

Why are wildlife friendly lighting retrofits important?

One of the major human-related impacts on nesting beaches that can sensibly be fixed is problematic or poorly-managed artificial lighting. Artificial lights confuse and disorient adult and hatchling sea turtles. The result is fewer females nest on lighted beaches, while tens of thousands of hatchlings wander each year toward landward sources of light and often die in the process.



Artwork by Dawn Witherington

Builders of **new** beachfront properties are required to follow state lighting guidelines and approved lighting plans; however, **existing** properties often contain problematic lights. This is the case even though most coastal governments in Florida located next to beaches have ordinances meant to prevent light from impacting sea turtles. Through this project, Sea Turtle Conservancy is helping property owners address this negative impact to wildlife.



Testimonials

"[Staff was] very patient, dedicated and committed to work with us in resolving every issue we came across," and "very helpful, informative and easy to work with."

"Having folks at the conservancy that can assist properties in working through those unique issues as they arise was a big comfort and we greatly appreciate your assistance and being a true partner through the entire process."

"The Board and owners are very pleased with the new lights, and everyone is in favor of helping the sea turtles."

"I was pleased that we were offered the opportunity to participate in this project if for no other reason that it saved us the cost of doing the retrofit ourselves since mandatory regulation is likely for this area."



Photo by Ben Hicks



The Sea Turtle Conservancy is a non-profit 501 (c)(3) based in Florida with an accomplished history of sea turtle research, conservation and education. To learn more about our lighting grants call us at (352) 373-6441 or visit our website at www.conserveturtles.org.

Sea Turtle Conservancy's Beachfront Lighting Retrofit Program



Wildlife Friendly Lighting Projects

With funding received from the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund (GEBF) and previous funding sources, from 2010 - current, Sea Turtle Conservancy has:

- Replaced (retrofitted) artificial lights on over 200 properties in Florida with wildlife friendly alternatives
- Darkened approximately 27 miles of critical sea turtle nesting habitat

The result has been a model for future lighting retrofit projects demonstrating to beachfront owners and local governments that sea turtle friendly lighting can be implemented without compromising safety and security.



Before



After

The Benefits

- ★ Protect adult and hatchling sea turtles
- ★ Save up to 75% in energy costs
- ★ Help bring beachfront properties into compliance with lighting ordinances
- ★ Install aesthetically pleasing LED light that also improves night visibility

What is the retrofit process?

1

Select Properties: STC targets potential properties and meets with a property representative to determine interest.

2

Property Evaluation: If the property is interested, STC conducts day and night inspections of the property.

3

Lighting Plan: STC designs an individualized lighting plan for the property owners to approve.

4

Grant Agreement: Both parties sign a grant agreement. The grantee receives most of the funding upfront for materials.

5

Property Retrofit: The grantee orders and installs materials (fixtures and bulbs).

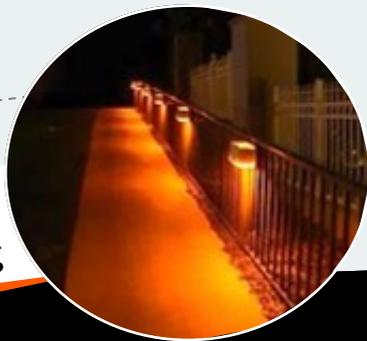
6

Final Report and Evaluation: The grantee submits a final report. STC completes a post-retrofit inspection. STC sends the property remaining funds.

Three rules to retrofitting

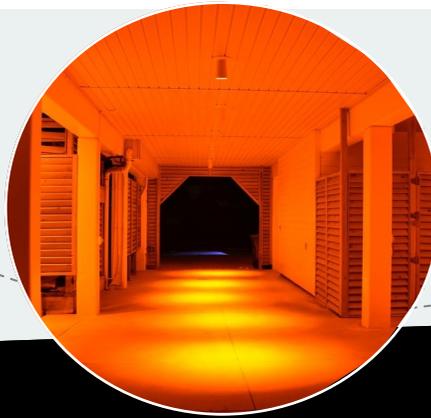
1. Keep it low

The lower the fixture, the less likely it is to be seen from the beach. Proper placement also ensures that light illuminates the places where it is most needed.



2. Keep it shielded

Shielding directs the light and prevents light sources from being seen from the beach, while still providing sufficient lighting for people.



3. Keep it long (long wavelength)

Sea turtles are less disturbed by long wavelengths of light, such as yellow, amber, and red. The wavelength of light should be 560 nm or greater.

