

### **3.4 PUBLIC AWARENESS AND INVOLVEMENT PROGRAMS**

An essential component of any restoration plan is a focused and integrated public education and involvement program. Many agencies, both public and private, have information for the homeowner regarding practices that can be implemented at the individual home level for the benefit of the local environment. Most residents, when educated regarding their immediate environment and their potential impact upon it, become more interested in acting more responsibly.

#### **3.4.1 Adopt-a-Creek Program for Stevenson Creek**

One of the most successful methods of encouraging public involvement/awareness in the Tampa Bay area is to establish a citizen's group that "adopts" a piece of property or natural feature. Adopt-a-Pond, Adopt-a-Highway, and Adopt-a-Shoreline are examples of such programs in which a group of citizens accepts the responsibility of maintaining a section of the property on a regular basis. The Adopt-a-Pond program in Hillsborough County has been very successful in the past years, and a similar program for Stevenson Creek could be implemented. The program would encourage residents along the creek to take interest in keeping the creek clean and to help prevent water quality problems.

No regularly scheduled program of adoption and maintenance is currently offered for Stevenson Creek, despite the obvious interest and concern of the local residents. It is recommended that a program of this nature be implemented within the watershed, to accomplish the maintenance and enhancement as needed. The greatest benefit to the watershed would be the regular removal of trash and exotic vegetation within and adjacent to the creek. The creek can be segmented and the responsibilities distributed among the various civic groups and homeowner associations. A group leader will be trained in plant identification and the proper methods of eradication. Pam Leasure with the Pinellas County Department of Environmental Resources (telephone: 727-464-4793) can be contacted if there is an interest in implementing an Adopt-a-Creek program for the Stevenson Creek Watershed.



### **3.4.2 Proper Use of Pesticides and Fertilizers**

#### **3.4.2.1 Pesticide Use**

Pesticides are applied to control a pest species, usually by reducing the population to an acceptable level. This objective can sometimes be achieved without damage to non-target species. However, when pesticides are broadcast sprayed over lawns and fields, a variety of onsite non-target organisms is impacted. In addition, much of the sprayed pesticide invariably drifts away from the intended site and deposits in non-target organisms and ecosystems. Many pesticides are not thoroughly tested prior to distribution and long term effects are not determined until too late. The pesticide DDT is a well-known example. Although the use of DDT was banned in the United States over twenty-five years ago, there are several sites within Tampa Bay where sediment concentrations exceed the No Observable Effects Level (NOEL) (TBNEP 1996).

A preferable alternative to pesticide use is integrated pest management (IPM). Within the context of IPM, acceptable pest control is achieved by employing an array of complementary approaches. These can include:

- use of natural predators, parasites, and other biological controls
- Use of pest resistant varieties of turf grass and landscape plants. Native plant species are frequently more resistant to pests and pathogens than non-native species.
- Modification of environmental conditions so as to reduce the optimality of the pest habitat. This would entail not planting monocultures of specific plants.
- Careful monitoring of pest abundance, and using pest-specific, less toxic pesticides such as *Bacillus thuringensis*.
- Use of pesticides only when they are required as a specific component of the IPM.

Information regarding insect pests, the proper use of pesticides and IPM is available at the Pinellas County Cooperative Extension Service or visit the web site at <http://gnv.ifas.ufl.edu/~FAIRSWEB/IPM/IPMFL/IPMFL.HTM>.



### **3.4.2.2 Fertilizers**

Most homeowners use too much fertilizer in their landscapes. Over-fertilizing actually encourages the growth and proliferation of certain insects and diseases and increases maintenance needs. When choosing fertilizers, homeowners should request products that contain nutrients in water-insoluble or controlled-release form. These fertilizers dissolve slowly into the soil, reducing amount of nutrients lost in stormwater runoff. The PCCES has free information regarding the most environmentally friendly fertilizers to purchase, and how they should be applied. This information can be obtained at the extension office or at the web site listed above.

### **3.4.3 “Green” Thumb Landscaping Practices**

The University of Florida Cooperative Extension Service, in partnership with the Tampa Bay National Estuary Program, the Florida Sea Grant College Program and numerous other environmental agencies, has prepared a Landscaping Guide for the Florida Yards and Neighborhoods Program. This informative guide describes the benefits of using native plants in the landscape and how to recreate the habitat that was lost when development occurred. The guide explains such practices as composting, mulching, fertilizing, and watering, and how these common practices can be undertaken without comprising the environment. The program also touches on such issues as maintaining waterfront property in a non-invasive manner, how to maintain a septic system, and how to attract wildlife to your backyard. This information is free from the PCCES or visit the web site at <http://coop.co.pinellas.fl.us/>.

A valuable source of information for creating an environmental landscape is the National Wildlife Federation (NWF). This organization has prepared a program that educates homeowners in the benefits of landscaping to attract wildlife and provides the basic information needed to develop wildlife habitat in a residential setting. This program is called the Backyard Habitat program, and participating residents can have their houses certified as habitat by the NWF. This and other useful topics are discussed on their web site at <http://www.nwf.org/>.



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Another successful program is the *Naturescape* Urban Wildlife Enhancement Program, developed by the Pinellas County Department of Environmental Management (PCDEM). The booklet was produced for the residents within the Allen's Creek watershed, but the principles are applicable to all watersheds in central Florida. The booklet provides ideas on how to reduce water loss when irrigating the landscape, how to use less pesticides and fertilizers, how to create wildlife habitat, and what plants to put in the landscape, as well as what plants to avoid. This booklet is free and can be obtained from the PCDEM.

The Southwest Florida Water Management District has produced a significant amount of information on Xeriscaping. This method of landscaping reduces the amount of water that is needed by planting native and non-native plants that require little water, reducing the square-footage of water-dependent turf-grass, and by planting species that do require water in zones that can be irrigated more efficiently. Other aspects of Xeriscaping include the use of mulch to reduce moisture loss from the soil, and the use of mulch made from exotic species such as melaleuca and eucalyptus or from recycled wood products. Information can be obtained from SWFWMD free or for a nominal fee. The SWFWMD Tampa Field Office can be contacted at (813)-985-7481 or on the world wide web at <http://www.swfwmd.state.fl.us/watercon/xeris/swfxeris.html>. Information about native plants can be obtained at the Florida Native Plant Society web site at <http://www.fnps.org/index.html>. Additional information regarding xeriscaping can be obtained from the PCCES on their web site at <http://coop.co.pinellas.fl.us/Toughcom.htm>.

### **3.4.4 Florida Yards and Neighborhoods Program**

The Pinellas County branch of the Florida Yards and Neighborhoods Program was developed by the National Estuary Program and is managed by the Pinellas County Cooperative Extension Service. This program utilizes the educational elements by helping neighborhoods work together to treat area-specific problems such as nutrient- and



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chemical-rich stormwater runoff, yard waste disposal, misuse of chemical biocides, and improper shoreline maintenance.

The first step in participation with this program is a preliminary meeting with FYNP staff and homeowners associations requesting participation in the program. Each of the homeowners is given a detailed questionnaire to determine their specific yard maintenance activities. If a neighborhood meets the requirements for investigation by the FYNP, a team of environmental specialists performs inspections, targeting problems associated with landscape practices and stormwater runoff. Results of these inspections are analyzed and presented to the homeowners association along with suggestions on ways to remedy current environmental problems through sustainable yard maintenance practices.

### **3.4.5 Storm Drain Marking Program**

An important component of public education for watershed management is the storm drain-marking program. This program enlightens citizens about the potential adverse effects of stormwater runoff entering surface water bodies. Many people allow paint, petroleum products and yard wastes to wash into gutters and into storm drains without consideration of the potential effects on surface waters. The storm drain marking program involves simply painting legible messages on the drains to remind the public where the drains lead. Within the Stevenson Creek Watershed, the messages may read “NO DUMPING - DRAINS TO CLEARWATER HARBOR,” or “DUMPING HERE POLLUTES STEVENSON CREEK AND CLEARWATER HARBOR”. Some of the messages may include illustrations of fish, manatees, wading birds, or dolphins.

The storm drain marking program has been successfully implemented within other areas of the City of Clearwater, and could be implemented within the Stevenson Creek Watershed without significant expense. Volunteers from local schools and civic groups could be organized to conduct the marking under the supervision of officials from various Tampa Bay agencies such as Tampa Baywatch, Tampa Bay National Estuarine Program, and city and county government. Items needed for the drain marking include traffic



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cones, a broom, paint, safety vests, instruction sheets, and stencils. These items can be purchased or fabricated from materials costing less than \$220.00.

