CM 313

SEA TURTLE NESTING HABITAT SURVEY

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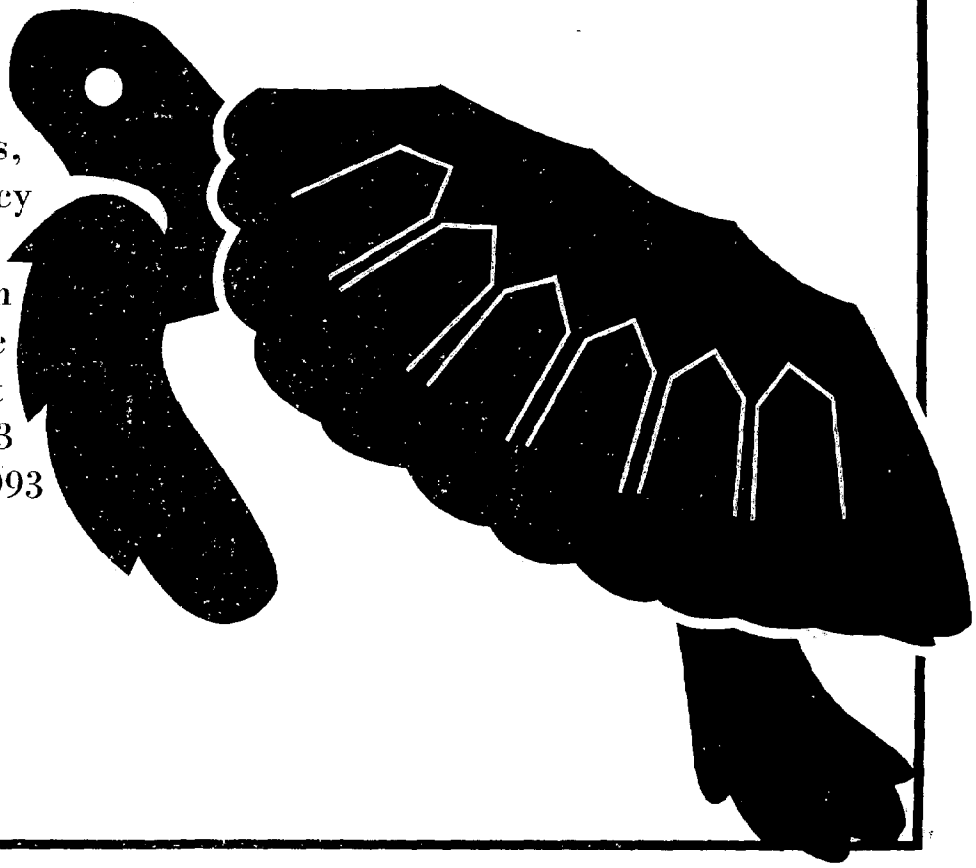

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EXECUTIVE SUMMARY

In November of 1991 the Florida Department of Natural Resources (DNR) received a grant from the Florida Department of Environmental Regulation, Office of Coastal Management to complete a Sea Turtle Nesting Habitat Survey for the State's prime turtle nesting beaches. Funds were made available through the National Oceanic and Atmospheric Administration under the Coastal Zone Management Act.

Greater than ninety percent of the total sea turtle nesting in the United States occurs in Florida, primarily along the Atlantic coast. The DNR oversees the administration of a number of programs which directly or indirectly affect marine turtle nesting. The Division of Marine Resources (DMR) is responsible for administering the Marine Turtle Protection Program, the mission of which is to promote the recovery of the five species of sea turtles that occur in Florida. The Division of Beaches and Shores (DBS) is responsible for regulating coastal construction through the Coastal Construction Control Line Program.

Although efforts to protect sea turtles in Florida were initiated over 85 years ago, and efforts continue at the state and federal level, the survival of each species is still in jeopardy. One fundamental weakness in sea turtle protection is the lack of comprehensive habitat protection, especially nesting habitat.

DMR, in cooperation with the United States Fish and Wildlife Service (USFWS), has been collecting marine turtle nesting data from 27 "Index Nesting Beaches" since 1989. Surveys of these beaches represent about 85% of the nesting activity in the state. Likewise, DBS has indirectly collected habitat quality data for these and other beaches through a number of their programs.

Historically, the data collection efforts of the DBS and DMR have been accomplished independent of one another. This inventory serves to consolidate the available data from each source in a format that will allow analysis of nesting trends with respect to habitat quality and will provide a useful tool for planning and regulatory beach management activities.

Part I

INTRODUCTION

Greater than ninety percent of the total sea turtle nesting in the United States occurs in Florida, primarily along the Atlantic coast. The sandy beaches from Brevard through Broward counties support the largest nesting colony of threatened loggerhead sea turtles (Caretta) in the western hemisphere, and the second largest in the world. The southeast coast also provides important nesting habitat for the U.S. populations of two endangered species: the green turtle (Chelonia mydas) and the leatherback (Dermochelys coriacea). The endangered hawksbill (Eretmochelys imbricata) and Kemp's ridley (Lepidochelys kempi) occasionally nest on Florida's beaches. Although the most extensive nesting occurs on the east coast, there is also significant nesting on certain west coast beaches.

Florida's efforts to protect sea turtles were initiated in 1907 when legislation was passed restricting the harvest of marine animals. By 1974, Florida law completely protected all sea turtles. More recently prohibitions on harvesting the rare turtles were strengthened to include incidental catch during fishing operations. Additional protection has been provided by regulations addressing coastal construction, armoring, beachfront lighting, beach driving, and the release of lighter than air balloons.

Because of the extent and diversity of nesting activity in the state, Florida's sea turtle population can be considered a national resource. Hence, federal sea turtle protection efforts closely parallel those of the State. By 1979, the Endangered Species Act provided protection for all five sea turtle species that occur in Florida waters. The USFWS has furthered habitat protection by, among other things, designating the Archie Carr National Wildlife Refuge in Brevard and Indian River counties. In addition to state restrictions, the National Marine Fisheries Service has implemented its own restrictions on incidental catch of turtles.

Despite these efforts, human activity continues to affect sea turtles populations. Through intentional harvesting, incidental catch, and the alteration and destruction of nesting and foraging habitat, the populations of each species have been severely impacted. One fundamental weakness in sea turtle protection efforts is the lack of comprehensive habitat protection, especially nesting habitat. Miles of suitable nesting habitat have been lost or severely impacted by development and coastal armoring. Severely eroding beaches, often associated with structurally improved inlets, also represent a potential threat to the preservation of nesting habitat.

To address these issues, the USFWS has recently updated the recovery plans for the U.S. populations of the loggerhead, green turtle, leatherback, and kemp's ridley. The plans are intended to improve coordination of the recovery programs required under the Endangered Species Act. The plans identify specific tasks designed to promote the recovery of each species. Separate species plans have been developed to provide greater focus and to emphasize the uniqueness of individual species. Each plan recognizes the importance of obtaining accurate nesting data in understanding regional trends and in evaluating the extent, quality and stability of nesting habitat.

In an effort to standardize sea turtle nesting data collection methodologies, a cooperative agreement in 1989 by the Department of Natural Resources, Florida Marine Research Institute (FMRI) and the USFWS resulted in the establishment of "Index Nesting Beach Surveys". The surveys serve a dual purpose of providing a long term index of statewide nesting activity from which statistically and scientifically valid conclusions regarding the status of nesting populations can be derived, and providing standardized data which can be utilized to evaluate the effects of degradation or enhancement of nesting habitat on nesting populations. Under the program, 27 "index nesting beaches", comprising 197 miles of shoreline and approximately 85% of all nesting in Florida, are systematically monitored for nesting activity. A data base has been developed by FMRI to maintain the data collected and to allow preparation of summary information and detailed analysis of index nesting data.

Likewise, the Division of Beaches and Shores (DBS) has indirectly collected habitat quality data for these and other beaches through a number of their programs. Pertinent physical information is available through coastal construction permit files, coastal construction control line documentation, the 1990 armoring policy report, habitat studies for beach restoration planning, aerial photography, and aerial videos of the state's coastline.

Historically, the data collection efforts of the DBS and FMRI have been undertaken independently of one another. The primary purpose of the federally funded Sea Turtle Nesting Habitat Survey is to consolidate the available data from each source in a format which is easily accessible to field and office personnel and is useful for planning and regulatory beach management activities. The survey can be used to query daily nesting events by species, physical beach characteristics, and habitat endangering conditions such as shoreline erosion and construction, as well as to determine what additional data is needed to fill information gaps.

The inventory will allow assessment of turtle nesting habitat quality, prediction of long-term habitat availability, and will assist in the identification of nesting areas for protection. Applications could include the development of nesting beach protection standards, beach management planning, and nesting habitat restoration, all on a more comprehensive statewide basis. A complete set of disks containing the GIS and the data bases has been provided to both DBS and DMR.

Part II

METHODOLOGY

The index nesting beach geographic information system was created using historic shoreline change maps as base maps for plotting the location of turtle nesting activities, and beach characteristics. These maps contain several different shorelines for each nesting area, ranging in time from the mid-1800's to the early 1980's, and are stored in an Autocad-compatible computerized mapping format. The historic shoreline change maps were scaled into meters and projected into a universal transverse mercator (UTM) coordinate system. Arc-info coverages were created from the shorelines by using Arcad, a computer mapping program that transforms an Autocad drawing entity into an arc-info feature and give it topology. Arcad stores its locational information in a data base (.DBF compatible format) so that other information about a particular map feature can easily be stored together with the locational information. The remainder of the data for the system was obtained from four general areas - turtle nesting activity, adjacent land use, armoring, and beach profile characteristics.

Turtle nesting data have been collected since 1989 as part of the index nesting beach program administered by Florida Marine Research Institute (FMRI) personnel. There are twenty-seven index nesting beaches, encompassing approximately 197 miles of Florida's coastline. Each index nesting beach is divided into zones of approximately one kilometer in length. Data collected over the three year period from 1989 to 1991 were catalogued by zone and computerized into a data base (.DBF compatible) format. The zone boundaries were recorded in degrees, decimal minute readings for longitude and latitude directions, using a global positioning system. Zone boundary readings were projected into UTM meter coordinates which were then plotted on the historic shoreline change maps, converted to arc-info coverages, and linked to the appropriate nesting data files.

Land use characteristics adjacent to the index nesting beaches were examined using data from aerial photography and airplane fly-over videos (1992). The beginning and end points of each index nesting beach were located on aerial maps. The fly-over videos were viewed and six different land use categories were sought and recorded on the aerial maps for each index nesting beach. Recorded land use categories include single and multi-family residential, commercial, mixed use, recreation, and undeveloped land. Visible armoring, the extent of vegetative cover, and the presence or absence of dune systems were also recorded on the aerial maps. The common locational links between the aerial maps and the historic shoreline change maps are the DNR range monuments. Land use information was measured and converted to the percentage of each land use type between a particular pair of DNR range monuments. These percentages were then computerized and attached to the DNR range monument locational markers on each historic shoreline change map.

Information on beach armoring was obtained from the DBS permit file data base which includes all beach armoring and construction activities that have been permitted through DBS. All permit locational information contained in the permit file data base is referenced by DNR range monuments. Information on the type and date of the activity, permit number, name of the permit holder, and the distance and direction of the activity from a particular DNR range monument, were

collected for the following categories: breakwater or jetty; bulkhead or seawall; groin; revetment or toe scour protection; sandbag structure; fill; and, beach nourishment.

Data from these activities were entered into a computerized data base for each index nesting beach, located on the historic shoreline change maps using DNR range monuments as reference points, and plotted adjacent to the shoreline on which they occur.

Beach profile data were collected as part of an ongoing shoreline monitoring program conducted by DNR's Division of Beaches and Shores. The Division provided data points on the elevation of the beach at a specific distance from a particular DNR range monument. The dates of data collection for each index nesting beach vary, but the data were the most recent available at the time of this writing. These data points were furnished in a .DXF file format for import into the Autocad drawing editor and were then converted into an arc-info coverage.

Part III

CONCLUSIONS AND RECOMMENDATIONS

The completion of the Sea Turtle Nesting Habitat Survey will contribute significantly to improved management and protection of turtle nesting habitat in Florida. By consolidating nesting data with physical beach attribute data associations can be drawn between the two sets of data. The inventory provides a useful tool for research, planning, and regulatory beach management.

However, there are issues that must be addressed to ensure its usefulness in the future. Most important is the continued management and updating of the inventory, without which it will become obsolete. FMRI should be responsible for overall management and for maintaining a "master" version of the database and GIS. Periodic updates should be accomplished and redistributed to the appropriate users throughout the Department. DBS should designate staff to cooperate with FMRI in conducting this task.

Regarding recommendations for future use, without implementing the system it is not possible to identify fully its capabilities and flaws. To ensure the inventory not only continues to be useful, but is improved upon, management should address the following considerations:

- Conduct ongoing needs assessment. As the system is put into use, practical modifications may be recognized concerning the data scale, data structure, and application functionality, all of which are dependent on who is using the inventory and for what purposes;
- Compile a comprehensive, detailed listing of each database that includes information about the origin of the data and a detailed listing of each attribute in each database. The scale, date collected, update frequency, attribute definitions, units of measurement, and limitations of the data should be documented, at a minimum. Data transfer and update protocols need to be developed and organizational responsibilities identified;
- Protocol for data access should also be addressed. Because the turtle nesting data is intrinsically sensitive, database design and application functionality should reflect the goal of accurately portraying the nuances of the data while maintaining security;
- The database portion of the survey should be integrated into the GIS of the *Coast of Florida Erosion and Storm Effects Study GIS*, which is being completed by DBS;
- Include the most appropriate digital shoreline for future application development. The Coastal and Marine Resource Assessment (CAMRA) group at FMRI uses a 1:40,000 shoreline that is more current than the historic shoreline. This shoreline was used to develop the GIS, but problems were encountered when attempting to use the full shoreline in a PC environment. The historic shoreline segments used as "base" shorelines in the system should be used temporarily until a more appropriate shoreline can be employed.

- The DBS monument database includes a rich collection of attributes that describe the site and situation at each monument. The absence of these attributes from the inventory limits the utility of the application for analyzing the relationship of nesting activity to habitat characteristics. After reviewing the *Coast of Florida Erosion and Storm Effects Study Geographic Information System*, pertinent attributes should be selected, obtained and integrated with the turtle nesting data sets;

- Consider the relationship of the turtle nesting habitat inventory to CAMRA's prototype oil spill application. CAMRA is developing a prototype Automate Oil Spill Sensitivity Atlas. This GIS application is a structured oil spill management tool that brings together a variety of coastal resource databases to identify those areas sensitive to oiling. The existing oil spill prototype does not include turtle nesting data, but the *State of Florida-Marine Spill Analysis System, Database Acquisition and Application Development Manual* specifically identifies the need for treatment of turtle nests. Direct compatibility with the oil spill application should be a goal when considering the turtle nesting application specifications;

- Include the addresses, and phone numbers of the permit holders in the inventory. This would make it easier for department staff to contact the appropriate person when information is needed. FMRI maintains a list of permit holders;

- Gaps in information should be filled in. This survey includes data for 22 of 27 index nesting beaches in Florida. Because of difficulties in obtaining GPS readings on the remainder of the index nesting beaches and because of the lack of data and digitized shoreline for one of the inland nesting beaches, they have not been included. Nesting data is available for these beaches and they should be included in the future. Department staff would have a greater ability to manage beach resources if information were available for all of these index nesting beaches and, ultimately, other beaches where information is available; and,

- Include information in the inventory concerning nesting productivity, rather than just the number of nests and false crawls.

Appendix I

NOTES TO THE USER

A complete set of disks containing the GIS and the data bases has been provided to both the Division of Beaches and Shores and the Division of Marine Resources. The index nesting beach GIS can be installed on an IBM-compatible personal computer with the following minimum specifications:

MS-DOS version 3.1 or higher
Intel 80386 processor
6 Megabytes (MB) Random Access Memory (RAM)
Microsoft-compatible mouse
3 1/2 inch disk drive
hard disk with at least 60 MB of free space

Note that not all IBM-compatible computers are the same. While the GIS will work on a computer that is compatible with the IBM-AT, Intel 80386 processors, faster results will be obtained with machines containing a math co-processor, and comparable with the Intel 80486 processors. Note also, that the 6 MB RAM requirement is the minimum. The GIS system interface will usually make use of any additional RAM available, resulting in a faster system response time.

The index nesting beach GIS has been developed using the Autocad map drawing editor and Arcad geographical information system development software. These software packages are only necessary when creating arc-info coverages (land use features) for the system. Primary users of the system have been provided with a copy of Arcview to use as an interface to the arc-info coverages. Arcview provides the user with a means to access, query, manipulate, and produce results of the GIS information, both on the computer screen and in hard copy, without altering the physical data in the system.

The Arcview software must be run in the 386-enhanced mode of the Windows 3.1 environment. Arcview is fully menu-driven and user friendly. The file search process is automatically set up to look for arc-info coverages on the local hard drive. Coverages can be retrieved in any manner or quantity desired by the user - the lack of sufficient RAM being the only barrier. The Arcview software has a "read-only" relationship with the physical data on disk. The user may overlay arc-info coverages from different GIS systems on the same screen, or retrieve coverages with the same attribute definitions without overwriting the information.

Once coverages are retrieved and manipulated in Arcview, the results can be saved in a separate file called a view (a user-named file with an .AV extension). Views contain information on the location of the data and status of the user's work settings. Template views have been created for each of the index nesting beaches and will be backed up and provided to users for restoration to their hard drive in the following format:

c:\arcview\turtles\inb01.av

.....inb02.av

.....

c:\arcview\turtles\inb28.av

(where "inb" is index nesting beach and the number is the beach number - assuming c: is the destination drive)

These files can only be used when Arcview has access to the physical data. The actual GIS coverage information must be present on disk. Views are nothing more than an address and status file for the user's work. Any attempt at retrieving a view when the physical data is not present, will not damage the view. The view can be used again when the physical data is returned to its former location.

The coverages for the index nesting beach GIS will be backed up and provided to users for restoration to their hard drive in the following format:

c:\data\arcad\turtles\inb01\

.....\inb02\

.....

c:\data\arcad\turtles\inb28\

c:\data\arcad\turtles\nassau\

.....\stjohns\

.....

c:\data\arcad\turtles\collier\

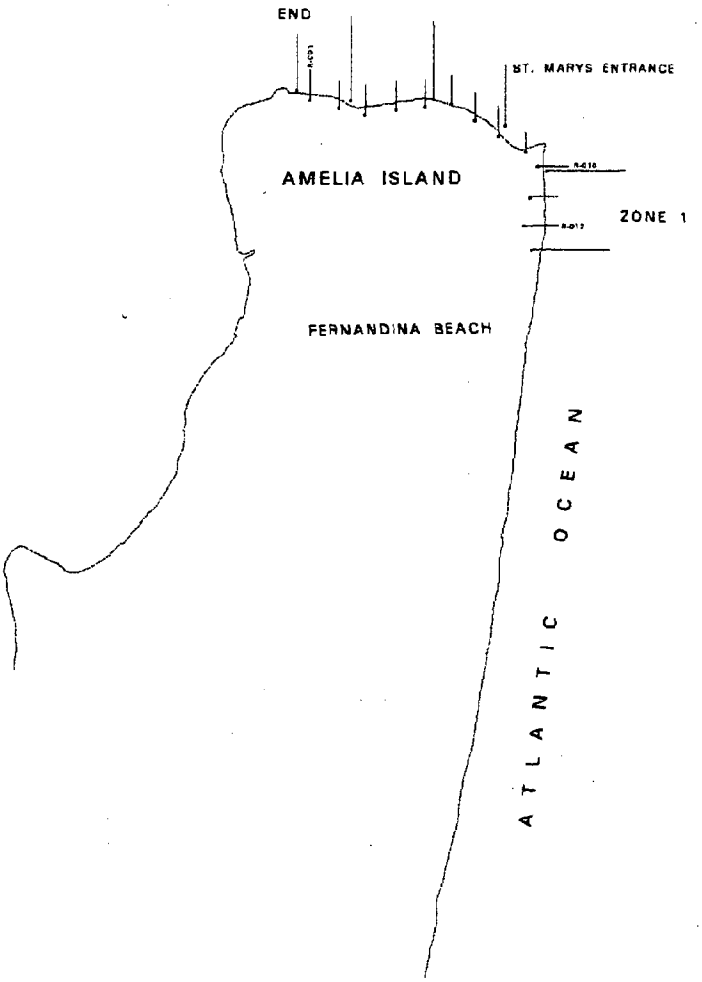
The directories labeled "inb..", mark the beginning of a separate set of sub-directories which contains the arc-info data base and support files for each index nesting beach. The directories labeled with a Florida county name begin a separate set of sub-directories which contains the arc-info data base and support files for the historic shoreline change maps and beach profile data for that county.

Appendix II

INDEX NESTING BEACH MAPS

This appendix contains maps of each index nesting beach. The maps show the location of the base shoreline, GPS readings, nesting zones, range monuments, and permitted armoring. The maps provide a geographical reference for the index nesting beach data.

Fort Clinch State Park
Index Nesting Beach #1
Nassua County



BASE SHORELINE

GPS READINGS

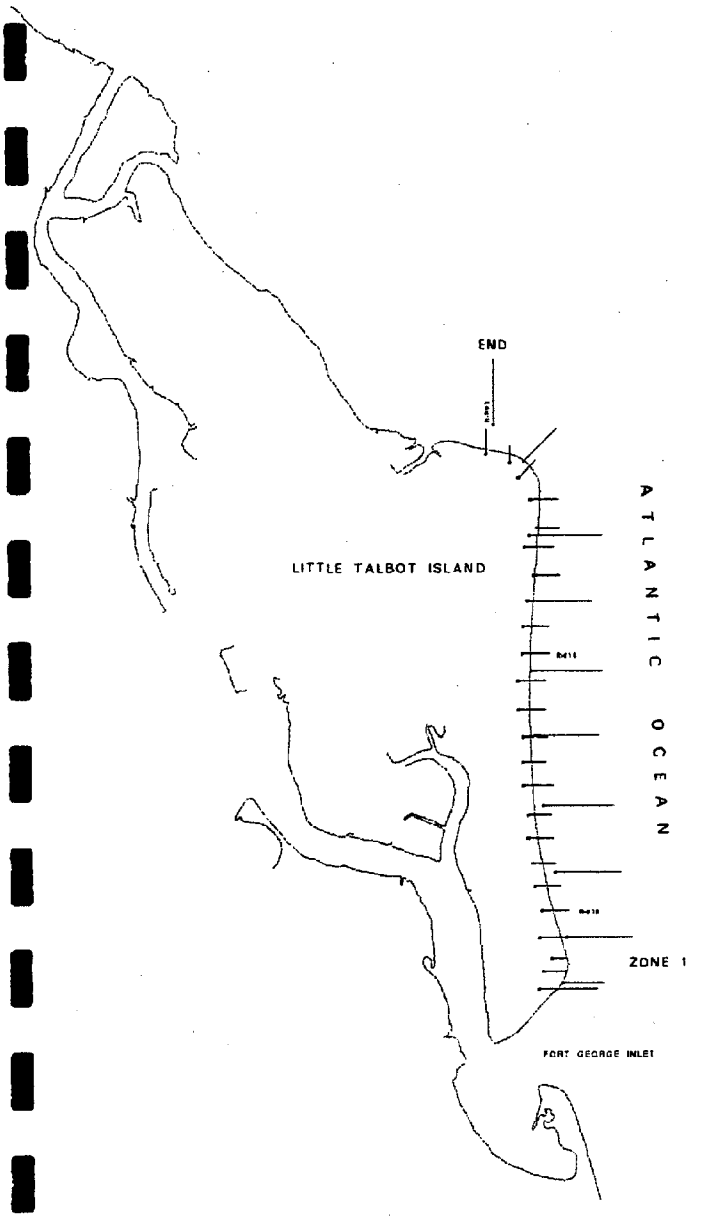
NESTING ZONES

R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 3000 6000



Little Talbot Island State Park
Index Nesting Beach #3
Duval County

BASE SHORELINE

GPS READINGS

NESTING ZONES

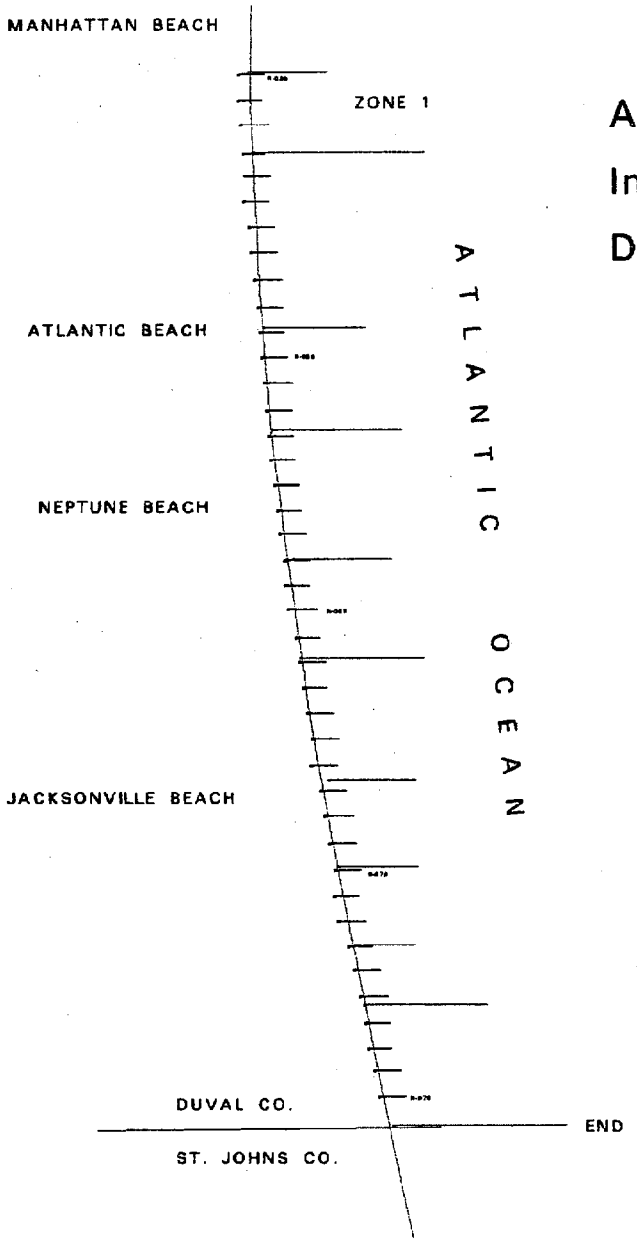
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 4000 8000

Atlantic-Jacksonville Beach Index Nesting Beach #4 Duval County



R-MONUMENT/PERMITS

GPS READINGS

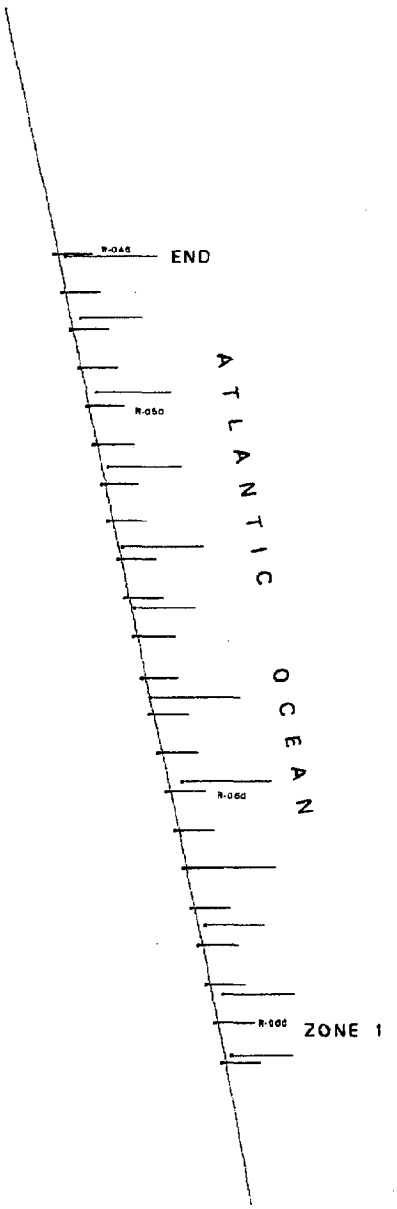
BASE SHORELINE

LAND USE PERCENTAGES

NESTING ZONES

COUNTY LINE

Guana River State Park
Index Nesting Beach #5
St. John's County



BASE SHORELINE

GPS READINGS

NESTING ZONES

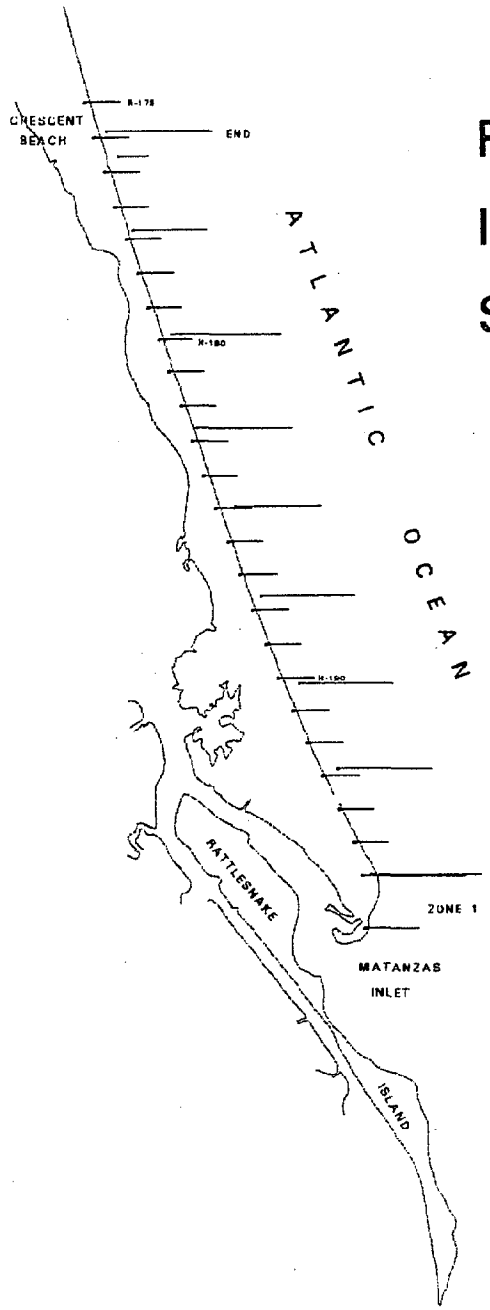
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 2000 4000

Ft. Mantanzas Monument
Index Nesting Beach #6
St. John's County



BASE SHORELINE

GPS READINGS

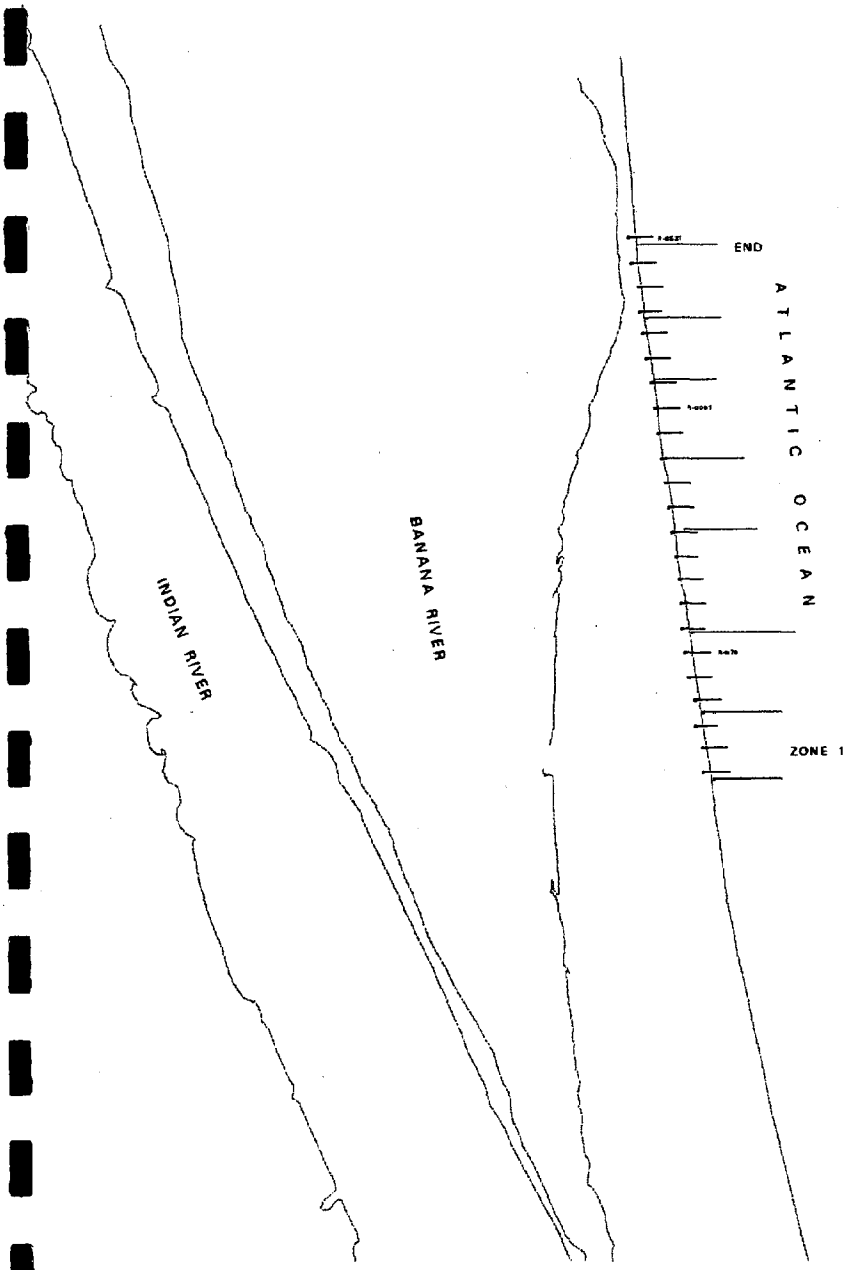
NESTING ZONES

LAND USE PERCENTAGES

R-MONUMENTS/PERMITS

Meters

0 2000 4000



Patrick Air Force Base
Index Nesting Beach #11
Brevard County

BASE SHORELINE

GPS READINGS

NESTING ZONES

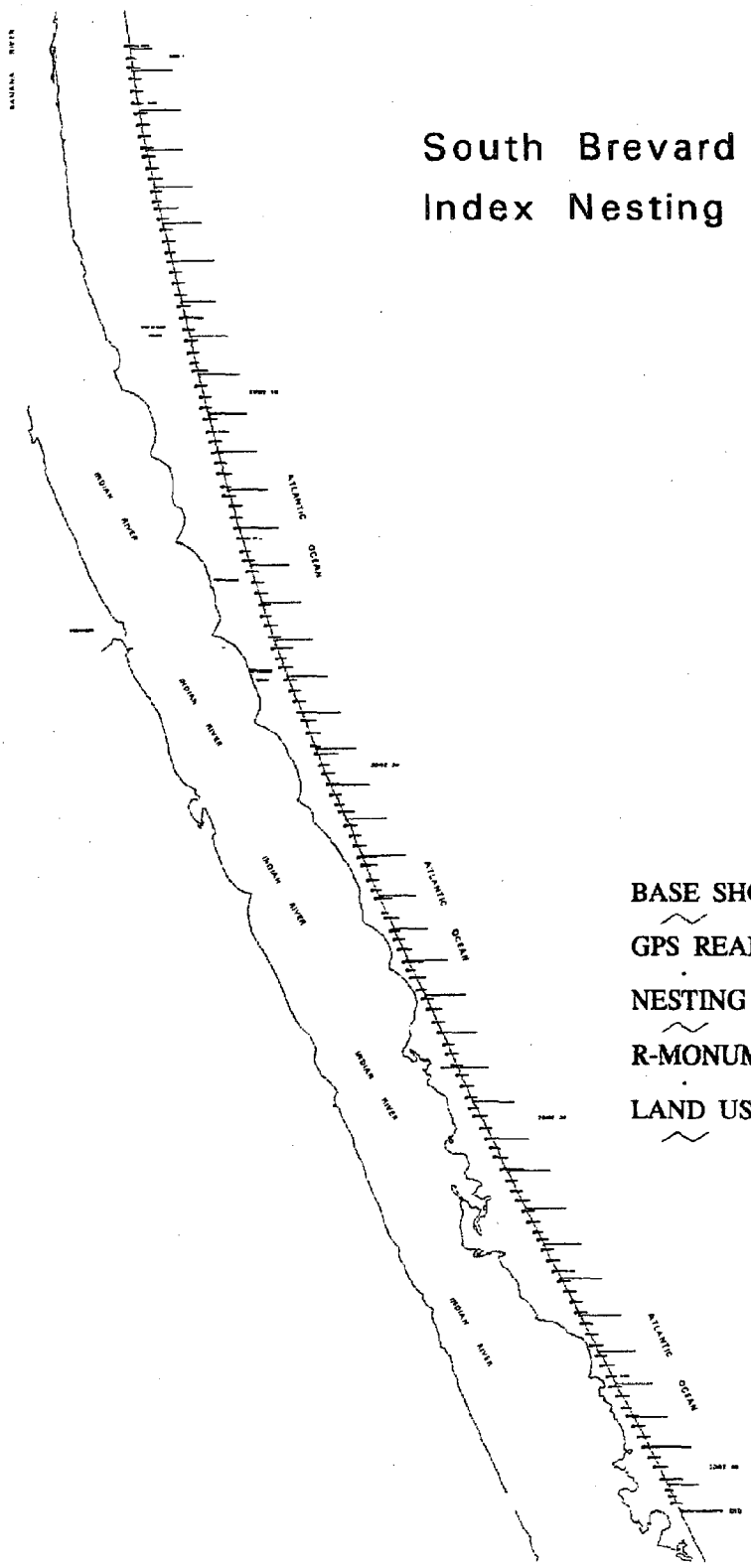
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 4000 8000

South Brevard County
Index Nesting Beach #12



BASE SHORELINE

GPS READINGS

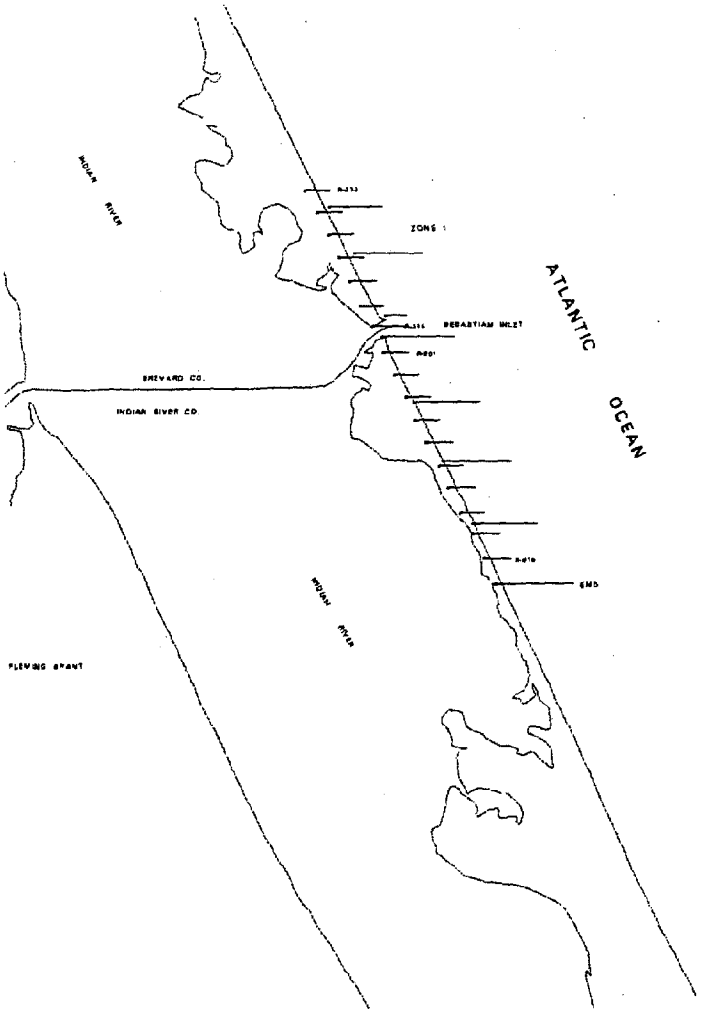
NESTING ZONES

R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 10000 20000



Sebastian Inlet SRA
Index Nesting Beach #13
Brevard/Indian River Counties

BASE SHORELINE

GPS READINGS

NESTING ZONES

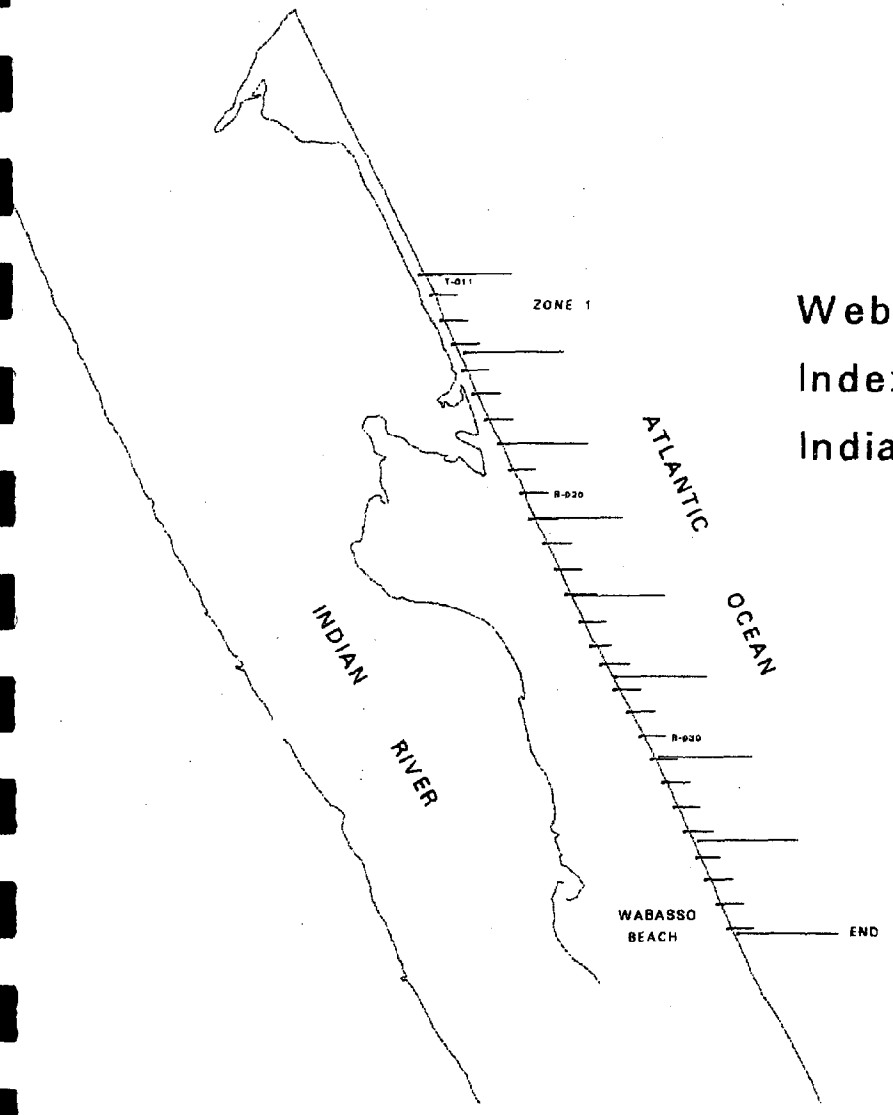
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

COUNTY LINE

Meters

0 3000 6000



Webasso Beach
Index Nesting Beach #14
Indian River County

BASE SHORELINE

GPS READINGS

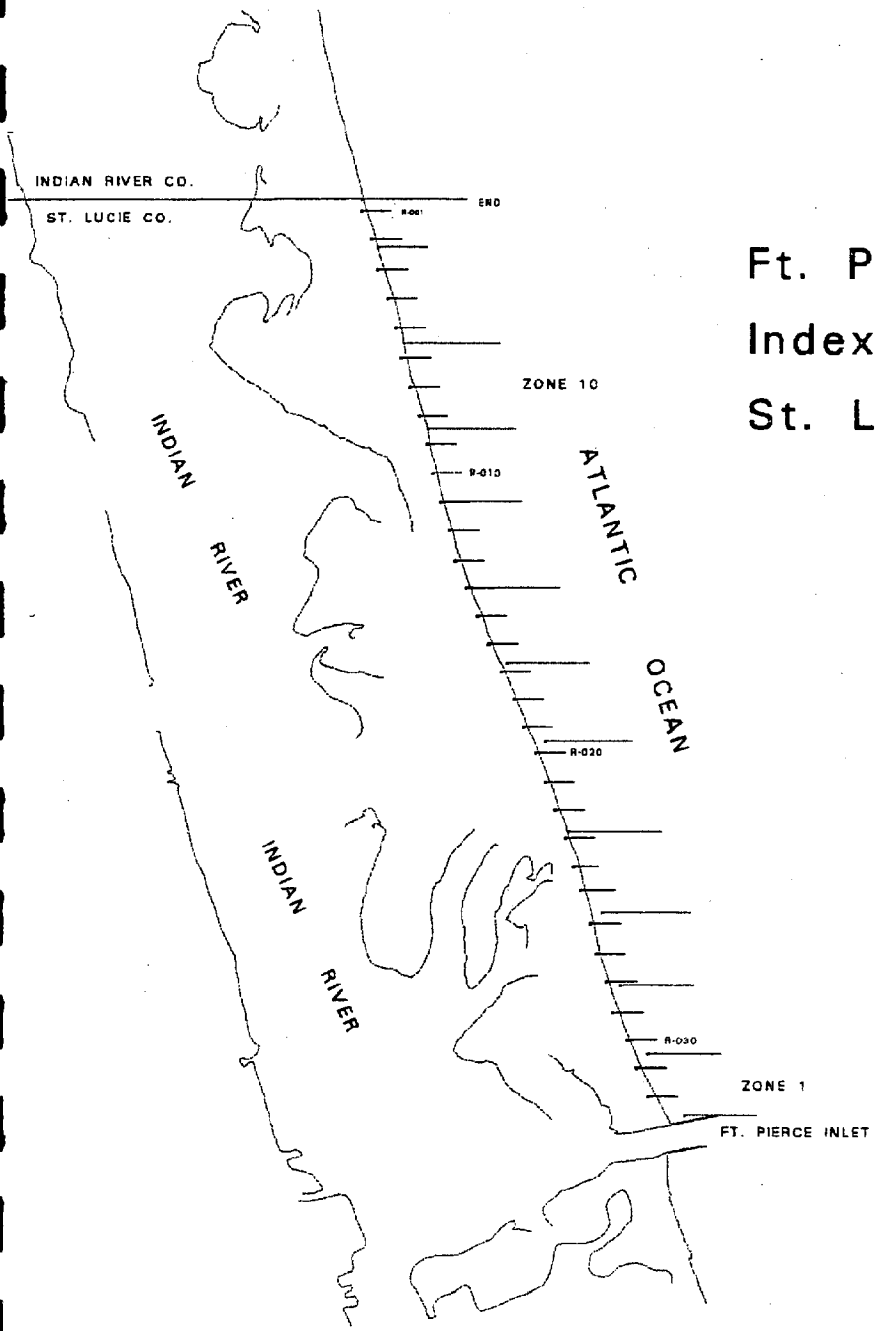
NESTING ZONES

R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 3000 6000



Ft. Pierce Inlet SRA
Index Nesting Beach #15
St. Lucie County

BASE SHORELINE

GPS READINGS

NESTING ZONES

R-MONUMENTS/PERMITS

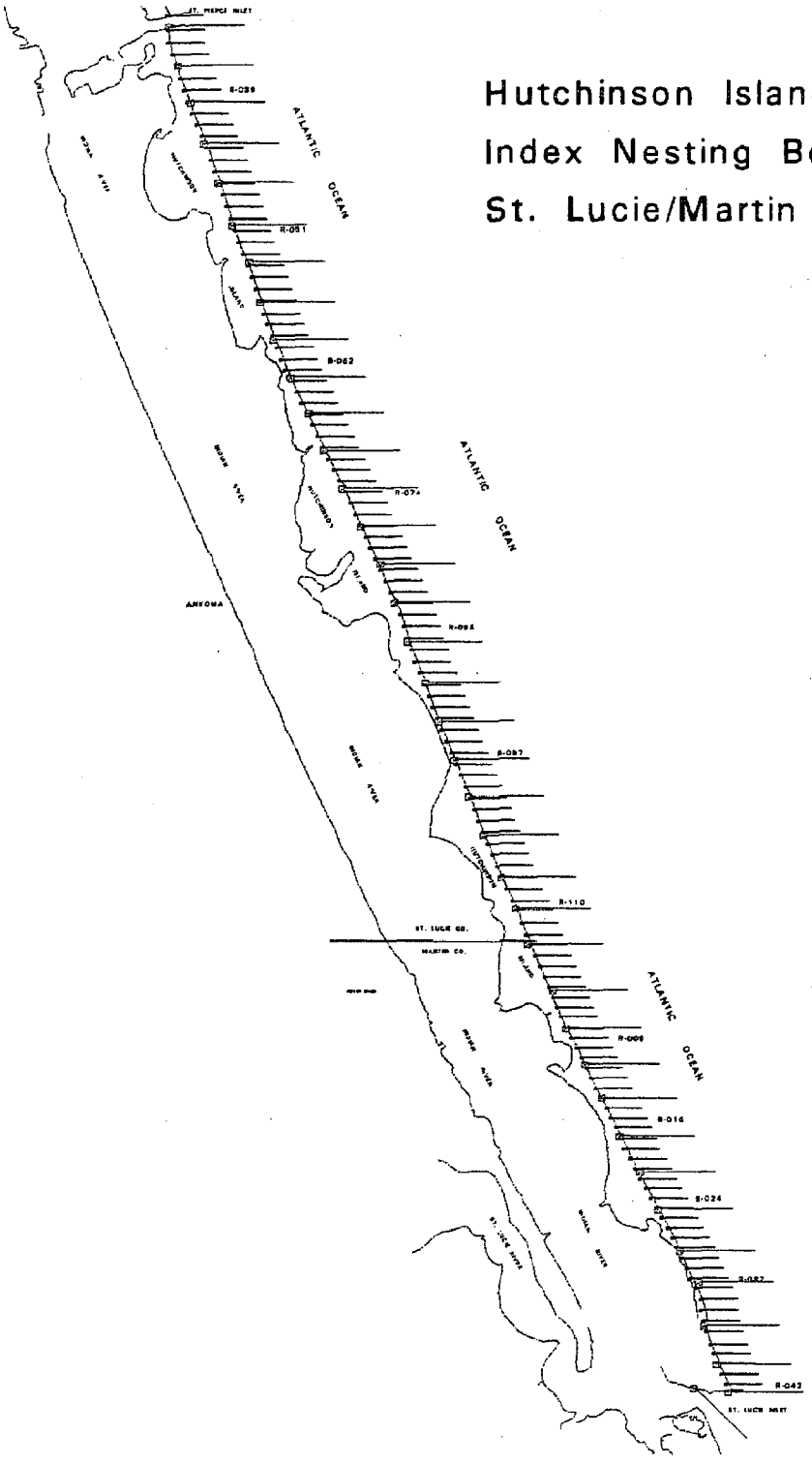
LAND USE PERCENTAGES

COUNTY LINE

Meters

0 3000 6000

Hutchinson Island
Index Nesting Beach #16
St. Lucie/Martin Counties



BASE SHORELINE

GPS READINGS

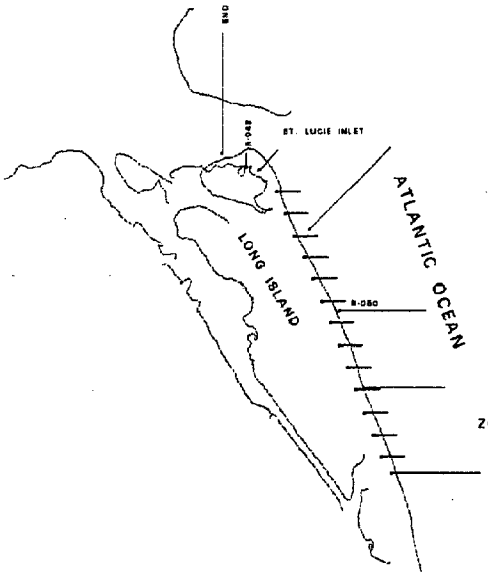
NESTING ZONES

R-MONUMENTS/PERMITS

RANGE MONUMENT LEADERS

Meters

0 8000 16000



St. Lucie Inlet State Preserve
Index Nesting Beach #17
Martin County

BASE SHORELINE

GPS READINGS

NESTING ZONES

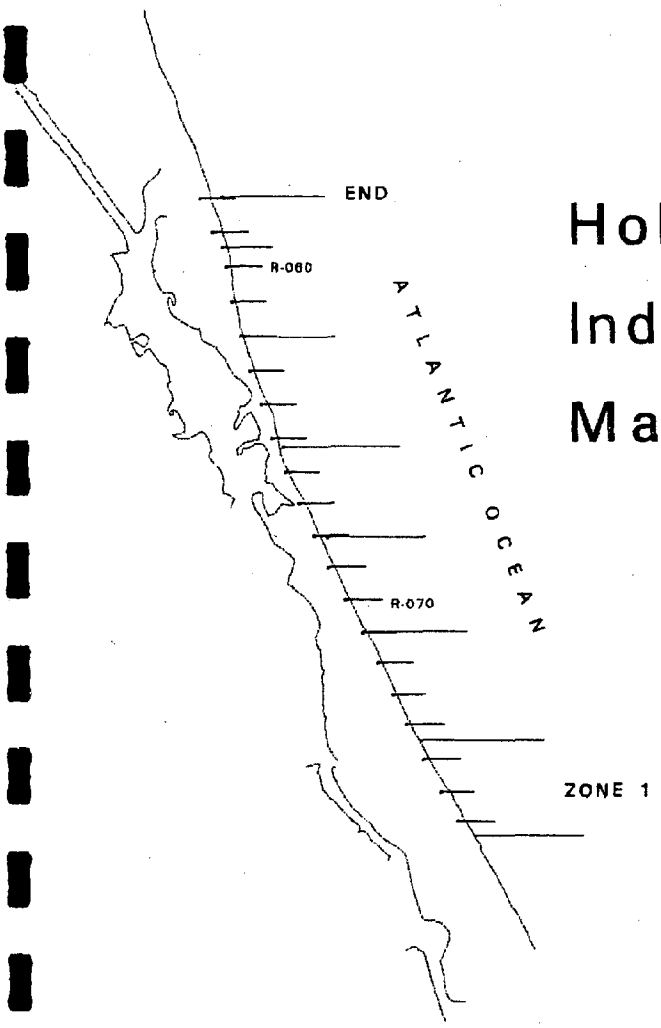
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 4000 8000

Hobe Sound NWR
Index Nesting Beach #18
Martin County



BASE SHORELINE

GPS READINGS

NESTING ZONES

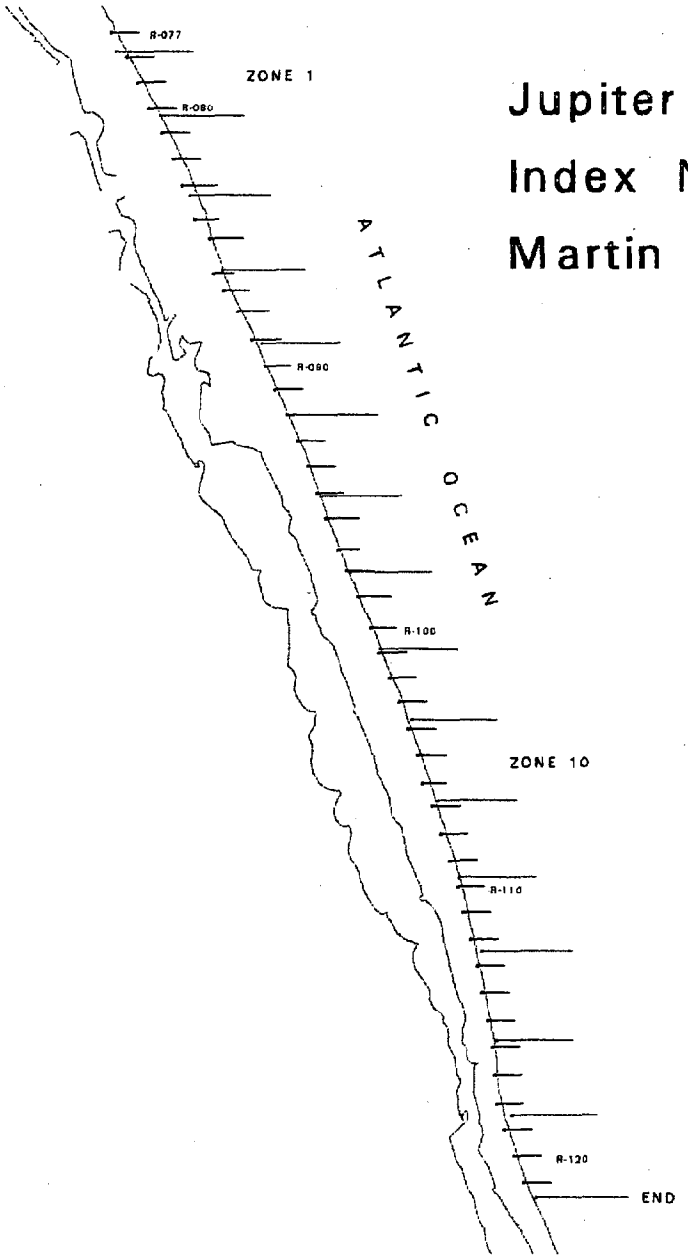
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 2000 4000

Jupiter Island
Index Nesting Beach #19
Martin County



BASE-SHORELINE

GPS-READINGS

NESTING ZONES

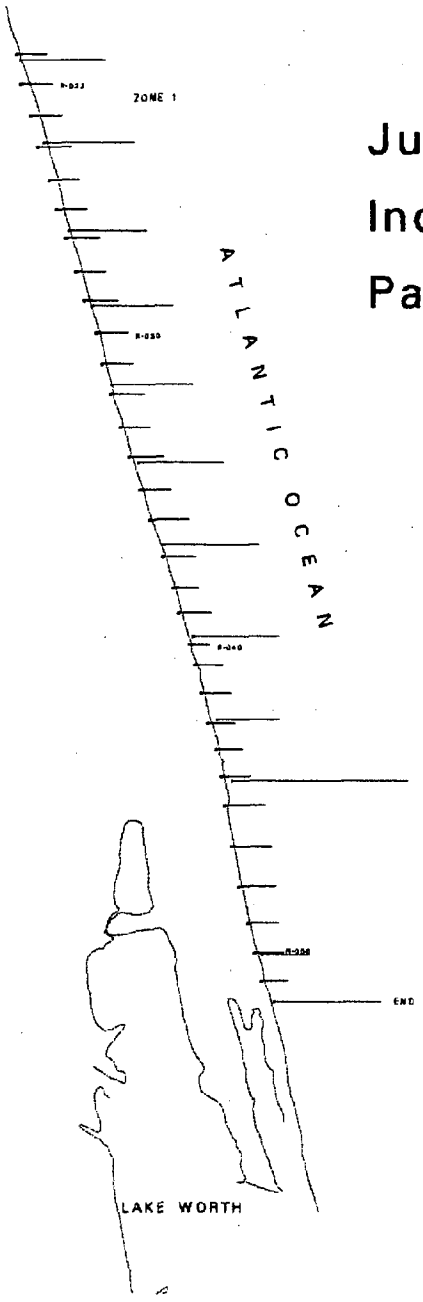
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 3000 6000

Juno Beach
Index Nesting Beach #20
Palm Beach County



BASE SHORELINE

GPS READINGS

NESTING ZONES

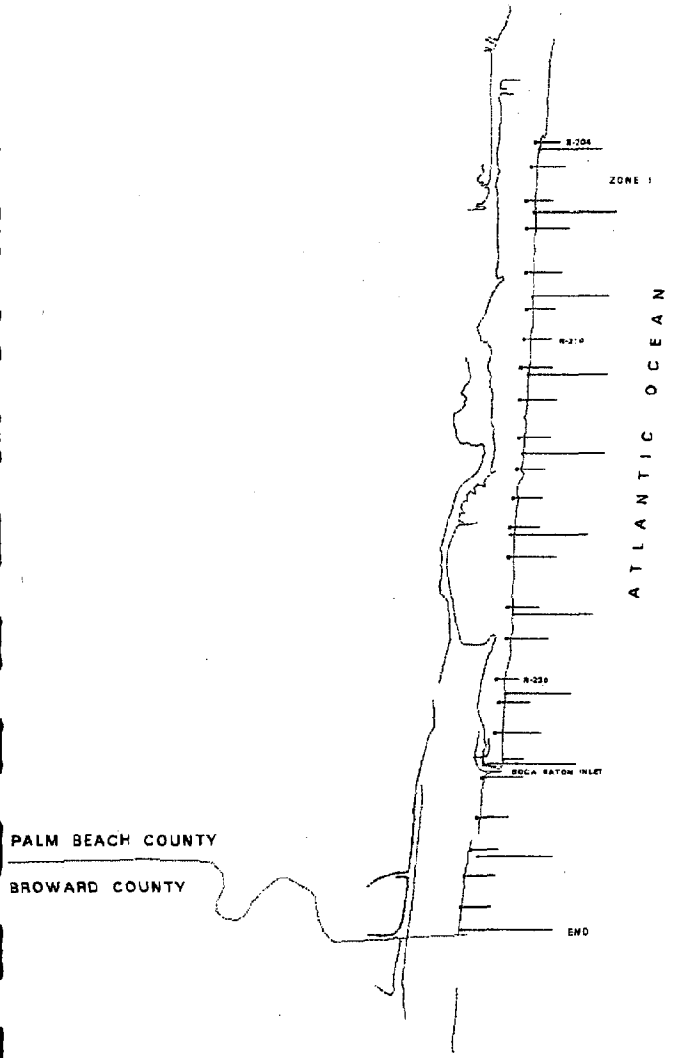
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 3000 6000

Boca Raton
Index Nesting Beach #21
Palm Beach County



BASE SHORELINE

GPS READINGS

NESTING ZONES

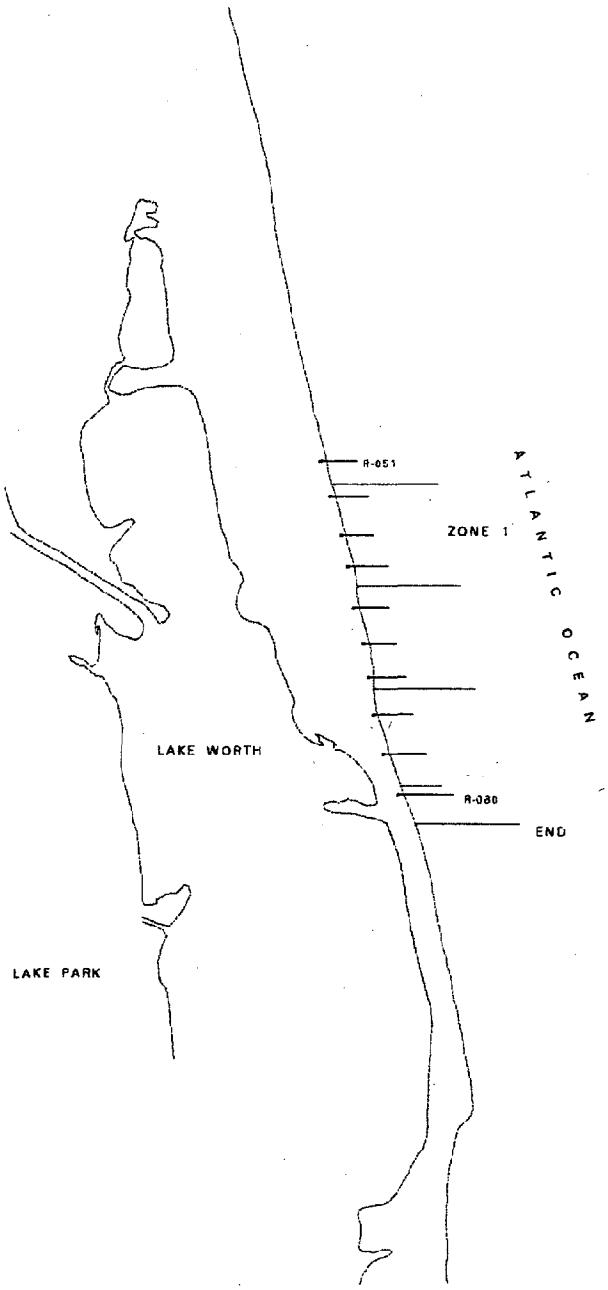
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

COUNTY LINE

Meters

0 3000 6000



J.D. McArthur State Park
Index Nesting Beach #22
Palm Beach County

BASE SHORELINE

GPS READINGS

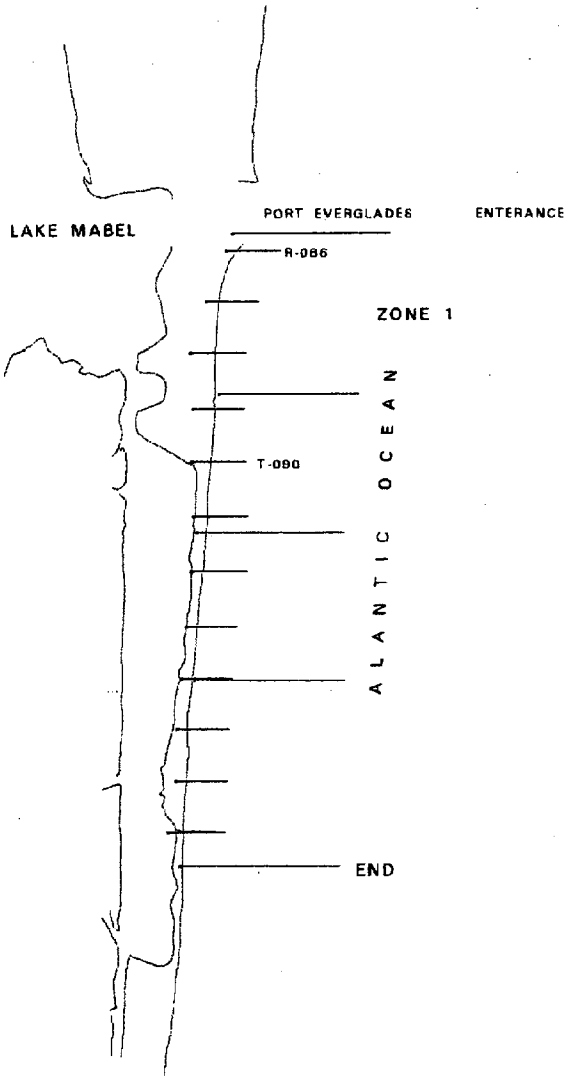
NESTING ZONES

R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 2000 4000



John U. Lloyd SRA
Index Nesting Beach #23
Broward County

BASE SHORELINE

GPS READINGS

NESTING ZONES

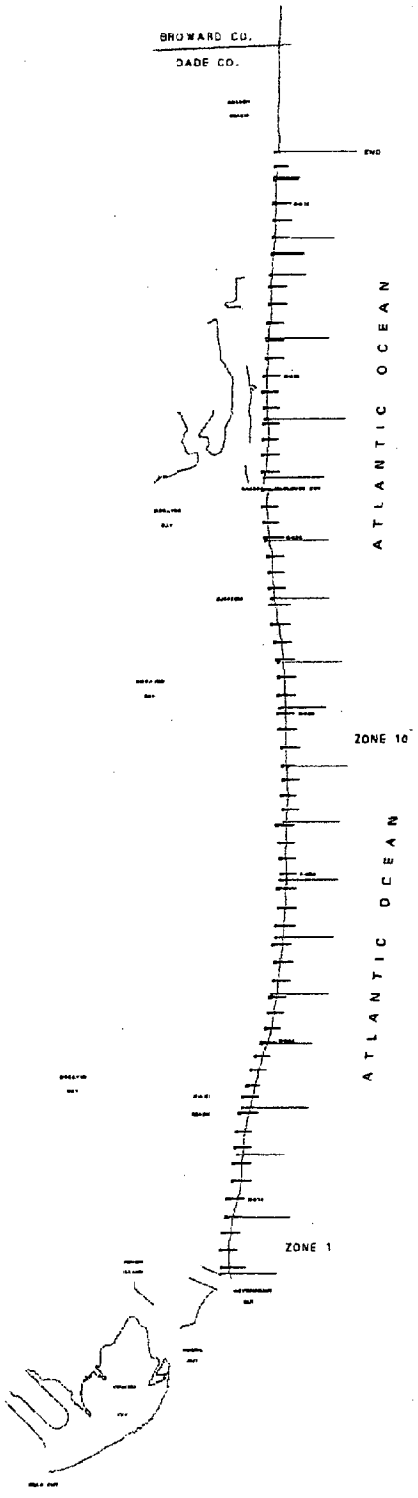
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 2000 4000

Miami Beaches
Index Nesting Beach #24
Dade County



BASE SHORELINE

GPS READINGS

NESTING ZONES

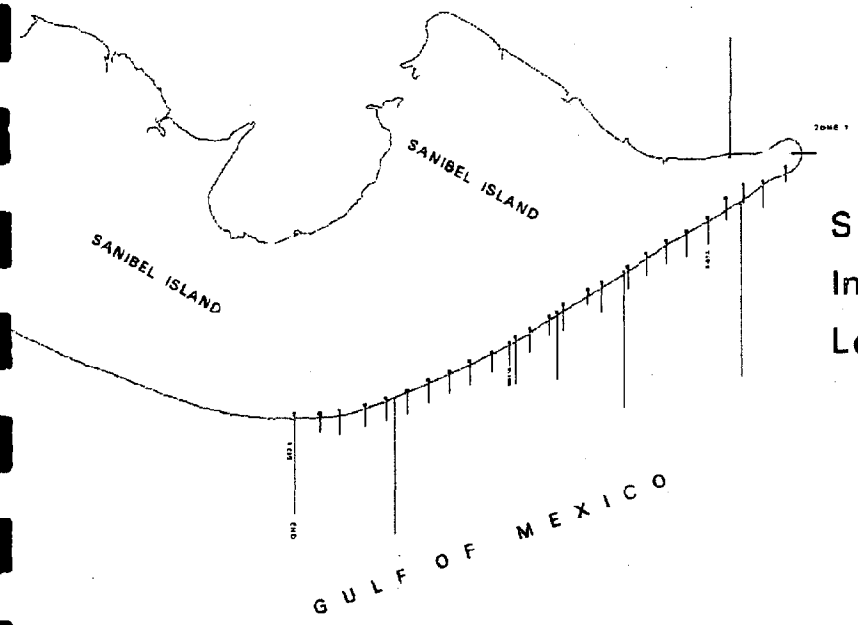
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

COUNTY LINE

Meters

0 7000 14000



Sanibel Island
Index Nesting Beach #26
Lee County

BASE SHORELINE

GPS READINGS

NESTING ZONES

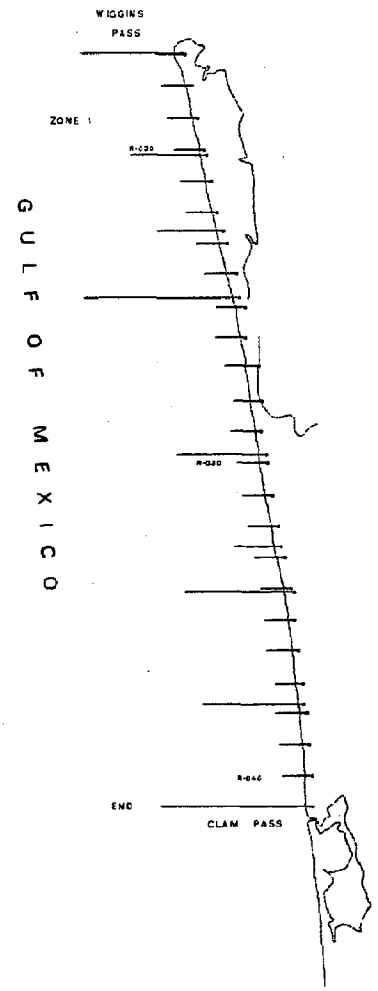
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 4000 8000

Wiggins Pass SRA
Index Nesting Beach #27
Collier County



BASE SHORELINE

GPS READINGS

NESTING ZONES

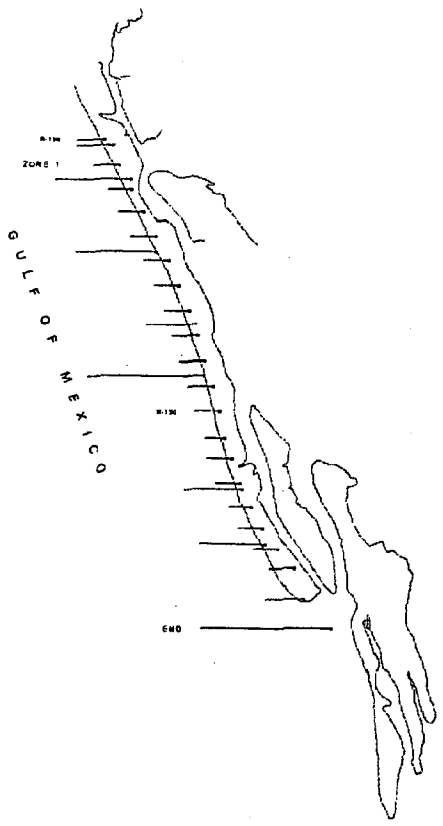
R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 3000 6000

Keewaydin Island
Index Nesting Beach #28
Collier County



BASE SHORELINE

GPS READINGS

NESTING ZONES

R-MONUMENTS/PERMITS

LAND USE PERCENTAGES

Meters

0 4000 8000

N

Appendix III

INDEX NESTING BEACH DATA

This appendix contains a printout of the data base files contained in the GIS for Hutchinson Island (Index Nesting Beach No. 16). Because of the excessive size of the database, hard copy of the data for each index nesting beach has not been included. The Hutchinson Island information is included as an example.

The first data base printout displays the land use data collected for that beach. These data show the percentages of several types of land use and beach armoring found between each pair of DNR range monuments. In the GIS, land use data is attached to the range monument leaders shown on the maps. The distance between range monument leaders can be considered a land use zone. The information for each zone is attached to the range monument leader to the north of the zone. For example, the land use data for the area between range monuments R-001 and R-002, would be attached to range monument leader R-001.

The next data base printout, beginning on page III-27, shows the permit information for several different types of beach armoring. In the GIS, these data are connected to the actual range monument locational markers. These markers appear on the map as points, attached to the base of each range monument leader. Permit data are connected to the closest range monument north, of the northern point of beginning for each type of beach armoring. For example, if the distance between range monuments R-001 and R-002 is 400 meters, and a seawall begins 300 meters south of R-001, the permit information for the seawall will be located at range monument R-001.

The third data base, beginning on page III-34, contains the turtle nesting data collected for the years 1989, 1990, and 1991. The GIS stores these data in the nesting zone leaders. Turtle nesting zones begin as "Zone 1" at the north end of the beach, and are numbered consecutively in a southerly direction, for most beaches. However, for some beaches the turtle nesting zones begin on the south end of the beach and travel north. The beginning and end points of these beaches are labeled to avoid confusion.

FLORIDA DEPARTMENT OF NATURAL RESOURCES
Sea Turtle Nesting GIS
04/24/93

Land Use/Armoring Percentages
Index Nesting Beach #16

Range Monument: R-033

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	18%	Vegetative Cover:	LOW
Undeveloped:	82%		

Range Monument: R-034

Single Family:	10%	Revetment/Toe Scour:	0%
Multi Family:	45%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	20%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	25%		

Range Monument: R-035

Single Family:	15%	Revetment/Toe Scour:	0%
Multi Family:	12%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	53%		

Range Monument: R-036

Single Family:	40%	Revetment/Toe Scour:	0%
Multi Family:	10%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	6%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	40%		

Range Monument: R-037

Single Family:	15%	Revetment/Toe Scour:	0%
Multi Family:	12%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	73%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-038

Single Family:	20%	Revetment/Toe Scour:	0%
Multi Family:	15%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	65%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-039

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	30%	Bulkhead/Seawall:	0%
Commercial:	35%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	35%		

Range Monument: R-040

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	100%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-041

Single Family:	20%	Revetment/Toe Scour:	0%
Multi Family:	50%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	30%		

Range Monument: R-042

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	15%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	85%		

Range Monument: R-043

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	70%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	66%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	30%		

Range Monument: R-044

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	100%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	0%		

Range Monument: R-045

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	100%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-046

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	10%	Dune System:	24%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	90%		

Range Monument: R-047

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-048

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-049

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-050

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-051

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-052

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-053

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-054

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-055

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-056

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	25%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	
Undeveloped:	75%		

Range Monument: R-057

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-058

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-059

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-060

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-061

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-062

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-063

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-064

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-065

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-066

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-067

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-068

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-069

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-070

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-071

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-072

Single Family:	.0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-073

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-074

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-075

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-076

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-077

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-078

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-079

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-080

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	45%	Vegetative Cover:	MED
Undeveloped:	55%		

Range Monument: R-081

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	100%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-082

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	100%	Vegetative Cover:	HIGH
Undeveloped:	0%		

Range Monument: R-083

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	50%	Vegetative Cover:	HIGH
Undeveloped:	50%		

Range Monument: R-084

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	100%		

Range Monument: R-085

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	100%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	0%		

Range Monument: R-086

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	100%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	0%		

Range Monument: R-087

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	30%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	70%		

Range Monument: R-088

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	60%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	40%		

Range Monument: R-089

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	0%		

Range Monument: R-090

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	30%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	70%		

Range Monument: R-091

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	100%		

Range Monument: R-092

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	10%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	90%		

Range Monument: R-093

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	20%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	80%		

Range Monument: R-094

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	100%		

Range Monument: R-095

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	100%		

Range Monument: R-096

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	100%		

Range Monument: R-097

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	100%		

Range Monument: R-098

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	50%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	50%		

Range Monument: R-099

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	50%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	50%		

Range Monument: R-100

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-101

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-102

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	30%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	70%		

Range Monument: R-103

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	70%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	30%		

Range Monument: R-104

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	92%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-105

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-106

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-107

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-108

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-109

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	70%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	30%		

Range Monument: R-110

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	85%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	15%		

Range Monument: R-111

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	85%	Bulkhead/Seawall:	0%
Commercial:	15%	Sandbags:	33%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-112

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	22%
Recreation:	0%	Dune System:	28%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-113

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-114

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	45%	Bulkhead/Seawall:	0%
Commercial:	55%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-115

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-001

Single Family:	30%	Revetment/Toe Scour:	0%
Multi Family:	55%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	15%		

Range Monument: R-002

Single Family:	40%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	60%		

Range Monument: R-003

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	56%
Commercial:	40%	Sandbags:	0%
Recreation:	10%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	50%		

Range Monument: R-004

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	9%
Commercial:	0%	Sandbags:	0%
Recreation:	85%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	15%		

Range Monument: R-005

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	100%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-006

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	45%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	5%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	55%		

Range Monument: R-007

Single Family:	25%	Revetment/Toe Scour:	0%
Multi Family:	20%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	55%		

Range Monument: R-008

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	100%		

Range Monument: R-009

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	110%		

Range Monument: R-010

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	100%		

Range Monument: R-011

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	30%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	70%		

Range Monument: R-012

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	60%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	40%		

Range Monument: R-013

Single Family:	45%	Revetment/Toe Scour:	0%
Multi Family:	55%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	20%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-014

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-015

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	30%	Bulkhead/Seawall:	0%
Commercial:	70%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-016

Single Family:	20%	Revetment/Toe Scour:	51%
Multi Family:	25%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	51%
Recreation:	15%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	40%		

Range Monument: R-017

Single Family:	0%	Revetment/Toe Scour:	57%
Multi Family:	35%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	57%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	65%		

Range Monument: R-018

Single Family:	0%	Revetment/Toe Scour:	74%
Multi Family:	90%	Bulkhead/Seawall:	10%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	10%		

Range Monument: R-019

Single Family:	0%	Revetment/Toe Scour:	25%
Multi Family:	90%	Bulkhead/Seawall:	20%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	10%		

Range Monument: R-020

Single Family:	55%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	45%		

Range Monument: R-021

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	65%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	35%		

Range Monument: R-022

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	100%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-023

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-024

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-025

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	40%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	60%		

Range Monument: R-026

Single Family:	15%	Revetment/Toe Scour:	0%
Multi Family:	25%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	15%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	45%		

Range Monument: R-027

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	HIGH
Undeveloped:	100%		

Range Monument: R-028

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-029

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	30%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	70%		

Range Monument: R-030

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	100%		

Range Monument: R-031

Single Family:	100%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-032

Single Family:	65%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	35%		

Range Monument: R-033

Single Family:	75%	Revetment/Toe Scour:	0%
Multi Family:	25%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-034

Single Family:	25%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	45%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	30%		

Range Monument: R-035

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	28%
Recreation:	100%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-036

Single Family:	35%	Revetment/Toe Scour:	0%
Multi Family:	15%	Bulkhead/Seawall:	0%
Commercial:	25%	Sandbags:	100%
Recreation:	25%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-037

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	100%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

Range Monument: R-038

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	100%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-039

Single Family:	30%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	70%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-040

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	0%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	100%		

Range Monument: R-041

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	LOW
Undeveloped:	0%		

Range Monument: R-042

Single Family:	0%	Revetment/Toe Scour:	0%
Multi Family:	100%	Bulkhead/Seawall:	0%
Commercial:	0%	Sandbags:	0%
Recreation:	0%	Dune System:	0%
Mixed Use:	0%	Vegetative Cover:	MED
Undeveloped:	0%		

FLORIDA DEPARTMENT OF NATURAL RESOURCES
Sea Turtle Nesting GIS
04/24/93

Permitted Beach Armoring
Index Nesting Beach #16

Range Monument: R-034
Permit No: -DBS690033
Owner's Name: St. Lucie County Beach Erosion
Date: 09/23/69
Type: Nourishment
Distance From R-Mon: 0 ft.
Total Length: 6864 ft.

Range Monument: R-033
Permit No: -DBS910297
Owner's Name: Chisolm, James V.
Date: 06/19/92
Type: Nourishment
Distance From R-Mon: 820 ft.
Total Length: 500 ft.

Range Monument: R-043
Permit No: SL000085
Owner's Name: Hutchison Island Limited
Date: 05/10/88
Type: Dune Construction
Distance From R-Mon: 340 ft.
Total Length: 2900 ft.

Range Monument: R-043
Permit No: SL000064
Owner's Name: Ocean Village Property Owners
Date: 01/25/85
Type: Fill
Distance From R-Mon: 0 ft.
Total Length: 3000 ft.

Range Monument: T-063
Permit No: SL000097
Owner's Name: Pugliese, Anthony V.
Date: 03/23/90
Type: Fill
Distance From R-Mon: 0 ft.
Total Length: 3300 ft.

Range Monument: R-104
Permit No: SL000075
Owner's Name: Islandia East Association, Inc.
Date: 01/23/86
Type: Fill
Distance From R-Mon: 52 ft.
Total Length: 916 ft.

Range Monument: R-104
Permit No: SL000029
Owner's Name: Van Aldenbbruck, Dennis
Date: 04/12/82
Type: Dune Construction
Distance From R-Mon: 46 ft.
Total Length: 916 ft.

Range Monument: R-111
Permit No: SL000063
Owner's Name: Oceana South Recreation Association
Date: 12/26/84
Type: Fill
Distance From R-Mon: 670 ft.
Total Length: 1216 ft.

Range Monument: R-111
Permit No: SL000063
Owner's Name: Oceana South Recreation Association
Date: 01/24/85
Type: Sandbag Structure
Distance From R-Mon: 670 ft.
Total Length: 1216 ft.

Range Monument: R-112
Permit No: SL000110
Owner's Name: McKnight, James A.
Date: 01/15/91
Type: Dune Construction
Distance From R-Mon: 720 ft.
Total Length: 300 ft.

Range Monument: R-113
Permit No: SL000116
Owner's Name: Russell, Richard R.
Date: 12/16/91
Type: Fill
Distance From R-Mon: 25 ft.
Total Length: 395 ft.

Range Monument: R-113
Permit No: SL000062
Owner's Name: Venture II Condominium Association
Date: 12/11/84
Type: Fill
Distance From R-Mon: 794 ft.
Total Length: 60 ft.

Range Monument: R-113
Permit No: SL000048
Owner's Name: Holiday Out at St. Lucie
Date: 11/27/84
Type: Fill
Distance From R-Mon: 854 ft.
Total Length: 586 ft.

Range Monument: R-003
Permit No: MI000096
Owner's Name: Winn, James B.
Date: 02/10/86
Type: Bulkhead or Seawall
Distance From R-Mon: 100 ft.
Total Length: 575 ft.

Range Monument: R-004
Permit No: MI000094
Owner's Name: Winn, James B.
Date: 03/27/86
Type: Bulkhead or Seawall
Distance From R-Mon: 138 ft.
Total Length: 86 ft.

Range Monument: R-005
Permit No: MI000070
Owner's Name: Holiday Inn Oceanside
Date: 12/27/84
Type: Fill
Distance
From R-Mon: 940 ft.
Total Length: 500 ft.

Range Monument: R-006
Permit No: MI000068
Owner's Name: Leedy, John D.
Date: 09/05/85
Type: Fill
Distance
From R-Mon: 5 ft.
Total Length: 533 ft.

Range Monument: R-006
Permit No: MI000049
Owner's Name: Hutchinson Island Inc.
Date: 04/26/84
Type: Sandbag Structure
Distance
From R-Mon: 5 ft.
Total Length: 533 ft.

Range Monument: R-006
Permit No: MI000048
Owner's Name: Hutchinson Island Inn Inc.
Date: 03/01/84
Type: Fill
Distance
From R-Mon: 0 ft.
Total Length: 500 ft.

Range Monument: R-007
Permit No: MI000065
Owner's Name: NacNider, Tom
Date: 12/07/84
Type: Fill
Distance
From R-Mon: 650 ft.
Total Length: 100 ft.

Range Monument: R-007
Permit No: MI000064
Owner's Name: Bob Rigel Inc.
Date: 12/07/84
Type: Fill
Distance From R-Mon: 450 ft.
Total Length: 200 ft.

Range Monument: R-013
Permit No: MI000119
Owner's Name: Linardy, Margaret
Date: 01/20/87
Type: Sandbag Structure
Distance From R-Mon: 700 ft.
Total Length: 200 ft.

Range Monument: R-013
Permit No: MI000080
Owner's Name: Linardy, Margaret
Date: 01/25/85
Type: Fill
Distance From R-Mon: 670 ft.
Total Length: 200 ft.

Range Monument: R-016
Permit No: -9000363
Owner's Name: Perry, Mark D.
Date: 11/13/91
Type: Fill
Distance From R-Mon: 0 ft.
Total Length: 250 ft.

Range Monument: R-016
Permit No: MI000151
Owner's Name: Evinrude, Francis L.
Date: 08/24/88
Type: Sandbag Structure
Distance From R-Mon: 490 ft.
Total Length: 1080 ft.

Range Monument: R-018
Permit No: -9000360
Owner's Name: Suntide Condominium Association
Date: 11/08/91
Type: Bulkhead or Seawall
Distance From R-Mon: 900 ft.
Total Length: 300 ft.

Range Monument: R-020
Permit No: MI000053
Owner's Name: Jones Associates, Ltd.
Date: 10/26/84
Type: Fill
Distance From R-Mon: 220 ft.
Total Length: 100 ft.

Range Monument: R-035
Permit No: MI000073
Owner's Name: Saltfish Point Inc.
Date: 01/16/85
Type: Sandbag Structure
Distance From R-Mon: 720 ft.
Total Length: 700 ft.

Range Monument: R-036
Permit No: MI000059
Owner's Name: Saltfish Point Inc.
Date: 11/28/84
Type: Sandbag Structure
Distance From R-Mon: 270 ft.
Total Length: 700 ft.

Range Monument: R-036
Permit No: MI000111
Owner's Name: Saltfish Point Property Owners & Co.
Date: 07/18/86
Type: Sandbag Structure
Distance From R-Mon: 590 ft.
Total Length: 1000 ft.

Range Monument: R-037
Permit No: MI000111
Owner's Name: Krchnak, Joe L.
Date: 09/05/86
Type: Sandbag Structure
Distance From R-Mon: 0 ft.
Total Length: 2000 ft.

Range Monument: R-037
Permit No: MI000111
Owner's Name: Krchnak, Joe L.
Date: 08/14/87
Type: Sandbag Structure
Distance From R-Mon: 320 ft.
Total Length: 520 ft.

FLORIDA DEPARTMENT OF NATURAL RESOURCES
Sea Turtle Nesting GIS
04/24/93

Beach Zone Nesting Data
Index Nesting Beach #16

Nest Zone Number:	1
GPS Latitude Reading:	27°28.241'
GPS Longitude Reading:	80°17.435'
Year:	1989
Loggerhead Turtle Nests:	14
Loggerhead False Crawls:	21
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	2
GPS Latitude Reading:	27°27.716'
GPS Longitude Reading:	80°17.311'
Year:	1989
Loggerhead Turtle Nests:	31
Loggerhead False Crawls:	31
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	3
GPS Latitude Reading:	27°27.240'
GPS Longitude Reading:	80°17.130'
Year:	1989
Loggerhead Turtle Nests:	52
Loggerhead False Crawls:	26
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	4
GPS Latitude Reading:	27°26.699'
GPS Longitude Reading:	80°16.929'
Year:	1989
Loggerhead Turtle Nests:	94
Loggerhead False Crawls:	44
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	5
GPS Latitude Reading:	27°26.177'
GPS Longitude Reading:	80°16.727'
Year:	1989
Loggerhead Turtle Nests:	104
Loggerhead False Crawls:	61
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	6
GPS Latitude Reading:	27°25.620'
GPS Longitude Reading:	80°16.520'
Year:	1989
Loggerhead Turtle Nests:	63
Loggerhead False Crawls:	71
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	7
GPS Latitude Reading:	27°25.141'
GPS Longitude Reading:	80°16.271'
Year:	1989
Loggerhead Turtle Nests:	132
Loggerhead False Crawls:	47
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	8
GPS Latitude Reading:	27°24.617'
GPS Longitude Reading:	80°16.111'
Year:	1989
Loggerhead Turtle Nests:	137
Loggerhead False Crawls:	82
Green Turtle Nests:	0
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	9
GPS Latitude Reading:	27°24.118'
GPS Longitude Reading:	80°15.916'
Year:	1989
Loggerhead Turtle Nests:	126
Loggerhead False Crawls:	111
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	2
Leatherback False Crawls:	1

Nest Zone Number:	10
GPS Latitude Reading:	27°23.618'
GPS Longitude Reading:	80°15.660'
Year:	1989
Loggerhead Turtle Nests:	177
Loggerhead False Crawls:	98
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	11
GPS Latitude Reading:	27°23.132'
GPS Longitude Reading:	80°15.398'
Year:	1989
Loggerhead Turtle Nests:	158
Loggerhead False Crawls:	143
Green Turtle Nests:	1
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	12
GPS Latitude Reading:	27°22.631'
GPS Longitude Reading:	80°15.165'
Year:	1989
Loggerhead Turtle Nests:	125
Loggerhead False Crawls:	202
Green Turtle Nests:	1
Green Turtle False Crawls:	4
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	13
GPS Latitude Reading:	27°22.135'
GPS Longitude Reading:	80°14.904'
Year:	1989
Loggerhead Turtle Nests:	191
Loggerhead False Crawls:	186
Green Turtle Nests:	2
Green Turtle False Crawls:	7
Leatherback Turtle Nests:	1
Leatherback False Crawls:	2

Nest Zone Number:	14
GPS Latitude Reading:	27°21.646'
GPS Longitude Reading:	80°14.633'
Year:	1989
Loggerhead Turtle Nests:	220
Loggerhead False Crawls:	136
Green Turtle Nests:	0
Green Turtle False Crawls:	4
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	15
GPS Latitude Reading:	27°21.139'
GPS Longitude Reading:	80°14.337'
Year:	1989
Loggerhead Turtle Nests:	166
Loggerhead False Crawls:	126
Green Turtle Nests:	1
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	16
GPS Latitude Reading:	27°20.627'
GPS Longitude Reading:	80°14.134'
Year:	1989
Loggerhead Turtle Nests:	93
Loggerhead False Crawls:	95
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	17
GPS Latitude Reading:	27°20.098'
GPS Longitude Reading:	80°13.940'
Year:	1989
Loggerhead Turtle Nests:	151
Loggerhead False Crawls:	82
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	18
GPS Latitude Reading:	27°19.561'
GPS Longitude Reading:	80°13.682'
Year:	1989
Loggerhead Turtle Nests:	164
Loggerhead False Crawls:	122
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	19
GPS Latitude Reading:	27°19.042'
GPS Longitude Reading:	80°13.482'
Year:	1989
Loggerhead Turtle Nests:	216
Loggerhead False Crawls:	136
Green Turtle Nests:	0
Green Turtle False Crawls:	5
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	20
GPS Latitude Reading:	27°18.539'
GPS Longitude Reading:	80°13.254'
Year:	1989
Loggerhead Turtle Nests:	172
Loggerhead False Crawls:	174
Green Turtle Nests:	0
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	2
Leatherback False Crawls:	1

Nest Zone Number:	21
GPS Latitude Reading:	27°18.049'
GPS Longitude Reading:	80°13.045'
Year:	1989
Loggerhead Turtle Nests:	157
Loggerhead False Crawls:	151
Green Turtle Nests:	2
Green Turtle False Crawls:	4
Leatherback Turtle Nests:	2
Leatherback False Crawls:	0

Nest Zone Number:	22
GPS Latitude Reading:	27°17.528'
GPS Longitude Reading:	80°13.824'
Year:	1989
Loggerhead Turtle Nests:	212
Loggerhead False Crawls:	256
Green Turtle Nests:	1
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	23
GPS Latitude Reading:	27°16.960'
GPS Longitude Reading:	80°12.563'
Year:	1989
Loggerhead Turtle Nests:	191
Loggerhead False Crawls:	144
Green Turtle Nests:	2
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	24
GPS Latitude Reading:	27°16.538'
GPS Longitude Reading:	80°12.356'
Year:	1989
Loggerhead Turtle Nests:	156
Loggerhead False Crawls:	147
Green Turtle Nests:	1
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	25
GPS Latitude Reading:	27°16.067'
GPS Longitude Reading:	80°12.176'
Year:	1989
Loggerhead Turtle Nests:	210
Loggerhead False Crawls:	147
Green Turtle Nests:	1
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	26
GPS Latitude Reading:	27°15.445'
GPS Longitude Reading:	80°11.804'
Year:	1989
Loggerhead Turtle Nests:	125
Loggerhead False Crawls:	131
Green Turtle Nests:	1
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	1
Leatherback False Crawls:	1

Nest Zone Number:	27
GPS Latitude Reading:	27°14.942'
GPS Longitude Reading:	80°11.606'
Year:	1989
Loggerhead Turtle Nests:	157
Loggerhead False Crawls:	108
Green Turtle Nests:	7
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	2
Leatherback False Crawls:	2

Nest Zone Number:	28
GPS Latitude Reading:	27°14.460'
GPS Longitude Reading:	80°11.325'
Year:	1989
Loggerhead Turtle Nests:	172
Loggerhead False Crawls:	123
Green Turtle Nests:	6
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	29
GPS Latitude Reading:	27°14.013'
GPS Longitude Reading:	80°11.069'
Year:	1989
Loggerhead Turtle Nests:	92
Loggerhead False Crawls:	166
Green Turtle Nests:	1
Green Turtle False Crawls:	6
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	30
GPS Latitude Reading:	27°13.499'
GPS Longitude Reading:	80°10.815'
Year:	1989
Loggerhead Turtle Nests:	149
Loggerhead False Crawls:	139
Green Turtle Nests:	13
Green Turtle False Crawls:	8
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	31
GPS Latitude Reading:	27°13.030'
GPS Longitude Reading:	80°10.509'
Year:	1989
Loggerhead Turtle Nests:	103
Loggerhead False Crawls:	146
Green Turtle Nests:	2
Green Turtle False Crawls:	7
Leatherback Turtle Nests:	2
Leatherback False Crawls:	1

Nest Zone Number:	32
GPS Latitude Reading:	27°12.531'
GPS Longitude Reading:	80°10.253'
Year:	1989
Loggerhead Turtle Nests:	114
Loggerhead False Crawls:	84
Green Turtle Nests:	2
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	33
GPS Latitude Reading:	27°11.985'
GPS Longitude Reading:	80°09.926'
Year:	1989
Loggerhead Turtle Nests:	163
Loggerhead False Crawls:	111
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	34
GPS Latitude Reading:	27°11.565'
GPS Longitude Reading:	80°09.647'
Year:	1989
Loggerhead Turtle Nests:	97
Loggerhead False Crawls:	67
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	35
GPS Latitude Reading:	27°10.991'
GPS Longitude Reading:	80°09.575'
Year:	1989
Loggerhead Turtle Nests:	152
Loggerhead False Crawls:	96
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	36
GPS Latitude Reading:	27°10.476'
GPS Longitude Reading:	80°09.391'
Year:	1989
Loggerhead Turtle Nests:	148
Loggerhead False Crawls:	92
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	37
GPS Latitude Reading:	27°10.109'
GPS Longitude Reading:	80°09.223'
Year:	1989
Loggerhead Turtle Nests:	15
Loggerhead False Crawls:	24
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	1
GPS Latitude Reading:	27°28.241'
GPS Longitude Reading:	80°17.435'
Year:	1990
Loggerhead Turtle Nests:	8
Loggerhead False Crawls:	6
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	2
GPS Latitude Reading:	27°27.716'
GPS Longitude Reading:	80°17.311'
Year:	1990
Loggerhead Turtle Nests:	28
Loggerhead False Crawls:	27
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	3
GPS Latitude Reading:	27°27.240'
GPS Longitude Reading:	80°17.130'
Year:	1990
Loggerhead Turtle Nests:	41
Loggerhead False Crawls:	55
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	4
GPS Latitude Reading:	27°26.699'
GPS Longitude Reading:	80°16.929'
Year:	1990
Loggerhead Turtle Nests:	93
Loggerhead False Crawls:	80
Green Turtle Nests:	1
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	5
GPS Latitude Reading:	27°26.177'
GPS Longitude Reading:	80°16.727'
Year:	1990
Loggerhead Turtle Nests:	141
Loggerhead False Crawls:	62
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	6
GPS Latitude Reading:	27°25.620'
GPS Longitude Reading:	80°16.520'
Year:	1990
Loggerhead Turtle Nests:	98
Loggerhead False Crawls:	61
Green Turtle Nests:	1
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	7
GPS Latitude Reading:	27°25.141'
GPS Longitude Reading:	80°16.271'
Year:	1990
Loggerhead Turtle Nests:	148
Loggerhead False Crawls:	57
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	8
GPS Latitude Reading:	27°24.617'
GPS Longitude Reading:	80°16.111'
Year:	1990
Loggerhead Turtle Nests:	184
Loggerhead False Crawls:	59
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	9
GPS Latitude Reading:	27°24.118'
GPS Longitude Reading:	80°15.916'
Year:	1990
Loggerhead Turtle Nests:	181
Loggerhead False Crawls:	104
Green Turtle Nests:	1
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	10
GPS Latitude Reading:	27°23.618'
GPS Longitude Reading:	80°15.660'
Year:	1990
Loggerhead Turtle Nests:	178
Loggerhead False Crawls:	166
Green Turtle Nests:	1
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	11
GPS Latitude Reading:	27°23.132'
GPS Longitude Reading:	80°15.398'
Year:	1990
Loggerhead Turtle Nests:	181
Loggerhead False Crawls:	215
Green Turtle Nests:	2
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	12
GPS Latitude Reading:	27°22.631'
GPS Longitude Reading:	80°15.165'
Year:	1990
Loggerhead Turtle Nests:	184
Loggerhead False Crawls:	137
Green Turtle Nests:	2
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	13
GPS Latitude Reading:	27°22.135'
GPS Longitude Reading:	80°14.904'
Year:	1990
Loggerhead Turtle Nests:	223
Loggerhead False Crawls:	132
Green Turtle Nests:	1
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	1
Leatherback False Crawls:	3

Nest Zone Number:	14
GPS Latitude Reading:	27°21.646'
GPS Longitude Reading:	80°14.633'
Year:	1990
Loggerhead Turtle Nests:	262
Loggerhead False Crawls:	110
Green Turtle Nests:	1
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	15
GPS Latitude Reading:	27°21.139'
GPS Longitude Reading:	80°14.337'
Year:	1990
Loggerhead Turtle Nests:	249
Loggerhead False Crawls:	141
Green Turtle Nests:	3
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	16
GPS Latitude Reading:	27°20.627'
GPS Longitude Reading:	80°14.134'
Year:	1990
Loggerhead Turtle Nests:	149
Loggerhead False Crawls:	96
Green Turtle Nests:	2
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	17
GPS Latitude Reading:	27°20.098'
GPS Longitude Reading:	80°13.940'
Year:	1990
Loggerhead Turtle Nests:	184
Loggerhead False Crawls:	122
Green Turtle Nests:	5
Green Turtle False Crawls:	8
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	18
GPS Latitude Reading:	27°19.561'
GPS Longitude Reading:	80°13.682'
Year:	1990
Loggerhead Turtle Nests:	141
Loggerhead False Crawls:	207
Green Turtle Nests:	7
Green Turtle False Crawls:	12
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	19
GPS Latitude Reading:	27°19.042'
GPS Longitude Reading:	80°13.482'
Year:	1990
Loggerhead Turtle Nests:	339
Loggerhead False Crawls:	336
Green Turtle Nests:	18
Green Turtle False Crawls:	7
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	20
GPS Latitude Reading:	27°18.539'
GPS Longitude Reading:	80°13.254'
Year:	1990
Loggerhead Turtle Nests:	272
Loggerhead False Crawls:	238
Green Turtle Nests:	8
Green Turtle False Crawls:	13
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	21
GPS Latitude Reading:	27°18.049'
GPS Longitude Reading:	80°13.045'
Year:	1990
Loggerhead Turtle Nests:	309
Loggerhead False Crawls:	227
Green Turtle Nests:	9
Green Turtle False Crawls:	9
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	22
GPS Latitude Reading:	27°17.528'
GPS Longitude Reading:	80°13.824'
Year:	1990
Loggerhead Turtle Nests:	287
Loggerhead False Crawls:	210
Green Turtle Nests:	2
Green Turtle False Crawls:	6
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	23
GPS Latitude Reading:	27°16.960'
GPS Longitude Reading:	80°12.563'
Year:	1990
Loggerhead Turtle Nests:	237
Loggerhead False Crawls:	212
Green Turtle Nests:	5
Green Turtle False Crawls:	5
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	24
GPS Latitude Reading:	27°16.538'
GPS Longitude Reading:	80°12.356'
Year:	1990
Loggerhead Turtle Nests:	168
Loggerhead False Crawls:	179
Green Turtle Nests:	3
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	25
GPS Latitude Reading:	27°16.067'
GPS Longitude Reading:	80°12.176'
Year:	1990
Loggerhead Turtle Nests:	211
Loggerhead False Crawls:	157
Green Turtle Nests:	2
Green Turtle False Crawls:	5
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	26
GPS Latitude Reading:	27°15.445'
GPS Longitude Reading:	80°11.804'
Year:	1990
Loggerhead Turtle Nests:	132
Loggerhead False Crawls:	111
Green Turtle Nests:	2
Green Turtle False Crawls:	4
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	27
GPS Latitude Reading:	27°14.942'
GPS Longitude Reading:	80°11.606'
Year:	1990
Loggerhead Turtle Nests:	168
Loggerhead False Crawls:	105
Green Turtle Nests:	7
Green Turtle False Crawls:	6
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	28
GPS Latitude Reading:	27°14.460'
GPS Longitude Reading:	80°11.325'
Year:	1990
Loggerhead Turtle Nests:	165
Loggerhead False Crawls:	150
Green Turtle Nests:	10
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	29
GPS Latitude Reading:	27°14.013'
GPS Longitude Reading:	80°11.069'
Year:	1990
Loggerhead Turtle Nests:	137
Loggerhead False Crawls:	152
Green Turtle Nests:	5
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	30
GPS Latitude Reading:	27°13.499'
GPS Longitude Reading:	80°10.815'
Year:	1990
Loggerhead Turtle Nests:	174
Loggerhead False Crawls:	159
Green Turtle Nests:	9
Green Turtle False Crawls:	10
Leatherback Turtle Nests:	2
Leatherback False Crawls:	0

Nest Zone Number:	31
GPS Latitude Reading:	27°13.030'
GPS Longitude Reading:	80°10.509'
Year:	1990
Loggerhead Turtle Nests:	167
Loggerhead False Crawls:	145
Green Turtle Nests:	5
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	32
GPS Latitude Reading:	27°12.531'
GPS Longitude Reading:	80°10.253'
Year:	1990
Loggerhead Turtle Nests:	126
Loggerhead False Crawls:	76
Green Turtle Nests:	3
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	33
GPS Latitude Reading:	27°11.985'
GPS Longitude Reading:	80°09.926'
Year:	1990
Loggerhead Turtle Nests:	202
Loggerhead False Crawls:	99
Green Turtle Nests:	11
Green Turtle False Crawls:	12
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	34
GPS Latitude Reading:	27°11.565'
GPS Longitude Reading:	80°09.647'
Year:	1990
Loggerhead Turtle Nests:	151
Loggerhead False Crawls:	107
Green Turtle Nests:	2
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	35
GPS Latitude Reading:	27°10.991'
GPS Longitude Reading:	80°09.575'
Year:	1990
Loggerhead Turtle Nests:	181
Loggerhead False Crawls:	147
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	36
GPS Latitude Reading:	27°10.476'
GPS Longitude Reading:	80°09.391'
Year:	1990
Loggerhead Turtle Nests:	196
Loggerhead False Crawls:	143
Green Turtle Nests:	1
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	37
GPS Latitude Reading:	27°10.109'
GPS Longitude Reading:	80°09.223'
Year:	1990
Loggerhead Turtle Nests:	10
Loggerhead False Crawls:	31
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	1
GPS Latitude Reading:	27°28.241'
GPS Longitude Reading:	80°17.435'
Year:	1991
Loggerhead Turtle Nests:	21
Loggerhead False Crawls:	14
Green Turtle Nests:	2
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	1
Leatherback False Crawls:	1

Nest Zone Number:	2
GPS Latitude Reading:	27°27.716'
GPS Longitude Reading:	80°17.311'
Year:	1991
Loggerhead Turtle Nests:	58
Loggerhead False Crawls:	33
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	3
GPS Latitude Reading:	27°27.240'
GPS Longitude Reading:	80°17.130'
Year:	1991
Loggerhead Turtle Nests:	51
Loggerhead False Crawls:	53
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	4
GPS Latitude Reading:	27°26.699'
GPS Longitude Reading:	80°16.929'
Year:	1991
Loggerhead Turtle Nests:	56
Loggerhead False Crawls:	66
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	5
GPS Latitude Reading:	27°26.177'
GPS Longitude Reading:	80°16.727'
Year:	1991
Loggerhead Turtle Nests:	110
Loggerhead False Crawls:	74
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	6
GPS Latitude Reading:	27°25.620'
GPS Longitude Reading:	80°16.520'
Year:	1991
Loggerhead Turtle Nests:	111
Loggerhead False Crawls:	81
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	7
GPS Latitude Reading:	27°25.141'
GPS Longitude Reading:	80°16.271'
Year:	1991
Loggerhead Turtle Nests:	124
Loggerhead False Crawls:	76
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	8
GPS Latitude Reading:	27°24.617'
GPS Longitude Reading:	80°16.111'
Year:	1991
Loggerhead Turtle Nests:	228
Loggerhead False Crawls:	89
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	9
GPS Latitude Reading:	27°24.118'
GPS Longitude Reading:	80°15.916'
Year:	1991
Loggerhead Turtle Nests:	240
Loggerhead False Crawls:	114
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	10
GPS Latitude Reading:	27°23.618'
GPS Longitude Reading:	80°15.660'
Year:	1991
Loggerhead Turtle Nests:	202
Loggerhead False Crawls:	183
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	11
GPS Latitude Reading:	27°28.241'
GPS Longitude Reading:	80°17.435'
Year:	1991
Loggerhead Turtle Nests:	150
Loggerhead False Crawls:	196
Green Turtle Nests:	2
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	12
GPS Latitude Reading:	27°22.631'
GPS Longitude Reading:	80°15.165'
Year:	1991
Loggerhead Turtle Nests:	165
Loggerhead False Crawls:	197
Green Turtle Nests:	2
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	13
GPS Latitude Reading:	27°22.135'
GPS Longitude Reading:	80°14.904'
Year:	1991
Loggerhead Turtle Nests:	252
Loggerhead False Crawls:	145
Green Turtle Nests:	3
Green Turtle False Crawls:	8
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	14
GPS Latitude Reading:	27°21.646'
GPS Longitude Reading:	80°14.633'
Year:	1991
Loggerhead Turtle Nests:	336
Loggerhead False Crawls:	194
Green Turtle Nests:	3
Green Turtle False Crawls:	18
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	15
GPS Latitude Reading:	27°21.139'
GPS Longitude Reading:	80°14.337'
Year:	1991
Loggerhead Turtle Nests:	233
Loggerhead False Crawls:	194
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	16
GPS Latitude Reading:	27°20.627'
GPS Longitude Reading:	80°14.134'
Year:	1991
Loggerhead Turtle Nests:	160
Loggerhead False Crawls:	156
Green Turtle Nests:	4
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	17
GPS Latitude Reading:	27°20.098'
GPS Longitude Reading:	80°13.940'
Year:	1991
Loggerhead Turtle Nests:	261
Loggerhead False Crawls:	159
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	18
GPS Latitude Reading:	27°19.561'
GPS Longitude Reading:	80°13.682'
Year:	1991
Loggerhead Turtle Nests:	213
Loggerhead False Crawls:	172
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	19
GPS Latitude Reading:	27°19.042'
GPS Longitude Reading:	80°13.482'
Year:	1991
Loggerhead Turtle Nests:	307
Loggerhead False Crawls:	285
Green Turtle Nests:	4
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	20
GPS Latitude Reading:	27°18.539'
GPS Longitude Reading:	80°13.254'
Year:	1991
Loggerhead Turtle Nests:	262
Loggerhead False Crawls:	265
Green Turtle Nests:	3
Green Turtle False Crawls:	5
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	21
GPS Latitude Reading:	27°18.049'
GPS Longitude Reading:	80°13.045'
Year:	1991
Loggerhead Turtle Nests:	276
Loggerhead False Crawls:	217
Green Turtle Nests:	2
Green Turtle False Crawls:	5
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	22
GPS Latitude Reading:	27°17.528'
GPS Longitude Reading:	80°13.824'
Year:	1991
Loggerhead Turtle Nests:	246
Loggerhead False Crawls:	236
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	23
GPS Latitude Reading:	27°16.960'
GPS Longitude Reading:	80°12.563'
Year:	1991
Loggerhead Turtle Nests:	241
Loggerhead False Crawls:	165
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	24
GPS Latitude Reading:	27°16.538'
GPS Longitude Reading:	80°12.356'
Year:	1991
Loggerhead Turtle Nests:	191
Loggerhead False Crawls:	159
Green Turtle Nests:	0
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	2
Leatherback False Crawls:	1

Nest Zone Number:	25
GPS Latitude Reading:	27°16.067'
GPS Longitude Reading:	80°12.176'
Year:	1991
Loggerhead Turtle Nests:	215
Loggerhead False Crawls:	144
Green Turtle Nests:	0
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	2
Leatherback False Crawls:	0

Nest Zone Number:	26
GPS Latitude Reading:	27°15.445'
GPS Longitude Reading:	80°11.804'
Year:	1991
Loggerhead Turtle Nests:	136
Loggerhead False Crawls:	110
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	27
GPS Latitude Reading:	27°14.942'
GPS Longitude Reading:	80°11.606'
Year:	1991
Loggerhead Turtle Nests:	169
Loggerhead False Crawls:	133
Green Turtle Nests:	6
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	1
Leatherback False Crawls:	1

Nest Zone Number:	28
GPS Latitude Reading:	27°14.460'
GPS Longitude Reading:	80°11.325'
Year:	1991
Loggerhead Turtle Nests:	154
Loggerhead False Crawls:	134
Green Turtle Nests:	4
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	4
Leatherback False Crawls:	0

Nest Zone Number:	29
GPS Latitude Reading:	27°14.013'
GPS Longitude Reading:	80°11.069'
Year:	1991
Loggerhead Turtle Nests:	76
Loggerhead False Crawls:	159
Green Turtle Nests:	3
Green Turtle False Crawls:	4
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	30
GPS Latitude Reading:	27°13.499'
GPS Longitude Reading:	80°10.815'
Year:	1991
Loggerhead Turtle Nests:	158
Loggerhead False Crawls:	131
Green Turtle Nests:	6
Green Turtle False Crawls:	5
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	31
GPS Latitude Reading:	27°13.030'
GPS Longitude Reading:	80°10.509'
Year:	1991
Loggerhead Turtle Nests:	193
Loggerhead False Crawls:	115
Green Turtle Nests:	1
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	1
Leatherback False Crawls:	2

Nest Zone Number:	32
GPS Latitude Reading:	27°12.531'
GPS Longitude Reading:	80°10.253'
Year:	1991
Loggerhead Turtle Nests:	158
Loggerhead False Crawls:	89
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	2
Leatherback False Crawls:	1

Nest Zone Number:	33
GPS Latitude Reading:	27°11.985'
GPS Longitude Reading:	80°09.926'
Year:	1991
Loggerhead Turtle Nests:	155
Loggerhead False Crawls:	95
Green Turtle Nests:	0
Green Turtle False Crawls:	3
Leatherback Turtle Nests:	0
Leatherback False Crawls:	1

Nest Zone Number:	34
GPS Latitude Reading:	27°11.565'
GPS Longitude Reading:	80°09.647'
Year:	1991
Loggerhead Turtle Nests:	110
Loggerhead False Crawls:	91
Green Turtle Nests:	1
Green Turtle False Crawls:	1
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	35
GPS Latitude Reading:	27°10.991'
GPS Longitude Reading:	80°09.575'
Year:	1991
Loggerhead Turtle Nests:	171
Loggerhead False Crawls:	189
Green Turtle Nests:	1
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

Nest Zone Number:	36
GPS Latitude Reading:	27°10.476'
GPS Longitude Reading:	80°09.391'
Year:	1991
Loggerhead Turtle Nests:	216
Loggerhead False Crawls:	188
Green Turtle Nests:	1
Green Turtle False Crawls:	2
Leatherback Turtle Nests:	1
Leatherback False Crawls:	0

Nest Zone Number:	37
GPS Latitude Reading:	27°10.109'
GPS Longitude Reading:	80°09.223'
Year:	1991
Loggerhead Turtle Nests:	9
Loggerhead False Crawls:	15
Green Turtle Nests:	0
Green Turtle False Crawls:	0
Leatherback Turtle Nests:	0
Leatherback False Crawls:	0

REPORT DOCUMENTATION PAGE	2.	
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15. Supplementary Notes		14.

16. Abstract (Limit: 200 words)

Greater than ninety percent of the total sea turtle nesting in the United States occurs in Florida. The Department of Natural Resources oversees the administration of a number of programs which directly or indirectly impact sea turtle nesting. Division of Marine Resources is responsible for administering the Sea Turtle Program, the goal of which is to promote the recovery of the five species occurring in Florida. The Division of Beaches and Shores is responsible for regulating coastal construction through the Coastal Construction Control Line Program.

Historically, the data collection efforts of each division have been accomplished independent of one another. The inventory serves to consolidate the available data from each source in a format which is useful for planning and regulatory beach management activities.

17. Document Analysis a. Descriptors

b. Identifiers/Open-Ended Terms: Coastal zone management/

c. COSATI Field/Group

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(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77) (Formerly NTIS-35)