

Are you interested in **protecting** or **restoring a sandy beach** (or even a reef) while providing a **recreational asset** that snorkelers, divers and fishers can enjoy?

The application of Reef Balls for submerged breakwaters has been developed over a 10 year period in more than a dozen different projects to ensure we could offer a genuine solution. [Dr. Lee Harris](#) of the Florida Institute of Technology, and a leading expert in submerged breakwater technologies has overseen all of these projects.

The basic premise of Reef Ball breakwaters is to mimic natural reef systems and their ability to attenuate waves while providing a healthy and diverse ecosystem.

The exact amount of attenuation needs to be engineered for each project. Wave tank studies by the US Army Corp of Engineers and Florida Institute of Technology have been conducted to allow us to custom design the desired wave attenuation for a specific project.

Reef Ball submerged breakwaters can be constructed with less mass than a rock breakwater and do not require heavy lifting equipment.



Grand Cayman Marriott Resort, Cayman Islands. Before and after construction of the Reef Ball Breakwater, Oct 2003 and Feb 2003. Photo: Lee Harris



Gran Dominicus Resort, Dominican Republic. Before and after construction of Reef Ball Breakwater, 1998 and 2001. Sand accreted at a rate of 26-44 m³/m from 1998-2001. Photo: Lee Harris



Left – surface shot of a Reef Ball breakwater (Antigua). Right – example of how the Reef Balls can support corals (North Sulawesi). Photo: Jerry Kojansow

