

LOCATION:

1900 Ninety Eight
 1900 Scenic Hwy 98, Destin, FL 32541

THE CLIENT:

A high-end, gulf front condominium located 75 feet from the water.

ISSUES/SITUATION:

» After construction of the building, residual debris were left on the beach and buried within the dune. Over the following few months, storms eroded the dune and exposed the debris. The DEP mandated that the property extract the debris and repair the dune.

SERVICES PROVIDED:

- » Permitting
- » Construction Debris clean-up
- » Protection (Sand Fence Installation and New Vegetation)
- » Optimization (Addition of DEP-approved, compatible beach-white sand)

SOLUTION:

- » Dune Doctors extracted the construction debris and removed as much compromised sand as possible
- » Dune Doctors shaped the existing sand into a protective dune with a 30' wide leveled top surface and progressive slope
- » Dune Doctors added DEP-approved, compatible beach-white sand along the top of the dune
- » Dune Doctors installed 17 sections of sand fences at the seaward toe of the newly created dune to help sand build-up evenly across the property.
- » Dune Doctors added rope and signage to help limit destructive foot traffic on the dune.
- » Dune Doctors planted 2,000 native grasses, 200 ground covers, and 150 flowers between the sand fences and over the entire dune to stabilize the newly placed sand.

BENEFITS/RESULTS:

- » The property accreted 3 feet of sand when Hurricane Michael hit the Gulf Coast.
- » After two year, the sand fences are almost entirely buried and the sea oats have progressively colonized the dune.

**1900 NINETY-EIGHT****PRESERVING 1900 NINETY EIGHT****THE GOAL:**

Dune Doctors was tasked with the primary short-term goal of removing the construction debris from the eroded dune and shaping the existing sand into a protective berm.

The secondary long-term goal was the stabilization of the newly created dune and the initiation of a new sand bank with sand fencing.

THE CHALLENGE:

The edge of the building's foundation was 75ft from the gulf and was at a heightened risk for storm surge damage. Shortly after the completion of our project, Hurricane Michael hit the Gulf Coast, and we anticipated our project to be severely impacted. However, the dune gained a fresh, 3-foot thick layer of pure coastal sand.

THE OUTCOME:

This rapid accretion of sand demonstrated:

- » Despite the proximity to the water, the angle and alignment of the sand fencing accumulated an even distribution of sand during a powerful storm
- » Despite being completely buried by the storm, the sea oats we installed eventually surfaced and are now progressively colonizing the dune

Sea oats are resilient plants that respond well to being buried. The plants we installed created a complex web through the dune and have continued to sustain dune growth over the past two years. Since the beginning of our work at 1900 Ninety-Eight, the dune has accumulated roughly 4 feet of sand.

TAKEAWAY:

The strategic placement of sand fencing and healthy native vegetation created an environment conducive for sand accretion. Sand fencing can help accelerate the accumulation of a new berm. However, what stabilizes the newly captured sand and forms a healthy dune ecosystem are the coastal plants that cover it. These native plants colonize the structure and send out deep roots within its core effectively anchoring the berm in place. Without healthy native vegetation, sand fencing accumulates a temporary sand barrier that may easily be washed away.

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

BEFORE & AFTER RESTORATION



BEFORE



DURING



AFTER

BEFORE & AFTER THE STORM



BEFORE HURRICANE MICHAEL



AFTER HURRICANE MICHAEL



ONE YEAR AFTER MICHAEL

“Shortly after we cleaned the gulf front property and installed the sand fences and plants, Hurricane Michael hit. We were certain, it would likely severely impact the sand fences. When we arrived, we were impressed that not only everything was still in place but the sand fences accumulated 3 feet of sand in 3 days.”

» Frederique Beroset, M.B.A. &



CONTACT INFORMATION

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