Fulcrum

CASE STUDY

Pollution Monitoring

This customer story focuses on the International Dark Sky Association, a nonprofit 501(c)(3) organization providing information, education, and research on light pollution.

IDA shares knowledge on how to preserve dark skies and reduce light pollution on local, national, and international levels.

Problem

A PROJECT WITH PURPOSE

The mission of the International Dark-Sky Association (IDA) is to preserve and protect the nighttime environment and our heritage of dark skies through environmentally responsible outdoor lighting.

Sea turtles live in the ocean but hatch at night on the beach. Hatchlings find the sea by detecting the bright horizon over the ocean. Artificial lights instead draw them away from the ocean. In Florida alone, millions of hatchlings die this way every year. With the proper lighting practices, technology and awareness, it is possible to significantly reduce the negative effects that artificial light at night has on hatchling sea turtles.

Searching for a Solution

BEFORE FULCRUM

Before finding Fulcrum, IDA's data collection consisted of manual pen-and-paper recording to be organized in Excel, leaving data open to inconsistency and reporting issues. Without GIS integration, GPS data was manually recorded alongside other information, making organizing and analyzing difficult.

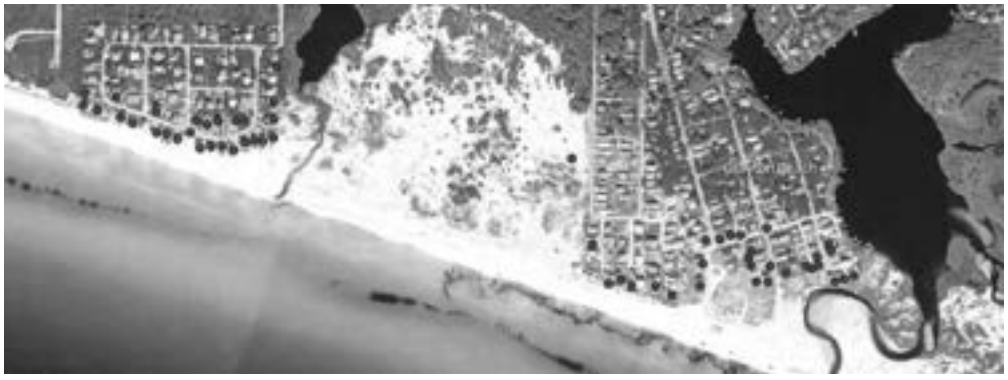
A CALL TO ACTION

Florida Department of Environmental Protection (DEP) and Fish and Wildlife Conservation Commission (FWC) hired International Dark-Sky Association (IDA) to identify problematic coastal lighting that could affect the nesting habitats of endangered sea turtles in 25 conservation areas. This contract required IDA establish baseline measurements of night sky quality along the beach in these conservation areas.

How they use Fulcrum

THE FULCRUM SOLUTION

IDA found that Fulcrum was a very useful tool for the task. The IDA team used the Fulcrum app on iOS devices with ease. With no steep learning curve, the IDA crew collected field data and geo-tagging records within minutes using the Fulcrum app. IDA then managed and exported this data into a variety of formats.



Results & Benefits

FINAL PRODUCT

Based on these surveys, IDA recommended coastal lighting retrofit solutions to reduce the potential for disorientation of hatchling sea turtles. IDA will use Fulcrum again in the near future to document improvements of the coastal lighting retrofits after installation.

The lighting survey project was developed by FWC working cooperatively with DEP and IDA and was funded from the April 2010 Framework Agreement signed between the Deepwater Horizon NRDA Trustees and BP. Ideally this Phase II Early Restoration Project will offset impacts to sea turtle nesting beaches that occurred during the Deepwater Horizon oil spill.

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