

NAPLES CONFERENCE PROCEEDINGS

CONSERVATION ISSUES OF THE FAKAHATCHEE STRAND

by Captain K.C. Alvarez

The Fakahatchee Strand is one of several distinct natural communities in the Big Cypress Swamp region of southwestern Florida. The dense, heavily vegetated swamps of this region are known as "strands" because they tend to be narrow and elongated. There are a number of strands in the Big Cypress Swamp. The Fakahatchee Strand State Preserve is the largest of these, and it is the principal drainage slough of the western part of the Big Cypress Swamp.

The main part of the Preserve is a large, mixed hardwood swamp. It was once dominated by bald cypresses, royal palms, and sabal palms, but following extensive logging operations, the dominant trees are red maples, laurel oaks, and bald cypresses. Within this mixed hardwood swamp are several low hammocks, and also numerous small lakes that occur in a central slough that occupies the center of the mixed hardwood swamp throughout its length from north to south.

Bordering the mixed hardwood swamp within the Preserve boundaries are freshwater marshes, wet prairies, cypress forests, and numerous small pine flatwoods islands. To the south of U.S. 41, also within the Preserve boundaries, are several coastal communities including mangrove swamps, salt marshes, and several tidal creeks.

Much of the land that is now within the Preserve boundaries was purchased by the Lee-Tidewater Cypress Company in 1913 for \$1,400,000. In 1922, they gave an option to Henry Ford, who was willing to purchase it for \$2,250,000 and give it to the State of Florida, but the state at that time was apparently not interested. During the Florida boom, the land values soared to seven or eight million dollars and the company president desperately wanted to sell the land because taxes became excessive. In 1930, a large number of royal palms were taken from the Fakahatchee and planted at the Hialeah race track. Logging operations finally began as a wartime measure in 1944, and continued until 1952. While the logging operation was underway in 1948, Dan Beard inspected the Fakahatchee to determine its suitability for inclusion into the nation's system of national monuments. Although he gave a positive recommendation, the proposal did not bear fruit. Another attempt was made in 1964, by Mel Finn, a Miami attorney who spent ten years trying to get the Fakahatchee Strand into public ownership. In 1963, Winifred Jones, a county commissioner from Copeland, received county funds to build a road — now known as Jane's Scenic Drive —

through the Fakahatchee Strand. In 1966, the Lee-Tidewater Cypress Company sold the land to Gulf-American Land Company for \$7,500,000. It was bought for resale as part of Golden Gate Estates and sold off in 1 1/4-acre lots. In 1972, the Florida Park Service began negotiations with G.A.C. Properties, and in 1974, 44,000 acres were purchased by the state.

The Fakahatchee is an extraordinary repository of ecological values. It contains the largest stand of Florida royal palms in the world. It is the only royal palm-bald cypress association on earth. It contains the largest concentration and the greatest variety of native orchids in North America. At least twelve species of plants that do not occur elsewhere in North America are found in the Fakahatchee Strand. It is vitally important to the remaining population of Florida Panthers. Other rare and endangered species of animals are also found there. It is important to the estuaries that lie to the south of it.

The three largest environmental issues facing the Fakahatchee Strand are:

1. Hydrology

Water is the life-blood of a freshwater swamp ecosystem. It must receive adequate amounts at the proper time of the year. In the past, canal construction in the vicinity of the Fakahatchee has seriously impaired the hydroperiod. These problems may

have been remedied. Hydrological data has been gathered for the past three years. An assessment of this data will be made in 1983 to determine the Preserve's hydrological needs.

2. Land Acquisition

The original acquisition proposal for the Fakahatchee Strand State Preserve encompassed approximately 60,000 acres. The initial purchase in 1974 included approximately 44,000 acres within this proposal; very little additional land has been added since then. An additional 20,000 acres of land adjacent to the original proposal have been identified as valuable buffers that should also be purchased. Acquisition of these additional lands is vital to the proper management of the Fakahatchee Strand. The essential political measure necessary to solve this problem is passage of an eminent domain bill. Passage of such a bill has thus far been unsuccessful.

3. The Florida Panther

Much of the recent radio-telemetry research that has so enhanced our knowledge of the Florida Panther has been conducted in and around the Fakahatchee Strand. It has shown that the Fakahatchee Strand is vitally important to the few remaining panthers, and that management measures in the Preserve should grant a high measure of consideration to the welfare of this endangered species.

AN ENERGY ANALYSIS OF RESIDENTIAL LANDSCAPES

by John H. Parker

INTRODUCTION

A number of studies have been made which analyze the potential use of vegetative landscaping for residential energy conservation. Some studies have indicated that vegetative windbreaks can reduce heating requirements of a residence in the midwest by 23 to 34 per cent by decreasing cold air infiltration during the heating season. Another recent analysis has documented a 58 to 65 per cent reduction in the energy used to air condition a double-wide mobile home during some very warm summer days in Miami, Florida.

In order to determine the overall energy savings associated with the use of vegetative landscaping, one should take into account the energy consumed in the installation and maintenance of that landscape. An energy analysis of a residential landscape should yield information regarding the energy inputs and the important energy interactions between a residence, its occupants, and

the vegetative landscaping. Furthermore, the information obtained can be utilized in the development of the important characteristics of an optimal energy conserving landscape design. Operational and maintenance practices which are most appropriate should be revealed.

ENERGY MAINTENANCE INPUTS

In order to do an energy analysis of residential landscapes, one must estimate the direct and indirect energy or "fossil fuel" inputs used in maintaining the various elements of the vegetative landscape: the trees, the shrubs, and the lawn. Determining the precise values for these inputs is impossible because of the extreme variations in maintenance practices associated with various vegetative species and systems. Nevertheless, cost estimates, coupled with data on the energy intensities of the various materials used, can at least reveal approximate values for typical requirements of vegetation commonly

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