CULTURAL RESOURCES OVERVIEW AND SURVEY STRATEGY

PURPOSE
As part of the Comprehensive Everglades Restoration Plan (CERP), the U.S. Army Corps of Engineers, Jacksonville District, and the South Florida Water Management District, will construct projects that cover large acreages and will affect cultural resources. As a result, the Corps requested an updated archaeological survey strategy to more effectively isolate probability areas and locate sites in the region.

Development of the survey strategy included:
- Background research to provide an overview of known sites
- Evaluation of past survey procedures
- Identification of site probability variables
- Development of a regional survey approach

SURVEY STRATEGY
Beginning in the 1970s, the use of aerial photography has proven the most productive strategy for site survey in the unique regions of southern Florida. Combining this approach with a variety of other data sources has been very effective in locating potential sites.

TOOLS FOR IDENTIFYING PROBABILITY AREAS
Historic aerial photographs, historic maps, Government Land Office (GLO) maps, USACE War Department maps, Digital Elevation Models (DEM), soil type maps, and others.

HIGH PROBABILITY SITE LOCATIONS IN SOUTHERN FLORIDA
Archaeological sites in the CERP area are common in slightly elevated areas within a wet environment. Pond margins, tree islands, upland hammocks, ridges, sinkholes, and slough margins exhibit Moderate to High Site Probability. In drier areas along the northern, eastern, and western portions of the CERP area, elevated sandy rises, knolls, and ridges can also contain sites.

- TREE ISLANDS
  Tree islands can range in size from a fraction of an acre to hundreds of acres. They often have an elongated “tear drop” shape that resulted from water flow patterns in pre-drainage times.

- PONDS
  Small ponds occur in current or former marsh and swamp environments and often contain, are surrounded by, or lie adjacent to, archaeological sites.

SUMMARY OF RESULTS
The key to identifying archaeological sites in the CERP project area lies in an understanding of the pre-drainage environment and the identification of landscape signatures visible today.

PRE-DRAINAGE LANDSCAPE
Originally, most of southern Florida was wetter than today, with slight rises in elevation dotting the region. These rises, or tree islands, of various types have a High Probability for containing archaeological sites.

ALTERATION OF THE LANDSCAPE
Development of the survey strategy included: historic aerial photographs, historic maps, Government Land Office (GLO) maps, USACE War Department maps, Digital Elevation Models (DEM), soil type maps, and others. Combining this approach with a variety of other data sources has been very effective in locating potential sites.

FIELD APPROACH
Archaeological assessment survey includes the following:
- Initial reconnaissance survey
- Systematic subsurface testing
- Judgemental subsurface testing
- Site bounding
- Data collection
- Mapping

GIS CONTRIBUTIONS TO SURVEY STRATEGY IN CERP
The maps that follow illustrate how GIS data can be used to identify patterns of site occurrence within eight subregions of the CERP area.

CERP SUBREGIONS
The Caloosahatchee River dominates this subregion – clearly the river as a whole was a major draw for local inhabitants. By using vegetation and flood layers in GIS, it is possible to locate areas along the river with a higher potential for precontact activity than others.

HISTORIC AERIAL PHOTOGRAPHS
In many cases, the distinctive vegetative signatures of the 1940s were replaced with forests of exotic vegetation, agricultural plots, citrus groves, or pasture by the 1970s. Identifying altered and unaltered site probability areas on black and white aerials is best approached using a stereoscopic viewer.

INFRARED AERIALS
Infrared aerials are very productive tools for use in the Big Cypress subregion, as site locations appear bright pink in color and associations with hardwood hammocks are more readily visible than on other aerial images.

POND MARGINS
Limestone depressions that collect water can have young cypress or willow trees in the lowest areas. For example, in the Picayune study area, these ponds are easily identified using infrared photography, color aerials, 1940’s aerials, and color enhanced aerials.

The figure to the left illustrates eight environmental subregions in CERP.