



WIND DRIFT CONDOMINIUMS

LOCATION:

Wind Drift Condominiums
28760 Perdido Beach Blvd
Orange Beach, AL, 36561

THE CLIENT:

Two gulf-front, luxury condominiums

SITUATION:

- » Wind Drift Condominiums wanted to strengthen and optimize their dunes to maximize their protection against storm surge.

SERVICES PROVIDED:

- » Permitting
- » Preservation (Revitalization of existing vegetation)
- » Protection (Installation of sand fences and new vegetation)
- » Optimization (Boardwalk Consultation)

SOLUTION:

- » Dune Doctors revitalized the dune by dethatching (removing dead plant material), removing debris, and fertilizing the existing vegetation.
- » Dune Doctors installed 45 rows of sand fences and 2,500 native coastal plants.
- » Dune Doctors worked with Wind Drift, boardwalk builders, and all regulatory agencies involved to design a boardwalk and handicap accessible beach ramp optimized for the dune under it to increase in volume and progress seaward.

BENEFITS:

- » Wind Drift's dunes are strengthened
- » Wind Drift satisfies their community's beach access needs
- » Wind Drift has a line of sand fences to help block foot traffic through the dunes and encourage sand accretion
- » Wind Drift's new boardwalks extend over the dune to allow for future growth.

OPTIMIZING WIND DRIFT CONDOMINIUMS

THE GOAL:

Dune Doctors was tasked with preserving the existing dune's vegetation; aiding in the development of a boardwalk and beach access structurally optimized for sand accretion and habitat protection; and initiating a new protective berm. The project was designed to fulfill the criteria laid forth by 3 regulatory agencies and the handicap accessibility needs of Wind Drift Condominiums.

THE CHALLENGE:

In 2004, Hurricane Ivan eliminated Wind Drift's dunes. In the years since, through government initiatives, the dune was rebuilt and increased in volume. As the dune progressed seaward, it began encroaching on the boardwalks. The 15-year old boardwalks restricted the dune's growth and were in need of replacement. To better serve their community Wind Drift opted to replace one of the boardwalks with a handicap-accessible beach ramp.

Boardwalk replacement is an involved process because the demolition, extraction and construction of a new beach access can cause significant disruption to the dune ecosystem it was designed to protect. The Perdido Key Beach Mouse, for example, is an endangered species that lives in the dunes of the 17-mile stretch of Perdido Key. A well-designed boardwalk protects the mice's habitat from fragmentation usually caused by foot traffic and property development. These elusive animals feed off of sea oats and hide in the protection of native vegetation.

To ensure minimal impact on the dune ecosystem, permits need to be acquired from multiple regulatory agencies before the project can be initiated. In Baldwin county, AL, where Wind Drift Condominiums is located, the regulatory agencies that oversaw the implementation of the project were the Alabama Department of Environmental Management, the U.S. Fish and Wildlife Services, and the City of Orange Beach.

SOLUTION:

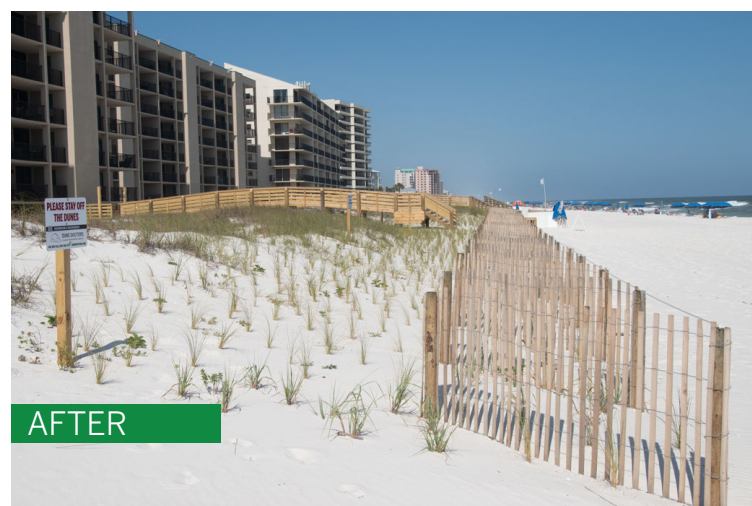
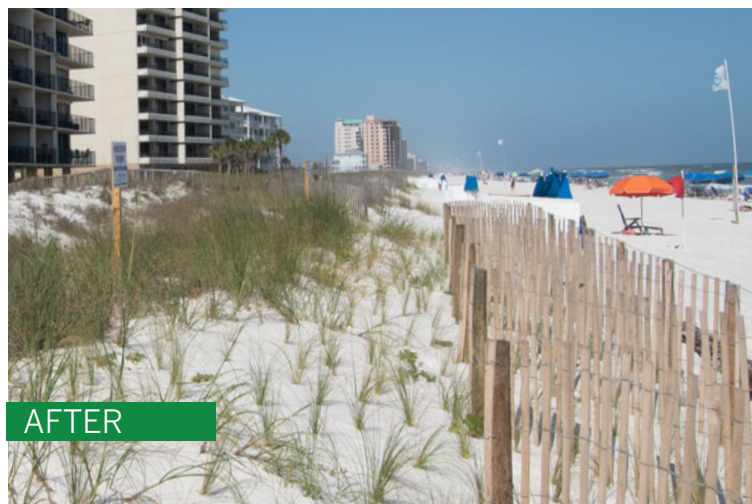
Dune Doctors worked alongside boardwalk builders in a joint effort to protect and preserve Wind Drift's dune ecosystem and initiate a new protective berm. Through proper design, the boardwalks provided breathing space for the dune to grow. To strengthen the existing dune, Dune Doctors revitalized the vegetation and extracted dead organic material and debris. To fulfill the permit's conditions, Dune Doctors installed sand fences that served two purposes: function as a sand trap to rapidly build another line of defense and block foot traffic. The integration of both the boardwalk construction and Wind Drift's enactment of the Dune Master Plan™ allowed Wind Drift to achieve the highest level of sustainable coastal protection.

TAKEAWAY:

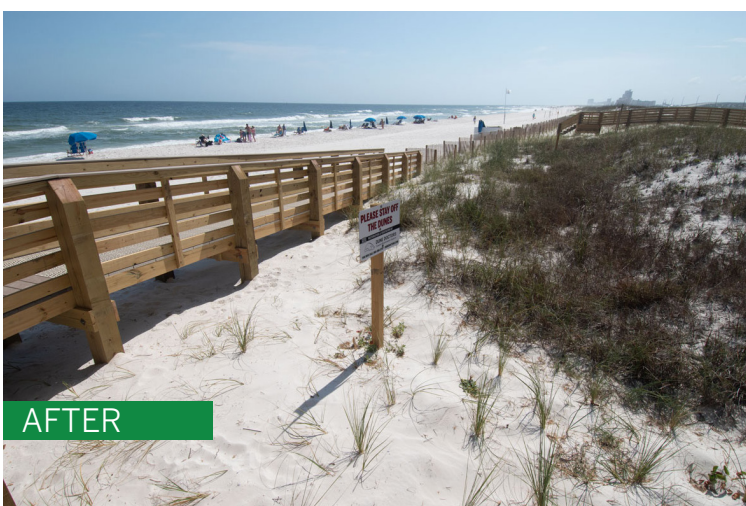
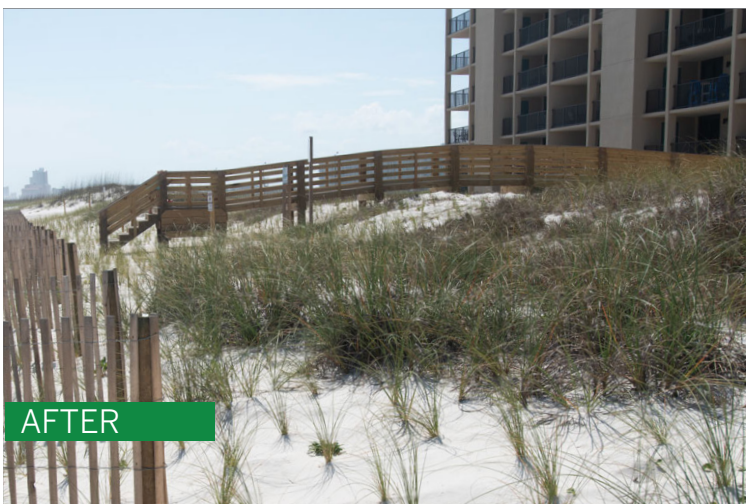
The primary purpose of a boardwalk is to stop foot traffic from damaging dune ecosystems. A boardwalk replacement project that does not account for how dunes naturally progress and evolve overtime is a costly mistake. Boardwalks that end prematurely in the dune are subject to greater damage and often do not reach their projected lifespans before needing replacement.

Through consultation, planning and constructing we maximize the protective qualities of vegetation and hardscapes.

Sand Fence and Native Vegetation Installation



Boardwalk Replacement



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