



# THE IMPORTANCE OF DUNE RESTORATION

Prepared by Green Coast Consulting  
for the Highland Beach Beaches and Shores Club



PRISTINE NATURAL DUNES ...  
THE WAY THEY SHOULD BE













THE DANGER WE FACE . . .



SEVERE COASTAL EROSION

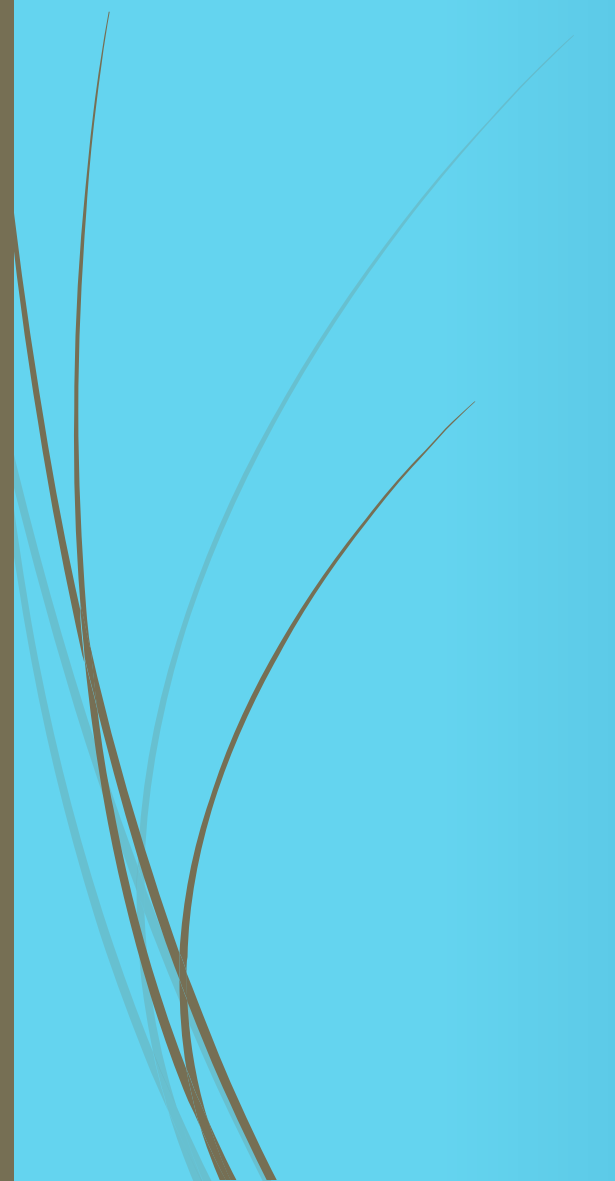


LOSS OF BEACH





LOSS OF NATIVE DUNE HABITAT  
AND PROPERTY VALUE



THE MAJOR PROBLEM:  
A DEGRADED AND WEAKENED  
DUNE SYSTEM . . .





OVERRUN WITH EXOTIC/INVASIVE SPECIES,





AND OVERGROWN SEA GRAPES



# WHAT NEEDS TO BE DONE

- Develop a long-term comprehensive dune restoration and management plan
- Re-establish the natural dune ecosystem
- Create a shoreline defense against erosion



# FIRST STEP





SELECTIVELY HAND CLEAR THE DUNE





TRIM BACK THE OVERGROWN SEAGRAPES



# SECOND STEP



January 2017



PLANT THE DUNE WITH SEA OATS  
AND OTHER NATIVE SPECIES



# THE GROWTH OF THE RESTORED DUNE AFTER 2 MONTHS



 March 2017



SEA OATS HAVE TAKEN HOLD . . .



March 2017



AND TRIPLLED IN SIZE





THE DUNE AFTER 9 MONTHS:  
ONE DAY BEFORE HURRICANE IRMA



September 2017



A NATURAL, COMPLEX DUNE ECOSYSTEM . . .





THAT IS STABLE AND SUSTAINABLE





# THE DUNE 3 DAYS AFTER HURRICANE IRMA

September 2017



THE DUNE PLANTS HAVE  
HELD THE DUNE TOGETHER





September 2017

AND BUILT UP OVER 3 FEET OF SAND!

A stylized graphic of tall, thin grass blades in shades of brown and tan, positioned on the left side of the slide.

# DUNE RECOVERY: TWO MONTHS AFTER HURRICANE IRMA



November 2017



SEA OATS HAVE SPREAD AND RE-GROWN



November 2017



AND A DIVERSE DUNE ECOSYSTEM  
HAS BEEN RE-ESTABLISHED





THE RESTORED DUNE  
ONLY ONE YEAR AFTER  
INITIAL PLANTING:

A HEALTHY AND VIBRANT  
NATURAL DUNE HABITAT  
HAS BEEN CREATED

January 2018



SEA OATS HAVE GROWN TO 4 AND 5 FEET



# DUNE RESTORATION IS THE KEY FIRST STEP



## TO SAVING OUR BEACHES AND OUR PROPERTY