

Replanting and Maintenance Plan

Bill Sadowski Park

Background

There is a one-acre area in the extreme northwest corner of Bill Sadowski Park that was part of a large historic transverse glade. Construction of the C-100 canal drained the transverse glade. This area of glade remaining in the park was subjected to land clearing disturbance in the 1970's. The vegetation that regrew was 90% non-native plants. It was considered too impacted by non-natives to be practically managed as a hammock.

In 2004, the Parks Department applied for a grant from the Special Areas Management Plan (SAMP) Wetland Trust Fund to construct an approximately one-acre wetland in the northwest portion of the park. The goal of this wetland restoration project was to remove the exotic plants that dominate the northwestern acre of the park, scrape the area down to an elevation that will provide a long hydroperiod wetland, and provide a connection to the C-100 canal to permit the movement of aquatic organisms. The grant, for \$95,000, was approved in April 2005. In July of 2006, the Parks Department removed most of the vegetation from this disturbed area of the former transverse glade. The vegetation was dominated by non-native plants like Brazilian Pepper, Napier Grass, Bishopwood, Shoebuttan Ardisia, and Burma Reed, with the weedy native, Florida Trema, also occurring.

Neighbors expressed concerns over the removal of vegetation for the wetland construction. Subsequently, two public meetings and three workshops were held to address the concerns of the Village and its citizens. The Steering Committee that was formed contributed valuable input to County staff on the design and maintenance of the wetland. On June 11, 2007, the Palmetto Bay Village Council passed a resolution rejecting the proposed wetland restoration and requested that the Park and Recreation Department prepare a plan to replant the area to appear as it did prior to clearing. It is proposed that the area be replanted with native trees, shrubs and ferns that can tolerate seasonally wet conditions.

Current Conditions

The area that was cleared with the intention of restoring the wetland is approximately 40,000 SF in size. The area that was cleared of exotic plants has revegetated itself with a mixture of ruderal (weedy) native and exotic plants (see Appendix 1, the plant inventory). The northwest one third of the area is slightly higher as evidenced by differing vegetation (see Figure 1). The area immediately east of this area is slightly lower in elevation. Roving crews are mowing all the open areas of the site. Parks' Natural Areas Management Division is managing the areas that the roving crew cannot access: rocky edges, areas with remaining native trees, and the area surrounding the large Ficus tree. In the latter areas, exotic plants are being treated and ruderal species are allowed to grow. These areas have waist-high vegetation (see Figure 2), some of which are saplings of native trees that will eventually attain a height of approximately 40 feet. This is what the remainder of the site will look like for approximately a decade, until the planted material begins to shade out the ruderal plants.

Planting Plan

The area will be planted with trees, shrubs and ferns that can tolerate wet conditions. The site is 40,000 SF in size. Tree spacing will be average 10-11' on center, 366 trees will be installed. The trees can be randomly planted or roughly grouped to appear natural. On the edges and in the slightly higher (Transition) area, Firebush, Florida privet, Satin Leaf, and Shortleaf Fig will be

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concentrated. These plants are excellent butterfly and bird attractors. Direct seeding of butterfly weed (which occurs on site already) can enhance also the appearance of the site. In addition, wetland ferns including giant leather fern and swamp fern would be ideal in competing with weedy species, and increasing the overall attractiveness of the site. This planting design should improve light screening for the Southern Cross Astronomical Society's viewing area. Department funds are available and matching funds will be requested from Dade County's Tree Trust Fund.

Species	Number	*Specifications	Location
Bald Cypress	32	12'	Low Areas
Pond Apple	32	8'	Low Areas
Paurotis palm	16	12'	Low Areas
Satin Leaf	10	12'	Transition
Sweet Bay	32	15 gal	Low Areas & Transition
Coco Plum	32	3 gal	Low Areas & Transition
Red Maple	32	12'	Low Areas & Transition
Dahoon Holly	40	3-7 gal	Low Areas
Fire Bush	70	7 gal	Transition
Sabal palm	40	staggered	Low Areas & Transition
Shortleaf fig	10	7 gal	Transition
Florida Privet	20	3 gal	Transition
TOTAL	366		

* Size of stock subject to availability

Ongoing Maintenance

Once the above specified trees are planted, the roving crew will not be able to mow the area. Exotic and ruderal plants will continue to invade the area as it succeeds to a mesic hammock. NAM will treat the invading exotic plants, emphasizing species such as Wedelia, Shoebuttton, Jasmine, Bishofia, Castor Bean, Burma Reed, Napier Grass, and Brazilian Pepper. It is likely that native and exotic Morning Glory vines will invade the site and threaten to cover the newly planted trees. NAM will treat this vine as needed to ensure the survival of the plantings. The native weedy tree, Florida Trema, will also colonize the site. Sometimes this tree forms large, unsightly monocultures. NAM will monitor this species and treat as necessary. EEL funding will be available for treatment of the replanted area.

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Appendix 1: Vascular Plants encountered at the Bill Sadowski Park Wetland Restoration site.

Plant list created by Steven W. Woodmansee, The Institute for Regional Conservation, August 20, 2007

Group	Family	Scientific Name	Common Names	Origin
Dicot	Asteraceae	<i>Bidens alba</i> var. <i>radiata</i>	Spanish-needles	N
Dicot	Asteraceae	<i>Eclipta prostrata</i>	False-daisy	N
Dicot	Asteraceae	<i>Eupatorium capillifolium</i>	Dog-fennel	N
Dicot	Asteraceae	<i>Eupatorium serotinum</i>	Lateflowering thoroughwort	N
Dicot	Asteraceae	<i>Pluchea carolinensis</i>	Cure-for-all	N
Dicot	Asteraceae	Wedelia trilobata	Creeping wedelia, Creeping oxeye	E
Dicot	Buddlejaceae	<i>Polyprenum procumbens</i>	Rustweed, Juniperleaf	N
Dicot	Convolvulaceae	Ipomoea triloba	Three-lobed morningglory, Littlebell	E
Dicot	Euphorbiaceae	<i>Chamaesyce hirta</i>	Hairy spurge, Pillpod sandmat	N
Dicot	Euphorbiaceae	Phyllanthus amarus	Gale-of-wind, Carry-me-seed	E
Dicot	Euphorbiaceae	<i>Poinsettia cyathophora</i>	Paintedleaf, Fire-on-the-mountain	N
Dicot	Euphorbiaceae	<i>Poinsettia heterophylla</i>	Fiddler's spurge, Mexican fireplant	N
Dicot	Loganiaceae	<i>Mitreola petiolata</i>	Miterwort, Lax hornpod	N
Dicot	Loganiaceae	<i>Spigelia anthelmia</i>	West Indian pinkroot	N
Dicot	Lythraceae	<i>Ammannia latifolia</i>	Pink redstem, Toothcup	N
Dicot	Onagraceae	<i>Ludwigia repens</i>	Creeping primrosewillow	N
Dicot	Rubiaceae	Spermacoce verticillata	Shrubby false buttonweed	E
Dicot	Scrophulariaceae	<i>Bacopa monnieri</i>	Water hyssop, Herb-of-grace	N
Dicot	Scrophulariaceae	<i>Mecardonia procumbens</i>	Baby jumpup	N
Dicot	Verbenaceae	<i>Phyla nodiflora</i>	Frogfruit, Turkey tangle fogfruit, Capeweed	N
Monocot	Commelinaceae	Commelina diffusa	Common dayflower	E
Monocot	Cyperaceae	<i>Cyperus distinctus</i>	Distinct flatsedge, Swamp flatsedge	N
Monocot	Cyperaceae	<i>Cyperus flavescens</i>	Yellow flatsedge	N
Monocot	Cyperaceae	<i>Cyperus ligularis</i>	Swamp flatsedge	N
Monocot	Cyperaceae	<i>Cyperus odoratus</i>	Fragrant flatsedge	N
Monocot	Cyperaceae	<i>Cyperus surinamensis</i>	Tropical flatsedge	N
Monocot	Cyperaceae	<i>Eleocharis geniculata</i>	Canada spikerush	N

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Group	Family	Scientific Name	Common Names	Origin
Monocot	Cyperaceae	Fimbristylis cymosa	Hurricane sedge, Hurricanegrass	N
Monocot	Cyperaceae	Fimbristylis spadicea	Marsh fimbry	N
Monocot	Cyperaceae	Kyllinga brevifolia	Shortleaf spikesedge	E
Monocot	Poaceae	Cynodon dactylon	Bermuda grass	E
Monocot	Poaceae	Digitaria ciliaris	Southern crabgrass	N
Monocot	Poaceae	Echinochloa colona	Jungle-rice	E
Monocot	Poaceae	Eustachys petraea	Common fingergrass, Pinewoods fingergrass	N
Monocot	Poaceae	Neyraudia reynaudiana	Burmareed, Silkreed	E
Monocot	Poaceae	Paspalum caespitosum	Blue paspalum, Blue crowgrass	N
Monocot	Poaceae	Paspalum conjugatum	Sour paspalum, Hilograss	N
Monocot	Poaceae	Setaria parviflora	Knotroot foxtail, Yellow bristlegrass	N
Monocot	Poaceae	Stenotaphrum secundatum	St. Augustine grass	E
			# of Native species =	29
			# of Exotic species =	10
			Total # of species =	39

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Figure 1: Bill Sadowski replanting site, 2007. The area scribed in yellow is slightly higher than the cleared area to its immediate east. The red area is the lowest area. The white area contains existing native trees.



Figure 2: Naturally occurring vegetation under the existing trees in the former wetland restoration area.