



## FREQUENTLY ASKED QUESTIONS

### **Q: Why does Indian River County have a sea turtle program?**

A: Sea turtles are federally listed as threatened and endangered. Because seawalls interfere with sea turtle nesting and Indian River County permitted some seawalls in 1996, the County obtained an Incidental Take Permit (ITP) from the U.S. Fish and Wildlife Service (USFWS). The ITP covers impacts from the existing seawalls and a limited number of future temporary structures permitted by the County. The ITP also requires a Habitat Conservation Plan (HCP), which went into effect in December 2004.

### **Q: What is included in the Habitat Conservation Plan (HCP)?**

A: The HCP outlines a streamlined permitting and monitoring process for a limited amount of erosion protection devices in the case of a major storm event. In addition, under the HCP, the County is required to have a Nest Monitoring Program, Beachfront Lighting Program, Predator Control Program and Sea Turtle Education Program.

### **Q: Does the County directly monitor sea turtle nesting?**

A: Yes. The County hired an environmental consultant to initiate its HCP and later hired a biologist who manages all of the HCP programs. The county biologist is permitted by the Florida Fish and Wildlife Conservation Commission and leads a team that conducts nesting surveys in the southern half of the county.

### **Q: When do sea turtles nest?**

A: The first nests are deposited in March and the last nests in early October. The peak in nesting is June and July. The sea turtles in our area nest after dark, though on rare occasions they may nest during the day.

### **Q: How many sea turtles nest in Indian River County?**

A: From 2005 – 2013, we have averaged 10,063 sea turtle crawls every year. About half of those, or an average of 4,846, were nests. Furthermore, most females nest, on average, between four and five times per season. This means an estimated 950 to 1,200 female sea turtles visit our beaches each year.

### **Q: What kinds of sea turtles nest here?**

A: Most of our nests (85%) are deposited by loggerhead sea turtles (*Caretta caretta*). The rest are deposited by green turtles (*Chelonia mydas*) and leatherbacks (*Dermochelys coriacea*), which comprise around 14% and 1% of the nests, respectively.

**Q: When do the hatchling turtles emerge from nests?**

A: Incubation periods depend on the temperature of the sand. Loggerhead and green turtle hatchlings emerge from nests an average of 53 days after they were deposited. Leatherbacks take longer to incubate and the average is 68 days. Cooler temperatures slow down incubation while warmer temperatures speed it up. The peak in emergences occurs in August.

**Q: How successful are nests on our beaches?**

A: Nesting here is significant on a global scale. However, because there are so many, every nest is not marked with stakes and flagging tape (only 15% to 20%). Nests are usually marked so we can measure hatching and emerging success. It is rare for a nest to be 100% successful. Sand type, moisture, temperature, vegetation, predators and genetics are some of the factors that can impact success. From 2005 – 2013, the average emerging success for loggerhead and green turtle nests was 77% and 73%, respectively. Those numbers drop down to about 68% and 65% when predations and tidal wash-outs were included.

**Q: What are the natural impacts to nests on our beaches?**

A: The most common natural impact is high storm surf, which washes away nests and/or suffocates developing embryos. Predators that eat eggs and hatchlings such as ghost crabs, coyotes and raccoons are also common. Birds, bobcats, fire ants and roots can occasionally get into nests or eat hatchlings.

**Q: What are the human impacts to nests?**

A: Human impacts include beach construction projects built to protect and maintain beachfront property. Except for seawalls, most of these impacts are usually avoided through the permitting process or the effects are short-lived. Other negative impacts such as artificial lights, obstacles on the beach (e.g. beach furniture) and domestic dog predation are unfortunately common. In addition, lighting beach fires and digging deep holes can occasionally kill sea turtles.

**Q: What is the County doing to prevent impacts?**

A: The HCP Lighting Program reduces or eliminates problem lights through night-time lighting surveys and reporting sea turtle nest disorientations. Local and state authorities will warn property owners about their lights shining on the beach so they can fix them and avoid fines established under local codes. The County works with partners in the USFWS and other agencies to capture and remove destructive mammalian predators. We regularly educate beachgoers, property owners and visitors about our relatively high density nesting and how they can help sea turtles. With proper understanding, the public can avoid causing them harm. Educational information is available through the county at 772-226-1569 and online from the [Florida Fish and Wildlife Conservation Commission](#)