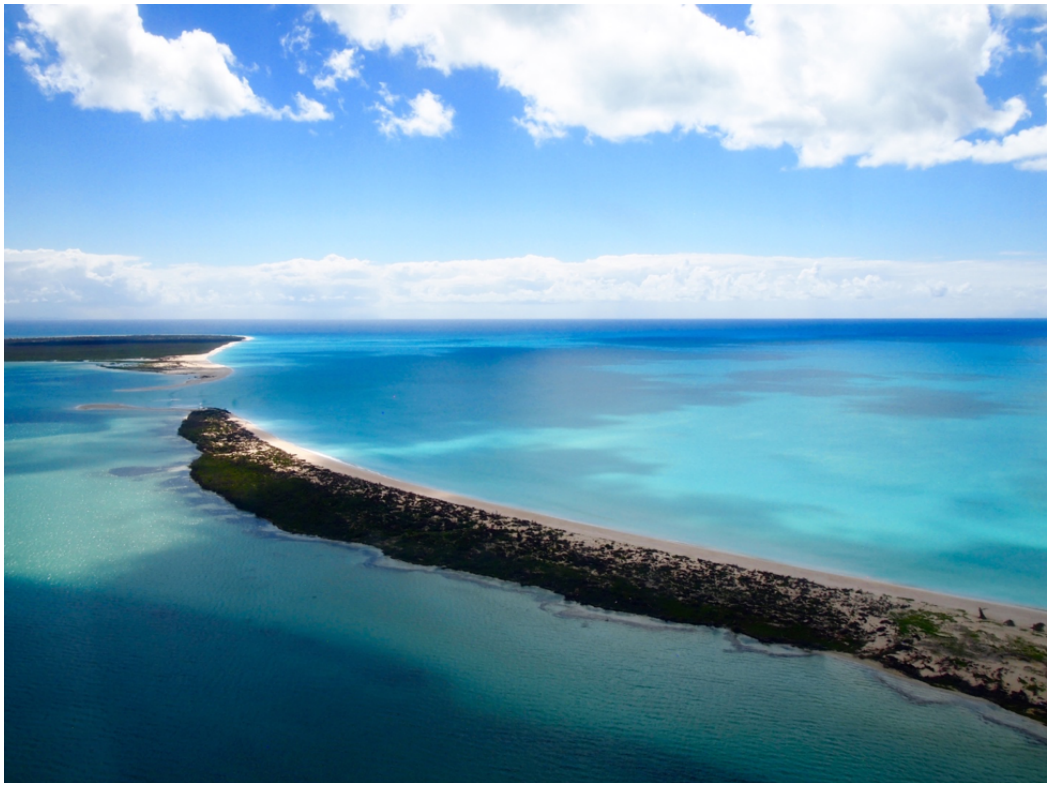
Barbuda Preserve: Environmental Assessment and EIA



Location:
Palmetto Point, Barbuda

Contracting Party:
Private Sector Partnership, Investors & Real Estate Developers

Project Dates:
Nov 2017 – Feb 2018

Services Provided:
- Ecological Surveys
- Environmental Impact Assessments
- Environmental Permitting
- Coastal Hydrodynamic Analysis and Risk Assessment
- Green Gray Infrastructure
- Storm Surge Risk
- Hydrodynamic Modeling
- Planning Policy Advice
- Climate Change Assessment
- Geographic Information System (GIS) Mapping

Key Outcome:
A comprehensive environmental assessment and EIA for an approximately 600 acre complex development and restoration project successfully completed from assessment to EIA submission and government approval in 3 months.

Project Summary:
Our client's initial application to government for a complex development project proposal was rejected Our team reviewed the plans and worked with the Government and client to develop a more environmentally-resilient and two-phase approach that the Government accepted to move forward.

In developing the assessment and EIA we crafted a framework that focused on ecosystem functionality and integrity. Our team's research showed that the area had been impacted by 50 years of intensive sand-mining and habitat loss. The associated degradation made the area more vulnerable to storm surge and sea level rise. We developed an approach to integrate development and ecosystem restoration, we conducted the first of its kind GIS based vegetation analysis and helped to design a development and restoration plan. Our team conducted storm surge and vulnerability analysis, including hydrodynamic modeling quantitatively factoring in the role of natural solutions such as sand dunes. We assessed the risks to the coast, community and property under different sea level rise scenarios and nature-based solutions. We used the data to develop a set of setback and elevation options that were risk-based and incorporated features such as sand dune restoration. The clients valued this approach and importantly the regulatory authorities and Government accepted our risk-based assessment. We have used the approach to develop sustainable and resilient solutions for other efforts and developments. During the process we incorporated ESIA principles evaluating social and community risks and benefits in order to more fully understand the project's role in the community. We completed the assessment and secured full approval for the project within 3 months of commencing our work.