



## PROJECT SPOTLIGHT

### Titusville Causeway Multi-Trophic Restoration And Living Shoreline Resiliency Action Project



**Project Location:** Titusville, FL

**Name of Owner:** Brevard County

**Construction Date:** 05/29/2024 (280 days)

#### Benefits include:

1. Stopping and reversing erosion, rebuilding and stabilizing the shoreline
2. Enhancing the coastal resiliency of the Titusville Causeway
3. Expanding natural habitats within the IRL for manatees, horseshoe crabs, fish and other wildlife
4. Improving seagrass presence and overall water quality
5. Boosting ecotourism
6. Augmenting carbon sequestration



This is the first project in the state of Florida that will combine multiple solutions across multiple habitats to create synergistic benefits to stop shoreline erosion caused by rising sea levels and wave energy, enhance resiliency against severe storms, improve water quality, enhance habitat in the Indian River Lagoon (IRL) for manatees, fish, horseshoe crabs, and other wildlife, and expand recreational use and enhanced rocket launch viewing areas along the southeast side of the Titusville Causeway.

The project, which was designed by DRMP engineers and will be constructed by aquatic restoration experts Sea & Shoreline, includes removal of the existing shoreline rip rap, construction and deployment of nearly 2,000 linear feet of Living Shoreline Solutions, Inc.'s Wave Attenuation Device®s (WAD®s), planting of four-acres of seagrass and seeding with one million clams, planting 1.78-acres of living shoreline, and restoring and regrading of 4,150 cubic yards of sand on the shoreline.

According to Ryan Mitchell, P.E., of DRMP engineers, "Multitrophic richness has stronger positive effects on ecosystem services than richness in any individual trophic group. By combining multiple solutions across multiple habitats, the project will realize synergistic ecosystem benefits." For example, the WAD offshore breakwater devices are designed to counter erosion by attenuating wave energy, assisting in the reformation of the shoreline through sand accretion, while supporting seagrass growth and oyster attachment to enhance water quality, and creation of essential fish habitat.