

Case Study Overview – Florida

Submitted by: Coastal Lighting Impacts Coalition (CLICk)

Location: Brevard County, Florida, USA

Collaborators: Florida Fish & Wildlife Conservation Commission (FWC); Sea Turtle Conservancy; Short-Term Rental Companies; Tourists; Local Communities

Threat: Nesting and hatching turtles (loggerhead, green, and leatherback) are disorienting on nesting beaches - sometimes resulting in mortality - due to artificial light pollution from coastal development.

Contributing factors: Coastal development, rise of decentralized/short-term rentals, transient nature of many coastal property occupants

Description: With the increase in coastal development along Florida's barrier islands, the dunes are disappearing and artificial lighting is on the rise. The Archie Carr National Wildlife Refuge hosts among the highest densities of nesting loggerheads in the world, as well as thousands of green turtle nests and dozens of leatherback nests each year. For many years, this group has conducted surveys showing that light from new construction is negatively affecting hatchlings and decreasing their success rates. An emerging factor is the increase of coastal properties available to visitors through short-term rental companies such as AirBnb and Vrbo. **A behavior change campaign is needed to target tourists and visitors utilizing these properties, as well as owners, property managers, or company executives of short-term rentals, to reduce impacts from artificial light pollution on nesting and hatching turtles.**

Background:

Community/Target Audience

They would like to influence people and businesses within a 20-mile stretch of beach on the barrier island that encompasses the Archie Carr National Wildlife Refuge in Brevard County, with perhaps a targeted focus on tenants and owners of short-term rentals along the coast.

Stakeholder Relationships

This group of scientists and conservationists has been cultivating relationships with the public as well as city and state officials over the past 6 years, which has resulted in the formation of their new consortium, Coastal Lighting Impacts Coalition (CLICk) which includes members from local government, nonprofits, and scientists working to address coastal issues with sea turtle conservation; in particular, lighting.

Previous Work - Successes and Failures

Studies on hatchling behavior as a result of artificial lighting (e.g. hatchling orientation indexing and nest inventories) have encouraged the formation of CLICk, who have been able to advocate for adjustments to county and city lighting ordinances, including stricter lighting regulations implemented in the city ordinance for Satellite Beach north of the Refuge. They also do a lot of generalized outreach through guided sea turtle night walks (aimed at visitors to the area) and

education of local groups, including hotels. Though successes have been documented in terms of increased regulation, enforcement is a challenge. Further, outreach initiatives may be successful in the short-term, but it remains challenging with the high turnover of tenants occupying coastal properties. They have not yet made overtures to AirBnb, Vrbo, or other short-term rental companies.

Florida hosts an impressive network of citizen scientists that patrol the beaches for sea turtle activity, and dedicated scientists and managers working collaboratively to design city, municipality, and statewide lighting ordinances. Still, science-based regulation and enforcement alone will not solve this unique challenge. CLICk is seeking a behavior change solution that will reach the right people to result in darker beaches for nesting and hatching sea turtles on Florida's east coast.