State Lands Management Plan

For

Randell Mound at Pineland

DRAFT: January 2002

prepared by
Office of Finance and Administration
Facilities Planning & Construction Division
University of Florida
LAND MANAGEMENT PLAN

Randell Mound at Pineland

LEE COUNTY

PREPARED BY

OFFICE OF FINANCE AND ADMINISTRATION

FACILITIES PLANNING & CONSTRUCTION DIVISION

UNIVERSITY OF FLORIDA

FOR THE PERIOD

2001 THROUGH 2006
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State Lands Management Plan for Randell Mound at Pineland

I. Executive Summary
LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

Lead Agency: University of Florida/ Florida Museum of Natural History

Common Name of Property: Randell Mound at Pineland

Location: Pine Island, Lee County, Florida

Total Acreage: 0.57 acres

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<td>Total:</td>
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Lease Number: 4157

Use: Single Use

Management Responsibility:  
- **Agency**  
  - Florida Museum of Natural History  
  - University of Florida

- **Responsibility**  
  - Lead Manager  
  - Facilities Construction

Designated Land Use: The 0.57-acre parcel contains a historic mound that is designated for conservation.

Sublease(s): There are no subleases on this parcel.

Encumbrances: The property is not encumbered.

Type Acquisition: Emergency purchase by the Board of Trustees of the Internal Improvement Fund using the Emergency Archaeological Acquisition Fund.

Unique Resources: The parcel contains the Randell Mound, an archaeological artifact associated with the Calusa native American civilization dating to 50 A.D.

Management Needs: This parcel and the Randell Mound need to be managed as part of a larger complex totaling approximately 250 acres. The University of Florida Foundation currently owns an adjacent parcel that is subleased to the Florida Museum of Natural History to complement management of the state-owned Pineland parcel.

Acquisition Needs/Acreage: The Florida Forever (formerly CARL) program identifies 27 individual parcels that should be managed under a coordinated research, education, recreation and conservation strategy. This Pineland Complex totals 250 acres of land. The state owns 0.57 acres of the total complex.

Surplus Land Needs/Acreage: Neither the 0.57 state parcel nor any of the desired acquisition sites are considered surplus lands.

Public Involvement: The management plan for the 250-acre Pineland Complex, which includes the 0.57-acre state parcel, was developed with the assistance of an advisory board. The advisory board consists of local citizens, scientific experts, educators and benefactors established by the Florida Museum of Natural History.
Location of Lee County in Florida.
Randell Mound at Pineland

General Information
II GENERAL INFORMATION

1. COMMON NAME OF THE PROPERTY
   The common name of the property is the Randell Mound at Pineland.

2. LAND ACQUISITION PROGRAM
   A 0.57 tract was acquired with emergency funds by the Board of Trustees of the Internal Improvement Fund. It is proposed to acquire additional adjacent parcels under the Florida Forever (formerly CARL) program, Lee County Conservation 2020 program and the University of Florida Foundation.

3. SITE MAP SHOWING BOUNDARIES & STRUCTURES
   Refer to the maps on the following pages and in the appendix showing the location and boundaries of the property. There are no structures or improvements on the site.

4. PROXIMITY TO OTHER PUBLIC RESOURCES
   The state Pineland parcel is adjacent to the Randell Research Center located on Pine Island north of Sanibel Island in southwest Florida. The intercoastal waters adjacent to Pine Island comprise the Pine Island Sound Aquatic Preserve.

5. LEGISLATIVE OR EXECUTIVE CONTRAINTS TO USE OF PROPERTY
   There are no legislative or executive directives listed in the property lease that constrain the use of the property at this time.

6. DEGREE OF TITLE HELD BY THE BOARD
   The State of Florida Board of Trustees of the Internal Improvement Trust Fund holds fee simple title to the property.

7. PUBLIC INVOLVEMENT IN PREPARATION OF THE PLAN
   The public has participated in development of this Land Management Plan at various levels. In 1995 the Florida Museum of Natural History formed an advisory board to develop a management plan for the site. The board consists of local citizens, scientific experts, educators and benefactors. During the planning process the advisory board has appeared before planning, zoning and other officials in Lee County.
Randell Mound at Pineland

Natural and Cultural Resources
III Natural and Cultural Resources

8. RESOURCES LISTED IN THE STATE NATURAL AREAS INVENTORY
The Florida Natural Areas Inventory for the site was issued in December 1999. The map shows no identified element occurrences on the 0.57 acre state parcel or the larger proposed complex. As shown on the map, however, there is a former eagle nest approximately one mile east of the site plus two plant occurrences one half mile east of the complex.

9. HISTORIC OR CULTURAL RESOURCES ON THE PROPERTY
The state-owned Pineland parcel lies within an area listed on the National Register of Historic Places identified as LL1902-NR. The Pineland Complex was first occupied by Calusa Native Americans around 50 A.D. The initial accumulation of what would become high mounds began about 500 A.D. and was completed by 1400 A.D. A map of “Pineland in 1896” is included in the appendix for reference to the archaeological mounds, canals and other features on the site.

10. TYPES OF SOILS ON PROPERTY
The U.S. Department of Agriculture Soil Survey of Lee County, Florida dated December, 1984 shows the following soil types exist on the property. For the 0.57 acre state parcel, the soil type is listed as Matlacha gravelly fine sand. On the larger site complex, there are six distinct soils. They include Pompano fine sand (#10), Myakka fine sand (#11), Peckish mucky fine sand (#16), Wulfert muck (#23), Immokalee sand (#28) and Matlacha gravelly fine sand (#69). A map delineating areas of soil types follows this section.
Randell Mound at Pineland

Usage of the Property
IV Usage of the Property

11. DESCRIBE PAST USES INCLUDING UNAUTHORIZED USES
   The State-owned parcel is dominated by a shell mound where the Calusa Indians harvested oysters. This activity occurred over a period of some 1000 years. By the mid 1700’s the Calusa are believed to have left Florida and the site was abandoned until the middle of the nineteenth century. Around 1911 early Florida settlers established residences on the Pineland Complex and began farming activities. In 1995 construction of a foundation for a private residence had commenced on top of the shell mound (Randell Mound). The State subsequently purchased the Randell Mound parcel using the Emergency Archaeological Acquisition Fund.

12. PURPOSE FOR WHICH PROPERTY WAS ACQUIRED
   This property was acquired in order to preserve an important archaeological site and manage it as part of a larger complex. The site will be developed to meet the conservation, recreational and academic and research needs of the citizens of Florida.

13. PROJECTED USES OF THE PROPERTY
   The state Pineland parcel will be preserved and managed in accordance with an overall plan for the Randell Research Center. This plan is included in the appendix. Planned development, new structures or additions for the adjacent property owned by the University Foundation and leased to the University, are shown on the Randell Research Center map in the appendix.

14. DESIGNATED SINGLE USE OR MULTIPLE USES
   The Department of Environmental Protection defines “Single use” as management for one particular purpose to the exclusion of all other purposes. “Multiple use” is defined as the harmonious and coordinated management of natural and historic resources, making the most judicious use of the land for some resources and giving consideration to the relative values of various other resources. This property is designated for single use development and management as an archaeological site.

15. ALTERNATE USES CONSIDERED
   Alternate uses of the property have not been considered because of the clear objective in acquiring the property initially. This objective is to preserve and develop for public use, the archaeological remnants of a major Native American civilization that existed in Florida dating back almost 2000 years.
16. NEED FOR ADDITIONAL LAND
The Pineland Complex consists of the state-owned Pineland parcel and other properties titled to the University of Florida Foundation and leased to the University, plus various privately owned parcels of land. Included in the appendix is the study entitled “An Action Plan for the Randell Research Center at Pineland”. This study has a listing of parcels that should be acquired in order to manage the complex comprehensively and meet the programmatic and management needs of this site. Land parcels, their owner and estimated purchase costs are shown on the map following this section.
Randell Mound at Pineland

Management Activities
V Management Activities

17. MANAGEMENT ASSISTANCE RECEIVED
On October 14, 1996 the State Office of Environmental Services designated the University of Florida/Florida Museum of Natural History as the Lead Manager for the Pineland Site Complex. A copy of this document is included in the appendix. As part of the designation, the Office of Environmental Services acknowledged that it “will fulfill the applicable requirements of Sections 259.032(9) and 253.034, F.S., relating to management concerns”. In the year 2000, the University of Florida Foundation signed a Covenant of Unified Control for its properties within the Pineland Complex.

18. IMPORTANT MANAGEMENT NEEDS
Unified management of all 250 acres of the Pineland Complex is needed in order to balance the conservation of the archaeological resources with the academic research and public access objectives for the overall complex. Careful management of the wetland areas and archaeological canal artifacts is also required because of their relationship to the state managed Pine Island Sound Aquatic Preserve along the western shoreline of the site.

19. ADJACENT CONFLICTING USES
The 0.57-acre state parcel is surrounded by other, significant archaeological artifacts zoned AG-2 (agricultural) by Lee County. The western boundary interfaces with the Pine Island Sound Aquatic Preserve. These uses are considered compatible with this site and the Randell Mound.

20. FRAGILE, NON-RENEWABLE RESOURCES
Native Americans inhabited the Pineland Complex dating back to the year 50 A.D. By 1400 they had constructed a canal system, central lake, various structures, a sand burial mound and several shell mounds. Much of this infrastructure is still visible today. The 0.57-acre Pineland parcel contains the Randell mound. Should any of this be destroyed, it could not be replaced. Also of historical interest is a 2-story manor house constructed in 1926 on the waterfront across from the Pineland mounds that includes boat slips. There are also wetland areas on the larger complex that require protection. The University has implemented procedures to protect and preserve these resources. These procedures are presented in the document entitled “An Action Plan for the Randell Research Center at Pineland” produced by the Florida Museum of Natural History in 1996. A copy of this plan is included in the appendix.
21. **PLANS FOR NON-RENEWABLE NATURAL & CULTURAL RESOURCES**
Planned uses for this property are intended to protect the various historical and natural resources on the site. Development of the site for academic research, conservation and public access uses is being coordinated with Lee County, the Florida Division of Historical Resources, South Florida Water Management District and the Army Corps of Engineers.

22. **PLANS TO CONSERVE SOIL AND WATER RESOURCES**
Soil and water resources will be conserved by the implementation of Best Management Practices on the site. This includes protection of the Pine Island Sound Aquatic Preserve along the western boundary of the site by limiting soil disturbing activities along the shoreline.

23. **CONTROL AND PREVENTION OF SOIL EROSION**
The State-owned parcel and larger Pineland Complex is generally flat with a topographic elevation of 3.5 feet. Areas susceptible to soil erosion include the shoreline bank, the sand burial mound and the slopes along the canals and central lake. The mounds have been surveyed at 28-30 feet elevation and the canals were dug to a depth of 6 feet. Soil erosion of these areas will be controlled by minimizing soil disturbing activity, control of public access, maintenance of proper ground cover and restoration of eroded areas where needed.

24. **STATEMENT OF PROCEDURAL AGREEMENT**
The University of Florida/Florida Museum of Natural History AGREES with the following statement relative to this State Lands Management Plan:

THE MANAGING AGENCY FOR THE PROPERTY DESIGNATED IN THIS MANAGEMENT PLAN WILL CONSULT WITH THE DIVISION OF HISTORICAL RESOURCES BEFORE TAKING ACTIONS THAT MAY ADVERSELY AFFECT ARCHAEOLOGICAL OR HISTORICAL RESOURCES. THIS MANAGEMENT PLAN COMPLIES WITH THE “STATE LANDS MANAGEMENT PLAN” ADOPTED BY THE BOARD OF TRUSTEES ON MARCH 17, 1981 AND THE PLAN REPRESENTS BALANCED PUBLIC UTILIZATION.

25. **COMPLIANCE WITH LOCAL GOVERNMENT COMP PLAN**
This property is located within Lee County. The County was furnished a copy of this State Lands Management Plan and asked to provide review and comment as to whether the Plan complies with its adopted Comprehensive Plan.
Randell Mound at Pineland

Management Priorities
VI Management Priorities

26. SCHEDULE OF MANAGEMENT PRIORITIES
In order to manage the Pineland Complex, including the state-owned Pineland parcel, under a comprehensive program providing conservation, academic research and public access, the University of Florida/Florida Museum of Natural History has set the following management priorities:
   a) Implement endowment and income producing strategies;
   b) Acquire additional properties that enhance the management goals for the greater Pineland Complex;
   c) Continue archaeological and historical documentation; and
   d) Provide capital improvements and maintenance that support the management goals.

27. COST ESTIMATES FOR IMPLEMENTING PRIORITIES (1996)
   a) Endowment & income: $800,000 private funds with $400,000 State matching grant. Fundraising through the UF Foundation office.
   b) Acquisition of properties: To be negotiated through the UF Foundation office.
   c) Archaeological documentation: Expenses covered by UF and museum’s academic and research missions.
   d) Capital improvements: $282,000 appropriated by State in 2001 for public access infrastructure; $463,700 to restore canal; $1700 to restore saltern. Maintenance: $8500 annual estimate for mowing, repairs and contingencies.

28. COST ESTIMATES TO ENHANCE RESOURCES & RECREATION
   a) Remove exotics from wetlands: $3700 per acre.
   b) Restore citrus grove: $5000.
Randell Mound at Pineland

Appendix
SOILS OF THE FLATWOODS AND SLoughs

1. Intermediate-Pompano. Nearly level, poorly drained, deep soils that are sandy throughout; some have an organo-clayey subsoil.

2. Habitation-Boo. Nearly level, poorly drained, shallow to moderately deep, sandy soils; some are sandy throughout and some have a loamy subsoil.

3. Intermediate-Muquitz. Nearly level, poorly drained, deep, sandy soils; some have a sandy, organo-clayey subsoil throughout, and some have a loamy subsoil.

4. Ochra-Muquitz-quinolacite. Nearly level, poorly drained, deep, sandy soils; some have a sandy, organo-clayey subsoil throughout, and some have a loamy subsoil.

5. Pineflat-Boo-Quinolacite. Nearly level, poorly drained, deep and moderately deep, sandy soils; some have a loamy subsoil; some have a loamy subsoil, and some have a sandy, organo-clayey subsoil or a loamy subsoil.

SOILS OF THE SWAMPS AND SLoughs

6. Jordan-Boo-Quinolacite. Nearly level, poorly drained, deep and moderately deep, sandy soils; some have a loamy subsoil, and some have sandy, organo-clayey subsoil throughout.

7. Ochra-Muquitz-quinolacite. Nearly level, poorly drained, deep, sandy soils; some have a sandy, organo-clayey subsoil throughout, and some have a loamy subsoil.

8. Pineflat-Boo-Quinolacite. Nearly level, poorly drained, deep and moderately deep, sandy soils; some have a loamy subsoil; some have a loamy subsoil, and some have a sandy, organo-clayey subsoil or a loamy subsoil.

SOILS OF THE TIDAL AREAS AND BARRIER ISLANDS

9. Ochra-Kezar-Capon. Nearly level, very poorly drained and poorly drained soils; some are organic and some are sandy.

10. Peck-Quinolacite. Nearly level, very poorly drained, mucky soils; some have a sandy, organo-clayey subsoil, and some have a loamy subsoil.

11. Caprona-Capon-Kezar. Nearly level, somewhat poorly drained to very poorly drained soils that are sandy throughout with a varying mixture of shell fragments.

12. Mattiesa. Nearly level, somewhat poorly drained soils that are mostly mixed sands, shell fragments, and occasional fragments throughout.

Compiled 1983
Proposed CARL Acquisition - Pineland Site Complex. (Dashed line shows boundary of proposed acquisition.)
Map 1. The Pineland Site Complex as it might have appeared in 1896. (Map by Corbett Torrence, based on archaeological, topographic, documentary, and oral-historical research by the Florida Museum of Natural History.)
STATE OF FLORIDA

COUNTY OF LEON

CERTIFICATE

I, Judy A. Brooks, do hereby certify that the Governor and Cabinet, sitting as the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida, met on December 10, 1996, and approved the following Item 4 on the agenda for that date.

Item 4  Dr. Ighal Jan Option Agreement/Pineeland Site Complex CARL Project

REQUEST: Consideration of (1) an option agreement for the purchase of 0.57 acre within the Pineeland Site Complex CARL project, pursuant to section 259.027, F.S., from Dr. Ighal Jan; (2) designation of the Florida Museum of Natural History as managing agency; and (3) confirmation of the management policy statement.

COUNTY: Lee

LOCATION: Section 07, Township 44 South, Range 22 East

CONSIDERATION: $280,000 ($309,000 Trustees' share; $66,000 Lee County's share; and $5,000 Archeological Conservancy's share)

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STAFF REMARKS: On May 14, 1996, the Board of Trustees approved a request to utilize the Emergency Archaeological Acquisition Fund for the purchase of a 0.57-acre site known as the Randell Mound comprising a portion of the Pineeland Site Complex. The Pineeland Site Complex CARL project is ranked number 11 on the CARL Priority Project List approved by the Board of Trustees on February 13, 1996, and is eligible for negotiation under the Division of State Lands' Land Acquisition Workplan. This project contains 250 acres, of which these are the first to be acquired. After the Board of Trustees approves this agreement, 249.5 acres or 99 percent of the project will remain to be acquired.

The Board of Trustees waived section 259.041(7), F.S., regarding appraisal requirements to
allow the Division of State Lands’ Bureau of Appraisal to review an appraisal obtained by the Archeological Conservancy, a 501(c)(3) non-profit corporation specializing in historical and archeological sites.

This acquisition was treated as an emergency situation because the owner of the property had all required permits in place and had commenced construction on the site. The Board of Trustees’ approval of the use of the Emergency Archeological Acquisition Fund enabled the Archeological Conservancy to negotiate an option agreement, with the Archeological Conservancy as purchaser, thereby preventing the owner from further damaging the site. This allowed the Division of State Lands the time necessary to formulate this joint purchaser option agreement. The joint purchaser option agreement replaces the Archeological Conservancy’s option agreement with the property owner and will enable the property to be acquired for preservation. Construction is temporarily halted as the owner awaits exercise of this joint purchaser option agreement. The negotiated purchase price for the property exceeded the appraised value of the parcel because of the owner’s need to recoup his expenditure for costs associated with his architectural fees, building plans, permits and actual construction that had commenced on the site. Lee County has pledged up to $200,000 toward the purchase of lands within the Pineland Complex CARL project. The purchase price for this acquisition is $280,000. The agreement calls for the Board of Trustees to contribute $209,000 to the purchase. This represents the appraised value. Lee County has agreed to contribute $66,000 and the Archeological Conservancy will contribute the balance of $5,000.

All mortgages and liens will be satisfied at the time of closing. In the event the commitment for title insurance, to be obtained prior to closing, reveals any other encumbrances which may affect the value of the property or the proposed management of the property, staff will so advise the Board of Trustees prior to closing.

A certified survey and an environmental site assessment will be provided by the purchaser prior to closing.

Among the rich remains of the Calusa and earlier peoples around Charlotte Harbor, the Pineland Site Complex, with its large mounds and canals and well-preserved remains dating back almost 2,000 years, may be the most important—but it is also one of the more desirable areas for development on Pine Island. The Pineland Site Complex project will protect the archeological site and mangrove swamps near it, preserving a link of natural land to the Charlotte Harbor State Buffer Reserve, giving archeologists the opportunity to continue their research at the site, and giving the public an opportunity to learn how the ancient inhabitants of this fast-growing area lived.

Pursuant to section 259.052(9)(b)2., P.S., staff recommends that the Board of Trustees designate the Florida Museum of Natural History the managing agency for this site.
Certificate for Item 4
December 10, 1996 Trustees Agenda
Page Three

Section 259.035(3)(b)2., F.S., requires that the Board of Trustees, concurrent with its approval of the initial acquisition agreement within a project, "evaluate and amend, as appropriate, the management policy statement for the project as provided by section 259.035, F.S., consistent with the purposes for which the lands are acquired." The management policy statement for this project was included in the 1996 CARL Annual Report adopted by the Board of Trustees on February 13, 1996. Staff recommends that the Board of Trustees confirm the management policy statement as written.

This acquisition is consistent with the State Comprehensive Historic Preservation Plan and section 187.261(10), F.S., the Natural Systems and Recreational Lands section of the State Comprehensive Plan.

RECOMMEND APPROVAL

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Board of Trustees of the Internal Improvement Trust Fund's seal on this 10th day of December A.D., 1996.

[Signature]

Cabinet Affairs Director

SEAL
DESIGNATION OF LEAD MANAGER

University of Florida/Florida Museum of Natural History (managing entity)

does hereby agree to be designated as the lead manager, pursuant to the requirements of Section 259.035, Florida Statutes, for the following project identified on the current CARL acquisition list:

Pineland Site Complex

Furthermore, if said lands are acquired by the Board of Trustees of the Internal Improvement Trust Fund (Trustees), this agency agrees to manage them subject to a lease agreement between the Trustees and our agency. We also acknowledge that our agency will fulfill the applicable requirements of Sections 259.032(9), and 253.034, F.S., relating to management concerns. Additionally, we hereby acknowledge that management funds will be generated by proceeds of an endowment fund raised by the museum and therefore will not request management funds from the CARL Trust Fund.

Authorized Representative

16 October 1996

Doe
A. GENERAL DISCUSSION

Archaeological and historic sites are defined collectively in 267.021(3), F.S., as "historic properties" or "historic resources". They have several essential characteristics which must be recognized in a management program.

First of all, they are a finite and non-renewable resource. Once destroyed, presently existing resources, including buildings, other structures, shipwreck remains, archaeological sites and other objects of antiquity, cannot be renewed or revived. Today, sites in the State of Florida are being destroyed by all kinds of land development, inappropriate land management practices, erosion, looting, and to a minor extent even by well-intentioned professional scientific research (e.g., archaeological excavation). Measures must be taken to ensure that some of these resources will be preserved for future study and appreciation.

Secondly, sites are unique because individually they represent the tangible remains of events which occurred at a specific time and place.

Thirdly, while sites uniquely reflect localized events, these events and the origin of particular sites are related to conditions and events in other times and places. Sites can be understood properly only in relation to their natural surroundings and the activities of inhabitants of other sites. Managers must be aware of this "systemic" character of historic and archaeological sites. Also, it should be recognized that archaeological sites are time capsules for more than cultural history; they preserve traces of past biotic communities, climate, and other elements of the environment that may be of interest to other scientific disciplines.

Finally, the significance of sites, particularly archaeological ones, derives not only from the individual artifacts within them, but equally from the spatial arrangement of those artifacts in both horizontal and vertical planes. When archaeologists excavate, they recover, not merely objects, but also a record of the positions of these objects in relation to one another and their containing matrix (e.g., soil strata). Much information is sacrificed if the so-called "context" of archaeological objects is destroyed or not recovered, and this is what archaeologists are most concerned about when a site is threatened with destruction or damage. The artifacts themselves can be recovered even after a site is heavily disturbed, but the context - the vertical and horizontal relationships - cannot. Historic structures also contain a wealth of cultural (socio-economic) data which can be lost if historically sensitive maintenance, restoration or rehabilitation procedures are not implemented, or if they are demolished or extensively altered without appropriate documentation. Lastly, it should not be forgotten that historic structures often have associated potentially significant historic archaeological features which must be considered in land management decisions.
B. STATUTORY AUTHORITY

Chapter 253, Florida Statutes ("State Lands") directs the preparation of "single-use" or "multiple-use" land management plans for all state-owned lands and state-owned sovereignty submerged lands. In this document, 253.034(4), F.S., specifically requires that "all management plans, whether for single-use or multiple-use properties, shall specifically describe how the managing agency plans to identify, locate, protect and preserve, or otherwise use fragile non-renewable resources, such as archaeological and historic sites, as well as other fragile resources..."

Chapter 267, Florida Statutes is the primary historic preservation authority of the state. The importance of protecting and interpreting archaeological and historic sites is recognized in 267.061(1)(a), F.S.:

"The rich and unique heritage of historic properties in this state, representing more than 10,000 years of human presence, is an important legacy to be valued and conserved for present and future generations. The destruction of these nonrenewable historic resources will engender a significant loss to the state's quality of life, economy, and cultural environment. It is therefore declared to be state policy to:
1. Provide leadership in the preservation of the state's historic resources; [and]
2. Administer state-owned or state-controlled historic resources in a spirit of stewardship and trusteeship;...

Responsibilities of the Division of Historical Resources in the Department of State pursuant to 267.061(3), F.S., include the following:

1. Cooperate with federal and state agencies, local governments, and private organizations and individuals to direct and conduct a comprehensive statewide survey of historic resources and to maintain an inventory of such responses.
2. Develop a comprehensive statewide historic preservation plan.
3. Identify and nominate eligible properties to the National Register of Historic Places and otherwise administer applications for listing properties in the National Register of Historic Places.
4. Cooperate with federal and state agencies, local governments, and organizations and individuals to ensure that historic resources are taken into consideration at all levels of planning and development.
5. Advise and assist, as appropriate, federal and state agencies and local governments in carrying out their historic preservation responsibilities and programs.
6. Carry out on behalf of the state the programs of the National Historic Preservation Act of 1966, as amended, and to establish, maintain, and administer a state historic preservation program meeting the requirements of an approved program and fulfilling..."
the responsibilities of state historic preservation programs as provided in subsection 101(b) of that act.

7. Take such other actions necessary or appropriate to locate, acquire, protect, preserve, operate, interpret, and promote the location, acquisition, protection, preservation, operation, and interpretation of historic resources to foster an appreciation of Florida history and culture. Prior to the acquisition, preservation, interpretation, or operation of a historic property by a state agency, the Division shall be provided a reasonable opportunity to review and comment on the proposed undertaking and shall determine that there exists historic authenticity and a feasible means of providing for the preservation, interpretation and operation of such property.

8. Establish professional standards for the preservation, exclusive of acquisition, of historic resources in state ownership or control.

9. Establish guidelines for state agency responsibilities under subsection (2).

Responsibilities of other state agencies of the executive branch, pursuant to 267.061(2), F.S., include:

1. Each state agency of the executive branch having direct or indirect jurisdiction over a proposed state or state-assisted undertaking shall, in accordance with state policy and prior to the approval of expenditure of any state funds on the undertaking, consider the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the National Register of Historic Places. Each such agency shall afford the division a reasonable opportunity to comment with regard to such an undertaking.

2. Each state agency of the executive branch shall initiate measures in consultation with the division to assure that where, as a result of state action or assistance carried out by such agency, a historic property is to be demolished or substantially altered in a way which adversely affects the character, form, integrity, or other qualities which contribute to [the] historical, architectural, or archaeological value of the property, timely steps are taken to determine that no feasible and prudent alternative to the proposed demolition or alteration exists, and, where no such alternative is determined to exist, to assure that timely steps are taken either to avoid or mitigate the adverse effects, or to undertake an appropriate archaeological salvage excavation or other recovery action to document the property as it existed prior to demolition or alteration.

3. In consultation with the division [of Historical Resources], each state agency of the executive branch shall establish a program to locate, inventory, and evaluate all historic properties under the agency's ownership or control that appear to qualify for the National Register. Each such agency shall exercise caution to assure that any such historic property is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.
4. Each state agency of the executive branch shall assume responsibility for the preservation of historic resources which are owned or controlled by such agency. Prior to acquiring, constructing, or leasing buildings for the purpose of carrying out agency responsibilities, the agency shall use, to the maximum extent feasible, historic properties available to the agency. Each agency shall undertake, consistent with preservation of such properties, the mission of the agency, and the professional standards established pursuant to paragraph (3)(k), any preservation actions necessary to carry out the intent of this paragraph.

5. Each state agency of the executive branch, in seeking to acquire additional space through new construction or lease, shall give preference to the acquisition or use of historic properties when such acquisition or use is determined to be feasible and prudent compared with available alternatives. The acquisition or use of historic properties is considered feasible and prudent if the cost of purchase or lease, the cost of rehabilitation, remodeling, or altering the building to meet compliance standards and the agency's needs, and the projected costs of maintaining the building and providing utilities and other services is less than or equal to the same costs for available alternatives. The agency shall request the division to assist in determining if the acquisition or use of a historic property is feasible and prudent. Within 60 days after making a determination that additional space is needed, the agency shall request the division to assist in identifying buildings within the appropriate geographic area that are historic properties suitable for acquisition or lease by the agency, whether or not such properties are in need of repair, alteration, or addition.

6. Consistent with the agency's mission and authority, all state agencies of the executive branch shall carry out agency programs and projects, including those under which any state assistance is provided, in a manner which is generally sensitive to the preservation of historic properties and shall give consideration to programs and projects which will further the purposes of this section.

Section 267.12 authorizes the Division to establish procedures for the granting of research permits for archaeological and historic site survey or excavation on state-owned or controlled lands, while Section 267.13 establishes penalties for the conduct of such work without first obtaining written permission from the Division of Historical Resources. The Rules of the Department of State, Division of Historical Resources, for research permits for archaeological sites of significance are contained in Chapter 1A-32,F.A.C.

Another Florida Statute affecting land management decisions is Chapter 872, F.S. Section 872.02, F.S., pertains to marked grave sites, regardless of age. Many state-owned properties contain old family and other cemeteries with tombstones, crypts, etc. Section 872.05, F.S., pertains to unmarked human burial sites, including prehistoric and historic Indian burial sites. Unauthorized disturbance of both marked and unmarked human burial sites is a felony.
C. MANAGEMENT POLICY

The choice of a management policy for archaeological and historic sites within state-owned or controlled lands obviously depends upon a detailed evaluation of the characteristics and conditions of the individual sites and groups of sites within those tracts. This includes an interpretation of the significance (or potential significance) of these sites, in terms of social and political factors, as well as environmental factors. Furthermore, for historic structures architectural significance must be considered, as well as any associated historic landscapes.

Sites on privately owned lands are especially vulnerable to destruction, since often times the economic incentives for preservation are low compared to other uses of the land areas involved. Hence, sites in public ownership have a magnified importance, since they are the ones with the best chance of survival over the long run. This is particularly true of sites which are state-owned or controlled, where the basis of management is to provide for land uses that are minimally destructive of resource values.

It should be noted that while many archaeological and historical sites are already recorded within state-owned or controlled-lands, the majority of the uplands areas and nearly all of the inundated areas have not been surveyed to locate and assess the significance of such resources. The known sites are, thus, only an incomplete sample of the actual resources - i.e., the number, density, distribution, age, character and condition of archaeological and historic sites - on these tracts. Unfortunately, the lack of specific knowledge of the actual resources prevents formulation of any sort of detailed management or use plan involving decisions about the relative historic value of individual sites. For this reason, a generalized policy of conservation is recommended until the resources have been better addressed.

The generalized management policy recommended by the Division of Historical Resources includes the following:

1. State land managers shall coordinate all planned activities involving known archaeological or historic sites or potential site areas closely with the Division of Historical Resources in order to prevent any kind of disturbance to significant archaeological or historic sites that may exist on the tract. Under 267.061(1)(b), F.S., the Division of Historical Resources is vested with title to archaeological and historic resources abandoned on state lands and is responsible for administration and protection of such resources. The Division will cooperate with the land manager in the management of these resources. Furthermore, provisions of 267.061(2) and 267.13, F.S., combined with those in 267.061(3) and 253.034(4), F.S., require that other managing (or permitting) agencies coordinate their plans with the Division of Historical Resources at a sufficiently early stage to preclude inadvertent damage or destruction to known or potentially occurring, presently unknown archaeological and historic sites. The provisions pertaining to human burial sites must also be followed by state land managers.
when such remains are known or suspected to be present (see 872.02 and 872.05, F.S., and 1A-44, F.A.C.)

2. Since the actual resources are so poorly known, the potential impact of the managing agency's activities on historic archaeological sites may not be immediately apparent. Special field survey for such sites may be required to identify the potential endangerment as a result of particular management or permitting activities. The Division may perform surveys, as its resources permit, to aid the planning of other state agencies in their management activities, but outside archaeological consultants may have to be retained by the managing agency. This would be especially necessary in the cases of activities contemplating ground disturbance over large areas and unexpected occurrences. It should be noted, however, that in most instances Division staff's knowledge of known and expected site distribution is such that actual field surveys may not be necessary, and the project may be reviewed by submitting a project location map (preferably a 7.5 minute U.S.G.S. Quadrangle map or portion thereof) and project descriptive data, including detailed construction plans. To avoid delays, Division staff should be contacted to discuss specific project documentation review needs.

3. In the case of known significant sites, which may be affected by proposed project activities, the managing agency will generally be expected to alter proposed management or development plans, as necessary, or else make special provisions to minimize or mitigate damage to such sites.

4. If in the course of management activities, or as a result of development or the permitting of dredge activities (see 403.918(2)(6)a, F.S.), it is determined that valuable historic or archaeological sites will be damaged or destroyed, the Division reserves the right, pursuant to 267.061(1)(b), F.S., to require salvage measures to mitigate the destructive impact of such activities to such sites. Such salvage measures would be accomplished before the Division would grant permission for destruction of the affected site areas. The funding needed to implement salvage measures would be the responsibility of the managing agency planning the site destructive activity. Mitigation of historic structures at a minimum involves the preparation of measured drawings and documentary photographs. Mitigation of archaeological resources involves the excavation, analysis and reporting of the project findings and must be planned to occur sufficiently in advance to avoid project construction delays. If these services are to be contracted by the state agency, the selected consultant will need to obtain an Archaeological Research Permit from the Division of Historical Resources, Bureau of Archaeological Research (see 267.12, F.S. and Rules 1A-32 and 1A-46 F.A.C.).

5. For the near future, excavation of non-endangered (i.e., sites not being lost to erosion or development) archaeological sites is discouraged. There are many endangered sites in Florida (on both private and public lands) in need of excavation because of the threat of development or other factors. Those within state-owned or controlled lands should be left undisturbed for the present - with particular attention devoted to preventing site looting by "treasure hunters." On the other hand, the archaeological and historic survey of these tracts is encouraged in order to build an inventory of the resources present, and to assess their scientific research potential and historic or architectural significance.
6. The cooperation of land managers in reporting sites to the Division that their field personnel may discover is encouraged. The Division will help inform field personnel from other resource managing agencies about the characteristics and appearance of sites. The Division has initiated a cultural resource management training program to help accomplish this. Upon request the Division will also provide to other agencies archaeological and historical summaries of the known and potentially occurring resources so that information may be incorporated into management plans and public awareness programs (See Management Implementation).

7. Any discovery of instances of looting or unauthorized destruction of sites must be reported to the agent for the Board of Trustees of the Internal Improvement Trust Fund and the Division so that appropriate action may be initiated. When human burial sites are involved, the provisions of §72.02 and §72.05, F. S. and Rule 1A-44, F.A.C., as applicable, must also be followed. Any state agent with law enforcement authority observing individuals or groups clearly and incontrovertibly vandalizing, looting or destroying archaeological or historic sites within state-owned or controlled lands without demonstrable permission from the Division will make arrests and detain those individuals or groups under the provisions of 267.13, 901.15, and 901.21, F.S., and related statutory authority pertaining to such illegal activities on state-owned or controlled lands. County Sheriffs' officers are urged to assist in efforts to stop and/or prevent site looting and destruction.

In addition to the above management policy for archaeological and historic sites on state-owned land, special attention shall be given to those properties listed in the National Register of Historic Places and other significant buildings. The Division recommends that the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Revised 1990) be followed for such sites.

The following general standards apply to all treatments undertaken on historically significant properties.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alterations of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of
deterioration requires replacement of a distinctive feature, the new feature shall match the old
in design, color, texture, and other visual qualities and, where possible, materials.
Replacement of missing features shall be substantiated by documentary, physical, or pictorial
evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic
materials shall not be used. The surface cleaning of structures, if appropriate, shall be
undertaken using the gentlest means possible.

8. Significant archaeological resources affected by a project shall be protected and preserved. If
such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy materials
that characterize the property. The new work shall be differentiated from the old and shall be
compatible with the massing, size, scale, and architectural features to protect the historic
integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner
that if removed in the future, the essential form and integrity of the historic property and its
environment would be unimpaired. (see Secretary of the Interior's Standards for
Rehabilitation and Guidelines for Rehabilitating Historic Buildings [Revised 1990]).

Division of Historical Resources staff are available for technical assistance for any of the
above listed topics. It is encouraged that such assistance be sought as early as possible in the
project planning.

D. MANAGEMENT IMPLEMENTATION

As noted earlier, 253.034(4), F.S., states that "all management plans, whether for single-
use or multiple-use properties, shall specifically describe how the managing agency plans to
identify, locate, protect and preserve, or otherwise use fragile non-renewable resources, such as
archaeological and historic sites..." The following guidelines should help to fulfill that
requirement.

1. All land managing agencies should contact the Division and send U.S.G.S. 7.5 minute
quadangle maps outlining the boundaries of their various properties.

2. The Division will in turn identify site locations on those maps and provide descriptions for
known archaeological and historical sites to the managing agency.

3. Further, the Division may also identify on the maps areas of high archaeological and historic
site location probability within the subject tract. These are only probability zones, and sites
may be found outside of these areas. Therefore, actual ground inspections of project areas may still be necessary.

4. The Division will send archaeological field recording forms and historic structure field recording forms to representatives of the agency to facilitate the recording of information on such resources.

5. Land managers will update information on recorded sites and properties.

6. Land managers will supply the Division with new information as it becomes available on previously unrecorded sites that their staff locate. The following details the kind of information the Division wishes to obtain for any new sites or structures which the land managers may report:

A. Historic Sites

(1) Type of structure (dwelling, church, factory, etc.).

(2) Known or estimated age or construction date for each structure and addition.

(3) Location of building (identify location on a map of the property, and building placement, i.e., detached, row, etc.).

(4) General Characteristics: (include photographs if possible) overall shape of plan (rectangle, "L", "T", "H", "U", etc.); number of stories; number of vertical divisions of bays; construction materials (brick, frame, stone, etc.); wall finish (kind of bond, coursing, shingle, etc.); roof shape.

(5) Specific features including location, number and appearance of:

   (a) Important decorative elements;
   (b) Interior features contributing to the character of the building;
   (c) Number, type, and location of outbuildings, as well as date(s) of construction;
   (d) Notation if property has been moved;
   (e) Notation of known alterations to building.

B. Archaeological Sites

(1) Site location (written narrative and mapped location).

(2) Cultural affiliation and period.

(3) Site type (middens, burial mound, artifact scatter, building rubble, etc.).

(4) Threats to site (deterioration, vandalism, etc.).

(5) Site size (acreage, square meters, etc.).
(6) Artifacts observed on ground surface (pottery, bone, glass, etc.).

(7) Description of surrounding environment.

7. No land disturbing activities should be undertaken in areas of known archaeological or historic sites or areas of high site probability without prior review by the Division early in the project planning.

8. Ground disturbing activities may proceed elsewhere but land managers should stop disturbance in the immediate vicinity of artifact finds and notify the Division if previously unknown archaeological or historic remains are uncovered. The provisions of Chapter 872, F.S., must be followed when human remains are encountered.

9. Excavation and collection of archaeological and historic sites on state lands without a permit from the Division is a violation of state law and shall be reported to a law enforcement officer. The use of metal detectors to search for historic artifacts shall be prohibited on state lands except when authorized in a 1A-32, F.A.C., research permit from the Division.

10. Interpretation and visitation which will increase public understanding and enjoyment of archaeological and historic sites without site destruction or vandalism is strongly encouraged.

11. Development of interpretive programs including trails, signage, kiosks, and exhibits is encouraged and should be coordinated with the Division.

12. Artifacts found or collected on state lands are by law the property of the Division. Land managers shall contact the Division whenever such material is found so that arrangements may be made for recording and conservation. This material, if taken to Tallahassee, can be returned for public display on a long term loan.

E. ADMINISTERING AGENCY

Questions relating to the treatment of archaeological and historic resources on state lands may be directed to:

Compliance Review Section
Bureau of Historic Preservation
Division of Historical Resources
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

Contact Person:
Scott B. Edwards
Historic Preservation Planner
Telephone (850) 487-2333
Suncom 277-2333
FAX (850) 922-0496
SOIL LEGEND

69—Matlacha gravelly fine sand. This is a nearly level, somewhat poorly drained soil formed by filling and earthmoving operations. Slopes are smooth to slightly convex and range from 0 to 2 percent.

Typically, the surface layer is about 35 inches of black, olive brown, grayish brown, dark brown, light brownish gray, very dark gray, and very pale brown mixed gravelly fine sand and sandy mineral material. The surface layer contains lenses of loamy sand and coated sandy fragments of former subsoil material with about 25 to 30 percent limestone and shell fragments. Below this, to a depth of 80 inches or more, is undisturbed fine sand.

The upper 5 inches is dark gray and the lower 40 inches is light gray with common, medium, distinct dark grayish brown stains along old root channels.

Included with this soil in mapping are areas of similar soils that contain finer textured material throughout the fill. Also included are small areas that contain boulders or more than 35 percent rock fragments larger than 3 inches throughout the fill. In addition, there are areas of similar soils that have loamy material and limestone bedrock below the fill. Other inclusions are areas of fill less than 20 inches thick over undisturbed soils. These inclusions make up about 10 to 15 percent of any mapped area.

The depth to the water table varies with the amount of fill material and the extent of artificial drainage. However, in most years, the water table is 24 to 36 inches below the surface of the fill material for 2 to 4 months. It is more than 60 inches below the surface during extended dry periods.

The available water capacity is variable, but it is estimated to be low. Permeability is variable within short distances, but it is estimated to be moderately rapid to rapid in the fill material and rapid in the underlying material. Natural fertility is estimated to be low.

Most of the natural vegetation has been removed. The existing vegetation consists of South Florida slash pine and various scattered weeds.

This soil is poorly suited to most plants unless topsoil is spread over the surface to form a suitable roof zone. This soil has severe limitations for sanitary facilities and recreational uses and moderate limitations for most building site development. The high water table and sandy surface texture are the major limitations. Unstable surface material can severely erode shallow excavations, and the high water table severely limits use for dwellings with basements. In scattered areas where the fill material contains boulders or compacted material, the installation of underground utilities or functioning of septic tank absorption fields may be a problem.

This Matlacha soil is in capability subclass VIs.
This EauGallie soil is in capability subclass IVw.

10—Pompano fine sand. This is a nearly level, poorly drained soil on sloughs. Slopes are smooth to concave and range from 0 to 1 percent.

Typically, the surface layer is dark gray fine sand about 4 inches thick. The underlying layers are light gray, very pale brown, or white fine sand and extend to a depth of 80 inches or more.

Included with this soil in mapping are small areas of Malabar, Anclote, and Valkaria soils. Also included are small areas of a soil that has limestone at a depth of 40 to 80 inches. The included soils make up about 10 to 15 percent of any mapped area.

In most years, under natural conditions, the water table is at a depth of less than 10 inches for 2 to 4 months and at a depth of 10 to 40 inches for about 6 months. It recedes to a depth of more than 40 inches for about 3 months. During periods of high rainfall, the soil is covered by slowly moving water for periods of about 7 to 30 days or more.

The available water capacity is very low. Natural fertility is low. Permeability is rapid.

Natural vegetation consists of pineland threeawn, scattered South Florida slash pine, bluestem, madecane, and scattered sawpalmetto.

This soil is poorly suited to cultivated crops because of wetness and sandy texture. The kinds of crops that will grow on this soil are limited unless very intensive management practices are followed. With good water control measures and soil-improving measures, this soil can be made suitable for some vegetable crops. A water control system is needed to remove excess water in wet seasons and provide water through subsurface irrigation in dry seasons. Row crops should be rotated with close-growing, soil-improving crops. The rotation should keep the soil-improving crops on the land three-fourths of the time. Seedbed preparation should include bedding of the rows. Fertilizer and lime should be added according to the needs of the crops.

The soil is poorly suited to citrus. It is suitable for citrus only after a carefully designed water control system has been installed that will maintain the water table below a depth of 4 feet. The trees should be planted on beds and a vegetative cover maintained between the trees. Regular applications of fertilizer and lime are needed.

The soil is well suited to pasture. Pangoligrass, improved bahiagrasses, and white clover grow well when they are well managed. Water control measures are needed to remove excess surface water after heavy rains. Regular applications of fertilizer and lime are needed. Controlling grazing helps to prevent overgrazing and weakening of the plants.

The soil has moderately high potential productivity for South Florida slash pine.

This soil has high potential for desirable range plant production. The dominant forage consists of blue madecane, chalky bluestem, and bluejoint panicum. Management practices should include deferred grazing.

This Pompano soil is in the Slough range site.

The soil has severe limitations for urban and recreational uses because of the high water table.

This Pompano soil is in capability subclass IVw.

11—Myakka fine sand. This is a nearly level, poorly drained soil on broad flatwoods areas. Slopes are smooth to slightly concave and range from 0 to 2 percent.

Typically, the surface layer is very dark gray fine sand about 3 inches thick. The subsurface layer is fine sand about 23 inches thick. In the upper 3 inches it is gray, and in the lower 20 inches it is light gray. The subsoil is fine sand to a depth of 80 inches or more. The upper 4 inches is black and firm, the next 5 inches is dark reddish brown and friable, the next 17 inches is black and firm, the next 11 inches is dark reddish brown and friable, and the lower 17 inches is mixed black and dark reddish brown and friable.

Included with this soil in mapping are areas of EauGallie, Immokalee, Oldsmar, Smyran, and Wabasso soils. Also included are small areas of similar soils with subsoils low in organic matter content and less than 12 inches thick. Included soils make 10 to 15 percent of any mapped area.

In most years, under natural conditions, the water table is within 10 inches of the surface for 1 to 3 months and 10 to 40 inches below the surface for 2 to 6 months. It is more than 40 inches below the surface during extended dry periods.

The available water capacity is medium in the subsoil and very low in the surface and subsurface layers. Natural fertility is low. Permeability is rapid in the surface and subsurface layers and moderate to moderately rapid in the subsoil.

Natural vegetation consists of sawpalmetto, fetterbush, pineland threeawn, and South Florida slash pine.

This soil is poorly suited to cultivated crops because of wetness and poor soil quality. The number of adapted crops is limited unless very intensive management practices are followed. With good water control and soil improving measures, the soil can be made suitable for some vegetable crops. A water control system is needed to remove excess water in wet seasons and provide water through subsurface irrigation in dry seasons. Row crops should be rotated with close-growing, soil-improving crops. The rotation should keep the soil-improving crops on the land three-fourths of the time. Seedbed preparation should include bedding of the rows. Fertilizer and lime should be added according to the need of the crops.

This soil is poorly suited to citrus. Areas subject to frequent freezing in winter are not suitable. This soil is
suitable for citrus only after a carefully designed water control system has been installed that will maintain the water table below a depth of 4 feet. The trees should be planted on beds and a vegetative cover maintained between the trees. Regular applications of fertilizer and lime are needed.

This soil is well suited to pasture. Pangolagrass, improved bahiagrass, and white clover grow well when they are well managed. Water control measures are needed to remove excess surface water after heavy rains. Regular applications of fertilizer and lime are needed. Controlling grazing helps to prevent overgrazing and weakening of the plants.

The soil has moderate potential productivity for South Florida slash pine. Bedding of rows helps in establishing seedlings and in removing excess surface water.

This soil has moderate potential for desirable range plant production. The dominant forage is creeping bluestem, lopsided indiangrass, pineland threawn, and chalky bluestem. Management practices should include deferred grazing and brush control. This Myakka soil is in the South Florida Flatwoods range site.

The soil has severe limitations for urban development because of the high water table.

This Myakka soil is in capability subclass IVw.

12—Felda fine sand. This is a nearly level, poorly drained soil on broad, nearly level sloughs. Slopes are smooth to concave and range from 0 to 2 percent.

Typically, the surface layer is dark gray fine sand about 8 inches thick. The subsurface layer is light gray and light brownish gray fine sand about 14 inches thick. The subsoil is light gray loamy fine sand about 16 inches thick and is underlain by gray and light gray fine sand that extends to a depth of 80 inches or more.

Included with this soil in mapping are small areas of Boca, Malabar, Oldsmar, Fineda, and Wabasso soils. These inclusions rarely exceed 15 percent of any mapped area.

In most years, under natural conditions, this soil has a water table within 10 inches of the surface for 2 to 4 months. The water table is 10 to 40 inches below the surface for about 6 months. It is more than 40 inches below the surface for about 2 months. During periods of high rainfall, the soil is covered by a shallow layer of slowly moving water for periods of about 7 to 30 days or more.

The available water capacity is low in the surface and subsurface layers and medium in the subsoil. Natural fertility is low. Permeability is rapid in the surface and subsurface layers, moderate or moderately rapid in the subsoil, and rapid in the substratum.

Natural vegetation consists of cabbage palm, pineland threawn, South Florida slash pine, waxmyrtle, and madencane.

This soil is poorly suited to cultivated crops because of wetness. If a complete water control system is used, the soil is well suited to many fruit and vegetable crops. A complete water control system is one that removes excess water rapidly and provides a means of applying subsurface irrigation. Soil-improving crops are recommended. Seedbed preparation should include bedding. Fertilizer should be applied according to the needs of the crop.

With proper water control, the soil is well suited to citrus trees. A water control system that maintains good drainage to a depth of about 4 feet is needed. Bedding and planting the trees on the beds help provide good surface drainage. A good cover of close-growing vegetation is needed between the trees to protect the soil from blowing when the trees are young. The trees require regular applications of fertilizer and occasional liming.

This soil is well suited to pasture and hay. It is well suited to pangolagrass, bahiagrass, and clover. Excellent pastures of grass or of a grass-clover mixture can be grown with good management. Regular applications of fertilizer and controlled grazing are needed for highest yields.

The potential productivity for pine trees on this soil is moderately high. However, adequate water control is needed before the potential can be attained. Equipment limitations, seedling mortality, and plant competition are the main management concerns. South Florida slash pine is the best tree to plant.

This soil has high potential for range plant production. The dominant forage consists of blue madencane, chalky bluestem, and bluejoint panicum. Management practices should include deferred grazing. This Felda soil is in the Slough range site.

This soil has severe limitations for urban uses because of the high water table.

This Felda soil is in capability subclass IIw.

13—Boca fine sand. This is a nearly level, poorly drained soil on flatwoods. Slopes are smooth and range from 0 to 2 percent.

Typically, the surface layer is gray fine sand about 3 inches thick. The subsurface layer is fine sand about 22 inches thick. The upper 1 inches is light gray and the lower 11 inches is very pale brown. The subsoil, about 5 inches thick, is gray fine sandy loam with brownish yellow mottles and calcareous nodules. At a depth of 30 inches is a layer of fractured limestone.

Included with this soil in mapping are small areas of Hallandale, Wabasso, and Felda soils that have a yellowish horizon between the subsurface layer and the soil. Also included are soils with limestone at a depth of 40 to 72 inches and small areas where the soil is better drained than is typical. Included soils make up about 15 percent of any mapped area.

In most years, under natural conditions, the water table is within 10 inches of the surface for 2 to 4
This Valkaria soil is in capability subclass IVw.

**15—Estero muck.** This is a nearly level, very poorly drained soil on broad tidal marsh areas. Slopes are smooth and range from 0 to 1 percent.

Typically, the surface layer is about 13 inches thick. The upper 5 inches is black muck, the next 3 inches is black fine sand, and the lower 5 inches is very dark gray fine sand. The subsurface layer is fine sand about 20 inches thick. The upper 6 inches is light brownish gray with few fine distinct yellowish red mottles. The lower 14 inches is grayish brown with few, medium, distinct yellowish red mottles. The subsoil is massive fine sand about 22 inches thick. The upper 6 inches is black and dark grayish brown, the next 4 inches is black and dark reddish brown, and the lowermost 12 inches is dark brown and black. Grayish brown fine sand with very fine distinct black mottles extends to a depth of 80 inches or more.

Included with this soil in mapping are small areas of Hallandale fine sand, tidal. Also included are soils that do not have a mucky surface layer.

The water table fluctuates with the tide. The soil is subject to tidal flooding.

The available water capacity is low. Natural fertility is low. Permeability is moderately rapid.

Natural vegetation consists of seashore saltgrass, batis, oxeye daisy, black mangrove, and scattered red mangrove.

This soil has moderate potential for range plant production. Saltwater marshes are on level sites where tidal flow of saltwater and brackish water have a significant effect on plant composition. When in good or excellent condition, the saltwater marsh is dominated by smooth cordgrass, marshhay cordgrass, seashore saltgrass, and numerous other grasses and forbs. These grasses and forbs provide high levels of palatable forage for livestock grazing. Good grazing and burning management are required to maintain these sites in their most desirable condition. This Estero soil is in the Salt Water Marsh range site.

This soil is not suitable for cultivated crops, pasture grasses, citrus, or woodland because of the flood hazard and high salt content.

This soil has severe limitations for urban and recreational uses because of the flood hazard, high water table, and high salt content.

This Estero soil is in capability subclass VIIIw.

**16—Peckish mucky fine sand.** This is a nearly level, very poorly drained soil on broad tidal swamp areas. Slopes are smooth and range from 0 to 1 percent.

Typically, the surface layer is mucky fine sand about 9 inches thick. The upper 4 inches is dark reddish brown, the next 2 inches is dark grayish brown, and the lower 3 inches is dark reddish brown. The subsurface layer is gray and light gray fine sand with light gray streaks in the upper part and light brownish gray and grayish brown mottles in the lower part. It is about 27 inches thick. The subsoil is fine sand about 12 inches thick. The upper 7 inches is dark grayish brown and very dark grayish brown, and the lower 5 inches is brown and dark brown with very dark grayish brown mottles. The substratum is pale brown fine sand with very dark grayish brown streaks to a depth of 61 inches or more.

Included with this soil in mapping are small areas of Hallandale, Boca, and Estero soils. Also included are soils with loamy material and limestone below a depth of 40 inches. Included soils make up about 10 to 15 percent of any mapped area.

The water table fluctuates with the tide. The soil is subject to tidal flooding.

The available water capacity is high in the surface layer and medium or low in the other layers. Natural fertility is low. Permeability is rapid.

Natural vegetation consists of black mangrove, American mangrove, and batis.

This soil is not suitable for cultivated crops, pasture grasses, citrus, or woodland. It has severe limitations for urban and recreational uses because of the flooding, high water table, and sandy textures.

This Peckish soil is in capability subclass VIIIw.

**17—Daytona sand.** This is a nearly level to gently sloping, moderately well drained soil on low ridges on the flatwoods. Slopes are smooth to convex and are 0 to 5 percent.

Typically, the surface layer is dark gray sand about 4 inches thick. The subsurface layers are light gray and white sand about 39 inches thick. The subsoil is sand to a depth of 80 inches or more. The upper 7 inches is mixed black and dark reddish brown, and the lower 30 inches is dark brown.

Included with this soil in mapping are small areas of Immobile, Myakka, Orsino, and Pompano soils. Also included are similar soils with a combined surface and subsurface layer that is more than 51 inches thick. All included soils except the Orsino soils are in lower positions on the landscape. Included soils make up less than 15 percent of any mapped area.

In most years, under natural conditions, the water table is at a depth of 24 to 40 inches for about 1 to 4 months. It is at a depth of 40 to 60 inches for 8 months.

The available water capacity is very low, except in the subsoil where it is medium. Natural fertility is low. Permeability is very rapid in the surface layer and moderately rapid in the subsoil.

The natural vegetation consists of oaks, sawpalmetto, South Florida slash pine, and gallberry.

This soil is not suitable for cultivated field crops.

This soil has fair suitability for pasture. Grasses, such as pungolagrass and bahiagrass, make fair yields under good management.
Most improved grasses and clovers adapted to the area grow well on this soil if water is properly controlled. Pangolagrass, bahiagrass, and white clover grow well. Water control that maintains the water table near the surface prevents excessive oxidation of the organic horizons. Fertilizers high in potassium, phosphorus, and minor elements are needed. Grazing should be controlled to permit maximum yields.

This soil is not suitable for citrus.

This soil has moderate potential for desirable range plant production. The dominant forage is maidencane and cutgrass. Because the depth to the water table fluctuates throughout the year, a natural deferment from cattle grazing occurs. Although this rest period increases forage production, the periods of high water may reduce the grazing value of the site. This Gator soil is in the Fresh Water Marshes and Ponds range site.

This soil is not suitable for pine trees. It has severe limitations for urban and recreational development because of ponding.

This Gator soil is in capability subclass VIIw.

20—Terra Ceia muck. This is a nearly level, very poorly drained organic soil on freshwater marsh areas. Slopes range from 0 to 1 percent.

Typically, the surface layer is black, well decomposed organic material about 8 inches thick. The underlying organic material extends to a depth of 53 inches. The upper 27 inches is black, well decomposed organic material. The next 18 inches is very dark grayish brown, well decomposed organic material. Mineral material extends to a depth of 80 inches or more. The upper 3 inches is black mucky fine sand. The next 3 inches is light brownish gray fine sand. The lower 21 inches is dark gray and gray fine sandy loam.

Included with this soil in mapping are Gator soils and areas of similar soils in which the organic material is less than 16 inches thick. Also included are small areas where the organic material is more than 80 inches thick. Included soils make up about 15 percent of any mapped area.

In most years, under natural conditions, the soil is covered with water for 3 to 6 months. The water table is 10 to 24 inches below the surface during extended dry periods.

The available water capacity is medium. Natural fertility is moderate. Permeability is rapid.

Natural vegetation consists of sawgrass, sand cordgrass, and waxmyrtle.

This soil is poorly suited to cultivated crops because of wetness. In its natural condition it is not suitable for cultivation, but with adequate water control it is well suited to most vegetable crops and sugar cane. A well designed and maintained water control system is needed. The water control system should remove excess water when crops are on the land and keep the soil saturated with water at all other times. Fertilizers that contain phosphates, potash, and minor elements are needed. This soil needs high applications of lime. Water-tolerant cover crops should be kept on the soil when it is not in use for row crops.

Most improved grasses and clovers adapted to the area grow well on this soil if water is properly controlled. High yields of pangolagrass, bahiagrass, and white clover can be grown. Water control that maintains the water table near the surface prevents excessive oxidation of the organic horizons. Fertilizers high in potash, phosphorus, and minor elements are needed. Grazing should be controlled to permit maximum yields.

This soil is not suitable for citrus.

This soil has moderate potential for desirable range plant production. The dominant forage is maidencane and cutgrass. Since the depth of the water table fluctuates throughout the year, a natural deferment from cattle grazing occurs. Although this rest period increases forage production, the periods of high water may reduce the grazing value of the site. This Terra Ceia soil is in the Fresh Water Marshes and Ponds range site.

This soil is not suitable for pine trees. It has severe limitations for urban development and recreational uses because of the ponding and high organic matter content.

This Terra Ceia soil is in capability subclass IIIw.

22—Beaches. Beaches consist of narrow strips of nearly level, mixed sand and shell fragments along the Gulf of Mexico. These areas are covered with saltwater at daily high tides. The areas are subject to movement by the wind and tide and are bare of vegetation in most places. The only vegetation is salt-tolerant plants.

Beaches are geographically associated with Canaveral soils.

Beaches are used intensively for recreation during the entire year. Homes, condonominiums, beach cottages, and motels have been built on the fringes of beaches in many places.

23—Wulfert muck. This is a nearly level, very poorly drained soil on broad tidal swamps. Slopes are smooth and range from 0 to 1 percent.

Typically, the surface layer is muck that is dark reddish brown to a depth of 12 inches and dark brown to a depth of 36 inches. Beneath the muck is gray fine sand with light gray streaks and about 10 percent shell fragments.

Included with this soil in mapping, and making up about 15 percent of the map unit, are small areas of Kessson soils and soils similar to Wulfert soils but with limestone at a depth of 20 to 40 inches.

The water table fluctuates with the tide. Areas are subject to tidal flooding.

The available water capacity is high in the organic horizons and low in the horizons below. Natural fertility is medium. Permeability is rapid.
Natural vegetation consists of American mangrove, black mangrove, and needlegrass. This soil has moderate potential for range plant production. Saltwater marshes are on level sites where tidal flow of saltwater and brackish water have a significant effect on plant composition. When in good or excellent condition, the saltwater marsh is dominated by smooth cordgrass, marshhay cordgrass, seashore saltgrass, and numerous other grasses and forbs. These grasses and forbs provide high levels of palatable forage for livestock grazing. Good grazing and burning management is required to maintain these sites in their most desirable condition. This Wulfert soil is in the Salt Water Marsh range site.

This soil has severe limitations for urban development and recreational uses. It is not suitable for cultivated crops, pasture grasses, citrus, or woodland. The flood hazard and high salt and sulfur content are limitations to these uses.

This soil is in capability subclass VIIIw.

24—Kesson fine sand. This is a nearly level, very poorly drained soil in broad tidal swamps. Areas are subject to tidal flooding. Slopes are smooth and range from 0 to 1 percent.

Typically, the surface layer is about 6 inches of sand that contains shell fragments. The underlying layers are fine sand that contains shell fragments, and they extend to a depth of 80 inches or more. The upper 4 inches is pale brown, the next 3 inches is light brownish gray, the next 25 inches is light gray with dark gray streaks, and the lower 42 inches is white.

Included with this soil in mapping are areas of Captiva and Wulfert soils and soils that have organic surface layers. Also included are soils that have loamy material throughout. Included soils make up about 10 to 15 percent of any mapped area.

The water table fluctuates with the tide. The available water capacity is low. Natural fertility is low. Permeability is moderately rapid or rapid. Natural vegetation consists of black mangrove, batis, oxeye daisy, and American mangrove.

This soil has severe limitations for urban development, and it is poorly suited for cultivated crops, pasture grasses, citrus, and woodland because of the flood hazard and high salt and sulfur content.

This Kesson soil is in capability subclass VIIIw.

25—St. Augustine sand, organic substratum-Urban land complex. This map unit consists of nearly level St. Augustine soil, organic substratum, and areas of Urban land. The areas of the St. Augustine soil and of Urban land are so intermingled that it was not practical to map them separately at the scale used for mapping. About 50 to 65 percent of each mapped area is St. Augustine sand, organic substratum, and about 20 to 35 percent is Urban land that is covered by houses and other buildings and streets and other forms of pavement. The remainder of the mapped area consists of canals.

The St. Augustine soil is in marshes and mangrove swamps. It consists of gray to pale brown sand, with about 25 percent multicolored shell fragments, overlying organic layers. Slopes are smooth to slightly convex and range from 0 to 2 percent.

St. Augustine sand, organic substratum, does not have an orderly sequence of soil layers in the fill material above the organic substratum. The layers are a variable mixture of sands and multicolored shell fragments. Thickness of the fill material ranges from about 26 to 68 inches. Typically, the material is about 51 inches of mixed dark gray, dark grayish brown, grayish brown, and gray sand and about 25 percent multicolored shell fragments. Below that, to a depth of 80 inches or more, there is dark reddish brown compressed muck.

Included in this complex are small areas of Kesson soils and areas where the fill material is less than 20 inches thick over the organic substratum. Also included are areas where the fill material is high in salt content or contains fragments of a former subsoil. In several included areas there are no buildings or other urban structures. Inclusions make up less than 15 percent of most mapped areas.

The depth to the water table varies with the amount of fill material and the extent of artificial drainage within any mapped area. However, in most years, the water table is 24 to 48 inches below the surface of the fill material for 2 to 4 months. It is below a depth of 48 inches during extended dry periods.

The available water capacity is low in the fill material and high in the underlying organic material. Permeability is estimated to be rapid. Natural fertility is low. Most of the natural vegetation has been removed. There are scattered weeds in vacant lots. The soil is poorly suited to most plants unless topsoil is spread over the surface to make a suitable root zone.

The soil has severe limitations for most kinds of community development and related uses. The underlying organic material can cause subsidence problems. The rapid permeability and high water table could cause pollution of canals or ground water in areas with septic tank absorption fields.

This complex was not assigned to a capability subclass.

26—Pineda fine sand. This is a nearly level, poorly drained soil on sloughs. Slopes are smooth to slightly concave and range from 0 to 1 percent.

Typically, the surface layer is black fine sand about 1 inch thick. The subsurface layer is very pale brown fine sand about 4 inches thick. The upper part of the subsoil is brownish yellow fine sand about 6 inches thick. The next 10 inches is strong brown fine sand. The next 6 inches is yellowish brown fine sand. The next 7 inches is
An Action Plan for the

Randell Research Center at Pineland

Florida Museum of Natural History
University of Florida
October, 1996
FOREWORD

This plan summarizes the work of a committee chaired by Dr. William Marquardt during the fall of 1995 and the spring of 1996. The committee was assembled by Dr. Marquardt to address the multidisciplinary research and interpretive plans for the Pineland Site Complex, a 240-acre archaeological and historical site in southwest Florida. A 56-acre portion of the complex had been donated to the University of Florida Foundation by Patricia and Donald Randell in 1994 with the intention that a center for research and education be established there.

The committee initially intended to prepare a detailed master plan for the interpretation of the site, but over time it became apparent that there were compelling issues that required resolution before a master plan could be initiated. This document attempts to address those issues, as explained in "Alternative Interpretive Strategies."

Although the majority of committee meetings were held in Dr. Marquardt's office at the Museum of Natural History in Gainesville, the committee also met several times at the site and appeared before planning, zoning, and other officials in Lee County. In addition to Dr. Marquardt, the committee has included the following members, listed in alphabetical order:

Mr. George M. Luer, graduate student, Department of Anthropology, University of Florida

Mr. John W. Martin, graduate student, Department of Architecture, University of Florida

Ms. Carol Pooser, Director of Development, Florida Museum of Natural History

Mr. Herschel E. Shepard FAIA, Department of Architecture, University of Florida

Dr. Karen J. Walker, Archaeologist, Florida Museum of Natural History

Dr. Marquardt provided direction and leadership throughout the meetings. Most of the historical information herein was abstracted from published articles written by Mr. Luer. Additional information relating to the significance of the site and the Florida CARL program was supplied by Drs. Marquardt and Walker. Ms. Pooser provided valuable guidance and assistance related to fund-raising and the relationship of the University of Florida Foundation to this project. Leon Wetherington of the University of Florida School of Building Construction assisted in estimating costs, and the majority of the interpretive and research center planning information was based upon thesis research provided by John Martin. Mr. Shepard prepared the alternates in response to needs and actions defined by the committee. The committee wishes to acknowledge the interest, support, and time contributed to this project by the staff of the zoning, planning, legal, environmental, and other departments of Lee County.
HISTORY AND SIGNIFICANCE

The natural beauty of the Pineland Site Complex as it presently exists is largely the product of natural and human-made events that have occurred during the past two thousand years. Numerous features visible at the site today underscore its archaeological, historical, and ecological value and also hint of hidden features which may further enhance its value as they are uncovered.

The total Pineland Site Complex consists of approximately 240 acres of wetlands, agricultural, and low-density residential land located in Pineland, Lee County, Florida. Pineland is a small unincorporated community that overlooks Pine Island Sound from the western shore of Pine Island. Pine Island has successfully resisted the intensive development experienced by many communities in southwest Florida, but the increasing pressures for development emphasize the urgency of acquiring and preserving the Pineland Site Complex.

The site was first occupied by Native Americans around 50 A.D. The initial accumulation of what would become high mounds began about 500 A.D. and was completed by 1400 A.D. At the time of European contact in the 1500s, the Indians were known as Calusa. Their mounds were extensive and widely spaced and may have been carefully related to one another for spiritual reasons. The huge sand burial mound was much larger than earlier burial mounds in the region and clearly reflected the importance of the site. Numerous courts, benches, and enclosures associated with the mounds stretched inland and far to the south.

The extension of construction inland was unusual and undoubtedly related to the construction of a remarkable series of canals which began by perhaps 1000 A.D. The canals, thirty feet wide and six feet deep, provided easily traveled routes of trade and communication among tribes throughout southern Florida and perhaps beyond. The canal that began at the Pineland Site Complex extended almost three miles to the east across Pine Island, providing access to Matlacha Pass and beyond to another canal that extended for several more miles to the east across present-day Cape Coral, connecting with Hancock Creek, a tributary of the Caloosahatchee River.

Within the Complex, branches from the canal formed a large lake and surrounded at least two of the large mounds. The Pineland Site Complex was undoubtedly an important ceremonial center which linked the southwestern coastal waters of Florida with the interior of the peninsula (Map 1).
Map 1. The Pineland Site Complex as it might have appeared in 1896. (Map by Corbett Torrence, based on archaeological, topographic, documentary, and oral-historical research by the Florida Museum of Natural History.)
The first contacts with Europeans occurred in the sixteenth century. There is some possibility that Spanish governor Menéndez visited the site, and it is certain that Jesuits and Franciscans attempted and failed to establish missions in the area in the sixteenth and seventeenth centuries, respectively. Devastated by disease and hardship, the last Calusa are believed to have left Florida in the mid-1700s.

Except for Cuban fishermen and possibly a colony of runaway slaves, the site was virtually abandoned until the middle of the nineteenth century. In 1860 the United States Government established a permanent survey station on "Brown's Mound," named after an occupant of the site. Brown and a later family occupied the site from the mid-1850s until 1885, when William Batty obtained the first clear title. However, no extensive settlement occurred before archaeologist Frank Hamilton Cushing visited the site in 1895 and 1896. Cushing's descriptions of the mounds, canals, terraces, and other features as they existed before they were altered by later settlers are extremely valuable in determining the extent and significance of the site.

Permanent settlement of the site did not begin until the arrival of the Adams family in 1911-1912, who farmed, planted groves, and built a large home on "Adams Mound." A Mr. Wilder built a residence on a mound at the waterfront in 1917, and Mr. and Mrs. Graham L. Wilson purchased property from 1925 through 1930. Construction in this period included a citrus packing house, workers' quarters, a long dock, and a health retreat. Except for the Adams residence and a few landscape features, none of these structures have survived. During this period the configuration of the waterfront, several of the mounds, and the canal were altered.

In 1926, a 6,900-square-foot, 2-story manor house was built on the waterfront across from the Pineland mounds and operated by I. B. and Mary Hunt Jones as the "Pine-Aire Lodge." The facility included boathouses, boat slips, and a sea wall. It was one of the few structures of its kind built on the Gulf coast of Florida.¹

By the 1940s a number of additional structures had been completed, most of which were small vacation houses. In the late 1940s and early 1950s limited archaeological survey work was accomplished and the major prehistoric components of the site were assigned identification numbers, but little was done to protect the resources. The hamlet atmosphere remained with a few changes through the 1950s and 1960s. Many of the structures of this period survive today and are of historical interest.

¹ In 1986, an additional 3,440-square-foot dormitory building was constructed on the property. For 14 years the property was operated as "The Cloisters," a drug and alcohol rehabilitation center. It closed in January, 1996.
In the 1970s and 1980s the hamlet atmosphere was purposefully maintained through the efforts of Patricia and Donald Randell, who assembled approximately 80 acres of Pineland property and kept it in agricultural use. During this time a portion of the site complex was listed on the National Register of Historic Places, and interest in the archaeology and ecology of south Florida increased. The site was visited by a number of professionals who not only began intensive archaeological research but also expressed interest in the native plant and animal communities characteristic of coastal hammocks, pinelands, and shell mounds. The environmental significance of the site became apparent.

The Randells were very aware of the archaeological, historical, and ecological importance of the site, and property that was acquired included major portions of the west end of the canal, several important mounds, and other important pre columbian features. In addition, the Randells were benefactors of a number of archaeological projects at this site and elsewhere. In 1994, a portion of the Pineland property was donated by the Randells for research and educational purposes. At present the Florida Museum of Natural History, the Florida CARL (Conservation and Recreational Lands) Program, Lee County, the Archaeological Conservancy, and other concerned groups and individuals are attempting to acquire, preserve, and interpret the entire 240-acre tract.

PRESENT STATUS

The Randell Gift and the University of Florida Foundation

In August, 1994, Patricia and Donald Randell donated 56 acres of land in Pineland to the University of Florida Foundation. The property will be preserved as an archaeological and environmental research and education center. In the Randells' honor, the property has been named the Randell Research Center at Pineland. It will be managed by the Florida Museum of Natural History.

In order to ensure the establishment of an enduring research and educational facility, the Florida Museum of Natural History has committed to raising a permanent endowment fund of $1,200,000. This will be done by raising $800,000 in private funds, to be matched by $400,000 from the State Matching Gifts Trust Fund. With the income from this fund, personnel will be hired to coordinate research, develop educational programs, and manage the site complex. At that point it is envisioned that the Randell Research Center at Pineland will open to the public on a regular, if not a daily basis.
Essential to raising the long-term permanent endowment is the local presence of a Center manager who will raise awareness of the Center by public speaking and the conducting of visits to the site, write proposals for grant funding, and interact with other research, education, and conservation organizations, such as museums, nature centers, and Florida Gulf Coast University. Therefore a short-term development goal is to raise funds to hire an interim Center manager for at least a three-year period. Endowment funds and short-term programmatic funds are being sought simultaneously.

The CARL purchase

Recognizing the historical and environmental significance as well as the educational potential of the Pineland Site Complex, the Land Acquisition Advisory Council of Florida’s Conservation and Recreational Lands (CARL) program has declared the Pineland Site Complex a high priority for State acquisition. A CARL acquisition team was assembled in the spring of 1996, in anticipation of the availability of CARL funds for Pineland purchases beginning July 1, 1996. In early 1995, intensive and heroic efforts to acquire two endangered and high-priority parcels on the part of Lee County, the Archaeological Conservancy (AC), the State Archaeologist, and the Florida Museum of Natural History (FLMNH) were ultimately successful. Lee County has set aside funds to assist the State in the purchase of critical Pineland parcels, and Lee County’s Division of Parks and Recreation and Land Acquisition personnel are working in cooperation with CARL, the AC, and the FLMNH.

The Advisory Board

An advisory board of local citizens, scientific experts, educators, and benefactors has been established to advise the FLMNH on development of the Randell Center and to assist in fund-raising. When an interim manager of the Center is hired, a local support group will be formed to assist in publicizing and promoting the Center.
A PLAN FOR ACTION

Endowment and Income Strategies

In addition to direct appeals and grant proposals to foundations and agencies, the Randell Center will support its programs by providing research and educational services and by the retailing of merchandise, such as T-shirts and educational books and materials about archaeology and Florida heritage. These income-generating projects will become more formalized when the interim manager is hired. In the meantime, scenarios for the phased development of the Randell Research Center have been formulated based on research done by the committee so far.

Alternative Interpretive Strategies

The following interpretive strategies begin with immediate short-term actions and end with a fully developed interpretive center. The strategies are essentially outlines of alternative master plans for interpretation, restoration, and new construction, but intensive master planning should not begin until it is certain whether or not property adjoining Roberts Road will be acquired and whether or not property that is to be developed for an off-site interpretive center will be acquired.

The acquisition of property adjoining Roberts Road will provide upland access to the site with far less impact on the historic resources and local traffic than the existing access from Waterfront Drive. The provision of an off-site interpretive center will minimize the impact of necessary but intrusive parking areas and new buildings on the historic resources. The alternates assume that these and other important decisions will be made within the next ten years.

Although intensive master planning would be premature, certain actions addressed in Alternate 1 are crucial for the present and future interpretation of the site, particularly during the next three years. In addition, it is essential that archaeological and historical documentation continue, for the products of these time-consuming efforts provide the basis for present interpretation of the site as well as for future intensive master planning.

Tentative capital improvement and annual maintenance costs are shown for Alternate 1, which assumes that all interpretive development will take place on the existing fifty-six acres now controlled by the University of Florida Foundation. Costs for the remaining alternates are not provided because acquisition of the additional property
required by those alternates is uncertain. However, the tentative construction costs of
the interpretive and research centers will not vary substantially under any of the
proposed alternates, assuming the buildings are one-story wood frame construction
with finish floor elevations within four feet of existing grade.

The tentative capital improvement and maintenance costs assume that all work will be
accomplished under competitive contract unless noted otherwise. Capital
improvement costs include labor, materials, and contractors' overhead and profit, but
do not include contingencies and professional fees unless noted otherwise.
Maintenance costs include anticipated annual costs for utilities, repairs, and a
contingency fund for periodic replacement of expensive components (for instance,
mechanical systems and roofs). Maintenance costs do not include insurance, salaries,
and similar items.

All parcel numbers referenced in the Alternates are taken from Map 2, “Proposed
CARL Acquisition - Pineland Site Complex.” Lot numbers shown in parentheses ( )
are Lee County lot numbers.
ALTERNATE 1

Assumption: This Alternate addresses existing conditions and desirable immediate actions. Interpretation is limited to Parcels 12 and 27, which were donated to the UF Foundation, and it is assumed that substantial funding from endowments or other sources is not available.

Entrance to site: On the east side of Waterfront Drive north of Brown's Mound.

Interpretive center location: None in Phase 1; north of Brown's Mound at west end of northwest pasture in subsequent phases.

Phase 1

Retain a resident of Lee County, part-time or full-time, who has the necessary qualifications to represent the Museum and local advisors in the area. The representative will inspect and maintain the site, respond to local inquiries, organize and direct fund-raising activities in the area, open the site "as is" to the public at scheduled times, and report to the Museum in Gainesville. The representative will be retained for a minimum of three years.

Request a determination of wetland and upland boundaries from local authorities and the U.S. Army Corps of Engineers, and request a general plan and inventory of existing vegetation from local authorities.

This phase assumes that parking and access to the site can be arranged with no improvements, that the cost of temporary facilities such as portable toilets can be provided by entrance fees, and that maintenance will be accomplished by volunteers and contributors.

Costs:

Capital improvements:
None $ 0.

Maintenance:
None $ 0.

Phase 2

Provide a temporary sign on Waterfront Drive, a temporary entrance drive, a temporary gate, and temporary parking. Assume provision of culverts and
stabilization of grade in a wetlands area is required and permitted with mitigation. Assume mitigation for all work in this phase consists of reestablishing the saltern and removal of certain exotics at minimum expense.

Provide a well-drained area for large tents or temporary shelters for exhibition and work areas in the interpretive center location. Assume this occurs in a wetlands area and mitigation is required.

Provide a well-drained area for large tents or temporary shelters for a research area in the northeast corner of Parcel 27 (Lot 9-3); assume an upland area is available.

Provide an informal interpretive path on undisturbed existing grade with signage linking existing features, even though they are unrestored.

Open the site to the public at scheduled times.

This phase assumes the site will be mowed at regular intervals and stabilized areas will require periodic maintenance. It assumes all work is accomplished under contract.

Costs:

Capital improvements:

Signs, entrance drive, parking, culverts, tent areas, path, mitigation: $35,000.

Maintenance:

Mowing: $6,000.
Repairs: $500.
Contingency: $800.
Allowance for portable toilet rental fees not covered by admission fees: $1,500.

Phase 3

Continue archaeological, historical, and architectural research.
Further development of the site will require substantial funding. If funding is not received, activities determined by the completed phases of this Alternate will continue for an indefinite period. If funding is received, Phase 4 or Alternates 2, 3, and/or 4 should be initiated.

Costs:

Capital improvements:
None $ 0.

Maintenance:

Mowing: $ 6,000.
Repairs: $ 500.
Contingency: $ 800.
Allowance for portable toilet rental fees not covered by admission fees: $ 1,500.

Phase 4

This Phase assumes that substantial funding for interpretive development of the site is available. Furthermore, it assumes that additional property on which the interpretive center might be constructed is not currently available but may be available and acquired in the future. Therefore, available funding is utilized for interpretation of the site rather than for construction of the interpretive or research centers.

Restore the canal and other features on the 56 acres as determined by research.

Provide a stabilized interpretive path with permanent signage linking all restored features, including the summit of Brown's Mound, Old Mound, the mangroves south of Waterfront Drive, the reconstructed saltern, the citrus grove, part of the restored "lake" west of Smith Mound, and the banks of the canal.

Costs:

Capital improvements:

Restore canal:
Eastern segment (400 lineal ft.): $ 80,000.
Middle segment (600 lineal ft. +200 ft. existing): $ 140,000.
Lake sw of Smith Mound (6000 sf): $ 180,000.
(Note: archaeological supervision not included)
Restore citrus grove (allowance for grading and trees): $4,500.
Restore saltern (allowance for grading): $1,500.
Stabilized path & signage (3,500 linear ft., 6 ft. wide, primarily wood): $100,000.

Maintenance:
- Mowing: $6,000.
- Repairs: $5,000.
- Utilities: $2,000.
- Allowance for portable toilet rental fees not covered by admission fees: $3,000.
Contingency: $13,000.

Phase 5

If none of the property permitting access to the site from Roberts Road as described in Alternates 2, 3, and/or 4 is acquired within ten years, replace temporary construction with permanent parking, a permanent interpretive center, and a permanent research facility, all assumed to be located in the northeast corner of Parcel 27 (Lot 9-3) where finish floor elevations will not exceed four feet above existing grade.

If the property permitting access to the site from Roberts Road as described in Alternates 2, 3, and/or 4 is acquired, relocate and construct the permanent entrance, parking, interpretive center, and research facility in the appropriate areas proposed in those Alternates.

EXCEPTION: If Parcel 2 (Lot 8-5), the property known as “The Cloisters,” is purchased by CARL or otherwise becomes available to the Randell Research Center, the Administration Building, Conference Center, and Research Facility will all be located there, rather than being constructed on Parcel 27 (Lot 9-3), and the building costs for these two structures will not be needed, a savings of $1,001,000. The Interpretive Center and Orientation/Exhibits buildings would still be built on Parcel 27.

Costs:

Capital Improvements:

Interpretive Center in northeast corner of Parcel 27:
- Stabilized road and parking (15 cars, 4 buses): $15,000.
- Site work and storm drainage: $12,000.
- Sewage treatment: $75,000.
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</tr>
<tr>
<td>Sewage treatment (use Interpretive Center):</td>
<td><strong>$ 0.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research facility:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaeological laboratory:</td>
<td>2300 sf</td>
</tr>
<tr>
<td>Two small classrooms:</td>
<td>1000 sf</td>
</tr>
<tr>
<td>Multipurpose space:</td>
<td>600 sf</td>
</tr>
<tr>
<td>Library/research:</td>
<td>800 sf</td>
</tr>
</tbody>
</table>
Darkroom: 100 sf  
Artifact storage: 375 sf  
Equipment storage: 50 sf  
Staff restrooms: 85 sf  
Public restrooms: 240 sf  
HVAC, other: 200 sf

Subtotal  
5750 sf  $575,000.

Exterior paved areas:  
Field laboratory: 350 sf  
Loading dock: 100 sf  
Deck work area: 3050 sf

Subtotal: 3600 sf $36,000.

Total for Interpretive and Research Centers: $1,403,000.

Maintenance:  
Mowing: $6,000.  
Repairs and Utilities: $26,000.  
Contingency: $35,000.

ALTERNATE 2

Assumption: In addition to interpreting donated Parcels 12 and 27, obtain and interpret Parcel 16 (Lot 7-2A), containing approximately 0.3 acres and a single family residence, and Parcel 9d (that part of Lot 9-0 east of the donated acreage) containing part of the canal and frontage on Roberts Road. It is assumed that substantial funding from endowments or other sources is available.

Entrance to site: On the west side of Roberts Road, leading into the eastern end of Parcel 9d (part of Lot 9-0).
Location of interpretive center: The following proposal assumes that Alternate 4 will not be realized within the next ten years. If Alternate 4 is realized within ten years, the interpretive center will be located as discussed under Alternate 4.

Locate the interpretive center on the eastern end of Parcel 9d (part of Lot 9-0), between the mango grove and Roberts Road (preferably west of the existing residence on Parcel 16 (Lot 7-2A), except as noted under Phase 4 below.

Phase 1

If any work described under Alternate 1 has been completed, relocate temporary work areas and adjust other work as required.

Utilize the existing residence on Parcel 16 (Lot 7-2A) as a temporary location for the caretaker/administration.

Provide a temporary sign on Roberts Road and a temporary entrance drive and temporary parking near the existing residence.

Provide a well-drained area for large tents or temporary shelters for exhibition and work areas near the existing residence.

Provide a well-drained area for large tents or temporary shelters for a research area in the northeast corner of the western portion of Parcel 9 (part of Lot 9-0).

Provide an informal interpretive path with signage linking existing features, even though they are unrestored.

Open the site to the public at scheduled times.

Phase 2

Continue archaeological, historical, and architectural research.

Phase 3

Restore the canal and other features on all owned acreage as determined by research.

Provide a stabilized interpretive path with permanent signage linking all restored features, including the north and south banks of the canal and canal portages, the
summit of Brown’s Mound, Old Mound, the mangroves, the reconstructed saltern, the 
citrus grove, part of the restored “lake” west of Smith Mound, and the mango grove.

Phase 4

If the property described in Alternate 3 and/or 4 is acquired before Phase 4 begins, 
construct the permanent entrance, parking, and interpretive center in the appropriate 
areas proposed in Alternate 3 and/or 4.

If the property described in Alternate 3 and/or 4 is not acquired before Phase 4 begins, 
construct the permanent entrance, parking, and interpretive center east of the mango 
grove on Parcel 9d (part of Lot 9-0). Provide a permanent research facility in the 
northeast corner of the western portion of Parcel 9d (part of Lot 9-0). The existing 
residence on Parcel 16 (Lot 7-2A) may be retained as a caretaker residence.

ALTERNATE 3

Assumption: In addition to interpreting the donated Parcels 12 and 27, obtain and 
interpret Parcel 9d (the eastern part of Lot 9-0), Parcel 16 (Lot 7-2A) which contains a 
single family residence, and Parcel 15 (Lot 7-0) which contains approximately 7.14 acres 
on which are located Adams Mound, two single family residences (one of which is 
historic), and part of the canal. Parcels 9 and 15 front on Roberts Road.

Entrance to site: In Phases 1, 2, and 3, on the west side of Roberts Road, leading into 
the eastern end of Parcel 15 (Lot 7-0); in Phase 4, relocated to the eastern end of Parcel 9 
(part of Lot 9-0).

Location of interpretive center: The following proposals assume that Alternate 4 will 
not be realized within the next ten years. If Alternate 4 is realized within ten years, the 
interpretive center will be located as discussed under Alternate 4.

In the first three phases, the existing residence on Parcel 16 (Lot 7-2A) will be utilized 
as a caretaker’s residence, and the two existing residences on Parcel 15 (Lot 7-0) will be 
utilized as an interpretive center. In Phase 4, a new interpretive center and parking 
will be constructed on Parcel 9d (part of Lot 9-0) west of the existing residence on 
Parcel 16 (Lot 7-2A), which will continue to be utilized as a caretaker’s residence. In 
addition, research functions will be located in the northeast corner of the western 
portion of Parcel 9d (part of Lot 9-0).
Phase 1

If any work described under Alternates 1 and/or 2 has been completed, relocate temporary work areas and adjust other work as required.

Utilize the existing residences on Parcel 15 (Lot 7-0) as a temporary location for the interpretive center. Utilize the existing residence on Parcel 16 (Lot 7-2A) as a caretaker's residence.

Provide a temporary sign on Roberts Road and a temporary entrance drive and temporary parking near the existing concrete block residence on Parcel 15 (Lot 7-0).

Provide a well-drained area for large tents or temporary shelters for a research area in the northeast corner of the western portion of Parcel 9d (part of Lot 9-0).

Provide an informal interpretive path with signage linking existing features, even though they are unrestored.

Open the site to the public at scheduled times.

Phase 2

Continue archaeological, historical, and architectural research.

Phase 3

Restore the canal and other features on all owned acreage as determined by research.

Provide a stabilized interpretive path with permanent signage linking all restored features, including the north and south banks of the canal and canal portages, the summit of Brown's Mound, Old Mound, the mangroves, the reconstructed saltern, the citrus grove, part of the restored "lake" west of Smith Mound, and the mango grove.

Phase 4

Construct the permanent entrance, parking, and interpretive center east of the mango grove on Parcel 9d (part of Lot 9-0). The existing residence on Parcel 16 (Lot 7-2A) may be retained as a caretaker residence. In addition, research functions will be located in the northeast corner of the western portion of Parcel 9d (part of Lot 9-0).

Buildings on Parcel 15 (Lot 7-0) will be used in support of research functions.
ALTERNATE 4

Assumption: In addition to interpreting donated Parcels 12 and 27, acquire within the next ten years off-site property and construct an off-site interpretive center and public parking. This Alternate assumes that construction of the interpretive center has not been accomplished under another Alternate.

The work of this Alternate can be accomplished in parallel with certain work noted under the other Alternates. Although the implementation of this Alternate will relocate the interpretive center proposed under other Alternates to off-site property, other work and phasing proposed under the other Alternates will remain unchanged except for minor details.

Entrance to site: The off-site interpretive center will serve as the initial public entrance, from which the public will be transported to the on-site entrance of the archaeological site. No direct public access to the archaeological site will be permitted except under special circumstances. If Alternate 2, or Alternates 2 and 3, are not feasible, the entrance to the archaeological site will be from Waterfront Drive as noted in Alternate 1. If Alternate 2, or Alternates 2 and 3, are feasible, the entrance will be from Roberts Road as noted in those Alternates.

Location of interpretive center: The interpretive center should be located a convenient distance from the archaeological site and should have convenient public access and minimum impact on Pineland and Pine Island traffic. All public parking will be at the interpretive center, except that school buses and tour buses will be allowed to park at the archaeological site after initially visiting the interpretive center. A minibus system is proposed to transport other members of the public between the archaeological site and the interpretive center. A reception area, possibly consisting of an open pavilion, is proposed for receiving the public at the on-site entrance to the archaeological site. The reception area, bus parking, and staff parking will be located in the areas proposed for the interpretive center under the other Alternates.

Phase 1

Acquire the off-site property and prepare construction documents for the off-site interpretive center, the on-site reception center, and related parking and other construction.

Substitute the reception center and related parking for the interpretive center proposed under the other Alternates.