## **Marine Turtle Monitoring for Beach Restoration Projects**

The following monitoring is required if you are conducting nesting survey for a beach restoration project. Reports summarizing the nesting should be submitted to the Tequesta office with a copy to the Tallahassee office by January 15 of the subsequent year. Data for nesting activity on the project beach and on 100 feet of beach immediately north and south of the project shall be reported separately, and should include numbers of nests lost to erosion or washed out. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets).

Characteristic	Parameter	Measurement	Variable
Nesting Success	False crawls - number	Visual assessment of all false crawls	Number and location of false crawls in fill areas, groin areas, and nonfill areas: any interaction of the turtle with obstructions, such as groins, seawalls, or scarps, should be noted.
	False crawl - type	Categorization of the stage at which nesting was abandoned	Number in each of the following categories: emergence-no digging, preliminary body pit, abandoned egg chamber
	Nests	Number	The number of marine turtle nests in filled and nonfilled areas should be noted. If possible, the location of all marine turtle nests shall be marked on map of project, and approximate distance to the groins, sea walls or scarps measured using a meter tape (optional). Any abnormal cavity morphologies should be reported as well as whether the turtle touched groins, seawalls, or scarps during nest excavation
		Lost Nests	The number of nests lost to inundation, erosion or the number with lost markers that could not be found
Reproductive Success	Emergence & hatching success	Standard survey protocol	Numbers of the following: unhatched eggs, depredated nests and eggs, live pipped eggs, dead pipped eggs, live hatchlings in nest, dead hatchlings in nest, hatchlings emerged, disoriented hatchlings, depredated hatchlings