



United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960



October 4, 2005

Marie G. Burns
U.S. Army Corps of Engineers
South Permits Branch
Post Office Box 4970
Jacksonville, Florida 32232-0019

Attention: Mike Nowicki

Service Log No.: 4-1-04-TR-4529
Corps Application No.: SAJ-2005-296 (IP-MN)
Date Received: March 23, 2005
Project: Beach Renourishment
Applicant: Town of Longboat Key
County: Manatee

Dear Ms. Burns:

The Fish and Wildlife Service (Service) has reviewed the letter and email message dated March 23, 2005, and August 22, 2005, respectively, submitted by the U.S. Army Corps of Engineers (Corps), along with other information submitted by Coastal Planning & Engineering Inc. (CPE) for the application referenced above and its effects on the threatened loggerhead sea turtle (*Caretta caretta*), the endangered green sea turtle (*Chelonia mydas*), the endangered leatherback sea turtle (*Dermochelys coriacea*), and the endangered West Indian manatee (*Trichechus manatus*). This letter amends the Service's August 25, 2004, biological opinion (Service log number 4-1-04-F-4529) for the Town of Longboat Key beach renourishment project. This letter is submitted in accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*). The Corps determined the project "may affect" nesting sea turtles in a letter received March 23, 2005.

In the September 2, 2003, Public Notice, the Corps determined the proposed project "may affect, but is not likely to adversely affect" the West Indian manatee. Since the Corps has agreed to update the Federal permit regarding continued adherence to the *Standard Manatee Construction Conditions* in reference to the project modification, the Service concurs with the Corps' determination for the manatee.



PROJECT DESCRIPTION

The proposed project involves modification to the Corps' currently valid permit application number SAJ-2005-296 (IP-MN) issued on September 29, 2004. This permit involves placement of 1,388,000 cubic yards (cy) of material obtained from four offshore borrow sites along 9.45 miles of Gulf of Mexico shoreline located between Florida Department of Environmental Protection (DEP) monuments R-29.5 in Sarasota County to R-46A in Manatee County, Florida (Figure 1). The constructed beach will include a berm height of plus 6 feet National Geodetic Vertical Datum (NGVD) and a design shoreline width of 130 feet from the baseline established in the 1995 Longboat Key Comprehensive Management Plan by CPE to the 0 foot NGVD contour of the filled berm.

The material will be obtained by hopper dredge from four offshore borrow sites identified as Borrow Areas VIA, VIB, VIII, and IX. Borrow site VIII is located approximately 4.3 miles offshore of the south end of Anna Maria Island, which is immediately north of Longboat Key while Borrow Area IX is located approximately 2 miles offshore of Passage Key Inlet, at the north end of Anna Maria Island. Borrow Areas VIA and VIB were previously dredged during the 1996 to 1997 and 2001 nourishment projects on Longboat Key.

The original renourishment project includes the experimental placement of two distinct types of borrow material on the beach, as follows: (1) a base layer of coarser fill material obtained from Borrow Areas VIA, VIB, or VIII to be placed in areas where erosion has been historically higher than the other portions of the project area, and (2) a cap layer of significantly finer and lighter fill material will be placed over the coarser base, as well as placed as a single fill layer in the remaining portion of the project area. The advance nourishment of the coarse base layer of sediment is located between DEP monuments R-47 and R-50, near the Beachwalk property in Manatee County and DEP monuments R-2 to R-6; and R-10 to R-14 near the Bayport and Islander properties in Sarasota County. In these areas, an average of 65 percent of total fill volume will be comprised of coarse fill material. The purpose of the layered design is to increase the material's stability within the high erosion areas through the placement of coarser sediments while the sand cap layer is intended to improve the function and match the native "white quartz sand" of Longboat Key.

To avoid mixing the cap layer with the coarse sand layer beneath, the cap layer is 30 inches in depth throughout the project area, except in the northern portion of the project (R-51) where a 24 inch depth was maintained to minimize the impacts to nearshore hardbottom habitat. To reduce the migration of the cap material from the beach to offshore areas, the cap material is designed for placement above 0 feet NGVD.

Lastly, as a result of the impact associated with the original impact, the Corps anticipates approximately 1.5 acres of nearshore hardbottom habitat located between DEP monuments R-47 and R-50 will be buried as a result of the equilibrium toe of fill. Consequently, the Applicant has agreed to construct a low-relief nearshore artificial reef at a 1:1 mitigation ratio. The Applicant has also agreed to provide additional mitigation if the post-construction monitoring indicates

additional hardbottom burial or degradation. A scientific monitoring and management plan will be implemented to promote colonization by desired epibenthic species and to reduce the temporal loss of habitat function and value.

The modification includes placement of approximately 73,600 cy of material obtained from the same four borrow sites, along 0.47 mile of Gulf of Mexico shoreline, Longboat Key, Manatee County, Florida (Fig. 2). Of the 73,600 cy of dredge material, approximately 53,000 cy will extend 0.34 mile between DEP monuments R-46A to 200 feet north of R-44.5. The remaining 20,600 cy will extend 0.13 mile commencing 200 feet north of DEP monument R-44 and terminating 200 feet north of R-44.5. The manhole/stormwater component as outlined in the modification request has been eliminated from the project design.

THREATENED AND ENDANGERED SPECIES

Data collected during the 2004 nesting season by Mote Marine Laboratory documented 162 sea turtles nests along the shorelines of Longboat Key with six of these nests located in the proposed project area (Mote Marine Laboratory 2005). All nests deposited along Longboat Key shorelines were laid by loggerhead sea turtles. According to Mote Marine Laboratory, 57 percent (n=93) of the total sea turtle nests deposited along the Longboat Key shoreline experienced some level of damage in the 2004 nesting season. The damage was attributed to: (1) nest inundation during storm events; and (2) fox (*Urocyon cinereoargenteus*), raccoon (*Procyon lotor*), ghost crab (*Ocypode quadrata*), and fire ant (*Solenopsis invicta*) predation. Two unnamed storms and four hurricanes caused coastal erosion and/or sand accretion and affected Longboat Key shoreline during the 2004 sea turtle nesting season. The storms created tidal activity that caused inundation of approximately 50 percent (n=81) of the total number of nests along the Longboat Key shoreline.

The proposed action has the potential to adversely affect nesting females, nests, and hatchlings within the proposed project area. Potential effects include destruction of nests deposited within the boundaries of the proposed project, harassment in the form of disturbing or interfering with female turtles attempting to nest within the construction area or on adjacent beaches as a result of construction activities, and behavior modification of nesting females due to escarpment formation within the project area during a nesting season resulting in false crawls or situations where they choose marginal or unsuitable nesting areas to deposit eggs. The quality of the placed sand could affect the ability of female turtles to nest, the suitability of the nest incubation environment, and the ability of hatchlings to emerge from the nest.

The distribution of sea turtle nesting activity on Florida's Gulf Coast (Manatee, Sarasota, Charlotte, Lee, and Collier Counties) is understood less than that of the east coast epicenter of sea turtle nesting between Brevard and Palm Beach Counties (Addison et al. 2000). Ten to 12 percent of the total nesting activity on Florida's beaches occurs on Florida's Gulf Coast (Addison et al. 2000). Though the green sea turtle, Kemp's ridley sea turtle (*Lepidochelys kempii*), and the leatherback sea turtle have been documented as nesting on Florida's Gulf Coast beaches, the loggerhead sea turtle is dominant. Kemp's ridley and leatherback sea turtles were

first documented as nesting in Sarasota County in 1999 and 2001 respectively. The 2001 leatherback event was the first ever documented nest by the species on the central coast of west Florida (See sea turtle nesting Table).

According to data provided by the Florida Fish and Wildlife Conservation Commission (FWC), Florida Marine Research Institute, the beaches of Sarasota County support the highest density of loggerhead sea turtle nests on the west coast of Florida (FWC 2003). Between 1988 and 2003 the mean number of nests recorded annually in Sarasota County is 2,616, which accounts for approximately 52 percent of loggerhead sea turtle nests in southwest Florida (FWC 2003). Conversely, Manatee County accounts for approximately 5 percent. The beaches of the remaining counties, Charlotte, Lee, and Collier, support approximately 14, 12, and 17 percent of southwest Florida's loggerhead sea turtle nests in the same 16-year time frame, respectively. Statewide, the FWC reported the number of loggerhead turtle nests documented on Florida Index Nesting Beaches reached a 14-year low in 2002.

The proposed project will affect 0.47 mile of beach proposed for nourishment of the approximately 1,400 miles of available sea turtle nesting habitat in the southeastern U.S. Research has shown that the principal effect of beach nourishment on sea turtle reproduction is a reduction in nesting success, and this reduction is most often limited to the first year following project construction. Research has also shown that the impacts of a nourishment project on sea turtle nesting habitat are typically short-term because a nourished beach will be reworked by natural processes in subsequent years, and beach compaction and the frequency of escarpment formation will decline. Although a variety of factors, including some that cannot be controlled, can influence how a nourishment project will perform from an engineering perspective, measures can be implemented to minimize impacts to sea turtles.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures, as outlined in the biological opinion of August 25, 2004, are necessary and appropriate to minimize take of federally threatened loggerhead sea turtles, endangered green sea turtles, and endangered leatherback sea turtles for the project as modified:

1. Beach quality sand suitable for sea turtle nesting, successful incubation, and hatchling emergence must be used on the project site;
2. If the beach nourishment project will be conducted during the sea turtle nesting season, surveys for nesting sea turtles must be conducted. If nests are constructed in the area of beach nourishment, the eggs must be relocated;
3. Immediately after completion of the beach nourishment project and prior to the next 3 nesting seasons, beach compaction must be monitored and tilling must be conducted as required to reduce the likelihood of impacting sea turtle nesting and hatching activities;
4. Immediately after completion of the beach nourishment project and prior to the next 3 nesting seasons, monitoring must be conducted to determine if escarpments are present and

escarpments must be leveled as required to reduce the likelihood of impacting sea turtle nesting and hatching activities;

5. The applicant must ensure contractors doing the beach nourishment work fully understand the sea turtle protection measures detailed in this incidental take statement;
6. During the sea turtle nesting season, construction equipment and materials must be stored in a manner that will minimize impacts to sea turtles to the maximum extent practicable;
7. During the sea turtle nesting season, lighting associated with the project must be minimized to reduce the possibility of disrupting and misdirecting nesting and/or hatchling sea turtles; and
8. The applicant must implement additional physical and biological monitoring to determine the extent of the effects of the layered sediment design on sea turtles.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the ESA, the Corps must comply with the following terms and conditions as outlined in the original biological opinion, which implement the reasonable and prudent measures, described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary:

1. All fill material placed must be sand that is similar to a native beach in the vicinity of the site that has not been affected by prior renourishment activities. The fill material must be similar in both coloration and grain size distribution to the native beach. All such fill material must be free of construction debris, rocks, or other foreign matter and must not contain, on average, greater than 10 percent fines (*i.e.*, silt and clay) (passing the #200 sieve) and must not contain, on average, greater than 5 percent coarse gravel or cobbles, exclusive of shell material (retained by the #4 sieve). This is exclusive of the proposed base layer sediment which are to be obtained from the identified borrow areas only;
2. Daily early morning surveys for sea turtle nests will be required if any portion of the beach nourishment project occurs during the period from April 1 through November 30. Nesting surveys must be initiated 65 days prior to nourishment activities or by April 1, whichever is later. Nesting surveys must continue through the end of the project or through September 30, whichever is earlier. If nests are constructed in areas where they may be affected by construction activities, eggs must be relocated per the following requirements:
 - 2a. Nesting surveys and egg relocations will only be conducted by personnel with prior experience and training in nesting survey and egg relocation procedures. Surveyors must have a valid FWC permit. Nesting surveys must be conducted daily between sunrise and 9 a.m. Surveys must be performed in such a manner so as to ensure that construction activity does not occur in any location prior to completion of the necessary sea turtle protection measures and

- 2b. Only those nests that may be affected by construction activities will be relocated. Nests requiring relocation must be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Nest relocations in association with construction activities must cease when construction activities no longer threaten nests. Nests deposited within areas where construction activities have ceased or will not occur for 65 days must be marked and left in place unless other factors threaten the success of the nest. Any nests left in the active construction zone must be clearly marked, and all mechanical equipment must avoid nests by at least 10 feet;
3. Immediately after completion of the beach nourishment project and prior to April 1 for 3 subsequent years, sand compaction must be monitored in the area of restoration in accordance with a protocol agreed to by the Service, the State regulatory agency, and the applicant. At a minimum, the protocol provided under 3a and 3b below must be followed. If required, the area must be tilled to a depth of 24 inches and each pass of the tilling equipment must be overlapped to allow more thorough and even tilling. All tilling activity must be completed prior to April 1. If the project is completed during the nesting season, tilling will not be performed in areas where nests have been left in place or relocated. An annual summary of compaction surveys and the actions taken must be submitted to the Service. (NOTE: The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post-construction compaction levels. Also, out-year compaction monitoring and remediation are not required if placed material no longer remains on the dry beach):
- 3a. Compaction sampling stations must be located at 500-foot intervals along the project area. One station must be at the seaward edge of the dune/bulkhead line (when material is placed in this area), and one station must be midway between the dune line and the high water line (normal wrack line).
- At each station, the cone penetrometer will be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lay over less compact layers. Replicates will be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth will be averaged to produce final values for each depth at each station. Reports will include all 18 values for each transect line, and the final 6 averaged compaction values and
- 3b. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area must be tilled immediately prior to April 1. If values exceeding 500 psi are distributed throughout the project area but in no case do those values exist at two adjacent stations at the same depth, then consultation with the Service will be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling will not be required;

4. Visual surveys for escarpments along the project area must be made immediately after completion of the beach nourishment project and prior to April 1 for 3 subsequent years. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet must be leveled to the natural beach contour by April 1. If the project is completed during the sea turtle nesting and hatching season, escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. The Service must be contacted immediately if subsequent reformation of escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet occurs during the nesting and hatching season to determine the appropriate action to be taken. If it is determined that escarpment leveling is required during the nesting or hatching season, the Service will provide a brief written authorization that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken must be submitted to the Service. (NOTE: Out-year escarpment monitoring and remediation are not required if placed material no longer remains on the beach);
5. If the beach renourishment project takes place during sea turtle nesting season, the applicant must arrange a meeting between representatives of the contractor, the Service, the FWC, and the permitted person responsible for egg relocation at least 30 days prior to the commencement of work on this project. At least 10 days advance notice must be provided prior to conducting this meeting. This will provide an opportunity for explanation and/or clarification of the sea turtle protection measures;
6. From April 1 through November 30, staging areas for construction equipment must be located off the beach to the maximum extent practicable. Nighttime storage of construction equipment not in use must be off the beach to minimize disturbance to sea turtle nesting and hatching activities. In addition, all construction pipes that are placed on the beach must be located as far landward as possible without compromising the integrity of the existing or reconstructed dune system. Temporary storage of pipes must be off the beach to the maximum extent possible. Temporary storage of pipes on the beach must be in such a manner so as to impact the least amount of nesting habitat and must likewise not compromise the integrity of the dune systems (placement of pipes perpendicular to the shoreline is recommended as the method of storage);
7. From April 1 through November 30, direct lighting of the beach and near shore waters must be limited to the immediate construction area and must comply with safety requirements. Lighting on offshore or onshore equipment must be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the waters surface and nesting beach while meeting all U.S. Coast Guard, EM 385-1-1, and Occupational Safety and Health Administration (OSHA) requirements. Light intensity of lighting plants must be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields must be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area (Figure 3);

8. A report describing the actions taken to implement the terms and conditions of this incidental take statement must be submitted to the South Florida Ecological Services Office within 60 days of completion of the proposed work for each year when the activity has occurred. This report will include the dates of actual construction activities, names and qualifications of personnel involved in nest surveys and relocation activities, descriptions and locations of self-release beach sites, nest survey and relocation results, and hatching success of nests;
9. In the event a sea turtle nest is excavated during construction activities, the permitted person responsible for egg relocation for the project must be notified so the eggs can be moved to a suitable relocation site;
10. Upon locating a sea turtle adult, hatchling, or egg harmed or destroyed as a direct or indirect result of the project, notification must be made to the FWC at Bureau of Marine Enforcement (formerly the Florida Marine Patrol) at 800-342-5367. Care should be taken in handling injured turtles or eggs to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis;
11. The applicant must conduct the following physical monitoring in the layered fill areas and on at least two controlled (reference sites) to adequately assess the effects of the layered fill design on sea turtles and sea turtle nesting habitat:
 - 11a. Sediment samples must be collected during a minimum of three monitoring events during the first and third marine turtle nesting seasons (Years 1 and 3) after construction of the beach nourishment project. Two of the monitoring events must be conducted between 48 hours and 72 hours following a 24-hour period during which at least 1 inch of rain has fallen in the project area. One monitoring event must be conducted at the end of a 7-day period during which less than 1 inch of rain has fallen in the project area and no rain has fallen during the immediately preceding 24-hour period. If a storm event occurs that results in wave run-up overtopping the horizontal beach berm, an additional fourth monitoring event must be conducted between 48 hours and 72 hours following this storm event. A record of rainfall in the project area and reporting of any storm events with wave run-up that overtops the beach must be maintained during the marine turtle nesting season;
 - 11b. Sediment characteristics will be determined on triplicate sub-samples from the grab samples at each sampling point. Laboratory analysis of grain-size distribution, carbonate content and moisture content must be conducted and reported in accordance with ASTM standards and certified by a licensed soil scientist. In addition, the degree of saturation must be calculated and reported for each sample, and the porosity of the sediment at each sample depth must be calculated. The density of the sediment is determined as the mass of a known volume;
 - 11c. Compaction measurements using an electronic-strain, gauge-type cone penetrometer must be taken at 12-inch, 18-inch, and 24-inch depths at each monitoring site in conjunction with the collection of the sediment samples during each monitoring event. The measurements must be made in accordance with ASTM standards or comparable

guidelines. In addition, if the interface between the surface, “white sand fill” cap layer and the darker, base layer is encountered within the 24-inch depth interval, the interface must be inspected for evidence of cementation. The depths of the different sediment layers must be measured and a digital photograph encompassing the entire sediment column must be submitted. If cementation is encountered, the observer must visually estimate the degree of cementation and obtain sediment samples for additional analyses upon consultation with state and Federal agencies;

- 11d. During Year 1, visual surveys for escarpments within the layered fill areas must be recorded separately and any exposure of the coarser, base fill material must be noted with the survey date, height, length, and location. These visual surveys must be performed during Years 2 and 3 post-construction in conjunction with the visual escarpment surveys;
- 11e. Prior to sea turtle nesting season during Year 2 post-construction, compaction monitoring must be performed at the experimental and control sites referenced above. Sediment collection and analyses, as described above, is not required during Year 2 post-construction. Compaction measurements using an electronic-strain, gauge-type cone penetrometer must be taken at 12-inch, 18-inch, and 24-inch depths at each monitoring site, and excavation to each depth interval must be performed after the compaction reading is obtained. If the interface between the “white sand fill” cap layer and the darker, coarser, base layer is encountered within the 24-inch depth interval, the interface must be inspected for evidence of cementation. The depth of different sediment layers must be measured and a digital photograph encompassing the entire sediment column must be submitted. If cementation is encountered, the observer must visually estimate the degree of cementation and obtain samples for additional analyses upon consultation with state and Federal agencies. A summary report, including copies of any photographic documentation, must be submitted to the Service within 30 days of completion of the Year 2 compaction survey in both electronic (PDF format) and hardcopy formats with the raw data submitted in Excel spreadsheet format. The Year 2 report should describe any reductions in the thickness of the “white sand fill” cap layer from the post-construction condition within the layered fill areas, and any evidence of cementation encountered during excavation; and
- 11f. The report of the nesting activity and hatchling success, must include an appendix that provides the monitoring data and sample analyses described above. The Year 1 and Year 3 reports must include appropriate statistical analyses to determine if any significant differences were observed between the behavior of the layered and non-layered fill areas with regard to sediment properties and nesting activity and hatching success. The final report (prepared after Year 3) must also contain a discussion and assessment of the layered fill design upon nesting and hatchling sea turtles based upon the statistical comparison of the data. Two hardcopies and two digital copies in PDF format must be submitted to the Service. The raw data must also be submitted in both hard copy and electronic format (Excel spreadsheet);

12. The applicant must conduct the following biological monitoring in the layered fill areas and on at least two controlled (reference sites) to adequately assess the effects of the layered fill design on sea turtles and sea turtle nesting habitat:
- 12a. Nesting Success: The number of nests and non-nesting emergences must be surveyed daily and tabulated based on fill type: layered fill or adjacent control;
 - 12b. Emergence Location: The location of each nest and the apex of each false crawl (or non-nesting emergence) must be measured using a Global Positioning System unit with sub-meter accuracy;
 - 12c. Location Along the Profile: The distance of each nest and the apex of the false crawl from the wrack or water line and from the dune or seawall must be measured;
 - 12d. Length of Crawl: The actual length of each emergence, nesting or non-nesting, must be measured from the high tide line and tabulated based on fill type;
 - 12e. Depth and Structure of Nest Cavity: The depth to the top and bottom of the egg chamber and the approximate width of the egg chamber must be measured once the hatchlings have emerged. If the darker, coarse sediment base layer is encountered during excavation, the depth to the base must be measured as well;
 - 12f. Nest Identification: Each nest must be assigned a specific identification and its fate tracked. The nest's position must be reported relative to R-monument and type of beach: layered fill, nourished, not nourished. Within the layered fill beach, it will be noted if the nest was deposited within the "white sand fill" surface cap layer or darker, coarser base layer;
 - 12g. Nest inventory: Nest inventories must be conducted in accordance with FWC guidelines for such activities. In particular, the number of hatchlings that escape the nest, number of live and dead hatchlings in the nest, number of piped live and dead hatchlings, and the number of unhatched eggs must be reported;
 - 12h. Nest Overwash, Erosion, or Inundation: Daily records must be kept for each nest indicating if it was over washed, inundated, or lost to erosion; and
 - 12i. Sediment Samples: Approximately 100 grams must be collected from the egg chamber, retained, and appropriately preserved for subsequent analysis. The specific analysis requested will be based on observed responses of marine turtles, their eggs or hatchlings in the nourished sand and through consultation with the FWC Marine Turtle Permit Holder, Florida Department of Environmental Protection (DEP), FWC, and the Service.

INCIDENTAL TAKE STATEMENT

The Service believes incidental take will be limited to the 0.47 mile of beach that has been identified for sand placement. The reasonable and prudent measures will include the modification addition of 0.47 mile of beach (project modification) as well as the 9.45 miles

described in the Service's biological opinion of August 25, 2004, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. The Service believes no more than the following types of incidental take will result from the proposed action: (1) destruction of all nests that may be constructed and eggs that may be deposited and missed by a nest survey and egg relocation program within the boundaries of the proposed project; (2) destruction of all nests deposited during the period when a nest survey and egg relocation program is not required to be in place within the boundaries of the proposed project; (3) reduced hatching success due to egg mortality during relocation and adverse conditions at the relocation site; (4) harassment in the form of disturbing or interfering with female turtles attempting to nest within the construction area or on adjacent beaches as a result of construction activities; (5) disorientation of hatchling turtles on beaches adjacent to the construction area as they emerge from the nest and crawl to the water as a result of project lighting; (6) behavior modification of nesting females due to escarpment formation within the project area during a nesting season, resulting in false crawls or situations where they choose marginal or unsuitable nesting areas to deposit eggs; and (7) destruction of nests from escarpment leveling within a nesting season when such leveling has been approved by the Service. The amount or extent of incidental take for sea turtles will be considered exceeded if the project results in more than a **one-time placement** of sand on the 9.92 miles of beach that have been identified for sand placement. If during the course of the action, this level of incidental take is exceeded; such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The Corps must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

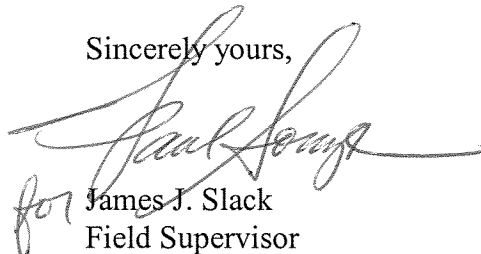
1. Construction activities for this project and similar future projects should be planned to take place outside the main part of the sea turtle nesting and hatching season.
2. Appropriate native salt-resistant dune vegetation should be established on the restored dunes. The DEP can provide technical assistance on the specifications for design and implementation.
3. Surveys for nesting success of sea turtles should be continued for a minimum of 3 years following beach nourishment to determine whether sea turtle nesting success has been adversely impacted.
4. Educational signs should be placed where appropriate at beach access points explaining the importance of the area to sea turtles and/or the life history of sea turtle species that nest in the area.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

This concludes formal consultation on the action outlined in the reinitiation request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation of formal consultation.

Thank you for your cooperation and effort in protecting fish and wildlife resources. Should you have any questions regarding the findings and recommendations contained in this document, please contact Jeff Howe at 772-562-3909, extension 283.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "James J. Slack", is written over the typed name. To the left of the signature, the word "for" is written in a cursive script.

James J. Slack
Field Supervisor
South Florida Ecological Services Office

cc:

CPE, Boca Raton, Florida (Christie Barrett)
DEP, Bureau of Beaches and Wetland Resources, Tallahassee, Florida (Lainie Edwards)
EPA, West Palm Beach, Florida
FWC, Bureau of Protected Species Management, Tallahassee, Florida (Robin Trindell)
NOAA Fisheries, St. Petersburg, Florida (Mark Sramek)
Service, Jacksonville, Florida (Sandy MacPherson)

LITERATURE CITED

Addison, D., M. Kraus, T. Doyle, and J. Ryder. 2000. An overview of Marine Turtle Nesting Activity on Florida's Southwest Coast-Collier, 1994-1999. Poster.

Florida Fish and Wildlife Conservation Commission (FWC). 2003. Nesting trends of Florida's sea turtles. Florida Marine Research Institute web page (http://www.floridamarine.org/features/view_article.asp?id=2479).

Mote Marine Laboratory. 2005. Town of Longboat Key, 2004 Annual Report, Section I: Sea Turtle Monitoring, Nest Evaluation & Protection Measures and Section II: Year One Post-Construction New Pass Inlet Channel Maintenance Dredging with Beach Sand Placement on Longboat Key. Technical Report Number 1000. Dated February 25, 2005.

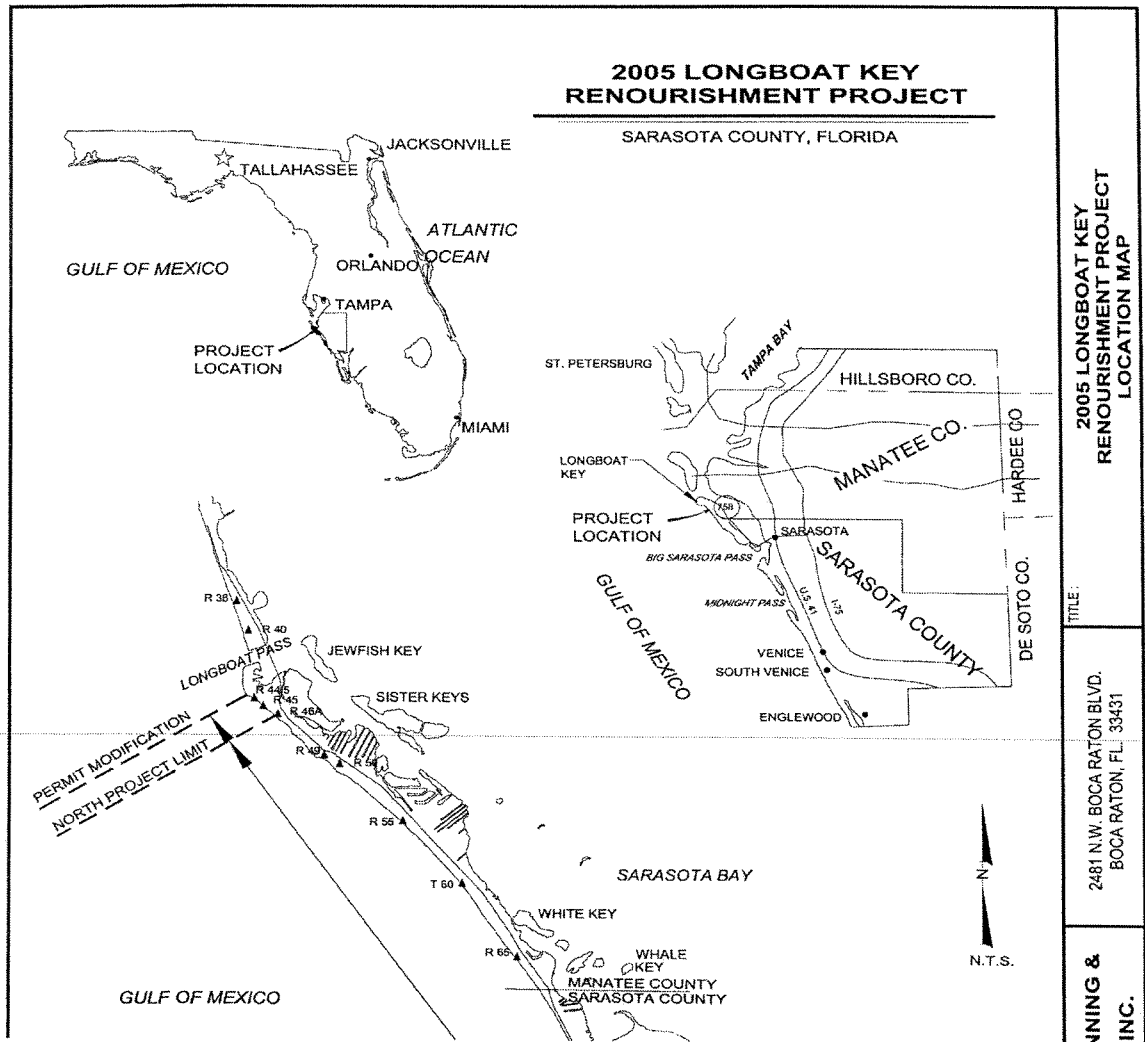


Figure 1. The original project location, Longboat Key, Sarasota and Manatee Counties, Florida.

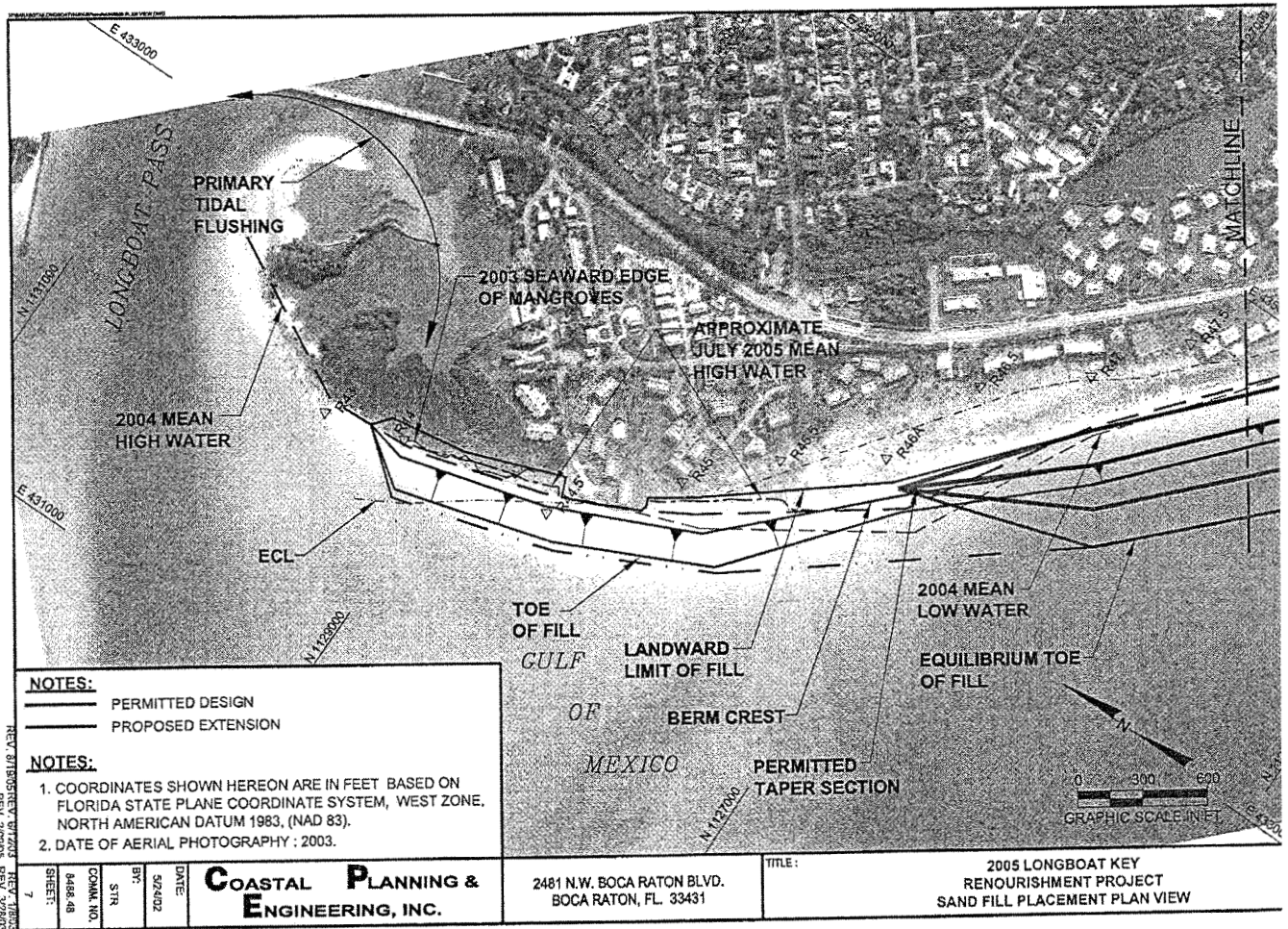


Figure 2. The modified project location, Manatee County, Florida.

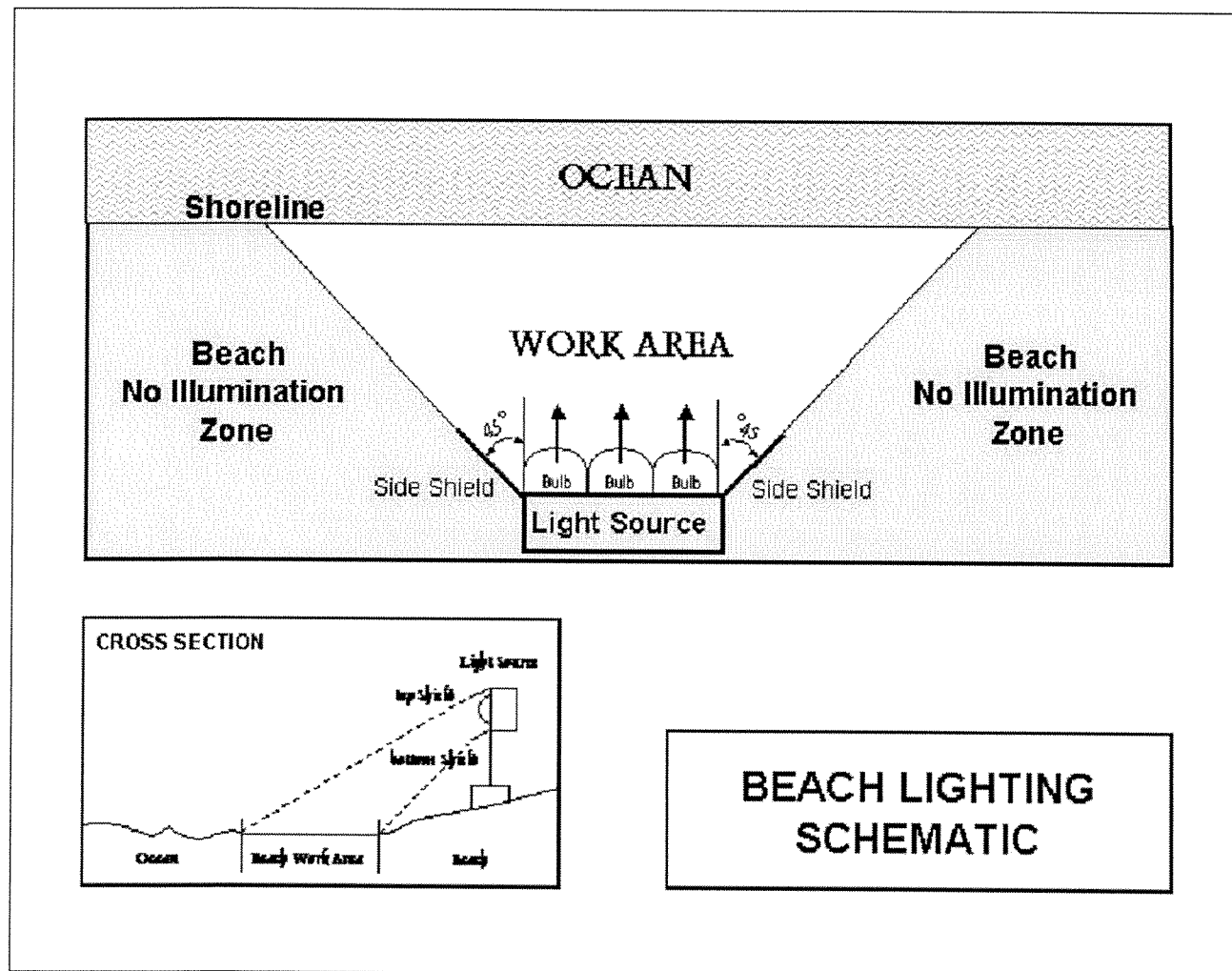


Figure 3. Beach Lighting Schematic.

Table. Sea turtle nesting activity within Sarasota and Manatee Counties, 2000 to 2003 (FWC 2003).

	Loggerhead Nests		Loggerhead False Crawls		Green Nests		Green False Crawls		Leatherback Nests	
	Sarasota County	Manatee County	Sarasota County	Manatee County	Sarasota County	Manatee County	Sarasota County	Manatee County	Sarasota County	Manatee County
Year										
2000	3,562	357	2,621	325	9	0	2	0	0	0
2001	3,211	306	3,531	300	0	0	0	0	1	0
2002	2,584	180	2,266	243	11	0	4	0	0	0
2003	2,814	298	2,553	398	1	1	0	0	0	0