SEA TURTLE MONITORING, NEST EVALUATION & PROTECTION MEASURES
FOR THE CITY OF SARASOTA

LIDO KEY INTERIM BEACH RENOURISHMENT
YEAR TWO POST-CONSTRUCTION
2003

SUBMITTED TO:

CITY OF SARASOTA
ENGINEERING DEPARTMENT
P.O. BOX 1058 ~ SARASOTA, FL 34230-1058

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February 10, 2004

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INTRODUCTION

The City of Sarasota, Sarasota County, was authorized under the Florida Department of Environmental Protection (FDEP) Permit/Authorization No. 0158095-001-JC, and the U.S. Army Corp of Engineers (COE) Permit No.199903508 to renourish the south Lido Key shoreline using sand obtained from an offshore borrow area. The construction area, including beach fill sites, construction and buffer areas is referred to as the Lido Key Interim Beach Nourishment, Project No. 00-46H, hereinafter referred to as the Project. The Project shoreline extends from approximately FDEP Monument R-36.5 to approximately R-44, a distance of approximately 1.3 miles. Construction activities for the Project began on March 9, 2001 and were completed on April 24, 2001.

In addition, the COE conducted a maintenance dredging of New Pass (IFB No. DACW17-02-B-0020) which commenced in 2002 and was completed in 2003. One hundred and twenty-five thousand cubic yards of the dredged sand was stockpiled on North Lido Key and was then mechanically placed as a “white cap” over the darker sand of the renourished beach. The beach disposal (stockpile) area, and mechanically placed white sand all occurred between FDEP reference monuments R-35.5 and R-44. Although 2003 represents year two post-construction for the Lido Key interim beach renourishment and year one post-construction for the COE beach disposal sand or “white sand project”, this report addresses only the beach renourishment. For purposes of this report the interim renourishment shoreline is hereinafter referred to as the Project shoreline. The COE beach disposal or “white sand” Project shoreline will be evaluated in a separate report.

The Lido Key shoreline is utilized as nesting habitat by marine turtles which are protected by the Endangered Species Act of 1973, the Marine Turtle Protection Act Chapter 370.12 (Florida Administrative Code) and the Sarasota County Sea Turtle Protection Ordinance No. 97-082. Beach nourishment (or restoration) can result in changes, such as sand density, beach shear resistance, moisture content, beach slope, sand color, grain size and shape. These changes may affect the nesting activity of adult turtles, and the hatch and subsequent emergence success of the nests. Because of this, special sea turtle conditions are included in beach construction permits.

The special permit conditions to minimize impacts to marine turtles for the Lido Key Interim Beach Nourishment Project are described in both the FDEP and the COE permits. These include conditions on the fill material, location of construction materials and machinery, surveys for escarpment formation, beach compactness monitoring, marine turtle activity monitoring, nest protection, and nest evaluation measures. The marine turtle monitoring, nest protection, and evaluation measures are addressed in this report. The permit conditions pertaining to the above activities are summarized as follows:

- Daily sea turtle nest surveys of the beach in the vicinity of the project were conducted starting May 1st and continued through the end of the sea turtle nesting season. Only those nests that were in danger of loss were relocated. Those nests that required relocation were moved no later than 9 a.m. the morning following deposition or were
relocated at a later date when they were found in immediate danger of washing out. All nests, relocated and in situ, were marked and the actual location of the clutch determined.

> All nesting surveys, nest relocations, nest caging activities, and nest success evaluations were conducted by persons with prior experience and training in these activities and were duly authorized to conduct said activities through Florida Fish and Wildlife Conservation Commission (FWC) permits #054 and #126 (Appendix A), both current and valid permits issued by FWC, Bureau of Protected Species Management, pursuant to Florida Administrative Code Rule 62R-1.

> Reports on all nesting activity and marine turtle protection measures taken during construction (2001) and year one post-construction (2002) were previously submitted. This document represents the report for year two post-construction. Monitoring of nesting activity following construction include daily surveys and any additional measures authorized by the FWC. The required report includes nesting success rates, hatching success of all relocated nests, hatching success of nests left in situ, and names of all personnel involved in nest surveys and relocation activities. The data is reported separately for filled areas and non-filled areas.

> When a dead, injured or sick marine turtle is encountered, notification is made to the FWC by the Marine Turtle Permit Holder. Care is to be taken in handling sick or injured animals to enable effective rehabilitation measures. Dead specimen are handled in an appropriate manner to preserve biological materials for analysis of death whenever this is possible.

This report documents the marine turtle monitoring and nest protection measures for 2003, for the Lido Key Interim Beach Renourishment Project year two post-construction, and the adjacent (to the north and south) Lido Key shoreline (Figure 1). The report is being submitted to the City of Sarasota Engineering Department, Coastal Planning and Engineering, Inc., and the Florida Fish and Wildlife Conservation Commission’s Marine Research Institute.
Figure 1. The Lido Key shoreline including the Lido Key Interim Beach Nourishment Project (~R-36.5 to approximately R-44).

MOTE MARINE LABORATORY
Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-46H.) Year Two Post-Construction ~ 2/10/04
MARINE TURTLE MONITORING

Project Location:

The Lido Key Interim Beach Nourishment Project extends along the shoreline between FDEP Monument R-36.5 to approximately R-44 on Lido Key in Sarasota County. The north end of the Project, R-36.5, corresponds to the south end of the Lido Holiday Inn at 233 Ben Franklin Drive. The southern end of the Project is located approximately 300 feet south of the southern end of Sarasota Sands at 2150 Ben Franklin Drive. The FDEP monuments are numbered from R-30 in New Pass at the north end of Lido to R-44 in South Lido Park near Big Sarasota Pass.

PROCEDURES

Monitoring for the Lido Key Interim Beach Renourishment Project began May 1st, 2003. On this date monitoring personnel began daily surveys of the entire Lido Key shoreline including the Project shoreline. The surveys were begun to fulfill FWC permit conditions and to fulfill the scope of work contracted by Mote Marine Laboratory (MML) personnel with the City of Sarasota. MML personnel are permitted through FWC, under 2003 marine turtle permits #054 and #126.

Monitoring for adult marine turtle nesting activity was conducted by personnel walking the project shoreline above the mean high water line. Upon discovery of an emergence, permitted personnel visually determined whether the emergence was a nest or a non-nesting emergence (false crawl). A non-nesting emergence (NNE) was defined as an emergence which did not result in egg deposition (Figure right). The following are examples of non-nesting emergences: 1) a turtle that moved onto the beach but did not excavate a nest cavity and returned to the water, or 2) a turtle that moved up the beach, excavated a nest cavity or numerous nest cavities but for unknown reasons did not deposit any eggs in the nest (often these aborted nest excavations are left uncovered by the turtle). A nest was defined as a turtle emergence which resulted in the turtle successfully depositing eggs.
During the survey down the beach, non-nesting emergences and nests were recorded on MML Nesting data forms (Appendix B). If the nest was determined to be endangered, it was carefully hand excavated, the eggs were placed in a bucket lined with sand. The eggs were then transported higher on the beach and were placed into an artificially produced nest cavity closely resembling the original cavity is shape, size and depth. All nests, whether relocated or left in situ (not relocated), were marked and encircled by four wooden stakes connected with yellow surveyors flagging tape and signage (Figure 2) identifying the site as a protected sea turtle nest. Each nest was additionally marked with the date the nest was laid and the original location of the nest. Nest location was documented by two methods. In the field, monitoring personnel located nests by relative position to the nearest street address, building, or other landmark. These descriptions were checked in the Laboratory's offices against annotated aerial photographs to associate the locations to the nearest FDEP coastal construction control line monuments. Nest locations were also documented using a Global Positioning System (GPS) device to document the latitude and longitude for each nest (Figure 3).

**Hatching Surveys and Nest Evaluations:**

After 45 days incubation, nests were monitored in the early morning and occasionally again in the evening. Observance of one or more of the following was used to determine the first day of hatch to calculate incubation periods:

1) A hatchling or hatchlings present at the surface,
2) a hatchling crawl or crawls in the sand leading out from the nest area, and/or
3) a depression or emergence hole in the sand directly over the nest.

To evaluate for hatch success each nest was excavated three days or 72 hours after the initial hatch. The delayed nest excavation allows the majority of hatchlings to emerge from the nest on their own. Hatchlings that have emerged on their own are more vigorous and are better equipped to handle the trek down the shoreline to the water. Once in the water these hatchlings also have a better chance at survival as their external yolk sacs have been completely utilized and/or absorbed allowing the hatching to dive more readily and to swim more vigorously.
DO NOT DISTURB
SEA TURTLE NEST
VIOLATORS SUBJECT TO FINES AND IMPRISONMENT

FLORIDA LAW
CHAPTER 370
No person may take, possess, disturb, mutilate, destroy, sell, offer for sale, transfer, molest, or harass any marine turtle nest or eggs at any time.

Upon conviction, a person may be imprisoned for a period of up to 60 days or fined up to $500, or both, plus an additional penalty of $100 for each sea turtle egg destroyed or taken.

U.S. ENDANGERED SPECIES ACT OF 1973
No person may take, harass, harm, pursue, hunt, shoot, wound, kill, trap, or capture any marine turtle, nest, and/or eggs, or attempt to engage in any such conduct.

Any person who knowingly violates any provision of this act may be assessed a civil penalty up to $25,000 or criminal penalty up to $100,000 and up to one year imprisonment.

SHOULD YOU WITNESS A VIOLATION, OBSERVE AN INJURED OR STRANDED TURTLE, OR MISORIENTED HATCHLINGS, PLEASE CONTACT FWC AT 1-888-404-FWCC

Figure 2. Sign marking protected sea turtle nest.
Figure 3. Nest locations on Lido Key, 2003.
Data from nest evaluations were recorded on the nesting data forms. Upon excavation the number hatched was calculated from the number of empty eggshells found in the nest. Pipped eggs referred to either live or dead hatchlings that had punctured the eggshell but had not fully emerged from the egg. The number of hatched shells minus the number of live and dead hatchlings found in the nest account for the number of hatchlings that emerged from the nest on their own prior to nest excavation and is represented by the formula:

\[
\text{# hatched shells - (live hatched + dead hatched in nest cavity)} \\
\text{# hatched shells + # unhatched shells + live pipped + dead pipped}
\]

When live hatchlings were found in the nest they were either released immediately or were transferred to a bucket containing moist sand and kept for release that same evening. Nest excavations and hatchling releases were conducted according to FWC Marine Turtle Conservation guidelines.

**Data Analysis:**

Marine turtle emergence and hatching data were compiled using Paradox, a dBASE compatible software program by Borland and Associates. Figures and Tables were created using a combination of Paradox, Word Perfect (Corel 8), Super Calc (Computer Assoc.), and Excel (Microsoft).

**SEA TURTLE PROTECTION MEASURES**

Rough surf and high tidal activity from tropical storms and other rain events negatively impacted the beaches during the summer of 2003. Approximately sixty three percent (n=20) of the nests along the Lido Key shoreline were inundated and 10 of these nests were relocated higher on the beach after they were found to be washing out or were in immediate danger of washing out. Five nests outside of the Project area were not evaluated because a total egg count could not be established. These nests were impacted by predation, washed out, or the clutch was not located. Eighty percent (n=8) of the nests within the Project area were inundated or in immediate danger of washing out and six of these nests were relocated higher on the beach.

Eleven of the nests, five within the Project boundaries and six outside of the Project, required protection from raccoon predation or disorientation. This was provided by placing a “self-release” box cage (Appendix C) made of 2"x4" wire mesh over four of the nests. The 2"x4" wire mesh is large enough to allow hatchlings to leave the cage after hatch, but small enough to prevent raccoons from accessing the nest. The cage also has flanges at the bottom to prevent raccoons from digging down and into the nests. The exact location of the clutch is always found prior to burying the flanged caged around the nest to eliminate any egg destruction.

A circular restraining cage was placed over one of the five nests within the Project area to prevent any further disorientations. Restraining cages are made of 1/4" x 1/4" wire mesh which allow enough room inside for the hatchlings to emerge completely from the sand but entrap the hatchlings at the nest site to prevent hatchling deaths. The cage does not have flanges as it is not a protection
against predators, but it is buried a few inches below the surface once the nest cavity is located. The cage on this one nest was checked for hatchling emergence shortly after sunset, at least twice at night, and at sunrise. The cage was not removed until the nest was excavated because it had originally disoriented.

The City of Sarasota has a cooperative agreement with Sarasota County Coastal Resources Division, Sea Turtle Program, to enforce coastal lighting regulations set forth in the Sarasota County Sea Turtle Protection Plan ( Ordinance No. 97-082). In spite of these efforts, four disorientation events were documented within the Project area and one outside of the Project area.

**RESULTS AND DISCUSSION**

**Turtle Emergences (Nests & Non-nesting Emergences):**

Beach monitoring procedures resulted in the documentation of a total of 62 non-nesting emergences (NNE) and 32 nests (N) along the entire Lido Key shoreline (Appendix D). This represents 1.94 NNE to one nest for Lido Key. All of the nests were completed by *Caretta caretta* (loggerhead). When compared to historic data (1997-2002) the year 2003 data show an increase in nesting of one nest over the previous year, but a decrease of 22% from the previous six year average of 41 nests (Table 1). Non-nesting emergences for 2003 increased over the low documented in 2002, and show an eight percent increase over the previous six year average of 57.5. Florida Fish and Wildlife Conservation Commission (FWC) forms, including the Nesting Survey Reporting Form and the Sea Turtle Nesting Summary Questionnaire for 2003, were completed for the Lido Key shoreline and submitted to FWC in November 2003 (Appendix E).

<table>
<thead>
<tr>
<th>Year</th>
<th>Total # Non-Nesting Emergences (NNE)</th>
<th>Total # Nests (N)</th>
<th>NNE/Nest Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>44</td>
<td>45</td>
<td>0.98:1</td>
</tr>
<tr>
<td>1998</td>
<td>108</td>
<td>46</td>
<td>2.35:1</td>
</tr>
<tr>
<td>1999</td>
<td>57</td>
<td>48</td>
<td>1.19:1</td>
</tr>
<tr>
<td>2000</td>
<td>52</td>
<td>59</td>
<td>0.88:1</td>
</tr>
<tr>
<td>2001</td>
<td>55</td>
<td>16</td>
<td>3.44:1</td>
</tr>
<tr>
<td>2002</td>
<td>29</td>
<td>31</td>
<td>0.94:1</td>
</tr>
<tr>
<td>2003</td>
<td>62</td>
<td>32</td>
<td>1.94:1</td>
</tr>
</tbody>
</table>

Within the Lido Key Interim Beach Renourishment Project (Table 2) beach monitoring procedures resulted in the documentation of 32 NNE’s and 10 nests representing, 3.20 NNE’s to one nest. When compared to the past six year average, these numbers show a decrease in both nests and NNE’s of 46 percent and 13 percent respectively. Although the nest numbers in the Project area have remained the same for 2002 and 2003 (n=10), NNE’s 50 percent higher than in 2002.
Table 2. Non-nesting to nest ratio for marine turtles nesting within the Lido Key Interim Beach Renourishment Project (R-36.5 to ~R-44), 1997 through 2003.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total # Non-nesting Emergences (NNE)</th>
<th>Total # Nests (N)</th>
<th>NNE/Nest Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>32</td>
<td>28</td>
<td>1.14:1</td>
</tr>
<tr>
<td>1998</td>
<td>64</td>
<td>25</td>
<td>2.56:1</td>
</tr>
<tr>
<td>1999</td>
<td>30</td>
<td>19</td>
<td>1.58:1</td>
</tr>
<tr>
<td>2000</td>
<td>32</td>
<td>26</td>
<td>1.23:1</td>
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<tr>
<td>2001</td>
<td>45</td>
<td>4</td>
<td>11.25:1</td>
</tr>
<tr>
<td>2002</td>
<td>17</td>
<td>10</td>
<td>1.70:1</td>
</tr>
<tr>
<td>2003</td>
<td>32</td>
<td>10</td>
<td>3.20:1</td>
</tr>
</tbody>
</table>

For the entire Lido Key shoreline the first emergence was a NNE documented on May 16th outside of the Project. On May 24th, a non-nesting emergence was recorded as the first emergence of the season within the Lido Key Interim Beach Renourishment Project. The first and last nests within the Project area were documented on May 30th and August 12th respectively. The last emergences of the season along the Lido Key shoreline were a nest and a NNE, both were recorded on August 12th and within the Project boundaries. The period of peak activity within the Project occurred the weeks of June 15th through June 29th (Figure 4).

Figure 4. Seasonal pattern of marine turtle emergences within the Lido Key Interim Beach Renourishment Project (~36.5 to ~R-44). (The week starting date is represented by the line to the left of the date in the figure above.)
There were a total of 30 NNE’s and 22 nests documented outside of the Project area. These numbers represent 48% and 68% respectively of all NNE’s and nests on all of Lido and a 1.4:1 NNE to nest ratio outside of the Project. The first nesting emergences outside of the Project area were both recorded on May 25th. These nests were located in North Lido Park, both south of monument R-33. The first NNE outside the Project was also the first emergence of the season for the Lido Key shoreline and was located in North Lido Park, south of monument R-32. The last nest recorded outside the Project was recorded on July 26 south of monument R-44, in South Lido Park. The last emergence of the season outside of the Project area was a NNE recorded on August 6th, between monuments R-31 and R-32 (Figure 5).

Figure 5. Seasonal pattern of marine turtle emergences on the Lido Key shoreline outside of the Lido Key Interim Beach Renourishment Project (~R-30.5 to ~R-36.5 and ~R-44 into north Big Sarasota Pass shoreline).
Within the Project shoreline turtles encountered beach furniture on six documented incidences. All six emergences, three which were at 850 BFD/Suntide Island Beach Club, resulted in non-nesting emergences. Beach furniture was found to be abundant and close to the mean high water line throughout the summer of 2003, specifically in the area between 850 and 1050 Ben Franklin Drive (see photographs left & below). This area of shoreline corresponds approximately from monument R-38.0 to R-38.6.

There was also one account of a turtle nesting underneath a catamaran at 1550 BFD/ Helmsley Sandcastle, this nest was washed over and had to be relocated higher on the beach (below).

Due to natural erosion and accretion one to three foot escarpments were formed along the Lido Beach shoreline. These escarpments varied in length, height and location throughout the summer. Subsequent wave action generated by mid and late summer storms caused the escarpments to become straight or extremely sloped. A total of 17 sea turtle emergences in which the turtles encountered an escarpment were documented (Table 3). Only three of these emergences resulted in nests.
### Table 3. Summary of Emergence Interactions with Obstructions, 2003 (n=24).

#### Inside Project

<table>
<thead>
<tr>
<th>Date</th>
<th>Address</th>
<th>Obstruction Interacted With</th>
<th>Distance To</th>
<th>Distance To</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/19/03</td>
<td>233 BFD/ Holiday Inn</td>
<td>crawled into 1' esc</td>
<td>15</td>
<td>Unknown</td>
</tr>
<tr>
<td>6/4/03</td>
<td>850 BFD/ Suntide Island Beach Club</td>
<td>crawled into beach chairs</td>
<td>16</td>
<td>207</td>
</tr>
<tr>
<td>6/17/03</td>
<td>323 BFD</td>
<td>crawled into 3' sloped esc</td>
<td>25</td>
<td>150</td>
</tr>
<tr>
<td>6/17/03</td>
<td>850 BFD/ Suntide Island Beach Club</td>
<td>sloped esc, crawled into beach chairs</td>
<td>51</td>
<td>200</td>
</tr>
<tr>
<td>6/17/03</td>
<td>1540 BFD/ Helmsley Sandcastle</td>
<td>crawled under catamaran and nested</td>
<td>53</td>
<td>230</td>
</tr>
<tr>
<td>6/19/03</td>
<td>151 BFD</td>
<td>crawled into 2' sloped esc</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>6/19/03</td>
<td>267 BFD</td>
<td>crawled into 2' straight esc</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>6/19/03</td>
<td>475 BFD/ Lido Dorset</td>
<td>crawled into 1' straight esc &amp; beach chairs</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>6/19/03</td>
<td>1540 BFD/ Helmsley Sandcastle</td>
<td>climbed 1' sloped esc</td>
<td>12</td>
<td>180</td>
</tr>
<tr>
<td>6/19/03</td>
<td>850 BFD/ Suntide Island Beach Club</td>
<td>crawled into 2' sloped esc &amp; between beach chairs</td>
<td>34</td>
<td>188</td>
</tr>
<tr>
<td>6/24/03</td>
<td>850 BFD/ Suntide Island Beach Club</td>
<td>climbed sloped esc and nested</td>
<td>18</td>
<td>236</td>
</tr>
<tr>
<td>6/24/03</td>
<td>1800 BFD/ L'Elegance</td>
<td>sloped esc</td>
<td>72</td>
<td>127</td>
</tr>
<tr>
<td>6/24/03</td>
<td>2100-2110 BFD/ Lido Harbor South</td>
<td>crawled into seawall</td>
<td>108</td>
<td>0</td>
</tr>
<tr>
<td>6/29/03</td>
<td>1050 BFD/ Limetre Beach Resort</td>
<td>crawled between beach chairs</td>
<td>19</td>
<td>73</td>
</tr>
<tr>
<td>6/29/03</td>
<td>1700 BFD/ Lido Regency</td>
<td>moat in front of a seawall</td>
<td>45</td>
<td>68</td>
</tr>
<tr>
<td>7/3/03</td>
<td>2150 BFD/ Sarasota Sands</td>
<td>crawled into esc and nested</td>
<td>136</td>
<td>74</td>
</tr>
<tr>
<td>7/7/03</td>
<td>1008 BFD/ Coquina on the Beach</td>
<td>crawled between beach chairs</td>
<td>51</td>
<td>252</td>
</tr>
<tr>
<td>7/8/03</td>
<td>233 BFD/ Holiday Inn</td>
<td>climbed 2' sloped esc</td>
<td>27</td>
<td>120</td>
</tr>
<tr>
<td>8/12/03</td>
<td>2150 BFD/ Sarasota Sands</td>
<td>climbed esc and nested</td>
<td>46</td>
<td>111</td>
</tr>
</tbody>
</table>

**Bold = Nest**

#### Outside Project

<table>
<thead>
<tr>
<th>Date</th>
<th>Address</th>
<th>Obstruction Interacted With</th>
<th>Distance To</th>
<th>Distance To</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/8/03</td>
<td>774' S R-33</td>
<td>crawled into 2' sloped escarpment</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>6/22/03</td>
<td>2201 BFD/ South Lido Park</td>
<td>crawled into 1' sloped escarpment</td>
<td>24</td>
<td>150</td>
</tr>
<tr>
<td>6/23/03</td>
<td>2201 BFD/ South Lido Park</td>
<td>crawled into 1' sloped escarpment</td>
<td>75</td>
<td>21</td>
</tr>
<tr>
<td>7/11/03</td>
<td>2201 BFD/ South Lido Park</td>
<td>crawled into 2' sloped escarpment</td>
<td>36</td>
<td>9</td>
</tr>
<tr>
<td>7/11/03</td>
<td>2201 BFD/ South Lido Park</td>
<td>wet swale</td>
<td>36</td>
<td>208</td>
</tr>
</tbody>
</table>

Marine turtles accessing the shoreline searching for a suitable nesting site occasionally abandon their nesting attempt and return to the water without depositing a clutch. These abandoned or non-nesting emergences can be categorized by the stage at which the turtle abandoned nesting (Table 4). Of the 32 non-nesting emergences documented within the Project, four were categorized as emergences with at least one body pit, and one was documented as an emergence with six abandoned egg cavities. Of the 30 non-nesting emergences outside the Project area, six were categorized as emergences with at least one preliminary body pit, and three were documented with an abandoned egg chamber.

**Mote Marine Laboratory**

*Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-46H) Year Two Post-Construction ~ 2/10/04*
Table 4. Summary of Non-Nesting Emergences Exhibiting Pitting, 2003 (n=13).

<table>
<thead>
<tr>
<th>Date</th>
<th>Address</th>
<th>Body Pits</th>
<th># of Abandon Egg Cavities</th>
<th>Location n1</th>
<th>Location n2</th>
<th>Distance To MHW (ft)</th>
<th>Distance to Barrier (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/23/03</td>
<td>980' S R-34</td>
<td>1</td>
<td>0</td>
<td>L</td>
<td>BCH</td>
<td>260</td>
<td>47</td>
</tr>
<tr>
<td>5/24/03</td>
<td>1 BFD/ST ARMANDS TOWER NORTH</td>
<td>1</td>
<td>1</td>
<td>L</td>
<td>BCH</td>
<td>30</td>
<td>108</td>
</tr>
<tr>
<td>6/1/03</td>
<td>2201 BFD/SOUTH LIDO PARK</td>
<td>1</td>
<td>0</td>
<td>M</td>
<td>BCH</td>
<td>54</td>
<td>140</td>
</tr>
<tr>
<td>6/2/03</td>
<td>1540 BFD/HELMESLEY SANDCASTLE</td>
<td>1</td>
<td>0</td>
<td>L</td>
<td>BCH</td>
<td>26</td>
<td>295</td>
</tr>
<tr>
<td>6/4/03</td>
<td>2201 BFD/SOUTH LIDO PARK</td>
<td>1</td>
<td>0</td>
<td>M</td>
<td>BCH</td>
<td>90</td>
<td>44</td>
</tr>
<tr>
<td>6/8/03</td>
<td>774' S R-33</td>
<td>1</td>
<td>0</td>
<td>L</td>
<td>VEG</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>6/24/03</td>
<td>2100-2110 BFD/LIDO HARBOR SOUTH</td>
<td>1</td>
<td>0</td>
<td>U</td>
<td>BCH</td>
<td>108</td>
<td>0</td>
</tr>
<tr>
<td>6/28/03</td>
<td>2201 BFD/SOUTH LIDO PARK</td>
<td>1</td>
<td>0</td>
<td>M</td>
<td>BCH</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>7/7/03</td>
<td>1008 BFD/COQUINA ON THE BEACH</td>
<td>1</td>
<td>0</td>
<td>L</td>
<td>BCH</td>
<td>51</td>
<td>252</td>
</tr>
<tr>
<td>7/11/03</td>
<td>150' S R-34</td>
<td>2</td>
<td>1</td>
<td>M</td>
<td>VEG</td>
<td>132</td>
<td>0</td>
</tr>
<tr>
<td>7/12/03</td>
<td>418' S R-31</td>
<td>1</td>
<td>0</td>
<td>M</td>
<td>BCH</td>
<td>48</td>
<td>93</td>
</tr>
<tr>
<td>7/13/03</td>
<td>850' S R-32</td>
<td>1</td>
<td>1</td>
<td>U</td>
<td>BCH</td>
<td>71</td>
<td>51</td>
</tr>
<tr>
<td>7/18/03</td>
<td>475 BFD/LIDO DORSET</td>
<td>1</td>
<td>6</td>
<td>L</td>
<td>BCH</td>
<td>23</td>
<td>81</td>
</tr>
</tbody>
</table>

The nest density within the Project (approximately 2.9 kilometers / 1.3 miles in length) was 3.5 nests per km. The nest density outside of the Project (approximately 1.83 kilometers / 1.14 miles in length) was 12.02 nests per km (Figure 6).

Figure 6. Marine turtle nesting activity located between FDEP Monument markers on Lido Key, 2003.
The non-nesting emergence to nest ratio for the Project was 3.2 to one, while outside of the Project the ratio was 1.4 non-nesting emergences to one nest (Table 5).

<table>
<thead>
<tr>
<th>Location</th>
<th># of Non-nesting Emergences (NNE)</th>
<th># of Nests (N)</th>
<th>NNE/N Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-30.5 to R-36.5 (Outside of Project)</td>
<td>18</td>
<td>15</td>
<td>1.2:1</td>
</tr>
<tr>
<td>R-36.5 to approx. R-44 (Project)</td>
<td>32</td>
<td>10</td>
<td>3.2:1</td>
</tr>
<tr>
<td>R-44 to ~500' E R-44 (Outside of Project)</td>
<td>12</td>
<td>7</td>
<td>1.7:1</td>
</tr>
</tbody>
</table>

**Nest Site Selection:**

Within the Project area the nesting habitat available varied from approximately 0 to 283 feet. In order to determine the turtle's preference in nesting location, the beach width at nest sites was estimated in feet by monitoring personnel on the morning following egg deposition (Appendix F). The beach width was divided into thirds, and nest locations were then classified as either upper beach (landward), middle beach, or lower beach (seaward).

By looking at the entire Lido Key shoreline, regardless of width, the upper beach area was the preferred location. Within the Lido Key Interim Beach Renourishment Project only 30% (n=3) of the nests were located in the upper beach and 60% (n=6) were located on the seaward or lower third of the beach (Table 6). Only one nest in the Project area was located on the middle beach area. Outside of the Project, 41% (n=9) of the nests occurred in the upper beach, 36% (n=8) of the nests were in the middle beach, and 23% (n=5) were in the lower beach.

<table>
<thead>
<tr>
<th>Location</th>
<th># of Nests In Project Area</th>
<th># of Nests Outside Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper/Landward</td>
<td>3 (30%)</td>
<td>9 (41%)</td>
</tr>
<tr>
<td>Middle Beach</td>
<td>1 (10%)</td>
<td>8 (36%)</td>
</tr>
<tr>
<td>Lower/Seaward</td>
<td>6 (60%)</td>
<td>5 (23%)</td>
</tr>
</tbody>
</table>

**Nest Damage:**

The Lido Key shoreline as well as other Gulf Coast beaches experienced a number of tropical storms and depressions throughout the summer. Each month during of June, July, August, and September tropical storms and other heavy rain events caused above normal high tides impacting 20 of 32 nests, six of which were located in the Project area. At the end of June the effects of Tropical Storm Bill caused two nests to wash out and eight others to experience some extent of inundation. July brought Tropical Storm Claudette and the effects of Tropical Storm Henri were felt towards the beginning of September. There was also an unnamed storm in August that brought high winds, rough surf, and higher than normal tides, as well as a large amount of sheet runoff. More than 60% of the nests on the Lido Key shoreline experienced some extent of inundation (Table 7).
Within the Project area four nests were relocated higher on the beach after being inundated. These four nests experienced a combined 33% hatch success rate. Outside of the Project area three of five nests were inundated prior to being relocated. Of these three nests one did not experience a hatch, while the other two experienced 5% and 70% hatch success rates. Of the 20 nests that experienced inundation, only three nests experienced a hatch percentage greater than 60 and seven nests experienced no hatch at all.

**Table 7.** Hatch Success of nests experiencing inundation, 2003 (n=20).

<table>
<thead>
<tr>
<th>Nest Location</th>
<th>Distance from MHW (ft.)</th>
<th>How Damaged</th>
<th># Hatched</th>
<th># Total Eggs</th>
<th>Moved</th>
<th>Hatch Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>500’ S R-33</td>
<td>69</td>
<td>Possible WOut 6/28-30</td>
<td>0</td>
<td>UNK</td>
<td>NO</td>
<td>0%</td>
</tr>
<tr>
<td>845’ S R-33</td>
<td>27</td>
<td>WOver 6/28-30, IN UW 8/10</td>
<td>0</td>
<td>UNK</td>
<td>NO</td>
<td>0%</td>
</tr>
<tr>
<td>656’ S R-33</td>
<td>3</td>
<td>WOut 8/10</td>
<td>0</td>
<td>UNK</td>
<td>NO</td>
<td>0%</td>
</tr>
<tr>
<td>Between R-31/R-32</td>
<td>10</td>
<td>WOver 8/9</td>
<td>2</td>
<td>UNK</td>
<td>YES</td>
<td>UNK</td>
</tr>
<tr>
<td>2100-2110 BFD/LIDO HARBOR SOUTH</td>
<td>13</td>
<td>Eroded 7/24</td>
<td>46</td>
<td>74</td>
<td>YES*</td>
<td>62%</td>
</tr>
<tr>
<td>365’ S R-33</td>
<td>77</td>
<td>UW 8/10, 9/6</td>
<td>0</td>
<td>79</td>
<td>NO</td>
<td>0%</td>
</tr>
<tr>
<td>844’ S R-33</td>
<td>12</td>
<td>UW 8/9</td>
<td>60</td>
<td>86</td>
<td>YES*</td>
<td>70%</td>
</tr>
<tr>
<td>300’ S R-33</td>
<td>85</td>
<td>UW 6/28</td>
<td>4</td>
<td>87</td>
<td>YES*</td>
<td>5%</td>
</tr>
<tr>
<td>1800 BFD/L’ELEGANCE</td>
<td>90</td>
<td>WOver 8/9-11</td>
<td>0</td>
<td>89</td>
<td>NO</td>
<td>0%</td>
</tr>
<tr>
<td>1234 BFD/RITZ CARLTON MEMBERS CLUB</td>
<td>38</td>
<td>WOver 6/28</td>
<td>38</td>
<td>97</td>
<td>YES*</td>
<td>39%</td>
</tr>
<tr>
<td>2150 BFD/SARASOTA SANDS</td>
<td>136</td>
<td>WOver 8/10</td>
<td>2</td>
<td>99</td>
<td>NO</td>
<td>2%</td>
</tr>
<tr>
<td>850’ S R-33</td>
<td>61</td>
<td>UW 6/28</td>
<td>0</td>
<td>105</td>
<td>YES*</td>
<td>0%</td>
</tr>
<tr>
<td>2201 BFD/SOUTH LIDO PARK</td>
<td>45</td>
<td>WOver 6/28</td>
<td>4</td>
<td>106</td>
<td>NO</td>
<td>4%</td>
</tr>
<tr>
<td>2201 BFD/SOUTH LIDO PARK</td>
<td>224</td>
<td>WOver 6/28</td>
<td>2</td>
<td>108</td>
<td>NO</td>
<td>2%</td>
</tr>
<tr>
<td>1540 BFD/HELMESLEY SANDCASTLE</td>
<td>53</td>
<td>WOver 6/28</td>
<td>8</td>
<td>112</td>
<td>YES*</td>
<td>7%</td>
</tr>
<tr>
<td>1540 BFD/HELMESLEY SANDCASTLE</td>
<td>25</td>
<td>WOver 6/28</td>
<td>41</td>
<td>118</td>
<td>YES*</td>
<td>35%</td>
</tr>
<tr>
<td>235’ S R-33</td>
<td>17</td>
<td>WOver 8/10</td>
<td>38</td>
<td>120</td>
<td>NO</td>
<td>32%</td>
</tr>
<tr>
<td>1 JOHN RINGLING BLVD.</td>
<td>53</td>
<td>WOver 8/30</td>
<td>105</td>
<td>122</td>
<td>NO</td>
<td>86%</td>
</tr>
<tr>
<td>2201 BFD/SOUTH LIDO PARK</td>
<td>91</td>
<td>WOver 6/28</td>
<td>1</td>
<td>123</td>
<td>YES</td>
<td>1%</td>
</tr>
<tr>
<td>785’ S R-33</td>
<td>145</td>
<td>WOut 6/28</td>
<td>0</td>
<td>130</td>
<td>YES*</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Key:**
Bold indicate nests which are located within the Project shoreline.
*Indicates nest that were inundated prior to relocation
WOver = Washed over
WOut = Washed out
UW = Underwater
UNK = Nest marking stakes washed away during extreme tidal activity. There was no evidence of hatch and the clutch location could not be found or the nest was relocated after an unknown number of eggs washed away

**Incubation:**
The average incubation was calculated for *in situ* and relocated nests along the Lido Key shoreline for which both the emergence date and the hatch date were known (n=16). Within the Lido Key Interim Beach Renourishment Project area, the *in situ* nests for which emergence and hatch dates were known (n=2) had an average incubation rate of 54 days (range 52 to 56 days). The relocated nests (n=6) with a known emergence and hatch date had an average incubation rate of 54.5 days (range 50 to 58 days). The overall range in incubation for the project area was from was from 50 to 58 days and the average overall incubation in the project area was 54.3 days (Table 8).

**Mote Marine Laboratory**
*Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-46H.) Year Two Post-Construction - 2/10/04*
Outside of the Project area, the *in situ* nests for which emergence and hatch dates were known (n=7) had an average incubation rate of 56.4 days (range 49 to 63 days). The relocated nest for which emergence and hatch dates were known (n=1) had an incubation of 58.0 days. The overall range in incubation outside the project area was from 49 to 63 days and the average overall incubation was 56.3 days.

<table>
<thead>
<tr>
<th>Lido Key Interim Beach Renourishment Project</th>
<th>Relocated</th>
<th>in situ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Nests</td>
<td>n=6</td>
<td>n=2</td>
<td>n=8</td>
</tr>
<tr>
<td>Average Incubation</td>
<td>54.5</td>
<td>54</td>
<td>54.3</td>
</tr>
<tr>
<td>Range of Incubation</td>
<td>50-58</td>
<td>52-56</td>
<td>50-58</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lido Key Shoreline Outside of Project</th>
<th>Relocated</th>
<th>in situ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Nests</td>
<td>n=1</td>
<td>n=7</td>
<td>n=8</td>
</tr>
<tr>
<td>Average Incubation</td>
<td>55</td>
<td>56.4</td>
<td>56.3</td>
</tr>
<tr>
<td>Range of Incubation</td>
<td>55</td>
<td>49-63</td>
<td>49-63</td>
</tr>
</tbody>
</table>

**Hatch and Emergence Success:**

Twenty-one out of a total of 32 nests on Lido Key were excavated for nest success evaluation. The twenty-one evaluated nests include nine nests located within the Lido Key Interim Beach Renourishment Project. For the nine Project nests the hatch success ranged from 64.8% for *in situ* nests to 50.8% for relocated nests (Table 9). The overall hatch success rate was 55.3% for both relocated and *in situ* nests.

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td># of Nests</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Eggs Destroyed</td>
</tr>
<tr>
<td>Eggs Hatched</td>
</tr>
<tr>
<td>Eggs Unhatched</td>
</tr>
<tr>
<td>Live Pipped</td>
</tr>
<tr>
<td>Dead Pipped</td>
</tr>
<tr>
<td>Total # of Eggs</td>
</tr>
</tbody>
</table>

**Percent Hatch Success**

<table>
<thead>
<tr>
<th>Relocated</th>
<th>in situ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.8%</td>
<td>64.8%</td>
<td>55.3%</td>
</tr>
</tbody>
</table>

Excavations of the nine nests within the Project revealed that out of 535 hatched eggs, 15 live hatchlings and 3 dead hatchlings remained in the nests while 517 emerged on their own within the 72 hour time frame (Table 10). A 99.8% emergence success was recorded for *in situ* nests, and a 95.8% emergence success was recorded for the relocated nests. The overall emergence success was 96.6% for both *in situ* and relocated nests combined.

MOTE MARINE LABORATORY

*Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-46H.) Year Two Post-Construction ~ 2/10/04*
Table 10. Lido Key Interim Beach Renourishment Project - Hatchling emergence success for relocated and in situ nests, 2003.

<table>
<thead>
<tr>
<th></th>
<th>Relocated</th>
<th>in situ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Nests</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Eggs Hatched</td>
<td>331</td>
<td>204</td>
<td>535</td>
</tr>
<tr>
<td>Live in Nest</td>
<td>11</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Dead in Nest</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total # Emerged</td>
<td>317</td>
<td>200</td>
<td>517</td>
</tr>
<tr>
<td>Percent Emerged</td>
<td>95.8%</td>
<td>99.8%</td>
<td>96.6%</td>
</tr>
</tbody>
</table>

Twelve of the 22 nests outside of the Project area were evaluated for nest success. Of these, the hatch success ranged from 55% for in situ nests to 22% for the relocated nests (Table 11). The overall hatch success rate was 37.4% for both relocated and in situ nests combined.


<table>
<thead>
<tr>
<th></th>
<th>Relocated</th>
<th>in situ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Nests</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Eggs Destroyed</td>
<td>3</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Eggs Hatched</td>
<td>65</td>
<td>467</td>
<td>532</td>
</tr>
<tr>
<td>Eggs Unhatched</td>
<td>155</td>
<td>276</td>
<td>431</td>
</tr>
<tr>
<td>Live Pipped</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dead Pipped</td>
<td>73</td>
<td>91</td>
<td>164</td>
</tr>
<tr>
<td>Total # of Eggs</td>
<td>296</td>
<td>857</td>
<td>1153</td>
</tr>
<tr>
<td>Percent Hatch Success</td>
<td>22.0%</td>
<td>55.0%</td>
<td>37.4%</td>
</tr>
</tbody>
</table>

Excavations of the twelve nests documented outside of the Project area revealed that out of 532 hatched eggs, 9 live hatchlings and 4 dead hatchlings remained in the nests while 519 emerged on their own within the 72 hour time frame (Table 12). A 97.4% emergence success was recorded for in situ nests, and a 98.5% emergence success was recorded for the relocated nests. The overall emergence success was 97.6% for both in situ and relocated nests for evaluated nests outside of the Project shoreline.

Table 12. Lido Key Shoreline Outside of Project Area - Hatchling emergence success for relocated and in situ nests, 2003.

<table>
<thead>
<tr>
<th></th>
<th>Relocated</th>
<th>in situ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Nests</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Eggs Hatched</td>
<td>65</td>
<td>467</td>
<td>532</td>
</tr>
<tr>
<td>Live in Nest</td>
<td>1</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Dead in Nest</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total # Emerged</td>
<td>64</td>
<td>455</td>
<td>519</td>
</tr>
<tr>
<td>Percent Emerged</td>
<td>98.5%</td>
<td>97.4%</td>
<td>97.6%</td>
</tr>
</tbody>
</table>

MOTE MARINE LABORATORY
Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-46H.) Year Two Post-Construction ~ 2/10/04
Each evaluated nest was excavated three days or 72 hours after the initial hatch. The delayed nest excavation allowed the majority of hatchlings time to emerge from the nest on their own. Hatchlings that have emerged on their own are more vigorous and better equipped to handle the trek down the shoreline to the water. Once in the water these hatchlings also have a better chance at survival as their external yolk sacs have been completely utilized and/or absorbed allowing the hatchling to dive more readily and swim more vigorously.

**Hatchling Disorientation Events:**

A total of five hatchling disorientation events (Appendix G and Table 13) were documented along the Lido Key shoreline. Four of the five events took place within the project area, affecting a total of 76 hatchlings. The one nest outside of the Project area had 64 hatchlings disorient. After emerging from the nest hatchlings typically move away from shadows (e.g., dune vegetation, tree silhouettes, and unlighted structures) and move toward the lighter, open horizon of the water (Salmon et al., 1992). Hatchlings are attracted to artificial lighting (Witherington & Martin, 2000) and instead of heading toward the water will travel great distances to artificially lighted areas. This activity of looping around or traveling in a direction other than to the water is termed a disorientation. Disorientation events often lead to death of the hatchlings from dehydration, predation, or being run over by automobiles when they are attracted into streets by street lights. Disorientation events may involve from one hatchling to an entire nest.

<table>
<thead>
<tr>
<th>Incident Date</th>
<th>Nest Location</th>
<th># Hatchlings</th>
<th>Direction Traveled</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/27/03*</td>
<td>1540 Ben Franklin Drive</td>
<td>18</td>
<td>East Southeast</td>
</tr>
<tr>
<td>7/31/03</td>
<td>155 Ben Franklin Drive</td>
<td>64</td>
<td>Southeast</td>
</tr>
<tr>
<td>8/4/03*</td>
<td>1234 Ben Franklin Drive</td>
<td>23</td>
<td>East then North and South</td>
</tr>
<tr>
<td>8/14/03*</td>
<td>850 Ben Franklin Drive</td>
<td>1</td>
<td>Southeast</td>
</tr>
<tr>
<td>10/1/03*</td>
<td>2150 Ben Franklin Drive</td>
<td>34</td>
<td>North and East</td>
</tr>
</tbody>
</table>

**Marine Turtle Stranding Events:**

Mote Marine Laboratory personnel responded to five marine turtle strandings along the Lido Key shoreline during the year 2003 (Appendix H). A Kemp’s ridley and a Green turtle were the only two of the five to strand alive. They were brought to the Sea Turtle Hospital at MML, but subsequently died in rehabilitation. The three dead stranded turtles were all Loggerhead’s and were either buried on the beach or brought to MML for a post mortem examination in an attempt to determine their causes of death.

All data taken from these turtles was submitted to the Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute, as per MML’s sea turtle permit requirements.
CONCLUSIONS

This report has compared the results of marine turtle monitoring and nest evaluation for the Project (year two post-construction for the interim beach renourishment) FDEP Monument R36.5 to R-44, and the shoreline outside of the Project, FDEP Monument R-31 to R-36.5 (North Lido) and R-44 from the Gulf facing beach around the point and along the north shore of Big Sarasota pass (South Lido Park). During the 2003 sea turtle nesting season a total of 32 nests and 62 non-nesting emergences of the loggerhead sea turtle (*Caretta caretta*) were documented along the entire Lido Key shoreline. The above includes ten nests and 32 non-nesting emergences within the Lido Key Interim Beach Renourishment Project shoreline, and 22 nests and 30 non-nesting emergences outside of the Project area.

The average incubation for all nests experiencing a hatch, both relocated and *in situ*, within the Lido Key Interim Beach Renourishment Project was 54.3 days (54.0 days for *in situ* and 54.5 days for relocated). This compares to an average incubation of 56.3 days for all nests outside of the Project area (56.4 days for *in situ* and 55.0 days for relocated).

The overall hatch success for the Lido Key Interim Beach Renourishment Project was 50.7% (50.5% for *in situ* and 50.8% for relocated), while the overall hatch success rate outside of the Project area was 37.4% (55.0% for *in situ* and 22.0% for relocated nests). The overall emergence success of those which hatched within the Project was 96.6% (99.8% for *in situ* and 95.8% for relocated). This compares to the area outside of the Project shoreline in which the overall emergence success was 97.6% (97.4% for *in situ* and 98.5% for relocated).

For the entire Lido Key shoreline, regardless of beach width, 37.5% of the turtles (n=12) preferred to nest on the upper beach. For the Lido Key Interim Beach Renourishment Project shoreline, 30% preferred the upper beach, and 10% preferred the mid-beach, and 60% preferred the lower beach. Outside of the project area, 40.9% of the turtles preferred the upper beach, 36.4% preferred mid-beach, and 22.7% preferred the lower beach.

Although this report compares the 2002 interim beach renourishment shoreline to the adjacent shoreline it is important to note that the Lido Key shoreline from FDEP Monument R-32 to R-44 has experienced repeated restoration efforts (*Appendix I*) From 1964 through 2003. These restoration efforts have resulted in the placement of sand of various sources, content and color. Comparison of the marine turtle nesting patterns and success rates through the years is beyond the scope of this report but are of importance in considering the shoreline a suitable habitat for marine turtles and nesting shorebirds, both of which continue to utilize Lido Beach for nesting habitat.

MOTE MARINE LABORATORY

*Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-46H.) Year Two Post-Construction ~ 2/10/04*
LITERATURE CITED


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MOTE MARINE LABORATORY
Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-461f) Year One Post-Construction ~ 2/10/04
APPENDIX A

FWC MARINE TURTLE PERMITS
#054 AND #126 - 2002

MOTE MARINE LABORATORY

Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach Renourishment Project (No. 00-46H) Year One Post-Construction ~ 2/10/04
MARINE TURTLE PERMIT

Vicki Wiese
Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, Florida 34236

TP # 054 Permit Expires: January 31 2004

Renewal, permitted activities unchanged.

Authorized To: (1) conduct nesting surveys, (2) conduct stranding/salvage activities, (3) relocate nests for conservation purposes, (4) screen nests with self-releasing screen/cage, (5) screen nests with restraining cages.

Authorized Nesting Survey Area: Longboat Key South (Sarasota County section), Lido Key and Siesta Key (Sarasota/Manatee County Line south to Midnight Pass).

Authorized Research Projects: None.


General Conditions: Permitted individuals must adhere to the FWC marine turtle permit guidelines developed under a Section 6 Cooperative Agreement between FWC and the U.S. Fish and Wildlife Service.

Special Conditions: None.
This acknowledges that I have read and understand the enclosed permit and the information contained in "SEA TURTLE CONSERVATION GUIDELINES" for marine turtle permit holders. Acceptance of this marine turtle permit indicates that I and all authorized personnel listed on my permit have read and agree to abide by all guidelines of the Florida Fish and Wildlife Conservation Commission that pertain to the authorized activity(s) listed on the marine turtle permit. I understand that it is my responsibility to transmit all future information updates to all authorized personnel listed on my permit.

Signature of Principal Permit Holder  

Date

Printed Name  

Permit Number

Return signature page to: FWC, Bureau of Protected Species Management,  
Tequesta Field Station  
P.O. Box 3478  
Tequesta, Florida 33469

RECEIPT OF ACCEPTANCE FORM WILL ACTIVATE 2003 MARINE TURTLE PERMIT
AUTHORIZED PERSONNEL AMENDMENT

Vicki Wiese
Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, Florida 34236

TP # 054 Permit Expires: January 31 2004

As of the date below, the following personnel are authorized to perform the activities listed on Marine Turtle Permit #054.


This personnel authorization supersedes all others and must be attached to the turtle permit of most recent issue. This is not a permit and cannot be used as such.

John D. Rood
Jacksonville

David W. Arnold
Chief
Bureau of Protected Species Management
(850)922-4330
FAX (850)922-4338

cc: BPSM, Tallahassee Office

620 South Meridian Street • Tallahassee • FL • 32399-1600
www.floridaconservation.org
AUTHORIZED PERSONNEL AMENDMENT

Vicki Wiese
Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, Florida 34236

TP #054
Permit Expires: January 31 2004

As of the date below, the following personnel are authorized to perform the activities listed on Marine Turtle Permit #054.


This personnel authorization supersedes all others and must be attached to the turtle permit of most recent issue. This is not a permit and cannot be used as such.

Date

cc: BPSM, Tallahassee Office
AUTHORIZED PERSONNEL AMENDMENT

Jerris J. Foote
Mote Marine Laboratory
160 Ken Thompson Parkway
Sarasota, Florida 34236

TP # 126

Permit Expires: January 31 2004

As of the date below, the following personnel are authorized to perform the activities listed on Marine Turtle Permit #126.


This personnel authorization supersedes all others and must be attached to the turtle permit of most recent issue. This is not a permit and cannot be used as such.

[Signature]
Bureau of Protected Species Management
Office of Environmental Services

[Date]
May 20, 2003

cc: BPSM, Tallahassee Office
AUTHORIZED PERSONNEL AMENDMENT

Jerris J. Foote
Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, Florida 34236

TP # 126 Permit Expires: January 31 2004

As of the date below, the following personnel are authorized to perform the activities listed on Marine Turtle Permit #126.


This personnel authorization supersedes all others and must be attached to the turtle permit of most recent issue. This is not a permit and cannot be used as such.

[Signature]
Bureau of Protected Species Management
Office of Environmental Services

Date July 15, 2003

cc: BPSM, Tallahassee Office
MARINE TURTLE PERMIT

Jerris J. Foote
Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, Florida 34236

TP # 126 Permit Expires: January 31 2004

Renewal, permitted activities amended.

Authorized To: (1) hold turtles for rehabilitation, (2) hold loggerheads for educational display, (3) conduct necropsies, (4) maintain and display preserved specimens, (5) conduct public turtles watches, (6) tag turtles using external flipper tags, (7) tag turtles using PIT tags, (8) collect blood samples, (9) conduct net capture, (10) conduct hand capture, (11) collect tissue samples.

Authorized Nesting Survey Area: None.


General Conditions: Permitted individuals must adhere to the FWC marine turtle permit guidelines developed under a Section 6 Cooperative Agreement between FWC and the U.S. Fish and Wildlife Service.

Special Conditions: See attached Marine Turtle Monitoring for Beach Restoration Projects.

David W. Arnold, Chief
Bureau of Protected Species Management
Office of Environmental Services

cc: Sandy MacPherson, National Sea Turtle Recovery Coordinator, USFWS
FWC, Division of Law Enforcement, District 4
FWC, Tequesta Office
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
ACCEPTANCE OF MARINE TURTLE PERMIT

This acknowledges that I have read and understand the enclosed permit and the information contained in "SEA TURTLE CONSERVATION GUIDELINES" for marine turtle permit holders. Acceptance of this marine turtle permit indicates that I and all authorized personnel listed on my permit have read and agree to abide by all guidelines of the Florida Fish and Wildlife Conservation Commission that pertain to the authorized activity(s) listed on the marine turtle permit. I understand that it is my responsibility to transmit all future information updates to all authorized personnel listed on my permit.

[Signature]
Signature of Principal Permit Holder

2/11/03
Date

[JERRY J. FOOTE]
Printed Name

126
Permit Number

Return signature page to: FWC, Bureau of Protected Species Management,
Tequesta Field Station
P.O. Box 3478
Tequesta, Florida 33469

RECEIPT OF ACCEPTANCE FORM WILL ACTIVATE 2003 MARINE TURTLE PERMIT
AUTHORIZED PERSONNEL AMENDMENT

Jerris J. Foote
Mote Marine Laboratory
1600 Ken Thompson Parkway
Sarasota, Florida 34236

TP # 126

As of the date below, the following personnel are authorized to perform the activities listed on Marine Turtle Permit #126.


This personnel authorization supersedes all others and must be attached to the turtle permit of most recent issue. This is not a permit and cannot be used as such.

D. Arnold
Chief
Bureau of Protected Species Management

cc: BPSM, Tallahassee Office
APPENDIX B

MOTE MARINE LABORATORY
NEST AND NON-NESTING EMERGENCE DATA SHEETS
LIDO KEY, FLORIDA - 2003
### 2003 NEST DATA FORM

**NEST DEPOSITED**
- Date: 
- Location: 

**NEST FOUND**
- Date: 
- Location: 

**INITIAL TREATMENT**
- Left in place, No Screen
- Left in place, Screened
- Relocated, No Screen
- Relocated, Screened

**RELOCATED?**
- Yes
- No
- Date: 

**NEW LOCATION**
- Nearest address: 

**WHY WAS NEST RELOCATED?**

**NUMBER OF EGGS RELOCATED**

**LOCATION NOTES**
- Circle one: Upper, Middle, Lower
- Circle one: In Vegetation, At Escarpment, Open Beach, Other

**DISTANCE FROM MHW**
- (in feet)

**DISTANCE FROM BARRIER**
- (in feet)

**SCREENED?**
- No
- Yes
- Date Screened: 

**SELF RELEASING BOX / FLAT**

**RELEASING RESTRAINING BOX / FLAT**

**BEFORE PREDATION / AFTER PREDATION**

**CRAWL DIAGRAM**

---

**CASEY KEY ONLY:** If you found a tag-form at the nest, write zone # and nest # on bottom of tag form, and write tag numbers in above comment section.

---

**HATCHING DATA**

- **DROP DATE**
- **HATCH DATE** (1st emergence)
- **SUBSEQUENT EMERGENCE DATE(S)**

- **DATE NEST EXCAVATED**

- **EXCAVATED BY**
  - Nest washed over by waves
  - Nest under standing water
  - Nest washed out/eroded

**NEST (EGG/HATCHLING) DAMAGE**
- Date(s) and # Destroyed
  - Raccoon
  - Fire Ants
  - Armadillo
  - Roots
  - Other

**WATER/NEST**
- Date(s)
  - Labeled
  - Distance to Nest
  - Sketch

**DISORIENTATION**
- Date(s)
  - (attach copy of report)

**TRIANGULATION MEASUREMENTS**
- Take Label
- Distance to Nest
- Sketch

---

*IF THE HATCHLINGS WERE DISORIENTED, ATTACH A COPY OF THE DISORIENTATION REPORT.*
2003 Non-Nesting Emergence Form

Zone ________________________________
Observer(s) ____________________________________ 
False Crawl # ___________________________ 
Date _____________________________________ 
Location of crawl ( nearest address; house #) 

Location
Circle one: Upper Middle Lower
Circle one: In vegetation At Escarpment Open Beach
Other ___________________________

Distance from MHW (in feet) ____________________ 
Distance from Barrier (in feet) ____________________

Escarpment: yes no Straight Sloped
Height of escarpment (in feet): ____________________

Body Pitting: yes no
Egg Cavity: yes no (# of cavities ____________)
Describe obvious reasons for false crawl: ____________________

Crawl Diagram:
APPENDIX C

FWC GUIDELINES FOR SELF-RELEASE
NEST CAGING

MOTE MARINE LABORATORY
Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach
Renourishment Project (No. 00-46H) Year One Post-Construction ~ 2/10/04
NEST CAGING

Summary
This section is specifically intended for those persons whose permit authorizes them to screen nests with self-releasing screen/cages or screen nests with restraining cages. These personnel are also authorized to:

- mark nests

Personnel are not authorized to conduct the following activities unless specifically stated on their permit:

- conduct nesting surveys
- relocate nests
- use a self-releasing hatchery
- use a restraining hatchery
- use any caging material with a mesh size that is smaller than 2" x 4" unless authorized to protect nests with restraining cages or unless there is an area maintained along the seaward face of the cage from which hatchlings can readily escape
- use probes (other than fingers) to locate clutches

ACTIVITY DESCRIPTION
When a nest is at high risk of predation (by raccoons, foxes, feral hogs, coyotes, etc.), the eggs and pre-emergent hatchlings may be protected by placing a self-releasing cage over the nest. When hatchlings at a nest site are certain to be disoriented by lighting, and the lighting cannot be resolved before the hatchlings are due to emerge, then the nest may be covered by a restraining cage to keep hatchlings from crawling toward lights. While the exact construction of cages may vary (see examples of two cages in Figures 2-22 and 2-23, all restraining cages are to provide enough room for all hatchlings to completely emerge from the sand. In all self-releasing cages, the 2" x 4" mesh of the cage must be oriented so that the 4" opening is parallel to the surface of the sand. If self-releasing cages are not constructed of a material with a mesh size that is 2" x 4" or greater, then they are to have, on the seaward face of the cage, a regularly maintained area from which hatchlings can readily escape. If hatchlings are to escape through an opening in the cage, the bottom edge of the opening may not extend above the sand's surface, the top edge of the opening is to be at least 2" above the sand's surface, and the opening is to extend along the entire seaward side of the cage. Cages are to be centered exactly over the egg chamber to make it less likely that mammalian predators will burrow to the eggs from the side of the cage, and to make sure that any anchoring stakes placed along the edges of the cage will not enter the egg chamber. To find the location of the egg chamber within the body pit refer to the guidelines for NEST MARKING, page 2-9.

Most cages are anchored by burying the outward pointing flanges (Figure 2-22) about one foot under the sand's surface. Center the cage over the egg chamber and trace the edges of the cage in the sand. The cage should be oriented so that the opposing sides of the cage are either parallel or perpendicular to the shoreline. Remove the cage and the temporary egg chamber marker, and carefully dig a one foot deep trench along the tracing of the edges of the cage. Place the cage into the trench and fill the trench with sand. When completed, the sand around the cage and over the egg.
chamber should be at the original level. If stakes are used to secure a cage, drive the stakes at an angle away from the egg chamber. Signs for marking caged nests are available from FWC (see Appendix C).

Because cages may become partially or completely dislodged, they must be checked regularly. If a restraining cage is used, each cage must be checked for hatchlings at least twice a night beginning 45 days after the clutch was deposited and ending when the cage is removed. Restraining cages must be checked for hatchlings once between 11 p.m. and 1 a.m., and once between 5 a.m. and 7 a.m. After checking the nest during the latter period, restraining cages should be opened (see Figure 2-23) to allow hatchlings that may emerge during the day to escape the cage. These cages may then be closed again at sunset. All hatchlings that are discovered within restraining cages are immediately released at an appropriate beach site and allowed to crawl to the water. Remember, there must be a way to get hatchlings out of a restraining cage without pulling the cage off the nest. Self-releasing cages should be checked each morning during the period of anticipated hatching, just in case some hatchlings have become trapped. Please remove all cages from the beach after hatchling emergence is completed.

Figure 2-22. Example of a self-releasing cage. The cage is constructed of 2" x 4" welded utility wire. Hatchlings are able to escape through the mesh of the wire. Cage design courtesy of The Conservancy of Southwest Florida.
SECTION 2 – NESTING BEACH SURVEY ACTIVITIES

Figure 2-23. Example of a cage that can be either self-releasing or restraining. The cage is constructed of 1/2" galvanized hardware cloth. It becomes self-releasing if a 3" flap is cut along the entire bottom edge of the seaward side of the cage. This flap is folded outward and downward into a trench dug in front of the cage. The flap is then buried under no more than one inch of sand, leaving a 2" tall space through which hatchlings can escape. Restrained hatchlings are collected through a 6" x 6" flap cut in the top of the screened and secured by wire ties. Cage design courtesy of Ecological Associates, Inc.

REPORTING REQUIREMENTS
The principal permit holder is to report the total number of nests that are caged, as well as the type of caging used, and the reasons for caging on the annual nesting summary forms. A nest inventory must be completed on every nest that is caged.
APPENDIX D
MARINE TURTLE NESTING ACTIVITY, LIDO KEY, SARASOTA, FL 2003

<table>
<thead>
<tr>
<th>DATE</th>
<th>ADDRESS</th>
<th>FDEP MON.</th>
<th>FT. S.</th>
<th>NEST/ NNE</th>
<th>MOVED</th>
<th>TYPE SCREEN</th>
<th>HATCH DATE</th>
<th>TYPE DISTURBANCE</th>
<th>HATCHED # EGGS</th>
<th>TOTAL # EGGS</th>
<th>BEACH LOCATION</th>
<th>LOCATION TYPE</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-May</td>
<td>N LIDO</td>
<td>31-32</td>
<td>NEST</td>
<td>RELOCATED</td>
<td></td>
<td>IN (WASHED OVER) 8/9, 8 EGGS AT STORM WASH LINE</td>
<td>2</td>
<td>UPPER BCH</td>
<td>100</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-May</td>
<td>233 BFD/ HOLIDAY INN</td>
<td>36-37</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER ESC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-May</td>
<td>N LIDO</td>
<td>34</td>
<td>980</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER BCH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-May</td>
<td>1 BFD/ ST ARMANDS TOWER N</td>
<td>35-36</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER BCH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-May</td>
<td>617 BFD</td>
<td>38-39</td>
<td>NNE</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>UPPER BCH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-May</td>
<td>N LIDO</td>
<td>33</td>
<td>785</td>
<td>NEST</td>
<td>RELOCATED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-May</td>
<td>N LIDO</td>
<td>33</td>
<td>500</td>
<td>NEST</td>
<td></td>
<td>IN (POSS WASHED OUT) 6/28-30</td>
<td>0</td>
<td>130</td>
<td>UPPER VEG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26-May</td>
<td>850 BFD/ SUNTIDE ISLAND BEACH CLUB</td>
<td>39-40</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER BCH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-May</td>
<td>1540 BFD/ HELMSLEY SANDCASTLE</td>
<td>41-42</td>
<td>NEST</td>
<td>RELOCATED</td>
<td>BOX</td>
<td>IN (WASHING OUT) 6/28, DIS 7/28</td>
<td>41</td>
<td>118</td>
<td>LOWER BCH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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**Key:**

- **BOLDED ROWS** = Inside Project Area
- **BFD** = Ben Franklin Drive
- **NNE** = Non-nesting emergence
- **RESTRAINa** = Restraining cage in place after predation
- **BOXx** = Boxed cage in place after predation
- **IN** = Inundation
- **RAC** = Raccoon
- **DEP** = Depredation
- **UNK** = Unknown
- **DIS** = Disorientation
- **ANTS** = Fire Ants
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<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td>MIDDLE BCH</td>
</tr>
<tr>
<td>30-Jun</td>
<td>N LIDO</td>
<td>33</td>
<td>300</td>
<td>NNE</td>
<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
</tr>
<tr>
<td>30-Jun</td>
<td>N LIDO</td>
<td>35</td>
<td>50</td>
<td>NNE</td>
<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
</tr>
<tr>
<td>3-Jul</td>
<td>2150 BFD/ SARASOTA SANDS</td>
<td>43-44</td>
<td>NEST</td>
<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td>MIDDLE BCH</td>
</tr>
<tr>
<td>3-Jul</td>
<td>1088 BFD/ COQUINA ON THE BEACH</td>
<td>39-40</td>
<td>NNE</td>
<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td>MIDDLE BCH</td>
</tr>
<tr>
<td>8-Jul</td>
<td>233 BFD/ HOLIDAY INN</td>
<td>36-37</td>
<td>NNE</td>
<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td>MIDDLE BCH</td>
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<tr>
<td>10-Jul</td>
<td>N LIDO</td>
<td>31-32</td>
<td>NEST</td>
<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td>MIDDLE BCH</td>
</tr>
<tr>
<td>11-Jul</td>
<td>2201 BFD/ SOUTH LIDO PARK</td>
<td>43-44</td>
<td>NNE</td>
<td>BOX</td>
<td>19-Aug</td>
<td>IN (WASHED OVER) 6/28</td>
<td>1</td>
<td>123</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td>MIDDLE BCH</td>
</tr>
</tbody>
</table>

**KEY:**

- **BOLDED ROWS** = Inside Project Area
- **BOXa** = Boxed cage in place after predation
- **RESTRAINa** = Restraining cage in place after predation
- **IN** = Inundation
- **DEP** = Depredation
- **UNK** = Unknown
- **NNE** = Non-nesting emergence
- **LOCATION TYPE - BCH** = Open Beach; **ESC** = Escarpment; **VEG** = Vegetation; **OTH** = Other
- **DIS** = Disorientation
- **ANTS** = Fire Ants
<table>
<thead>
<tr>
<th>DATE</th>
<th>ADDRESS</th>
<th>FDEP MON.</th>
<th>FT. S.</th>
<th>NEST/ NNE</th>
<th>MOVED</th>
<th>TYPE SCREEN</th>
<th>HATCH DATE</th>
<th>TYPE DISTURBANCE</th>
<th>HATCHED # EGGS</th>
<th>TOTAL # EGGS</th>
<th>BEACH LOCATION</th>
<th>LOCATION TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-Jul</td>
<td>2201 BFD/L SOUT HDL PARK</td>
<td>S OF 44</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td>30-Aug</td>
<td>IN (WASHED OVER) 8/30</td>
<td>105</td>
<td>122</td>
<td>LOWER BCH</td>
<td></td>
</tr>
<tr>
<td>11-Jul</td>
<td>N LIDO</td>
<td>34</td>
<td>150</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MIDDLE VEG</td>
<td></td>
</tr>
<tr>
<td>12-Jul</td>
<td>1 JOHN RINGLING BLVD.</td>
<td>35-36</td>
<td>NEST</td>
<td></td>
<td></td>
<td></td>
<td>30-Aug</td>
<td>IN (WASHED OUT) 8/10</td>
<td></td>
<td></td>
<td>LOWER VEG</td>
<td></td>
</tr>
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<td>12-Jul</td>
<td>N LIDO</td>
<td>31-32</td>
<td>NEST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td></td>
</tr>
<tr>
<td>13-Jul</td>
<td>N LIDO</td>
<td>33</td>
<td>656</td>
<td>NEST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER BCH</td>
<td></td>
</tr>
<tr>
<td>13-Jul</td>
<td>N LIDO</td>
<td>31</td>
<td>418</td>
<td>NNE</td>
<td></td>
<td></td>
<td>6-Sep</td>
<td>IN (STANDING WATER) 8/9, 8/9, DEP/CRAB 7/24</td>
<td>60</td>
<td>86</td>
<td>UP EP BCH</td>
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</tr>
<tr>
<td>14-Jul</td>
<td>N LIDO</td>
<td>34-35</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UPPER BCH</td>
<td></td>
</tr>
<tr>
<td>18-Jul</td>
<td>475 BFD/LIDO DORSET</td>
<td>37-38</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER BCH</td>
<td></td>
</tr>
<tr>
<td>22-Jul</td>
<td>2201 BFD/L SOUT HDL PARK</td>
<td>S OF 44</td>
<td>NEST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DEP/RAC 7/21, NEST COMPLETELY DESTROYED</td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td></td>
</tr>
<tr>
<td>24-Jul</td>
<td>N LIDO</td>
<td>33</td>
<td>365</td>
<td>NEST</td>
<td></td>
<td></td>
<td></td>
<td>IN (STANDING WATER) 8/10, 9/6</td>
<td>0</td>
<td>79</td>
<td>UPPER BCH</td>
<td></td>
</tr>
<tr>
<td>25-Jul</td>
<td>2201 BFD/L SOUT HDL PARK</td>
<td>S OF 44</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UPPER BCH</td>
<td></td>
</tr>
<tr>
<td>26-Jul</td>
<td>2201 BFD/L SOUT HDL PARK</td>
<td>S OF 44</td>
<td>NEST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DEP/HUMAN 9/28</td>
<td>0</td>
<td>99</td>
<td>LOWER BCH</td>
<td></td>
</tr>
<tr>
<td>27-Jul</td>
<td>1800 BFD/ L'ELEGANCE</td>
<td>42-43</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER BCH</td>
<td></td>
</tr>
<tr>
<td>6-Aug</td>
<td>N LIDO</td>
<td>31-32</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MIDDLE BCH</td>
<td></td>
</tr>
<tr>
<td>12-Aug</td>
<td>2150 BFD/SARASOTA SANDS</td>
<td>43-44</td>
<td>NEST</td>
<td></td>
<td></td>
<td></td>
<td>1-Oct</td>
<td>DIS 10/1</td>
<td>75</td>
<td>105</td>
<td>LOWER BCH</td>
<td></td>
</tr>
<tr>
<td>12-Aug</td>
<td>700 BFD/RADISSON RESORT</td>
<td>38-39</td>
<td>NNE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOWER BCH</td>
<td></td>
</tr>
</tbody>
</table>

**KEY:**

- **BOLDED ROWS** = Inside Project Area
- **BOXa** = Boxed cage in place after predation
- **RESTRAINa** = Restraining cage in place after predation
- **IN** = Inundation
- **DEP** = Depredation
- **UNK** = Unknown
- **RAC** = Raccoon
- **LOCATION TYPE** - **BCH** = Open Beach; **ESC** = Escarpment; **VEG** = Vegetation; **OTH** = Other
- **DIS** = Disorientation
- **ANTS** = Fire Ants
APPENDIX E

FWC SEA TURTLE NESTING REPORT FORMS FOR 2003

SEA TURTLE NESTING DATA SUMMARY REPORT FOR 2003
SEA TURTLE NESTING SURVEY QUESTIONNAIRE FOR 2003
SEA TURTLE NEST SUCCESS REPORTING FORM FOR SPECIES:
   CARETTA CARETTA (LOGGERHEAD)

MOTE MARINE LABORATORY
Sea Turtle Monitoring, Nest Evaluation & Protection Measures - For the Lido Key Interim Beach
Renourishment Project (No. 00-46H) Year One Post-Construction  -- 2/10/04
1. PRINCIPAL PERMIT HOLDER INFORMATION

Principal Permit Holder: Vicki Wiese  
Organization: Mote Marine Laboratory  
Address: 1600 Ken Thompson Parkway  
Sarasota, Fl 34236  
County: Sarasota  
Email Address: vicki@mote.org  
Day Telephone (include area code): (941) 388-4331  
Night Telephone:  
Beach Name: Lido Key  
Point of Contact: Jerris Foote  
Telephone & Email Address: (941) 374-4979 jerris@mote.org

2. GENERAL SURVEY INFORMATION

Survey Boundary Information: Please describe survey boundaries geographically. If boundaries have changed, please fill in the blue shaded area with new boundaries. Be specific and use known landmarks that can be found on a map (or include a marked map).

- **North Survey Boundary:** New Pass (500' South of R-30)
- **South Survey Boundary:** Big Sarasota Pass (2400' East of R-44)

Beach Length (include KM or MI): 5.3 km  
Is beach length estimated or measured? estimate  
Was this the exact same survey area as your 2002 survey area? Yes/No yes  
IF NO, please explain the specific differences AND why the survey area changed:

Start Date of Survey (mm/dd): 5/1/2003  
End Date of Survey (mm/dd): 10/5/2003  
Time of Day Surveyed: Start (include AM or PM) 6-7 am (sunrise)  
Finish (include AM or PM) 10-11 am  
Number of Days Per Week Surveyed: 7  
If you did not survey seven (7) days per week, describe how nests are counted on the day(s) surveys are resumed:

Was there any variation in the number of days surveyed per week or was the entire beach surveyed the same number of times every week of the nesting season? SAME or VARIABLE  
If VARIABLE, please explain the specific variation and give the total number of days surveyed during the nesting season:

Were all non-nesting crawls (false crawls) counted during your survey? Yes or No yes  
How many people were involved in surveying the nesting beach during 2003? 24  

NESTING BEACH MANAGEMENT INFORMATION
If nests were **RELOCATED**, were they relocated **Individually** (Ex: simply moving the nest directly landward of the original location or otherwise maintaining natural nest spacing) or in a **Group** with other beach relocated nests?

Please give reasons for relocating nests. (Example: nest located below high tide line, in high foot traffic area, etc.)

Nests found at or below the MHW and nests in immediate danger of washing out were moved higher on the beach at the same location.

If a **HATCHERY** was used, please give reasons AND specific location:

| N/A |

If predator control methods other than screening/caging were employed, please describe below:

<table>
<thead>
<tr>
<th>Amdro: Control was placed around nest when fire ants were observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many <strong>MARKED</strong> nests were negatively affected by predators other than humans during the course of the season? <em>Note: this includes both partially and completely predated nests.</em></td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>List all non-human predators documented predating nests in 2003:</td>
</tr>
<tr>
<td>Fire Ants, Ghost Crab, Raccoon, Roots, Unknown</td>
</tr>
<tr>
<td>How many <strong>MARKED</strong> nests were negatively affected by erosion, accretion, inundation, and storm-related events? <em>Note: this does not include stake removal/loss.</em></td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>Please give details: Inundated (Washed over, Washed out, Standing water), Eroded</td>
</tr>
<tr>
<td>How many <strong>MARKED</strong> nests were taken or disturbed by humans (Example: nest dug into, eggs removed, etc.)?</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Please give details: Caged was dug up on 3 sides, human hand and foot prints were all around nest area, but no eggs were taken or destroyed.</td>
</tr>
<tr>
<td>Were hatchling disorientation events documented during 2003? Yes or No</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>If YES, have all disorientation reports been submitted to FWC? Yes or No</td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

I certify the above information to be true and accurate to the best of my knowledge.

| Jerri Tooze | 11/11/2003 |
| Signature of Principal Permit Holder | Date |

Email Forms to: Beth.Brost@fwc.state.fl.us

Please submit form by November 30, 2003
1. PRINCIPAL PERMIT HOLDER INFORMATION

Principal Permit Holder: Vicki Wiese
Permit Number: 054

Beach Name: Lido Key

2. GENERAL NESTING DATA

<table>
<thead>
<tr>
<th></th>
<th>C. caretta (Loggerhead)</th>
<th>C. mydas (Green Turtle)</th>
<th>D. coriacea (Leatherback)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Nests</td>
<td>32</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total # of Non-Nesting Emergences (False Crawls)</td>
<td>62</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Date (mm/dd) of First Documented Nest</td>
<td>5/25/2003</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Date (mm/dd) of Last Documented Nest</td>
<td>8/12/2003</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Nest Data for nests left in place** (where the turtle deposited the clutch): These nests may be left without additional protection, screened with a self-releasing flat screen, or covered with self-releasing or restraining above-ground cages.

Record the number of nests by category and species. For each species, rows a+b+c+d should equal the total number of nests left in place. Please check to make sure this is the case.

<table>
<thead>
<tr>
<th>TOTAL # OF NESTS LEFT IN PLACE (a + b + c + d)</th>
<th>19</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) # of Nests left in Place without Additional Protection</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(b) # of Nests left in Place with Self- Releasing Flat Screen</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(c) # of Nests left in Place with Self- Releasing Cage</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(d) # of Nests left in Place with Restraining Cage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Relocated Nest Data: Relocated nests are those where the clutch is removed from its original site of deposition and reburied at another site. These nests may be relocated to individual sites or as a group to a hatchery (a permanent or semi-permanent fenced or caged area where many nests are re-buried as a group). As with nests left in place, relocated nests may be left without additional protection, covered with self-releasing flat screen, or covered with a self-releasing for restraining above-ground cages. Hatcheries may be self-releasing (turtles escape unaided) or restraining (hatchlings cannot escape unaided).

Record the number of nests by category and species. For each species, rows a+b+c+d+e+f should equal the total number of relocated nests. Please check to make sure this is the case.

<table>
<thead>
<tr>
<th>TOTAL # OF NESTS RELOCATED (a + b + c + d + e + f)</th>
<th>13</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) # of Relocated Nests without Additional Protection</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(b) # of Relocated Nests with Self- Releasing Flat Screen</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(c) # of Relocated Nests with Self- Releasing Cage</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(d) # of Relocated Nests with Restraining Cage</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(e) # of Relocated Nests to Self- Releasing Hatchery</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(f) # of Relocated Nests to Restraining Hatchery</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Submit form by November 30, 2003
Email to: Beth.Brost@fwc.state.fl.us
**Florida Fish and Wildlife Conservation Commission**  
**Florida Marine Research Institute**  
**Sea Turtle Nest Success Reporting Form for 2003**  
**Species: Caretta caretta (Loggerhead)**

<table>
<thead>
<tr>
<th>Beach Name: Lido Key</th>
<th>Permit Holder: Vicki Wiese</th>
<th>Permit #: 054</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Total # of Nests</td>
<td># of Nests Marked to Evaluate</td>
</tr>
<tr>
<td>Left in Place/No Additional Protection</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Left in Place/Self Releasing Screen</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Left in Place/Self Releasing Cage</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Left in Place/Restraining Cage</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Relocated/No Additional Protection</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Relocated/Self Releasing Screen</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Relocated/Self Releasing Cage</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Relocated/Restraining Cage</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Relocated/Self Releasing Hatchery</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Relocated/Restraining Hatchery</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**Definition of Terms**

- **Relocated**: Clutch was relocated from the original site of deposition.
- **Self-Releasing**: A screen, cage or hatchery through which hatchlings escape unaided.
- **Restraining**: A screen, cage, or hatchery that does not allow hatchlings to escape unaided.
- **Hatchery**: A fenced or caged area where many nests are reburied.
- **Pipped**: Hatchling broken through eggshell but not completely free of eggshell - not a hatched egg.
- **Damaged Eggs**: Eggs damaged by predators, roots, nesting females, or during relocation.

**Additional Information**

- **# of Eggs in Evaluated Nests**: Direct count in relocated nests, count eggshells of nests left in place.
- **# of Hatchlings Emerged**: Count only those emerged unaided (prior to nest evaluation)
- **# of Unhatched Eggs**: (1) undamaged and unpipped eggs; and (2) damaged eggs

**Important**: The # of Hatchlings Emerged + # of Live Hatchlings in Nest + # of Dead Hatchlings in Nest + # of Pipped Live + # of Pipped Dead + # of Unhatched Eggs = the # of Eggs in Evaluated Nests. **Please check to make sure this is the case.**
APPENDIX F

NEST SITE SELECTION BY MARINE TURTLES,
LIDO KEY SHORELINE, 2003
Appendix F. Nest site selection by marine turtles, Lido Key shoreline, 2003 (n=32).
Lido Key Interim Beach Renourishment Project Area in bold (n=10).

<table>
<thead>
<tr>
<th>Date</th>
<th>Address/FDEP Monument</th>
<th>Location n1</th>
<th>Location n2</th>
<th>Approximate Feet from MHW</th>
<th>Approximate Feet from Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNK</td>
<td>Between R-31/R-32</td>
<td>U</td>
<td>VEG</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>5/25/03</td>
<td>500' S R-33</td>
<td>M</td>
<td>BCH</td>
<td>69</td>
<td>4</td>
</tr>
<tr>
<td>5/25/03</td>
<td>785' S R-33</td>
<td>U</td>
<td>VEG</td>
<td>145</td>
<td>0</td>
</tr>
<tr>
<td>5/30/03</td>
<td>1540 Ben Franklin Drive</td>
<td>L</td>
<td>BCH</td>
<td>25</td>
<td>131</td>
</tr>
<tr>
<td>5/30/03</td>
<td>2201 Ben Franklin Drive</td>
<td>U</td>
<td>OTH</td>
<td>224</td>
<td>84</td>
</tr>
<tr>
<td>6/7/03</td>
<td>1234 Ben Franklin Drive</td>
<td>L</td>
<td>BCH</td>
<td>38</td>
<td>78</td>
</tr>
<tr>
<td>6/10/03</td>
<td>1 Ben Franklin Drive</td>
<td>M</td>
<td>BCH</td>
<td>59</td>
<td>113</td>
</tr>
<tr>
<td>6/12/03</td>
<td>845' S R-33</td>
<td>L</td>
<td>BCH</td>
<td>27</td>
<td>100</td>
</tr>
<tr>
<td>6/13/03</td>
<td>2100-2110 Ben Franklin Drive</td>
<td>L</td>
<td>BCH</td>
<td>13</td>
<td>49</td>
</tr>
<tr>
<td>6/13/03</td>
<td>475 Ben Franklin Drive</td>
<td>M</td>
<td>BCH</td>
<td>38</td>
<td>46</td>
</tr>
<tr>
<td>6/17/03</td>
<td>1540 Ben Franklin Drive</td>
<td>L</td>
<td>BCH</td>
<td>53</td>
<td>230</td>
</tr>
<tr>
<td>6/18/03</td>
<td>2201 Ben Franklin Drive</td>
<td>U</td>
<td>VEG</td>
<td>262</td>
<td>0</td>
</tr>
<tr>
<td>6/19/03</td>
<td>300' S R-33</td>
<td>M</td>
<td>BCH</td>
<td>85</td>
<td>0</td>
</tr>
<tr>
<td>6/20/03</td>
<td>1800 Ben Franklin Drive</td>
<td>U</td>
<td>BCH</td>
<td>90</td>
<td>28</td>
</tr>
<tr>
<td>6/22/03</td>
<td>2201 Ben Franklin Drive</td>
<td>M</td>
<td>BCH</td>
<td>45</td>
<td>77</td>
</tr>
<tr>
<td>6/22/03</td>
<td>Between R-30/R-31</td>
<td>U</td>
<td>BCH</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>6/24/03</td>
<td>400 Ben Franklin Drive</td>
<td>U</td>
<td>VEG</td>
<td>170</td>
<td>0</td>
</tr>
<tr>
<td>6/24/03</td>
<td>850 Ben Franklin Drive</td>
<td>L</td>
<td>BCH</td>
<td>220</td>
<td>2</td>
</tr>
<tr>
<td>6/26/03</td>
<td>2201 Ben Franklin Drive</td>
<td>M</td>
<td>BCH</td>
<td>91</td>
<td>150</td>
</tr>
<tr>
<td>6/26/03</td>
<td>850' S R-33</td>
<td>U</td>
<td>VEG</td>
<td>61</td>
<td>11</td>
</tr>
<tr>
<td>6/28/03</td>
<td>235' S R-33</td>
<td>U</td>
<td>VEG</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>6/30/03</td>
<td>2201 Ben Franklin Drive</td>
<td>U</td>
<td>VEG</td>
<td>100</td>
<td>2</td>
</tr>
<tr>
<td>7/3/03</td>
<td>2150 Ben Franklin Drive</td>
<td>U</td>
<td>BCH</td>
<td>136</td>
<td>74</td>
</tr>
<tr>
<td>7/10/03</td>
<td>Between R-31/R-32</td>
<td>U</td>
<td>VEG</td>
<td>54</td>
<td>-8</td>
</tr>
<tr>
<td>7/12/03</td>
<td>1 John Ringling Blvd.</td>
<td>L</td>
<td>BCH</td>
<td>53</td>
<td>107</td>
</tr>
<tr>
<td>7/12/03</td>
<td>Between R-31/R-32</td>
<td>M</td>
<td>BCH</td>
<td>50</td>
<td>26</td>
</tr>
<tr>
<td>7/12/03</td>
<td>656' S R-33</td>
<td>L</td>
<td>VEG</td>
<td>3</td>
<td>131</td>
</tr>
<tr>
<td>7/13/03</td>
<td>844' S R-33</td>
<td>L</td>
<td>BCH</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>7/22/03</td>
<td>2201 Ben Franklin Drive</td>
<td>M</td>
<td>BCH</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>7/24/03</td>
<td>365' S R-33</td>
<td>M</td>
<td>BCH</td>
<td>77</td>
<td>34</td>
</tr>
<tr>
<td>7/26/03</td>
<td>2201 Ben Franklin Drive</td>
<td>L</td>
<td>BCH</td>
<td>38</td>
<td>95</td>
</tr>
<tr>
<td>8/12/03</td>
<td>2150 Ben Franklin Drive</td>
<td>L</td>
<td>BCH</td>
<td>45</td>
<td>111</td>
</tr>
</tbody>
</table>

Key:

<table>
<thead>
<tr>
<th>Location n1</th>
<th>Location n2</th>
<th>Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>L = Lower 1/3 beach</td>
<td>BCH = open beach</td>
<td>seawall, roadway, dune vegetation, dune walkover, escarpment or anything above the sandy beach.</td>
</tr>
<tr>
<td>M = Middle 1/3 beach</td>
<td>ESC = at escarpment</td>
<td>MHW = Mean High Water</td>
</tr>
<tr>
<td>U = Upper 1/3 beach</td>
<td>VEG = in/at vegetation</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX G
FWC MARINE TURTLE HATCHLING DISORIENTATION INCIDENT REPORT FORM
FWC MARINE TURTLE HATCHLING DISORIENTATION
INCIDENT REPORT FORM

If you have any questions please contact FWC at the Tequesta Field Laboratory (561) 575-5407 or in Tallahassee (850) 922-4330

Turtle Permit #: 054
Date of Incident: 10/11/08
Observer's Name: Downie, L.
Telephone (include area code): 561-575-5407
Location of incident (address of source, beach name and/or nearest landmark):
2110 Ben Franklin Drive, Sarasota, Florida, Condo
City and County: Sarasota, Florida
Local nest ID# &/or zone nest was located in: W040/21105D.P.F. - Relocated Nest
Address/landmark hatchlings disoriented towards: 2100-10

Was a probable/possible lighting source identified? YES X *NO
If so, what type(s) of light(s) were identified? (please circle)
- parking lot
- street light
- dune crossover
- single family home (interior)
- restaurant/bar
- single family home (exterior)
- pier
- condominium (interior)
- condominium (exterior)
- sky glow/urban glow
- other:

*If not, why? (please circle)
Too many lights present to determine
No possible lights observed

Describe lighting source(s); include number & type of lights observed:
At Sands Exterior lights on both Stories - Yellow
At Sands Exterior lights on both Stories - White/Red
Incident was documented during (circle one): morning survey
Was this a caged nest? YES NO
Was a temporary light barrier used? (i.e. Slit screen)? YES NO
Was this a relocated nest? YES NO
Was the incident photographed? YES NO
Was the nest located? YES NO
Was the nest excavated? YES NO

If yes, how many hours after emergence?

<table>
<thead>
<tr>
<th>No. of Hatchlings Disoriented</th>
<th>Loggerhead</th>
<th>Green</th>
<th>Leatherback</th>
<th>Unidentified</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 - 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Hatchlings Found Dead</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Hatchlings Found Alive</td>
<td>40 - 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discarded Hatchlings reaching water</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional comments (please elaborate and use back if necessary): When they were wading, they were half way in a bucket. No more were located by 9:11 AM. The nest went into water after a bucket transp. from the sea. Hatchlings were found in bucket. No nest was located by 9:11 AM. One hatchling had walked east on sidewalk halfway. She was at someone's door.

Was local authority provided a copy of this report? YES X NO

If yes, please indicate person and city/county/state department report was copied to:

DNR Fish 33-714 Revised 6/29/92, 11/2/92, 9/9/94, 3/01, 11/01

Signature of Observer:
Date: 10-1-08

Hatchlings went directly into water.
FWC MARINE TURTLE HATCHLING DISORIENTATION INCIDENT REPORT FORM

If you have any questions please contact FWC at the Tequesta Field Laboratory (561) 575-5407 or in Tallahassee (850) 922-4330

Turtle Permit #: 048 Date of Incident: 8/14/03
Observer's Name: Karin Lewkow Telephone (including area code): (941) 388-4331
Location of incident (address of source, beach name and/or nearest landmark): 850 Ben Franklin Drive

City and County: Sarasota, Sarasota County
Local nest ID# &/or zone nest was located in: 136
Address/landmark hatchlings disoriented towards: 1008 Ben Franklin Drive

Was a probable/possible lighting source identified? YES __ *NO
If so, what type(s) of light(s) were identified? (please circle)
- parking lot
- street light
- dune crossover
- single family home (interior)
- restaurant/bar
- single family home (exterior)
- pier
- other:

*If not, why? (please circle) Too many lights present to determine No possible lights observed
Describe lighting source(s); include number & type of lights observed:

Incident was documented during (circle one):
morning survey night survey
Was this a caged nest? YES NO If yes, what type of cage?
Was this a relocated nest? YES NO
Was the incident photographed? YES NO
Was the nest located? YES NO
Was the nest excavated? YES NO
If yes, how many hours after emergence?

<table>
<thead>
<tr>
<th>No. of Hatchlings Disoriented</th>
<th>Loggerhead</th>
<th>Green</th>
<th>Leatherback</th>
<th>Unidentified</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Hatchlings Found Dead</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Hatchlings Found Alive</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Disoriented Hatchlings Reaching Water</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional comments (please elaborate and use back if necessary): No tracks visible from nest possibly due to wind/rain. Nest appears to have hatched. Front edge of dune very worn down about 40 tracks heading towards water. Could not locate track for disoriented hatchlings. Disoriented hatchlings found at address about 350' S of nest & in parking lot 200-300' east of beach.

Was local authority provided a copy of this report? YES NO
If yes, please indicate person and city/county/state department report was copied to:

Signature of Observer: [Signature]
Date: 14 Aug 2003
# FWC Marine Turtle Hatchling Disorientation

## Incident Report Form

If you have any questions please contact FWC at the Tequesta Field Laboratory (561) 575-5407 or in Tallahassee (850) 922-4330

<table>
<thead>
<tr>
<th>Turtle Permit #</th>
<th>Date of Incident</th>
<th>Permit Holder Initials</th>
<th>Year</th>
<th>Month</th>
<th>Day</th>
<th>County Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-4</td>
<td>8/10/03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Observer's Name: **DAI**

Telephone (include area code): **202-273-4567**

Location of incident (include source, beach name and/or nearest landmark): **234 N. FRANKLIN DRIVE**

City and County: **SANDY ISLAND**

Local nest ID# &/or zone nest was located in: **1234 1/4 1/2 3/4 A**

Address/landmark hatchlings disoriented towards: **1190 BAY BREEZE AND LIME TREE BEACH RESORT**

### Was a probable/possible lighting source identified? **YES**

*NO*

If so, what type(s) of light(s) were identified? (please circle)

- parking lot
- street light
- condominium (interior)
- condominium (exterior)
- single family home (interior)
- single family home (exterior)
- sky glow/urban glow
- pier
- other: **PORT LIGHTS AT BOTH HIDE TENTERS AND PARKING LOT**

*If not, why?*: (please circle) **Too many lights present to determine**

No possible lights observed

Describe lighting source(s), include number & type of lights observed:

- Globe light by port
- Light at parking lot
- Light at bay breeze and lime tree beach resort

Incident was documented during (circle one): **morning survey**

Was this a caged nest? **YES**

*NO*

If yes, what type of cage?

Was a temporary light barrier used (i.e. Silt screen)? **YES**

*NO*

Was this a relocated nest? **YES**

*NO*

Was the incident photographed? **YES**

*NO*

Was the nest located? **YES**

*NO*

Was the nest excavated? **YES**

*NO*

If yes, how many hours after emergence?

<table>
<thead>
<tr>
<th>Loggerhead</th>
<th>Green</th>
<th>Leatherback</th>
<th>Unidentified</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Hatchlings Disoriented</td>
<td>15 (23)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Hatchlings Found Dead</td>
<td>2 (1; leather)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Hatchlings Found Alive</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Disoriented Hatchlings Reaching Water</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sketch

Additional comments (please elaborate and use back if necessary): **Thank you for the help. I will be ready to help again next hatch season. I finally ended up with the help of the kids beach club and finally ending a home made box.**

Was local authority provided a copy of this report? **YES**

*NO*

If yes, please indicate person and city/county/state department report was copied to:

- **Sarasota County - Kenya Leonard**

Signature of Observer: **Paul Blatt**

Date: **8/4/03 & 8/5/03**
FWC MARINE TURTLE HATCHLING DISORIENTATION
INCIDENT REPORT FORM

If you have any questions please contact FWC at the Tequesta Field Laboratory (561) 575-5407 or in Tallahassee (850) 922-4330

Turtle Permit #: 054  
Date of Incident: 7/31/03
Observer's Name: VERA MARK
Telephone (include area code): 941 388-4331
Location of incident (address of source, beach name and/or nearest landmark):
155 BEN FRANKLIN DRIVE
City and County: SARASOTA/SARASOTA
Local nest ID# &/or zone nest was located in: 1Z 4/10/03 155 BEN FRANKLIN DRIVE
Address/landmark hatchlings disoriented towards:
EITHER SOUTHERLY BLDG. OR 100 TOWERS OR HOLIDAY INN
Was a probable/possible lighting source identified? YES *NO  
If so, what type(s) of light(s) were identified? (please circle)
*condominium (interior)
*condominium (exterior)
sky glow/urban glow
*parking lot street light
*single family home (interior)
*single family home (exterior)
捺:
*If not, why?: (please circle)
Too many lights present to determine
No possible lights observed
Describe lighting source(s); include number & type of lights observed: Lights possibly have come from Holiday Inn, Holiday Towers and Holiday Inn - marina.
Incident was documented during (circle one): morning survey night survey
Was this a caged nest? YES  
Was a temporary light barrier used (i.e. Silt screen)? YES
If yes, what type of cage?
Was this a relocated nest?
Yes  
Yes  
Was the incident photographed? YES  
Was the nest located? YES  
Was the nest excavated?
Was local authority provided a copy of this report? YES *NO  
If yes, please indicate person and city/county/state department report was copied to:

Additional comments (please elaborate and use back if necessary):

No. OF HATCHLINGS DISORIENTED
LOGGERHEAD GREEN LEATHERBACK UNIDENTIFIED

No. OF HATCHLINGS FOUND DEAD
No. OF HATCHLINGS FOUND ALIVE
No. OF DISORIENTED HATCHLINGS REACHING WATER

Signature of Observer
Date
FWC MARINE TURTLE HATCHLING DISORIENTATION
INCIDENT REPORT FORM

If you have any questions please contact FWC at the Tocqueville Field Laboratory (561) 575-5407 or in Tallahassee (850) 922-4330

Turtle Permit #: 054
Date of Incident: 7/27/03

Observer's Name: DAVE JANIER
Telephone (include area code): (941) 351-2003

Location of incident (address of source, beach name and/or nearest landmark):
1540 Old Fort Myers Drive - Fort Myers, Florida

City and County: SAINT PETERSBURG,SARASOTA

Local nest ID # &/or zone nest was located in: 1200-5 5/5-4/30

Address/landmark hatchlings disoriented towards: SOUTH EAST X/Y APPROX 10-East

Was a probable &/or identifying source identified? YES

If so, what type(s) of light(s) were identified? (please circle)
- parking lot
- beach light
- restaurant

*If not, why? (please circle) Too many lights present to determine

Description of lighting sources; include number & type of lights observed: Three are a vast amount of lights at this site (condominum & much)

Incident was documented during (circle one): morning survey

Was this a caged nest? YES X NO

If yes, what type of cage? SELF RELEASING BOX

Was a temporary light barrier used (i.e. Silt screen)? YES X NO

Was the incident photographed? YES X NO

Was the nest located? YES X NO

Was the nest excavated? YES X NO

If yes, how many nests after excavation?

<table>
<thead>
<tr>
<th>No. of Hatchlings Discovered</th>
<th>Green</th>
<th>Leatherback</th>
<th>Unidentified</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Hatchlings Found Dead</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Hatchlings Found Alive</td>
<td>48 + 50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sketch

Additional comments (please elaborate and use back if necessary):

All six started for the sea, but about 1/2 way there
they became entrapped with lights. They couldn't
move. The lights to the east must be

Was local authority provided a copy of this report? YES X NO

If yes, please indicate person and city/county/state department report was copied to:

Signature of Observer: [Signature]
Date: 7/27/03
SEA TURTLE STRANDING AND SALVAGE NETWORK – STRANDING REPORT

OBSERVER’S NAME / ADDRESS / PHONE:
First: JEFF
MI: J Last: FOODS
Affiliation: MARINE LABORATORI
Address: 3400 KEN THOMPSON DR
SAINT PETERSBURG, FL 33710
Area code/Phone number 941/388-4331

STRANDING DATE: M-Mar-19/12
Year 2003 Month 3 Day 12
Turtle number by day 12

State coordinator must be notified within 24 hrs; this was done by phone (561)757-5407
email (561)743-6228
FWC Turtle Pager 1-800-241-6653 ID#274-4867

SPECIES: (check one)
□ CC = Loggerhead
□ CM = Green
□ DC = Leatherback
□ EI = Hawksbill
□ LK = Kemp’s ridley
□ UN = Unidentified
Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☐ No
Species verified by state coordinator? ☐ Yes ☐ No

SEX: (check one)
□ Immature, undetermined
□ Female ☐ Male
How was sex determined?
☐ Necropsy
☐ Tail length (adult only)
Length of tail beyond carapace cm / in

CONDITION: (check one)
□ 0 = Alive
□ 1 = Fresh dead
□ 2 = Moderately decomposed
□ 3 = Severely decomposed
□ 4 = Dried carcass
□ 5 = Skeleton, bones only

TAGS: Contact state coordinator before disposing of any tagged animal!!
Flap tags present? ☐ Yes ☐ No
Check all 4 flippers: If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☐ No
If found, record number / tag location

Coded wire tag scan? ☐ Yes ☐ No
If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☐ No
If found, record location (scale number & side)

FINAL DISPOSITION: (check one)
□ 1 = Laid on beach where found; painted? ☐ Yes ☐ No(5)
□ 2 = Buried: ☐ on beach / ☐ off beach; carcass painted before buried? ☐ Yes ☐ No
□ 3 = Salvaged: ☐ all / ☐ part(s), what/why?
□ 4 = Pulled up on beach/dune; painted? ☐ Yes ☐ No
□ 5 = Alive, released
□ 6 = Alive, taken to rehab. facility, where? More
□ 7 = Alive, taken to rehab. facility, where? More
□ 8 = Left floating, not recovered; painted? ☐ Yes ☐ No
□ 9 = Disposition unknown, explain

CARAPACE MEASUREMENTS: (see drawing)
Using calipers
Straight length (NOTCH-TIP) cm in
Minimum length (NOTCH-NOTCH) cm in
Straight width (Widest Point) cm in
Using non-metal measuring tape
Curved length (NOTCH-TIP) cm in
Minimum length (NOTCH-NOTCH) cm in
Curved width (Widest Point) cm in

Weight ☐ actual / ☐ est. kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibionta, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibionta, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Turtle 1992 paddled around queen elizabeth island 2 years ago all 4 legs were painted. This turtle is green and a 1000 feet west of stranding area. Stranding location was approx. 1000 feet from main stranding area.

Fed up to 15000 people
OBSERVER'S NAME / ADDRESS / PHONE:
First James M.I. B Last Grosvenor
Affiliation Mote Marine Laboratory
Address 1600 Ken Thompson Pkwy
Sarasota, FL 34236
Area code/Phone number (941) 385-4441

STRANDING DATE: ST 0361
Year 20/2 Month [0] Day [1] Storm
Turtle number by day [0] "F" Storm

State coordinator must be notified within 24 h
this was done by [phone] (561)757-5407
email [email], fax (561)743-6228

STRANDING LOCATION:
Stranding location (be specific) Lido Beach in front of Main Pavilion
Sarasota, FL

Latitude 27.3133 N
Longitude 82.57753 W

Species: (check one)
☐ CC = Loggerhead
☐ CM = Green
☐ DC = Leatherback
☐ EI = Hawksbill
☐ EL = Kemp’s ridley
☐ LO = Olive ridley
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? [Yes] [No]
Species verified by state coordinator? [Yes] [No]

SEX: (check one)
☐ Female ☐ Male
How was sex determined?
☐ Necropsy
☐ Tail length (adult only)
Length of tail beyond carapace _______ cm / in

TAGS: Contact state coordinator before disposing of any tagged animal!!
Flipper tags present? [Yes] [No]
Check all 4 flippers. If found, record tag number(s) / tag location / return address

CONDITION: (check one)
[☐] 0 = Alive
[☐] 1 = Fresh dead 10/12/03
[☐] 2 = Moderately decomposed
[☐] 3 = Severely decomposed
[☐] 4 = Dried carcass
[☐] 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)
[☐] 1 = Left on beach where found; painted? [Yes] [No]
[☐] 2 = Buried: [on beach / off beach];
carcass painted before buried? [Yes] [No]
[☐] 3 = Salvaged: [all / part(s)], what/why?

Necropsy at Mote 1/19/03

[☐] 4 = Pulled up on beach/dune; painted? [Yes] [No]
[☐] 5 = Alive, released
[☐] 7 = Alive, taken to rehab. facility, where?
Mote Marine Laboratory
[☐] 8 = Left floating, not recovered; painted? [Yes] [No]
[☐] 9 = Disposition unknown, explain

*If painted, what color?

CARAPACE MEASUREMENTS: (see drawing)
Using calipers
Straight length (NOTCH-TIP) 60.1 cm / in
Minimum length (NOTCH-NOTCH) 59.0 cm / in
Straight width (Widest Point) 57.0 cm / in

Using non-metal measuring tape
Curved length (NOTCH-TIP) 69.4 cm / in
Minimum length (NOTCH-NOTCH) 67.9 cm / in
Curved width (Widest Point) 64.9 cm / in

Weight [actual] [estimated]

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiota, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Plastron - 47.4 cm
Head width 12.2 cm
Back right section of carapace missing (Old Injury)
Cecal Prolapse

Observe saw her swim out multiple times, continued to restand.
Observed eye twitching and head thrashing after transport.
STRANDING DATE: 07/03/74
Year 2007 Month 07 Day 27
Turtle number by day 22

State coordinator must be notified within 24 hrs; this was done by ☐ phone (561)575-5407
☐ email ☐ fax (561)743-6228

STRANDING LOCATION: ☐ Offshore (Atlantic or Gulf beach) ☐ Inshore (bay, river, sound, inlet, etc)
State FL County Sarasota
Descriptive location (be specific) Lido Beach, North of Pavilion 475 Bea Franklin Drive, Lido Dorset

LATITUDE 27.1228 LONGITUDE -82.57872

FINAL DISPOSITION: (check one)
☐ 1 = Left on beach where found; painted? ☐ Yes ☐ No
☐ 2 = Buried on beach; carcass painted before buried? ☐ Yes ☐ No
☐ 3 = Salvaged: ☐ all ☐ part(s), what/why?
☐ 4 = Pulled up on beach/dune; painted? ☐ Yes ☐ No
☐ 5 = Alive, released
☐ 6 = Alive, taken to rehab. facility, where?
☐ 7 = Alive, taken to rehab. facility, where?
☐ 8 = Left floating, not recovered; painted? ☐ Yes ☐ No
☐ 9 = Disposition unknown, explain

If painted, what color?

CARAPACE MEASUREMENTS: (see drawing)
Using calipers Circle unit
Straight length (NOTCH-TIP) 71.3 cm in
Minimum length (NOTCH-NOTCH) 70.6 cm in
Straight width (Widest Point) 52.9 cm in

Using non-metal measuring tape Circle unit
Curved length (NOTCH-TIP) 75.1 cm in
Minimum length (NOTCH-NOTCH) 74.3 cm in
Curved width (Widest Point) 67.4 cm in

Weight ☐ actual ☐ est. kg lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibionta, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Blunted, no scutes, scavenged, missing RRF and Tips of LRF, LFF, RFF. Numerous small barnacles on underside of tongue. No obvious signs of external trauma.

Nuchal NOTCH

Posterior NOTCH

Original TIP

Weight 55.9 cm
**STRANDING LOCATION:** Offshore (Atlantic or Gulf beach) ☐ Inshore (bay, river, sound, inlet, etc.) ☐ State: FLORIDA ☐ County: SABAPAFA Descriptive location (be specific): Gulf of Mexico, off New Pass, approximately 500 ft. Date and time: Dec. 27, 1994

**CONDITION:** (check one)
- 0 = Alive
- 1 = Fresh dead
- 2 = Moderately decomposed
- 3 = Severely decomposed
- 4 = Unidentified carcass
- 5 = Skeleton, bones only

**TAGS:** Contact state coordinator before disposing of any tagged animal!
- Check all 4 flippers. If found, record tag number(s) / tag location / return address.

**FINAL DISPOSITION:** (check one)
- 1 = Left on beach where found; painted? ☐ Yes ☐ No
- 2 = Buried: on beach / off beach; carcass painted before buried? ☐ Yes ☐ No
- 3 = Salvaged: all / part(s), what/why?
- 4 = Pulled up on beach/dune; painted? ☐ Yes ☐ No
- 5 = Alive, released
- 6 = Alive, taken to rehab. facility, where?
- 7 = Alive, taken to rehab. facility, where?
- 8 = Left floating, not recovered; painted? ☐ Yes ☐ No
- 9 = Disposition unknown, explain

**CARAPACE MEASUREMENTS:** (see drawing)
- Using calipers
  - Straight length (NOTCH-TIP): 92.4 cm
  - Minimum length (NOTCH-NOTCH): 95.3 cm
  - Width (Widest Point): 82.9 cm
- Using non-metal measuring tape
  - Curved length (NOTCH-TIP): 102.0 cm
  - Minimum length (NOTCH-NOTCH): 101.8 cm
  - Curved width (Widest Point): 80.0 cm

**TAGGED:**
- PIT tag scan? ☐ Yes ☐ No
- If found, record number / tag location

**WEIGHT:**
- ☐ actual / ☐ estimated: 225 kg

**ANAL DISPOSITION:**
- 0 = Left on beach where found; painted? ☐ Yes ☐ No
- 1 = Buried: on beach / off beach; carcass painted before buried? ☐ Yes ☐ No
- 2 = Salvaged: all / part(s), what/why?
- 3 = Pulled up on beach/dune; painted? ☐ Yes ☐ No
- 4 = Alive, released
- 5 = Alive, taken to rehab. facility, where?
- 6 = Alive, taken to rehab. facility, where?
- 7 = Alive, taken to rehab. facility, where?
- 8 = Left floating, not recovered; painted? ☐ Yes ☐ No
- 9 = Disposition unknown, explain

**NOTCH MARK:**
- Wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propelar damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

---

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.
Observer's Name / Address / Phone: Teresa M.I.D., Last Frete
Affiliation: Mote Marine Laboratory
Address: 1600 Ken Thompson Parkway, Sarasota, FL 34236
Area Code / Phone number: 941-388-4331

Stranding Date: Year 2023 Month 4 Day 25
Turtle number by day: 20

State coordinator must be notified within 24 hours; this was done by phone (561)575-5407.

Species: (check one)
- CC = Loggerhead
- CM = Green
- DC = Leatherback
- EI = Hawksbill
- LX = Kemp's ridley
- LO = Olive ridley
- UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

PHOTOS TAKEN: [ ] Yes [ ] No

Sex: (check one)
[ ] Immature / undetermined
[ ] Female
[ ] Male

How was sex determined?
[ ] Necropsy
[ ] Tail length (adult only)
[ ] Length of tail beyond carapace

Tags: Contact state coordinator before disposing of any tagged animal!

PIT tag scan?: [ ] Yes [ ] No
If found, record number / tag location

Coded wire tag scan?: [ ] Yes [ ] No
If positive response, record location (flipper)

Checked for living tag?: [ ] Yes [ ] No
If found, record location (scute number & side)

Carapace Measurements: (see drawing)

- Straight length (NOTCH-TIP): 89.3 cm / in
- Minimum length (NOTCH-NOTCH): 68.7 cm / in
- Curved length (NOTCH-TIP): 93.0 cm / in
- Minimum length (NOTCH-NOTCH): 82.0 cm / in
- Weight: 271 lb / kg

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

- carapace was taken from a washed up turtle
- carapace was taken from a washed up turtle
- carapace was taken from a washed up turtle
- carapace was taken from a washed up turtle
- carapace was taken from a washed up turtle
- carapace was taken from a washed up turtle
- carapace was taken from a washed up turtle
- carapace was taken from a washed up turtle

COD: Not examined, advanced decomposition.
SEASON TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:
First: James M.I. Last: Grimes
Affiliation: Mote Marine Laboratory
Address: 1600 Ken Thompson Pkwy
Sarasota, FL 34236
Area code/Phone number: (941) 388-4441

STRANDING DATE: 5/03/81
Year: 20, Month: 5, Day: 3
Turtle number by day: [ ]

State coordinator must be notified within 24 hrs; this was done by: [ ] phone [ ] email [ ] fax
State: FL County: Sarasota

STRANDING LOCATION: □ Offshore (Atlantic or Gulf beach) □ Inshore (bay, river, sound, inlet, etc)
Descriptive location (be specific): 10 miles offshore from New Pass in the Gulf of Mexico
Latitude: 27°31'07" Longitude: -82°77'1"

SPECIES: (check one)
□ CC = Loggerhead
□ CM = Green
□ DC = Leatherback
□ EI = Hawksbill
□ LK = Kemp's Ridley
□ LO = Olive Ridley
□ UN = Unidentified
Check Unidentified if not positive. Do Not Guess.

CARAPACE MEASUREMENTS: (see drawing)
Using calipers Circle unit
Straight length (NOTCH-TIP) ______ cm / in
Minimum length (NOTCH-NOTCH) ______ cm / in
Straight width (Widest Point) ______ cm / in
Using non-metal measuring tape Circle unit
Curved length (NOTCH-TIP) ______ cm / in
Minimum length (NOTCH-NOTCH) ______ cm / in
Curved width (Widest Point) ______ cm / in

Weight □ actual / □ est. ______ kg / lb

FINAL DISPOSITION: (check)
□ 1 = Left on beach where found; painted? □ Yes □ No
□ 2 = Buried: □ on beach / □ off beach; carcass painted before buried? □ Yes □ No
□ 3 = Salvaged: □ all / □ part(s), what/why?
□ 4 = Pulled up on beach/dune; painted? □ Yes □ No
□ 5 = Alive, released
□ 6 = Alive, taken to rehab. facility, where?
□ 7 = Disposition unknown, explain

CARAPACE MEASUREMENTS: (see drawing)
Using calipers Circle unit
Straight length (NOTCH-TIP) ______ cm / in
Minimum length (NOTCH-NOTCH) ______ cm / in
Straight width (Widest Point) ______ cm / in
Using non-metal measuring tape Circle unit
Curved length (NOTCH-TIP) ______ cm / in
Minimum length (NOTCH-NOTCH) ______ cm / in
Curved width (Widest Point) ______ cm / in

Weight □ actual / □ est. ______ kg / lb

FINAL DISPOSITION: (check)
□ 1 = Left on beach where found; painted? □ Yes □ No
□ 2 = Buried: □ on beach / □ off beach; carcass painted before buried? □ Yes □ No
□ 3 = Salvaged: □ all / □ part(s), what/why?
□ 4 = Pulled up on beach/dune; painted? □ Yes □ No
□ 5 = Alive, released
□ 6 = Alive, taken to rehab. facility, where?
□ 7 = Disposition unknown, explain

TAGS: Contact state coordinator before disposing of any tagged animal!
Check for flipper tags? □ Yes □ No
Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIU tag scan? □ Yes □ No
If found, record number / tag location

Coded wire tag scan? □ Yes □ No
If positive response, record location (flipper)

Checked for living tag? □ Yes □ No
If found, record location (scute number & side)

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiota, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Turtle caught in crab trap line and beached offshore.
April 24th, 1981
Turtle caught in crab trap line and beached offshore.
Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiota, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Turtle caught in crab trap line and beached offshore.
April 24th, 1981

No pictures taken.
APPENDIX I
LIDO KEY, FLORIDA VOLUMETRIC CHANGES
MARCH 1998 TO JUNE 2003
LIDO KEY, FLORIDA (CITY OF SARASOTA)  
VOLUMETRIC CHANGES  
MARCH 1998 TO JUNE 2003

<table>
<thead>
<tr>
<th>BEACH SECTION VOLUMETRIC CHANGES (cubic yards)</th>
<th>PROJECT AREA</th>
<th>STUDY AREA</th>
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<tr>
<td>R32 - R33 R34 - R35 R36 - R37 R38 - R39 R40 - R41 R42 - R44</td>
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<td>-12,963 113,668 72,095 85,994 31,699 -38,431</td>
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<td>1ST YEAR (MAY 1999 - MAY 2000)</td>
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<tr>
<td>60,729 10,082 -18,172 -40,342 5,878 6,888</td>
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<td>2ND YEAR (MAY 2000 - FEBRUARY 2001)</td>
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<tr>
<td>1,460 192,688 64,540 127,239 254,749 162,775</td>
<td>848,334</td>
<td>803,451</td>
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<td>1ST YEAR (SEPTEMBER 2001 - NOVEMBER 2002)</td>
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<td>2ND YEAR (NOVEMBER 2002 - JUNE 2003)</td>
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<td>-23,154 12,261 13,849 43,498 63,115 41,611</td>
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<td>SURVEYED CHANGE</td>
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<td>1998 PROJECT AREA FILL VOLUMES (MARCH 1998 - MAY 1999)</td>
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<td>2001 PROJECT AREA FILL VOLUME</td>
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<td>806,383</td>
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Note: Positive (+) changes indicate accretion. Negative (-) changes indicate erosion. Depth of closure is -12 feet NGVD.

References:


LIDO KEY, FLORIDA (CITY OF SARASOTA)
NEW PASS FEDERAL NAVIGATION PROJECT
DREDGE VOLUME HISTORY
1964 - 2003

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<th>BORROW AREA</th>
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<th>VOLUME PLACED</th>
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<td>1964</td>
<td>112,240</td>
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<tr>
<td>New Pass</td>
<td>1970</td>
<td>350,000</td>
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<td>New Pass</td>
<td>1974</td>
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<td>New Pass</td>
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References: