



Community Associations' Impact on Water Quality and Water Use

ANNEMARIE POST*

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OBJECTIVE. Southwest Florida has grown rapidly, which had a significant impact on the quality and quantity of natural resources. Well-meaning individuals, unfamiliar with Sarasota's environment, often make poor decisions concerning the maintenance of landscapes and natural areas. Community managers and community association boards frequently lack knowledge about local and state regulations and best management practices for landscape and natural areas. The Sarasota County Extension *Florida-Friendly Landscaping™ Program for Community Associations* was established in 2000 to educate community associations, neighborhoods, and associated professionals, such as community managers, development and Green Industry professionals, on how to create and maintain landscapes that help reduce the pollutant load in storm water runoff. The program is funded through Sarasota County general funds, while additional funding for materials is provided by the Sarasota Bay Estuary Program.

METHODS. This program attempts to change behavior by providing educational programs on environmental landscape design and management practices that focus on efficient irrigation techniques and appropriate use of fertilizers and pesticides. In addition, this program provides education that promotes natural areas' preservation through removal of non-native invasive exotics and proper maintenance techniques. The program seeks commitment from participants through actively involving the target group, through site visits and presentations. Participants at site visits are interviewed after one year. Those present at presentations receive an evaluation form.

RESULTS. Four hundred twenty-five (95%) of the 447 communities that received site visits since the start of the program made positive changes: 389 (87%) reported changes to irrigation system management such as adjusting irrigation systems seasonally (watering less in winter when plants are not actively growing, and using a rain shut-off device in summer that turns the irrigation system off when adequate amounts of rain are received), calibrating irrigation systems, capping irrigation heads in areas with mature xeric plants and installing or expanding micro-irrigation components. Forty-nine (11%) reported removing invasive plants and/or restoring natural areas. Invasive plants alter the function and value of natural areas and storm water retention areas by displacing native species and disrupting natural processes such as water flow and filtration (Fig. 1). The native plant species used

in restoration projects reduce the nutrient load in storm water runoff and the amount of contaminants reaching ground water. Of the approximately 2500 attendees at educational programs annually, 99% indicated on evaluation forms that they intend to make changes in their landscape practices. The knowledge gain is rated as 35%. Observed water savings of four community associations was approximately 390,000 gal per acre. Potential future water savings of the 620 associations visited (total acreage approximately 10,622) based on 90% participation ($10,622 \times 0.9 = 9,560$ acres $\times 390,000$ gal/acre $\times 50\%$): 1,864,200,000 gal yearly, conservatively.

CONCLUSION. The success of this program has led to continued county funding through 2014, and was also the incentive for the Southwest Florida Water Management District to fund similar programs in several other Florida counties. The program was recently recognized by the EPA for being part of efforts that improved water quality in Robert's Bay, a water body previously listed as impaired.

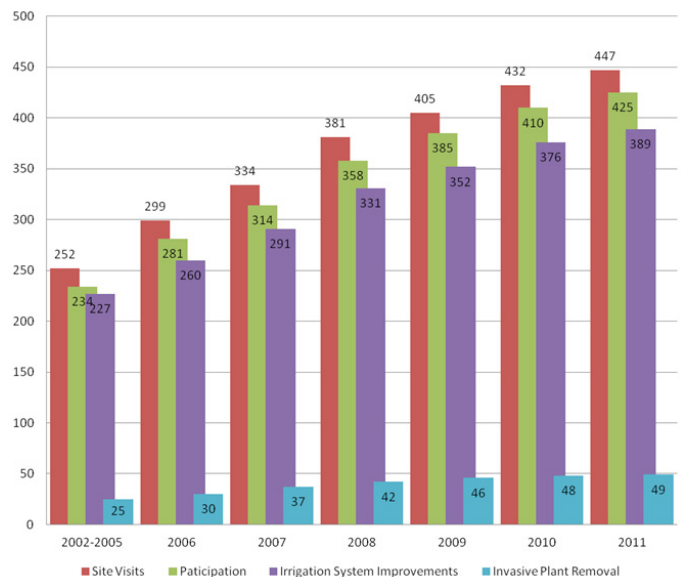


Fig. 1. Summary of community associations' activities.

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