

LOCATION:

Heritage Dunes Subdivision
Heritage Dunes Lane South
Seagrove Beach, Florida
Walton County

THE CLIENT:

Several stand alone, modern, high-end residences.

ISSUES/SITUATION:

- » Hurricanes Ivan in 2004 and Dennis in 2005 eroded away the sand dunes all the way to the scrub zone, leaving a 15' cliff at the edge of the scrub zone. The water line was then less than 50' from the base of the cliff.

SERVICES PROVIDED:

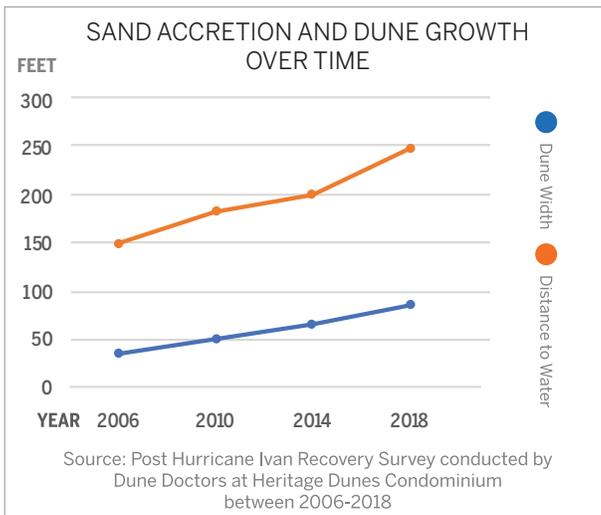
- » Permitting
- » Protection (Sand Fence Installation and New Vegetation)
- » Maintenance (Fertilization)

SOLUTION:

- » Dune Doctors initially installed approximately 2,000 native plants and 450ft of sand fences.
- » Over the next ten years, Dune Doctors returned to the project every 3-4 years to install new rows of sand fences and add vegetation as needed to keep pace with sand accretion.

BENEFITS/RESULTS:

- » Dune Doctors added 80ft of dune width to the 150ft of new beach renourished by natural coastal cycles.
- » The volume of sand that accreted over those 14 years would amount to \$180,000 if it were to be added today.



“The methods Dune Doctors used, in terms of the vegetation planting and the sand fencing, to replenish and restore the beaches were highly effective over time. It is the natural way of doing it and is not only more cost-effective but a more effective measure period to renourish the beachfront.”
Robert L. Kauffman, Attorney

SAND ACCRETION OVER THE YEARS



2008



2010



2013



2018



HERITAGE DUNES SUBDIVISION

PRESERVING HERITAGE DUNES SUBDIVISION

THE GOAL:

Dune Doctors was tasked with the primary goal to stabilize and prevent sand loss of approximately 2000 cubic yards of newly placed sand across 400 linear feet of shoreline. Nearly 100 dump truck loads of beach-compatible, DEP approved white sand were placed a mere 30ft from the water's edge.

The secondary project was the long-term planning and maintenance of new sand bank structures for coastal resiliency. Overtime, walkovers were constructed to ensure that no foot traffic would impact the rebuilt dunes.

A NEW CHALLENGE:

Since 2006, when the first plants were installed, we monitored the sand accretion and consulted on a regular basis with the homeowners. Recommendations were implemented and sand fences and plants were regularly added to the property. As the grasses grew over the years, dead leaves started accumulating at the base of the plants (thatch). Since we were maintaining these dunes, we saw that the overaccumulation of dead plants was detrimental. In most cases, mother nature removes the thatch buildup when powerful storms move across the property, but in this case there had been none in several years.

This overaccumulation of dead plant material was detrimental because:

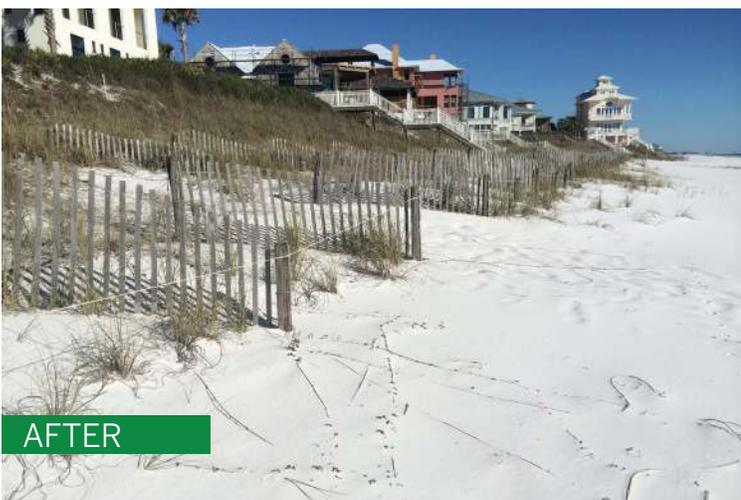
- » The dead plant material retained moisture and discouraged roots from growing in the depth of the dune in search of water.
- » The dead plant material was highly flammable and posed a threat to the wooden boardwalks.
- » The dead plant material was used by rodents to create nests that in turn attracted snakes.

Thatch needs to be removed delicately as the plants that have suffered from the accumulation of thatch develop a shallow root system that can be easily pulled out of the ground.

SOLUTION:

By routine removal of the thatch, we were able to strengthen the plants that in turn developed healthier root systems. By preserving the plants already in place, we succeeded in building the strongest possible protection.

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



"Heritage Dunes has been a wonderful community to work with. The \$180,000 worth of sand that accumulated over the past 14+ years required planning, budgeting, and faith that slowly but surely wind would deposit sand around the fences. Every time the fences were buried under 4ft of sand, the board elected to have new ones installed ever further seaward. Their faith in the natural process resulted in tremendous gains for their dune."

» Frederique Beroset, MBA & MS.



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