

# HOW TO

by Jeffrey L. Lincer

Several articles in previous issues of **The Palmetto** have spoken to the pressing legal and administrative needs for habitat protection (vs. efforts which try to protect specific species). I would like to share what Sarasota County is doing to meet the problem head-on.

## THE OPPORTUNITY

The opportunity came in the form of the state's Local Government Comprehensive Planning Act of 1975, and in this respect, the springboard was (and still is) available to all Florida local governments. Included in that act was the intent to "...encourage the most appropriate use of land, water [and] resources..." (Section 163.3161, F.S.) It further required consideration of, and provided a mechanism for, environmental awareness and assessment in conjunction with the planning process.

In response to the above legislation, a cooperative effort was initiated between what was then called the County's Office of Environmental Management, the Planning Department, and several interested local biologists and naturalists. We reasoned that a state mandate and available local expertise, coupled with a County government of demonstrated environmental concern, was prophetic of a successful venture. The effort was successful and on June 30, 1981, the Sarasota County Board of County Commissioners unanimously signed County Ordinance #81-30 which adopted their Comprehensive Plan, including an Environmental Element giving it the force of law. What makes this particular Comprehensive Plan unique is that it not only provides the usual "motherhood and apple pie" boiler plate, but it: 1) *inventories* each and every *native habitat* found in the county (see *The Habitats*); 2) *identifies* the *values* and *functions* of each; and 3) provides *specific management guidelines* for reviewing any proposed development in these habitats.

## THE PURPOSE

Any law must have a clear purpose. For this local legal action, the purpose is spelled out in its Goals and Objectives. The Goal is "...to conserve, maintain and, where necessary, restore the natural environment of Sarasota County, both because the natural environment is valuable in and of itself, and because it is such a critical part of Sarasota County's identity."

To further define the goal, the following list of objectives was provided:

- To improve, where possible, the water quality of surface waters, Sarasota's bays, and waterways.
- To enhance environmental education.
- To conserve the native habitats of Sarasota County, and preserve those

# SAVE A HABITAT

habitats that are endangered, exceedingly rare, or incompatible with most human uses.

- To conserve the natural resources of Sarasota County, including soils, potable water, and minerals.
- To conserve open space and protect native vegetation and wildlife.

## THE PROGRAM

Without specific programs, a plan goes nowhere. In that a comprehensive plan looks to the future, many of the proposed programs are directed at the societal decision-makers, the Board of County Commissioners. A sampling of these programs includes the following:

- Support, whenever possible, research on Sarasota County's natural environment and the dissemination of the findings of such research.
- Encourage the establishment of an environmental education and research center, such as the proposed MacArthur Environmental Education and Research Institute.
- Encourage land uses that conserve the environmental values and functions of Sarasota County's native habitats and that are consistent with the "Guiding Principles (Guidelines) for Evaluating Land Development Proposals in Native Habitats" (discussed below).
- Strive to preserve an adequate sample of each native habitat for environmental, educational, aesthetic, and scientific purposes.
- Adopt a site development review section within the **Land Development Regulations** (Ordinance #81-12) that includes a comprehensive review of the natural environment for land development proposals as part of the site development review process.
- Fulfill the County's open space requirements with "Open Space in Native Habitat" when land development involves the conversion of native habitat. Conversion of native habitat to intensive agriculture should follow the "Best Agricultural Conservation Management Guidelines."
- Utilize the recommendations of the Sarasota County Endangered Lands Advisory Board, or its successor, in establishing priorities of action needed to preserve specific areas.
- Utilize a full range of techniques as appropriate (including, but not limited to, tax incentives, transfer of development rights, the purchase of development rights and fee-simple public acquisition) to ensure the preservation of designated native habitats.
- Adopt a strengthened, revised version of Ordinance #78-13 (The Sarasota County Tree Protection Ordinance). (Note: This has been done.)
- Prohibit dredge-and-fill activities in

the Gulf of Mexico, bays, rivers, and streams of Sarasota County except to maintain existing drainage canals and existing or future County-approved navigation channels and beach nourishment projects. The dredging of new navigation channels shall be discouraged.

- Encourage the utilization of native vegetation in landscaping, prohibit the cultivation and sale of harmful exotic vegetation, and determine the feasibility of establishing a "vegetation bank" to conserve, when possible, native vegetation removed during landclearing and to provide a source of native vegetation for landscaping and revegetation.

## THE HABITATS — Identifying Values and Functions

Following an Intent Section (which emphasizes that the Environment and the Future Land Use Chapters are intended to be used together, and land development proposals must conform to the relevant plan sections of these chapters), a section entitled "Guiding Principles (Guidelines) for Evaluating Land Development Proposals in Native Habitat" provides *criteria* to be used in evaluating development

proposals and making decisions concerning land use changes in native habitats.

But before criteria can be discussed, values and functions must be recognized and appreciated. For instance, one of the most variable and impressive habitats found along our coast is the coastal hammock. These forests, often on the barrier islands between the dunes and the mangroves, sometimes look like their more inland counterparts, being dominated by cabbage palms, *Sabal palmetto*, and live oaks, *Quercus virginiana*, festooned with orchids and bromeliads. In other places, they seem to be at a biological crossroads. Southern red cedar, *Juniperus silicicola*, is often found in the county's coastal hammocks but rarely to the south. On the other hand, more exotic-sounding tropical plants, like saffron plum, *Bumelia v. calastrina*, and varnish leaf, *Dodonaea viscosa*, all found in this county, are rare to the north.

In addition to this botanical complexity, these coastal hammocks support migrating bird-life, the threatened gopher tortoise, *Gopherus polyphemus*, and provide unequalled opportunities for native landscaping.

In order to maximize conservation of this dwindling habitat, it would be important to allow only necessary,

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A habitat worth saving — wetland-fringing (cabbage palm) hammock in Sarasota County, protected by the County's Comprehensive Plan.

**HABITAT . . . . . from page 5**

selective clearing, leaving clusters of understory and overstory. Because of its rarity, in this county, any undisturbed tracts would, somehow, have to be preserved.

In retrospect, much time was spent on unnecessarily complex and technical approaches to this problem, only to settle on the two key issues: 1) *What are the values and functions that we, as stewards of our environment, want to protect?*, and 2) *How is each habitat to be managed?*

For reasons of administrative convenience and local name recognition, but based on and cross-referenced to standard and accepted scientific nomenclature, the habitats were broken down into ten major and 23 minor divisions (see Table 1). In a sequence, which is (a) geographically, from the barrier islands to the inland areas of the county, (b) environmentally, from extremely sensitive to generally less sensitive, (c) developmentally, from mostly developed to not yet developed, (d) land use-wise, from recreation and retirement to agriculture and open space, and (e) historically, from often "too late" to "opportune," the following excerpts and examples are provided with the hope that they will serve as a springboard for other local governments to follow in more meaningful and creative ways.

**MAPPING THE COUNTY**

To 1) inform the Board of County Commissioners, their advisory boards and professional staff, as well as potential developers, as to where native habitat was located and in what proportions, and 2) give an applicant for a development permit (e.g., Special Exception, Rezoning, Preliminary Plat, or DRI) some indication of what habitat might be on his/her parcel, a generalized habitat map of the entire County was developed at a scale of 1" to 2000'. Because of scale (and resulting resolution of approximately one acre), and as indicated in the Environmental Element, the 'APOXSEE Habitat Map' is intended to illustrate general locations only and *should not be a substitute for detailed site plans*, which should indicate the specific location of native habitat areas. Therefore, the Guidelines, used in conjunction with the habitat descriptions and the map, provide criteria to be utilized in evaluating land development proposals and guiding land use decisions.

**HOW'S IT WORKING?**

It's working just fine. Although there are always a few "rogues" in every profession, most developers are happier with clearly-stated, albeit more stringent, guidelines rather than amorphous generalities, which might be more leniently, but arbitrarily, interpreted (nobody likes to be "blind-sided" at the last moment after site plans have been set in philosophical and economic concrete). Therefore, it is absolutely critical that an early dialogue be established between

agency staff and the applicant. It is equally important to have technically competent staff, who will be consistent and equitable in the administration of these local ordinances; for the regulation's longevity depends on being capable of withstanding the legal challenges that will eventually come.

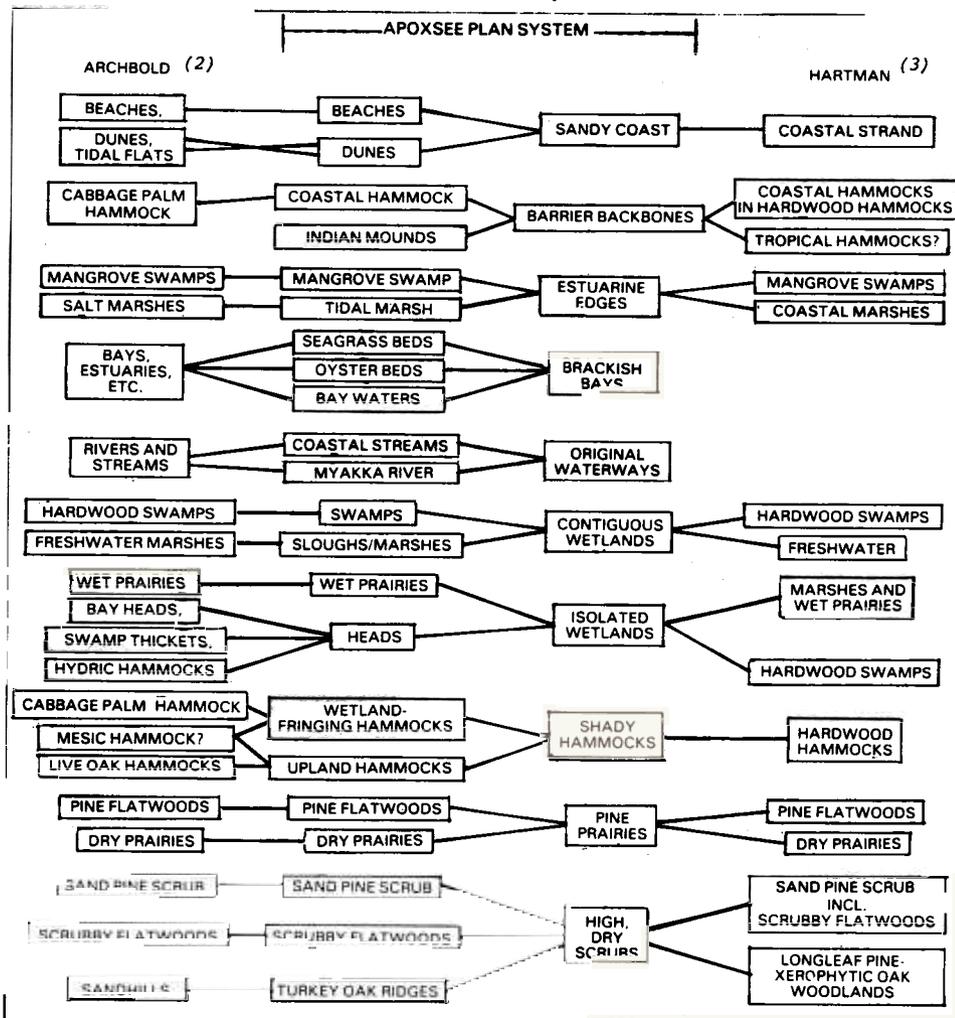
**WHAT'S IN A NAME?**  
 The county's plan was given the name **Apoxsee** by the Comp. Plan editors. It means "future" in the Seminole language. So with a look ahead and a special kind of reverence for the past, Sarasota County has taken its Comp. Plan mandate seriously and created an example of how local government can save native habitat.

**CONSCIENTIOUS ADMINISTRATION — The Bottom Line**

Whether it be a Tree Protection Ordinance, a Mining Ordinance, or the County Comprehensive Plan itself, without proper administration, the paper on which those regulations are written becomes just that much more "solid waste" to contend with.

Recognizing the importance of proper administration in any environmental management procedure, let me take this opportunity to encourage my academic colleagues to provide their undergraduate and graduate students with the appropriate preparatory course work and internship experiences. Interfacing science and local government is a difficult, but challenging and rewarding task. It provides unique and frequently effective opportunities for intelligent environmental management. With the

Table 1 Native Habitats, as depicted by Sarasota's Comprehensive Plan (Apoxsee), cross-referenced to standard nomenclature.(1)



(1) Sarasota County Board of County Commissioners. "Apoxsee, Sarasota County's Comprehensive Framework for the Future" Vol. I, Appendix F, p. 432. (1981).  
 (2) Archbold Biological Station. "Fish and Wildlife Inventory of the Seven County Region Included in the Central Florida Phosphate Areawide Environmental Impact Study," James N. Layne, et. al., (1977).  
 (3) Hartman, B. in "Rare and Endangered Biota of Florida," Vol. 1.-Mammals, James N. Layne (ed.), (1978).

phenomenal potential for effecting necessary change at the local and regional levels, it is a fantastic opportunity lost if we don't intellectually, technically, and practically equip our young people to rise to this challenge.

If you're not in a position to prepare students for tomorrow's challenges in local government, then take the plunge yourself. Get involved with the cities and counties in your area. With limited funds

for staffing (and the further threat of Proposition 1), but with a sincere desire to do the right thing, most local officials will welcome input from professionals.

The bottom line, of course, is that habitat is saved by *people*, not bureaucracies, implementing good local ordinances — and at the local level where all the action is — because it is there where the all-important land use decisions are made.

#### ESTUARINE EDGES

##### A. Specific Habitat: **Mangrove Swamps**

1. Environmental Values and Functions:
  - Nutrient conversion/detritus production contributing to local fisheries.
  - Shoreline protection.
  - Breeding areas for herons, ibises, cormorants, and pelicans.
  - Protective areas for immature stages of valuable fish and shellfish.
2. Management Guidelines:
  - Mangrove swamps should be preserved through State and County regulations and, where necessary, through public acquisition.
  - Filling of mangrove swamps should be strictly prohibited... removal of exotic vegetation... encouraged [and] revegetation of previously cleared mangrove swamps... encouraged.
  - Encourage educational programs oriented towards protection of this habitat.

#### CONTIGUOUS WETLANDS

##### A. Specific Habitat: **Swamps**

1. Environmental Values and Functions:
  - Water filtration (water quality) [and] natural floodwater storage.
  - High species diversity [and] habitat for many threatened or endangered wildlife species.
2. Management Guidelines:
  - Swamps should be preserved.

#### ISOLATED WETLANDS

##### A. Specific Habitat: **Wet Prairies** (includes Intermittent Ponds)

1. Environmental Values and Functions:
  - Role in hydrologic cycle... evapotranspiration.
  - Habitat for sandhill cranes [and] watering holes and food source for wildlife and cattle.
2. Management Guidelines:
  - The wetland functions of wet prairies that should be maintained include:
    - seasonal fluctuations of water level; and
    - protection of vegetation in areas subject to seasonal water level fluctuations.
  - Native vegetation buffering wet prairies should be maintained whenever possible.

#### PINE PRAIRIES

##### A. Specific Habitat: **Pine Flatwoods**

1. Environmental Values and Functions:
  - Pine flatwoods are the predominant native habitat in Sarasota County and are, therefore, the major habitat for many species of wildlife, including such rare species as the red-cockaded woodpecker and the bald eagle.
2. Management Guidelines:
  - Special emphasis should be placed on... meeting county open space requirements with canopy and understory vegetation left in "open space in native habitat."
  - Encourage the removal of harmful exotic vegetation, especially punk trees, *Melaleuca leucadendron*.

#### HIGH DRY SCRUBS

##### A. Specific Habitat: **Sand Pine Scrub**

1. Environmental Values and Functions:
  - Rare habitat with many threatened or endangered endemic species... unique scientific and educational opportunities.
  - According to the Florida Department of Natural Resources, this habitat is highly endangered.
  - Possible recharge areas for artesian aquifers.
2. Management Guidelines:
  - All sand pine scrub should be preserved.
  - Access should be restricted except for scientific and educational purposes due to the sensitivity of the endemic vegetation to pedestrian and vehicular traffic.

A complete copy of the *Environmental Element of Sarasota County's Comprehensive Plan* can be acquired by writing: Dr. Jeff Lincer, Scientific and Research Projects Advisor, County of Sarasota, 2086 Main Street, Sarasota, FL 33577.

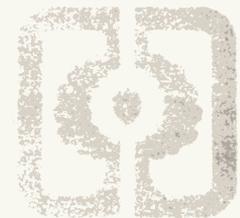
#### Wild Things—

**The Return of Native Plants**, by Georgia Tasker and Stephanie True Moss, describes the trees, shrubs, and ground covers that you can plant around your South Florida home. **WILD THINGS** tells you ● what they look like: their leaves, flowers, and fruit ● where they grow ● how much space they need.

By choosing native plants adapted to your own yard, you can nearly eliminate: ● watering ● spraying ● fertilizing ● replanting after a freeze.

Recreate a natural area, invite birds and butterflies to your yard, replant with Florida native plants. **WILD THINGS** will tell you what, and where, and how! **WILD THINGS** will make you enthusiastic about native plants! **WILD THINGS** will inspire you to grow native!

This soft-cover book, published by the Florida Native Plant Society, is illustrated with 32 pages of full-color artwork, 25 pages of black-and-white. \$5.00 plus \$1.00 postage. Order from Florida Native Plant Society, 1203 Orange Avenue, Winter Park, Florida 32789.



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