult groups (236 participants) have toured the AHDA. An in-house survey shows that the AHDA is very popular with visitors, allowing numerous others exposure to the message through self-guided tours. The educational signs are permanent, thus ensuring that future visitors and tours around the pond, both self-guided and guided, have the additional benefit of these signs to explain and rein-

force the pond's function and value. With the youth groups especially, we are sensitizing the next generation to water quality issues and solutions. This project also complements the Lake and Pond Education Day; a joint program presented each year at the PCE in conjunction with Pinellas County Environmental Management. The signs give an added dimension to the information presented at this program. It also allows participants to visit a working pond with signs to help them understand the process.

The main impact of this project is a group of informed citizens that understand the function of a stormwater pond system, how wildlife habitat can be enhanced around a pond and what they can personally do to reduce pollution in stormwater runoff from their landscape. Three publications that reinforce the message are available at the first sign kiosk for participants to take home. It is anticipated that some of the visitors to the AHDA will be motivated to take action in the management of stormwater ponds in their neighborhoods.

Literature Cited

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