

**REQUEST FORMAT (no more than ½ page)  
(other than WRIA)**

**Project Category:** T&E Species Monitoring

**Funding Requested:** \$181,214 (Archie Carr: 70,000; Blackbeard Island: 39,600; Cape Romain: 15,000; Egmont Key: 20,000; Hobe Sound: 10,000; Merritt Island: 19,614; Wassaw: 7,000) Detailed budget attached.

**Identify the Deliverable:** data from a cooperative, detailed sea turtle nesting-trend monitoring program

**Briefly, describe the deliverable in the context of the SHC framework, focusing on how the deliverable will affect Conservation Delivery:** The purpose of this project is to continue FWS involvement in the long-term, consistent monitoring of loggerhead sea turtle nesting to assess changes in phenological and spatial nesting distribution of the Northwest Atlantic subpopulation. Seven refuges support 25 to 50% of the global nesting population of this species. The Index Nesting Beach Survey is implemented by FWS, states and partners on a standardized set of index beaches. Data are essential for managers to monitor sea turtle population status between and among years regionally, nationally and internationally. Productivity of loggerhead sea turtles is one of three beach and dune indicators for the South Atlantic Landscape Conservation Cooperative.

Data are used to deliver conservation in the following ways:

1. Identify recovery goal progress and accomplishments (e.g., evaluate response to recovery implementation schedule and resources needed to maintain high nesting productivity)
2. Identify population management needs (e.g., implement measures to reduce or eliminate mortality--locally by moving nests and installing predator fencing, nationally by prohibiting importation of shrimp harvested in non-turtle sustaining ways, and internationally by evaluating by-catch)
3. Identify habitat management needs (e.g., beach nourishment to combat beach erosion)

**List Cooperators and Partners:** NWRS, FWS, States, NMFS, numerous universities

**Submitted by: (include all relevant ARD-level signatures)** David Viker, Refuge Chief

**Detailed budget:**

**Archie Carr NWR** in Florida offers 20.5 miles of nesting beach and is one of the most important nesting areas for the LST in the western hemisphere and the second most important nesting beach in the world. Twenty-five percent of all LST nests laid in the United States occur in a 17-mile stretch of beach, and nesting densities of 1000 nests per mile have been recorded. LST nest totals have been as high as 20,000 in 1998 to a low of 7,902 in 2007. The University of Central Florida (UCF) has been monitoring and conducting research on the Refuge for 35 years and it was their data that demonstrated the need for the establishment of the Refuge. Funds will be used to contract the UCF for technical and consistent monitoring of this high density nesting beach. [University of Central Florida contract]. Subtotal: \$70,000; able to obligate 100% in FY13.

**Blackbeard Island NWR** in Georgia offers 8.5 miles of nesting beach, and it, too, has one of the longest sets of survey data for nesting loggerhead sea turtles in the world. It has a higher density of turtle nests per kilometer than any other Georgia beach. Funds will be used for two interns, two biological technicians, boat/ATV fuel and maintenance, and supplies. [2 Seasonal Biotechs: five month salary @ \$15/hr - \$12,000 each; 2 interns (22 weeks @ \$3,300 each; ATV/Boat maintenance: \$4,000; Fuel: \$5,000]. Subtotal: \$ 39,600; able to obligate 100% in FY13.

**Cape Romain NWR** in South Carolina offers 14 miles of nesting beach and the NWR receives an average of 1200 LST nests/year. This represents 25 percent of the nests laid for the northern subpopulation of LST and the existing 20 year data base is important for tracking population trends. These LSTs are isolated from all other nesting turtles in the southeast based on genetic studies involving mitochondrial DNA. Early LST research first began on Cape Island (part of Cape Romaine NWR) in the 1930s and represents some of the earliest data published regarding sea turtles. Funding will be used for a seasonal biological technician, fuel and for other materials and equipment [seasonal interns: \$15,000]. Subtotal: \$15,000; able to obligate 100% in FY13.

**Merritt Island NWR** offers 6.0 miles of nesting beach and is located at John F. Kennedy Space Center, Florida. Because the beach is within the NASA security area, work cannot be done by contractors. Funds will be used for a temporary biological technician (1040 hr), fuel and supplies. [Salaries (Temp. Biotech – 1040 hrs): \$18,000; Fuel: 400 gal. x \$3.91/gal = \$1,564; Supplies and Materials: Stakes \$50]. Subtotal: \$19,614; unable to reach biologist to confirm if able to obligate 100% in FY13.

**Hobe Sound NWR** offers 3.5 miles of undeveloped nesting beach and the refuge occupies some of the most productive sea turtle nesting areas on Florida's east coast. Green, leatherback, and loggerhead sea turtles excavate over 2000 nests every year and more leatherback sea turtles nest on this refuge than any other refuge in the U.S. Funding for index monitoring in FY13 has been secured. However, long-term funding (estimate \$65,000) remains questionable and \$20,000 [supplement a contract] may be necessary for FY14. FY13 funds needed for the comprehensive year-end report [contracted]. Subtotal: \$10,000; able to obligate 100% in FY13.

**Egmont Key NWR** is an island at the mouth of Tampa Bay on the Gulf Coast of Florida. Egmont Key has 4 miles of beach that has documented 20 to 70 LST nests annually. Egmont has been an index beach nesting site for the past 13 years and labor (interns) for monitoring has been funded by partners. In this partnership, the station has committed facilitating equipment, materials and transportation. Continuing monitoring efforts are extremely important as a result of severe erosion. New nests are in constant need of relocation to prevent washout. Additionally, monitoring plays an important role in the assessment of beach nourishment on hatchling success. The island can only be accessed by boat

resulting in high fuel, repair and maintenance costs. [Fuel: \$4,000; equipment: \$8,000; boat maintenance/repairs: \$5,000; misc materials: \$3,000]. Subtotal: \$20,000; able to obligate 90% in FY13.

**Wassaw NWR** in Georgia is a primitive area and offers 6.7 miles of nesting beach. It has one of the longest sets of survey data on nesting loggerhead sea turtles in the nation. Surveys will be conducted by the Caretta Research Project, a non-profit organization. Funds will be used for supplies, fuel for access to the beaches and boats for logistics [Supplies: \$3,000; fuel: \$4,000;]. Subtotal: \$7,000.00; able to obligate 100% in FY13.