

## Be water wise Miami!

The National Environmental Education Foundation (NEEF), in partnership with Miami-Dade County Public Schools (MDCPS) and the City of Miami, developed a partnership to pilot an innovative environmental education model in Miami beginning in April 2009. The program involved students conducting analyses of water use at home and at school, composing water conservation reports, presenting their findings to school officials and Miami Mayor Manny Diaz, and using small grants to make changes to water use behaviors at school to improve conservation. This initiative, “Be Water Wise Miami”, was made possible through a generous grant from the Wal-Mart Foundation.

Through this pilot program, NEEF has gathered stories, feedback, and lessons learned and is developing a model that may be used by cities throughout the U.S. to develop public-private partnerships to enhance water conservation in their schools and communities. In 2010, NEEF will continue to follow the progress of the participating Miami schools as they implement water conservation strategies while initiating phase two of the pilot – “Be Water Wise Atlanta”.

### **Saving Water and Dollars – A Lesson in Conservation, Civics, and Economics**

“Be Water Wise Miami” launched during National Environmental Education Week (EE Week) with an event at Jose de Diego Middle School on April 15, 2009. Mayor Manny Diaz and MDCPS Superintendent Alberto Carvalho spoke about the importance of conserving water and engaging students in this initiative. Students then demonstrated their water measurement activity for the Mayor and Superintendent. [Read the Mayor’s blog](#) and view press coverage of the “Be Water Wise Miami” launch from [CBS4 in Miami](#).

Following the launch event, educators and custodians from 14 selected schools received curricula and materials at a training workshop on April 25. The workshop was led by employees from Johnson Controls, Inc., who instructed teachers and custodians on analyzing indoor water consumption, HydroPoint Data Systems, Inc., who trained the educators on conducting an analysis of outdoor water use, and Fairchild Tropical Botanic Garden, who discussed the importance of landscaping with native plants as a method of conserving water on school grounds.

Participating educators incorporated the water activities into their lesson plans in early May. Working with their teachers and school custodians, students then analyzed current water usage and generated presentations outlining their plans to save water and money at home and at school. On May 21, students met with Mayor Diaz and several school officials to present their findings. At this event, representatives from NEEF announced the availability of grant funds to Miami schools to install water-saving technologies and improve water conservation in light of the students’ findings. [Read the press release](#).

Through a competitive process, small grants will be awarded in November 2009 to up to 50 Miami schools to implement their water conservation plans. Grantees will receive training and support from Fairchild Tropical Botanic Garden and Johnson Controls, Inc. as they develop water education programs, plant native gardens, and install water conservation devices in their schools.

With “Be Water Wise Miami,” students and community members have reported increased awareness of water conservation issues and opportunities to change infrastructure and water usage in the schools to save money and conserve water. Students experienced a powerful lesson in identifying a problem in the community and bringing it to the attention of city officials. Students also learned about the environmental ramifications of wasteful water use, including understanding the relationship between water use and energy conservation. Some students were drawn to the problem-solving aspects of the project and enjoyed using math and science skills to identify solutions, while others appreciated the opportunity to talk to their families about conserving water at home. By engaging the Mayor

and other city officials, students witnessed their findings translated into action by elected officials, adding a valuable civics lesson to the experience. In addition, students investigated the budgeting process that occurs at school, county and city levels when they determined how much money could be saved by investing in water conservation technologies. This interdisciplinary approach lies at the core of environmental education and real-world problem solving.

### **Engaging Local Partners**

“Be Water Wise Miami” generated strong public-private partnerships among corporations, school officials, NGOs, and local government agencies in Miami. NEEF facilitated a partnership among MDCPS, the local environmental education community, and scientists and engineers from corporate partners. HydroPoint Data Systems, Inc. and Johnson Controls, Inc., two leaders in the field of water conservation technology, provided scientific expertise to assist in the development of an analysis of indoor and outdoor water use in the Miami schools. The participation and assistance of MDCPS’s Curriculum and Instruction and Facilities and Operations departments was critical to the success of the event. The City of Miami and Mayor Diaz supported the event through their Education Compact, an agreement between the City of Miami and MDCPS to enrich student life, improve academic programs through technology and environmental initiatives and develop stronger ties to the Miami community. The local water provider, the Miami-Dade County Water and Sewer Department, and water conservation professionals from the South Florida Water Management District lent their support of the project by providing insight and information on water use in Miami. Fairchild Tropical Botanic Garden, a premier environmental education provider in the Miami area, lent its support to the project through its Fairchild Challenge program.

These partners worked together to provide scientifically-sound school water analyses that were carried out by students in MDCPS and grade-appropriate educational activities in support of “Be Water Wise Miami.” All materials adhere to the Sunshine State Standards. The team of partners also conducted trainings for teachers, custodians, and building managers in MDCPS in preparation for the project and assisted educators in analyzing and interpreting the data that the students collected.

### **“Be Water Wise Miami” – National Environmental Education Week Signature Event**

This signature event provides an opportunity to spotlight the efforts of one city during EE Week while inspiring other cities to follow suit. With the success of “Be Water Wise Miami”, NEEF will promote National Environmental Education Week and school water projects to the mayors in other large cities. EE Week intends the “Be Water Wise Miami” event to be a catalyst for other cities to develop strong partnerships with the school systems and work to “find the leaks,” raise awareness of water conservation issues, and implement changes to save water and dollars. The materials developed in the context of this partnership will be used not only by Miami schools, but also as a model for other school systems wishing to investigate water use.

NEEF executed a national publicity strategy for this program, dramatically increasing awareness of and participation in EE Week and bringing national attention to water waste and conservation issues, the value of environmental education, and the roles schools, communities, local governments and businesses can play in bringing about solutions. Press coverage of “Be Water Wise Miami” provided a real-world example of how all these elements come together in a single project.