

Removal of Australian Pine (*Casurina equisetifolia*) from Shell Key Preserve

**Department of Environmental Management (DEM)
Environmental Lands Division (ELD)**

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Pinellas County is required via the Shell Key Preserve Management Plan (Resource Management Goal 1, Action 3) to remove invasive plant species within the preserve and to provide a program of preventative maintenance and control. This effort is focused on the removal of mature Australian pine trees along the southern portion of the island. This exotic invasive species provides no valuable habitat to the native wildlife of the preserve with a seedling population that has the potential to cover the entire south end of the island within short order if we do not begin the systematic removal of the mature Australian pine forest that exists currently.

Staff members from the Environmental Lands Division began removal of this exotic, invasive species in 2000. One a month for four consecutive months, trees were cut with chainsaws into firewood that was later used by campers on the island. From 2000 to 2003, three separate Eagle Scout projects helped to replant the camping area with 200 live oaks, buttonwoods, and sea grapes – that all appear to be doing fine.

Since 2003, we carried out two other projects (supported by the County's capital improvement program and by the U.S. Fish and Wildlife Service). In 2003, we hired a contractor to remove 200 more Australian pines from the primary dune to the secondary dune along the southern shoreline, also cut into smaller logs and used by campers for firewood. Trees with a DBH (diameter at breast height) greater than 12 inches were left alone to provide shade for camping. At the same time, we installed 325 plants between the primary dunes and the camping area: 75 live oaks, 50 buttonwoods, 50 coco-plums, 75 red cedars, and 75 longleaf pine trees. All but 25 live oaks were three gallon trees to insure their survival; these 25 live oaks were seven gallon trees. The plants were watered

for two months after their installation and also appear to be doing well for the most part. The total cost of the project was \$28,502.75.

In 2006, again with money from the County's capital improvement program and the U.S. Fish and Wildlife Service, we hired a contractor – a retired State Park Manager – to cut 500 Australian pines from the camping area (again provided for firewood). The contractor carefully left enough Australian pines for abundant shade for camping visitors. The total cost for pine removal was \$35,000.

In anticipation of this year's rainy season, we are now preparing to install 150 additional native plants that will be watered for two months after installation and provided with water bags to insure their survival in the island's demanding climate. This contract will be approximately \$35,000.

Approximately 50 to 60 dead Australian pines remain in the camping area, the result of storm damage and a small fire in 2003. These will gradually be removed over the next four years.

Citizens have expressed concern about the role of these nonnative plants for erosion control on the island. Shell Key is a barrier island, of course, so no amount of erosion control will maintain the key indefinitely. Per our management objectives, we are obliged to remove exotic vegetation and replant with native trees and shrubs to improve the health and integrity of the island for generations to come. The remainder of the Australian pines, ones presently retained for purposes of shading campers, will be removed over the next 10 to 15 years as the native tree species mature.