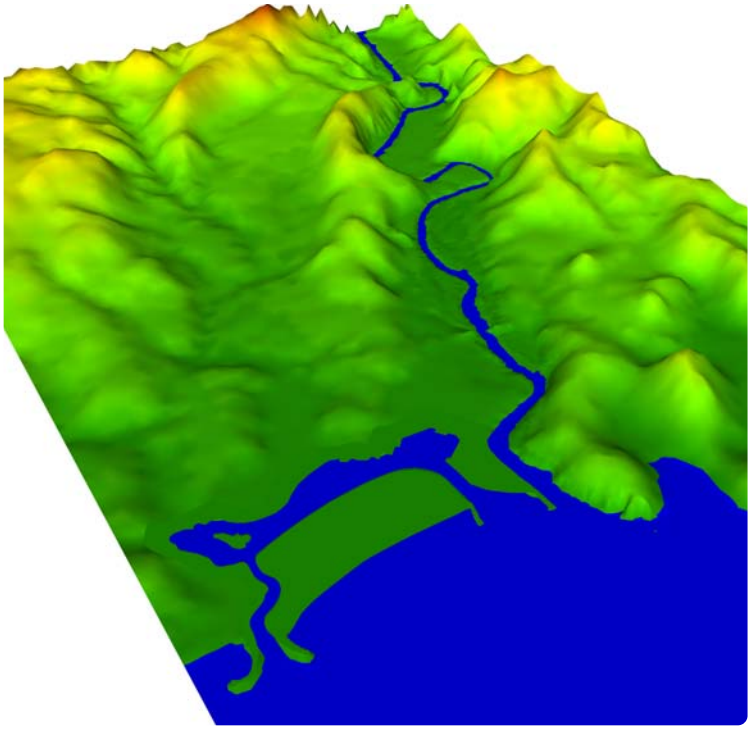
Troumassee Development, St. Lucia

coastal engineering

The proposed Troumassee Project is located on the southeast coast of the island of St. Lucia, British West Indies and covers approximately 1,200 acres including real estate, a hotel, golf course, beaches and a lagoon.

One of the world's largest developers, HINES, hired Coastal Systems to provide the following services:

- Feasibility Study
- Bathymetric and LIDAR Surveying
- Aerial Photographies
- Flushing Analysis of Proposed Lagoon
- Storm Surge and Hurricane Modeling
- Flood Mapping
- Shoreline Stabilization Design
- Watershed and River Analysis
- Geotechnical Coordination



River-Discharge Model

Coastal Systems conducted an initial feasibility study in order to evaluate the master plan prepared by OBM International. The proposed lagoon, was modified based on extensive studies including advanced numerical modeling to ensure sufficient water circulation and exchange.

Additionally, bathymetric and LIDAR surveying was conducted to provide high-resolution data for the subsequent engineering design and master planning. The survey data was utilized to produce a flood map based on advance numerical modeling of hurricanes and statistical analyses to determine the storm surge elevation.

A watershed and river analysis was conducted to assess the impact of the Troumassee River during extreme conditions. The river meanders through the property and the water elevation has historically increased with more than 10 feet during extreme conditions resulting in flooding of adjacent areas. The analysis included an assessment of the watershed along with numerical modeling of the river to estimate current speeds and potential flooding. Based on the analysis, the required slope stabilization was designed.

Proposed Project Site

Client:	Hines
Location:	St. Lucia, British West Indies
Date of Completion:	Ongoing
Construction Cost:	TBD