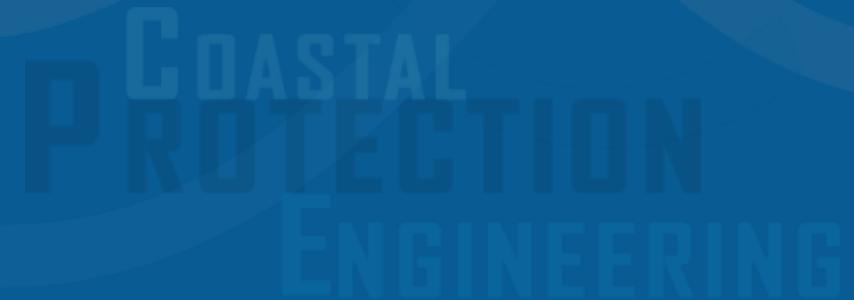


# DARE COUNTY 4-TOWNS BEACH NOURISHMENT PROJECT

Public Meeting #1 – June 22, 2022



# OUTLINE

- *Background and Dredge Information*
- Kill Devil Hills Overview
- Construction Progress
- Expected Equilibration of Profiles
- Environmental Monitoring
- Questions



Atlantic Ocean

*Approx. 11.4 miles and 2.34 MCY*

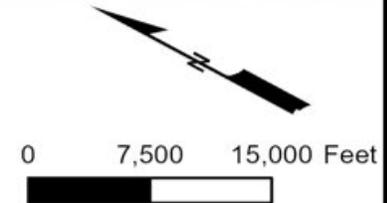


**Notes:**

1. Background imagery is from ESRI's Imagery Service. Imagery taken on March 15th, 2018.

**Legend:**

-  Town Limits
-  Three Nautical Miles
-  Proposed Sand Source Areas
-  USACE Field Research Facility



## B.E. Lindholm

- Length: 296 ft.
- Hopper Capacity: ~4,000 Cubic Yards (330 dump trucks)



## R.N. Weeks

- Length: 282 ft.
- Hopper Capacity: ~4,000 Cubic Yards (330 dump trucks)





## Magdalen

- Length: 363 ft.
- Hopper Capacity: ~8,550 Cubic Yards (710 dump trucks)



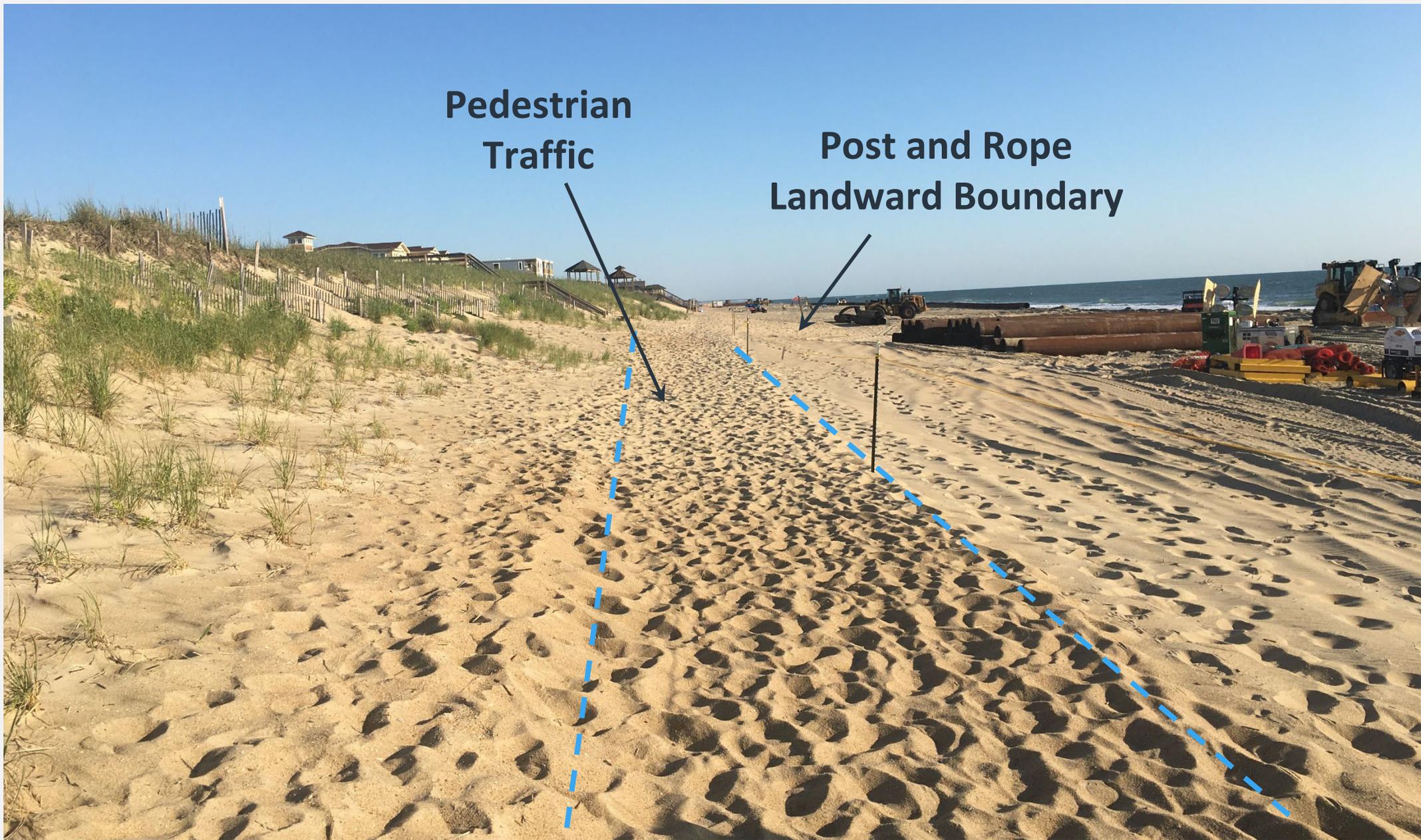
Floating Pipeline





Submerged  
Pipeline  
(Subline)

*Construction  
Zone*



**Pedestrian  
Traffic**

**Post and Rope  
Landward Boundary**

**Sand Ramp**

**Construction Zone  
Boundary**



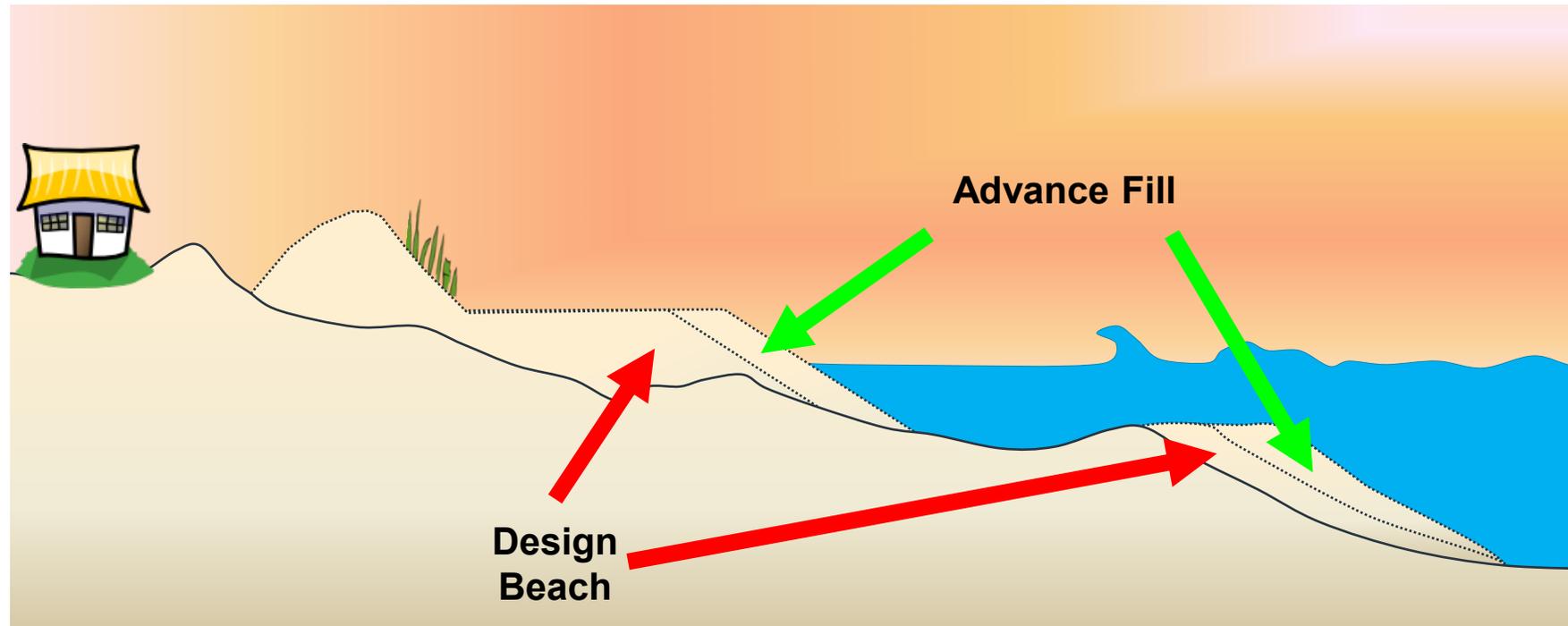
# Discharge



# OUTLINE

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# Storm Damage Reduction Project



**Nourishment Interval**

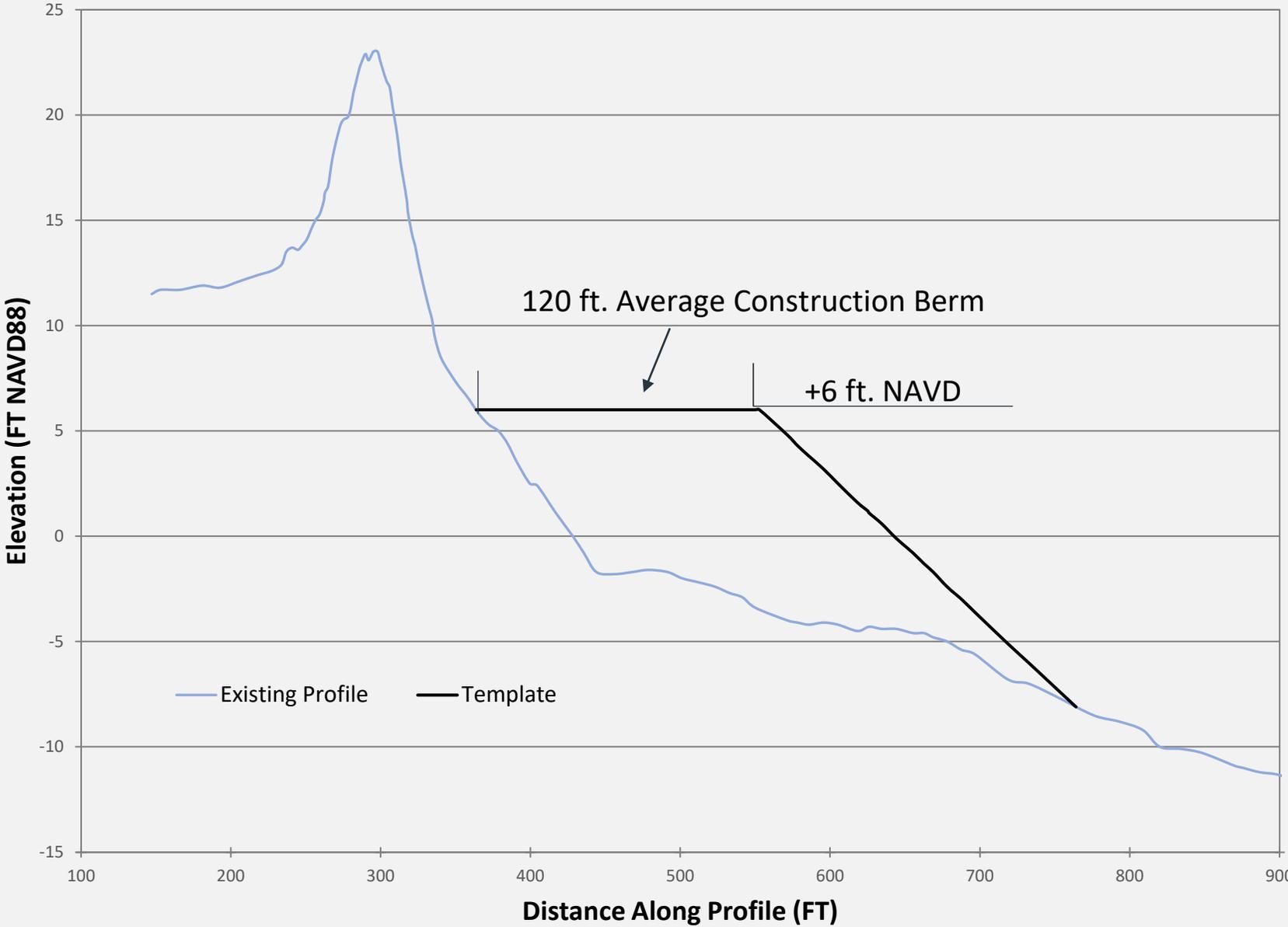


# PROJECT DESIGN

- Kill Devil Hills Beach Nourishment Design
  - Re-establish portions of design fill that eroded (102,000 cy)
  - Repair portion of dune at northern portion of project (400 cy)
  - Uniform distribution of 24 cy/ft of fill along the project area (300,000 cy)
  - Additional fill to address anticipated hot spot erosion between Hayman and 5<sup>th</sup> St. (75,000 cy)
  - 1,074 Taper on south end (27,600 cy)
- FEMA Funded Sand due to Hurricane Dorian (311,900 CY of the 505,000 cubic yard total)
- Advanced Fill Based on 5 Year Renourishment Interval



### Town of Kill Devil Hills Construction Profile





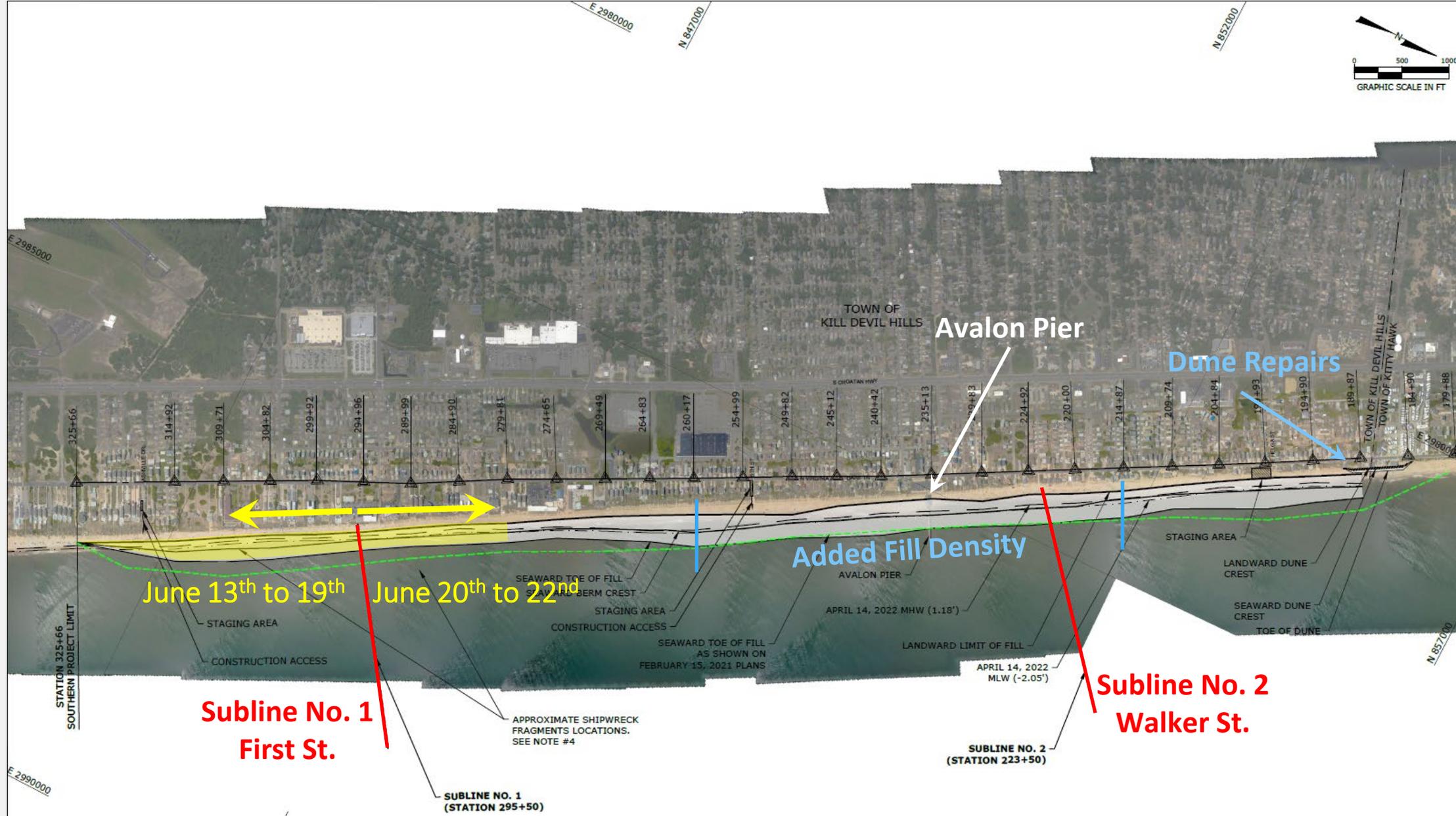
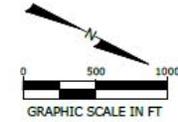
**Construction Berm  
+6.0 Feet NAVD88**



**Construction Slope  
1V:10H**

# OUTLINE

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June 13<sup>th</sup> to 19<sup>th</sup>      June 20<sup>th</sup> to 22<sup>nd</sup>

**Subline No. 1**  
**First St.**

**Subline No. 2**  
**Walker St.**

**Added Fill Density**

**SUBLINE NO. 2**  
**(STATION 223+50)**

**SUBLINE NO. 1**  
**(STATION 295+50)**

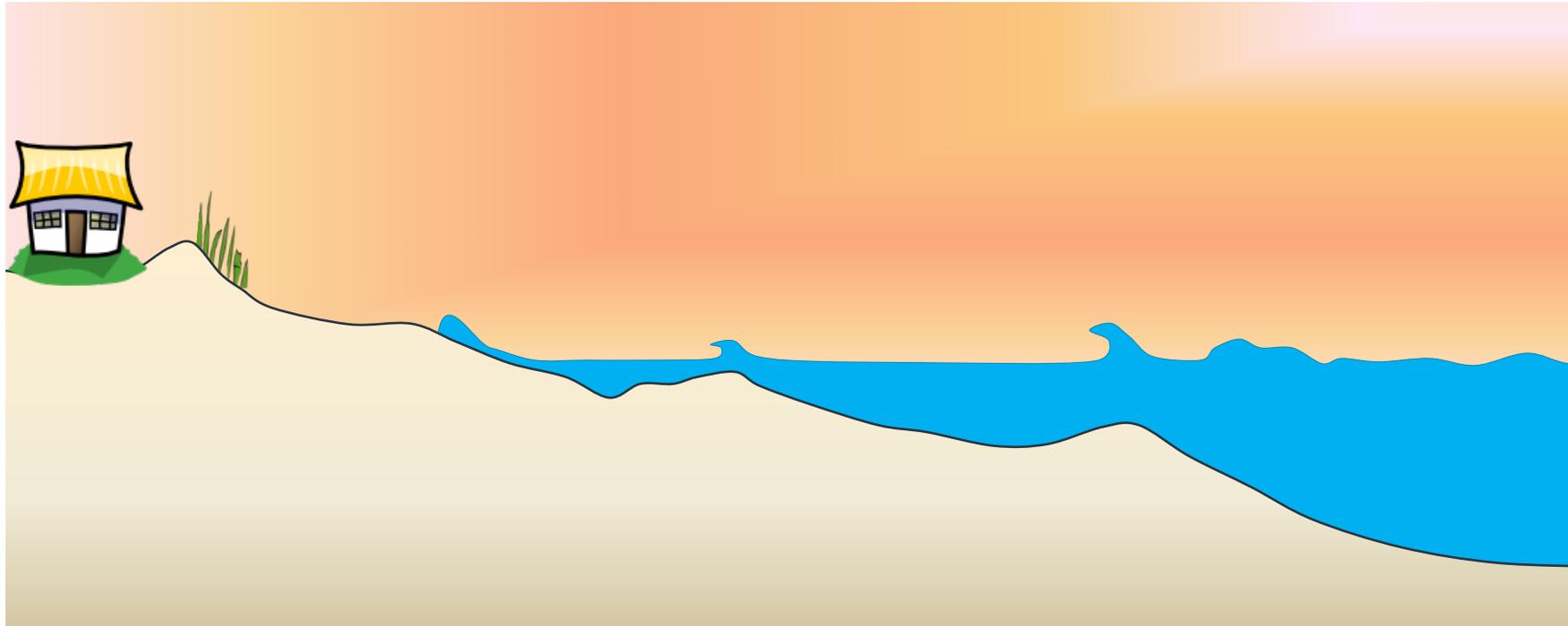
Taper



# OUTLINE

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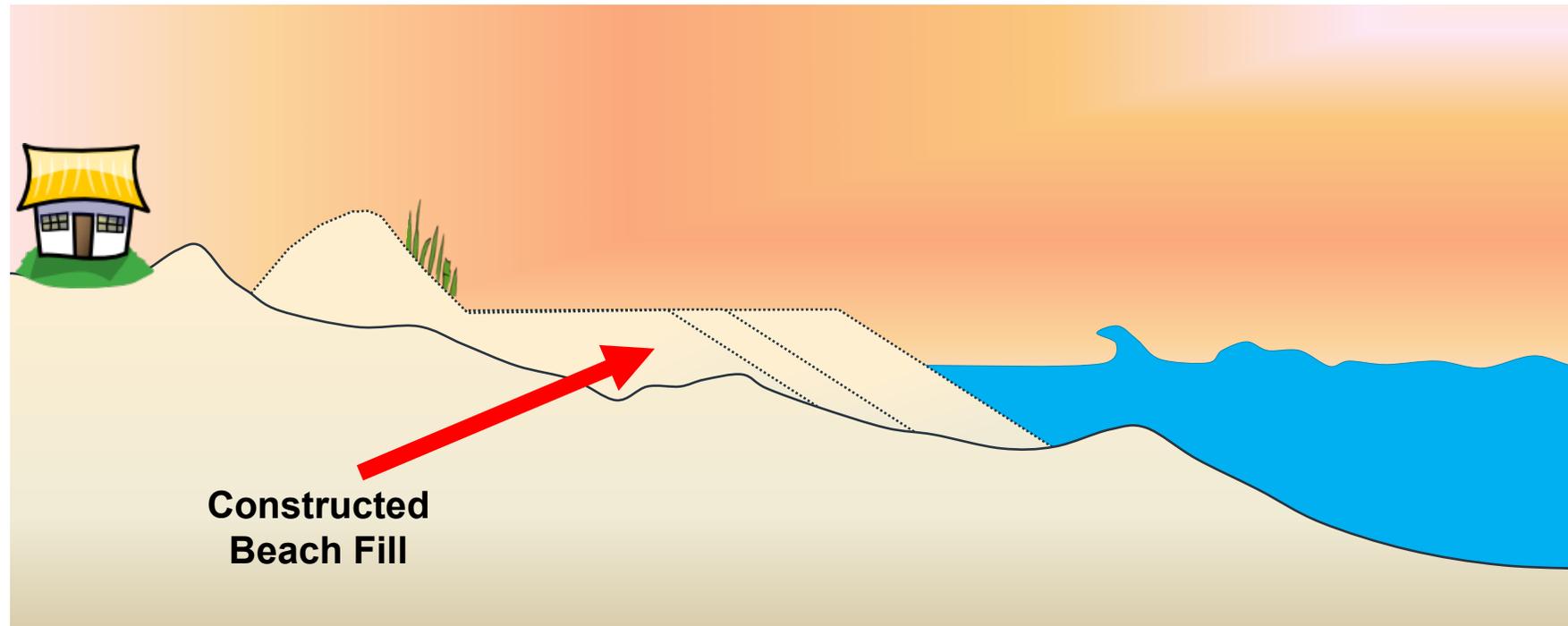
# Storm Damage Reduction Project



**Pre-Project Conditions**



# Storm Damage Reduction Project

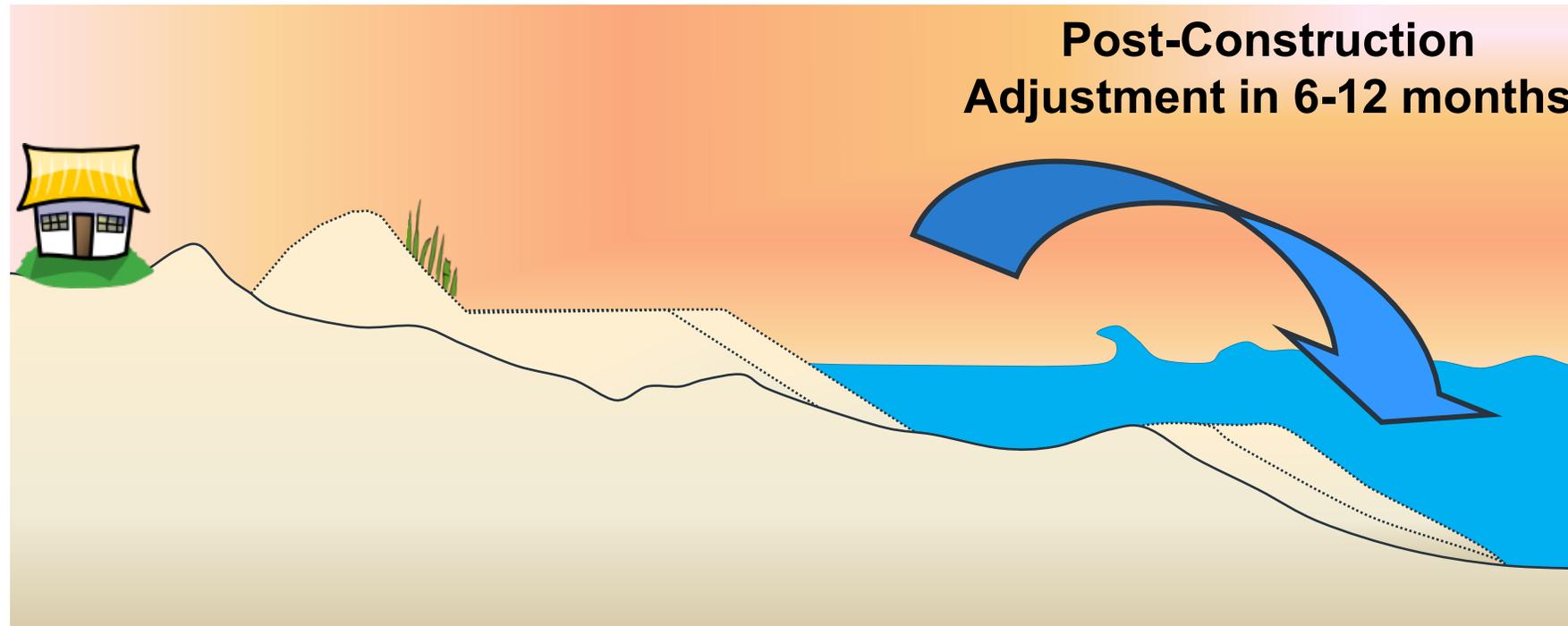


**Constructed  
Beach Fill**

## Initial Construction



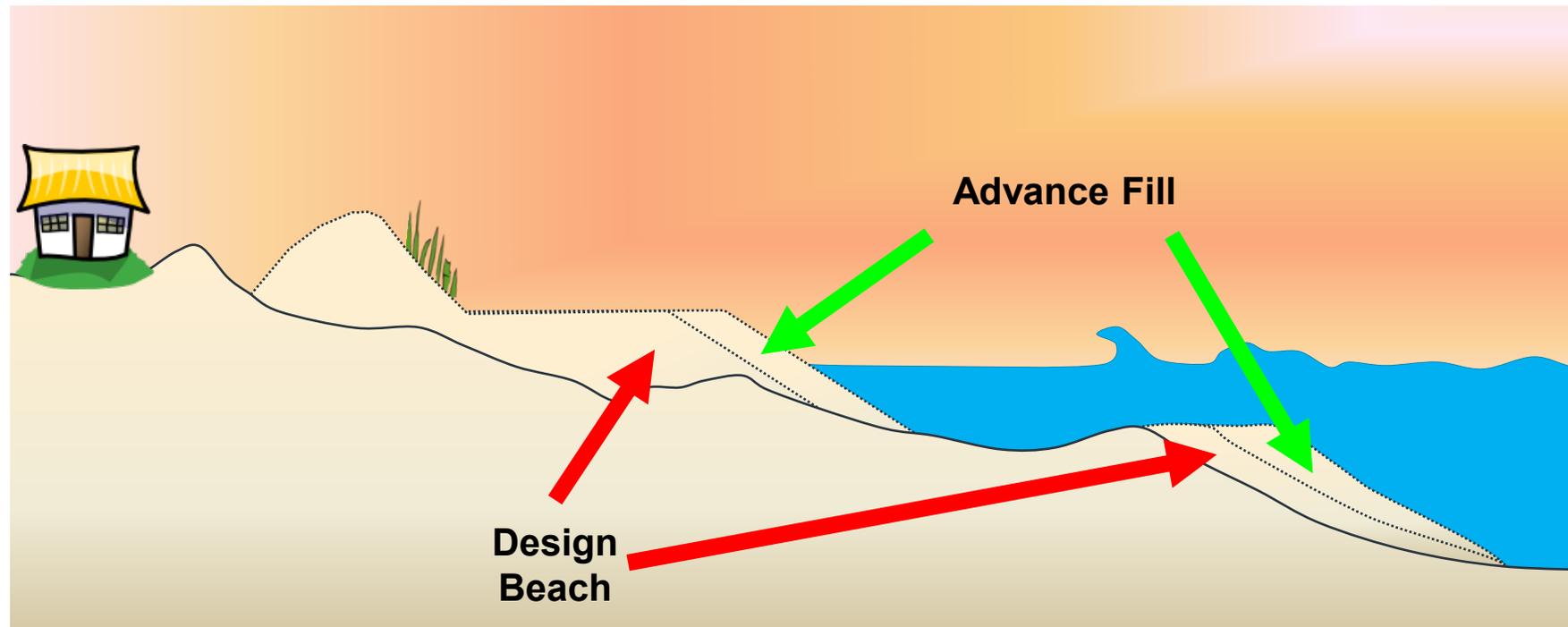
# Storm Damage Reduction Project



## Equilibration of Beach Fill



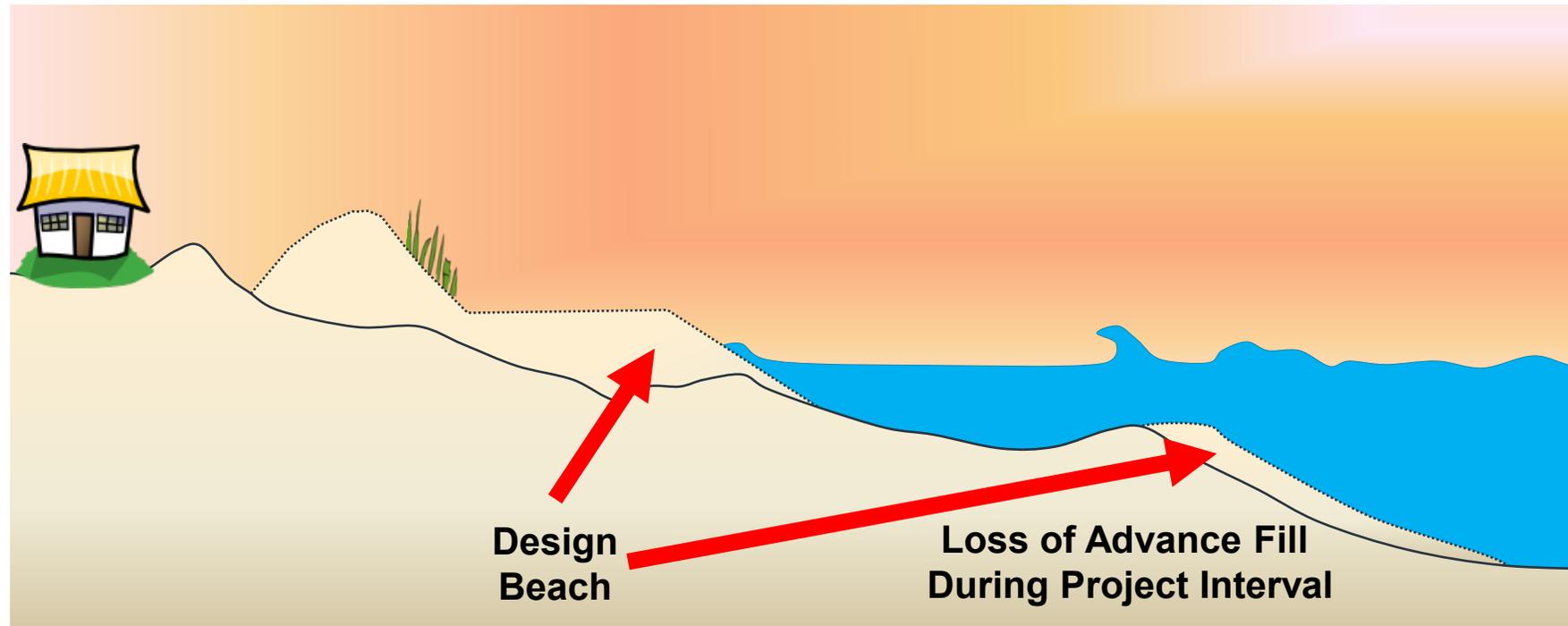
# Storm Damage Reduction Project



**Nourishment Interval**



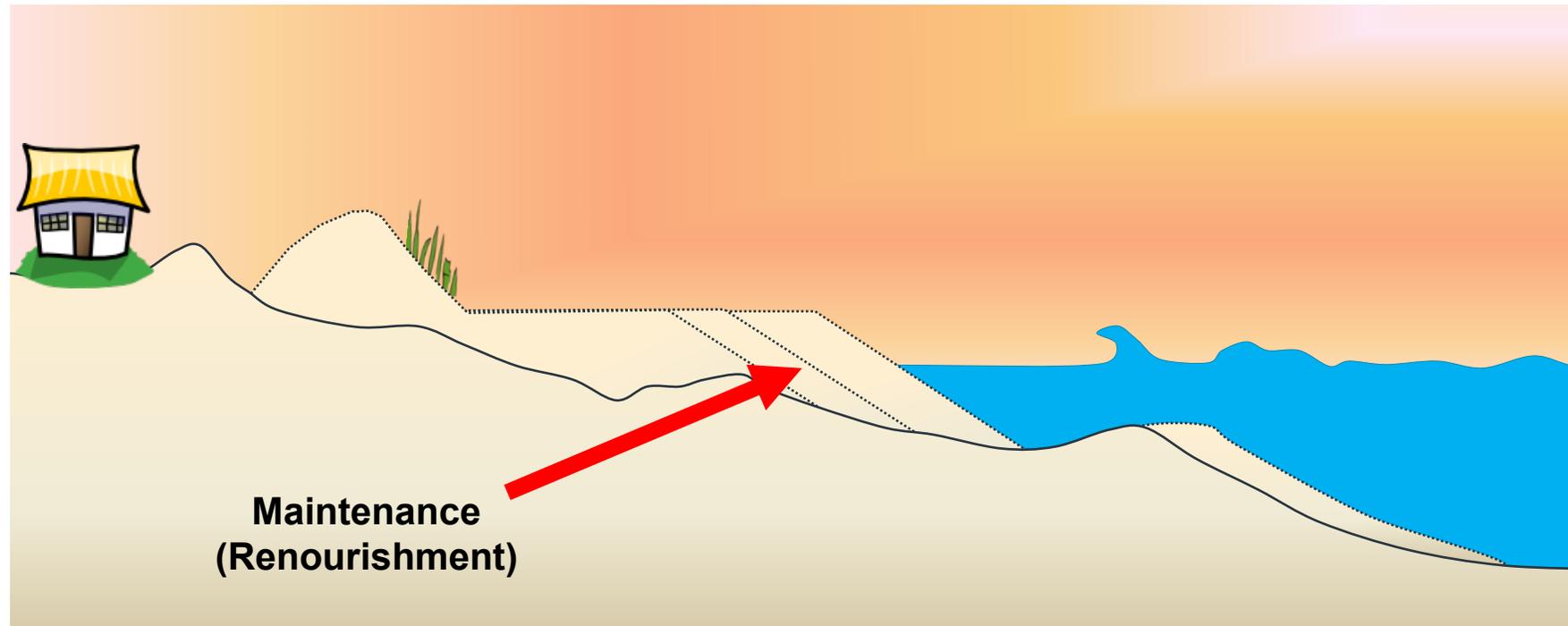
# Storm Damage Reduction Project



## Nourishment Interval



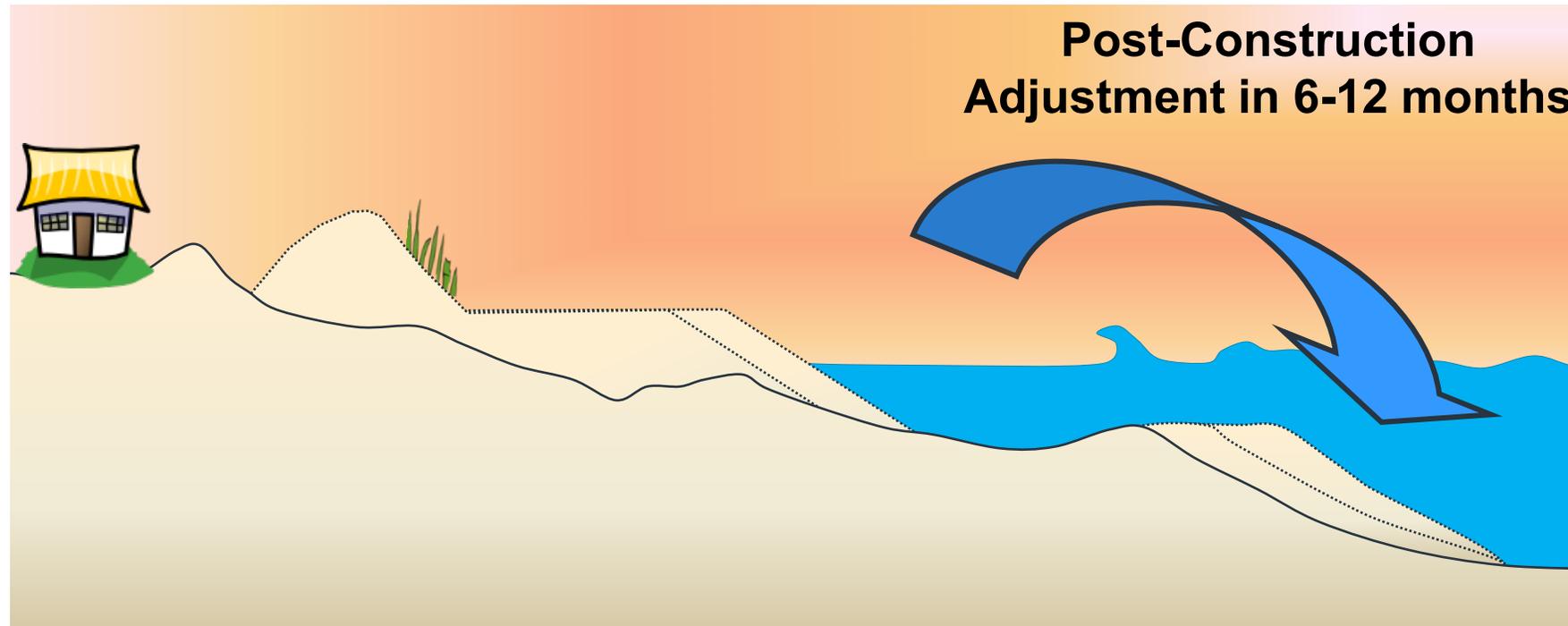
# Storm Damage Reduction Project



**Maintenance = Beach Renourishment**



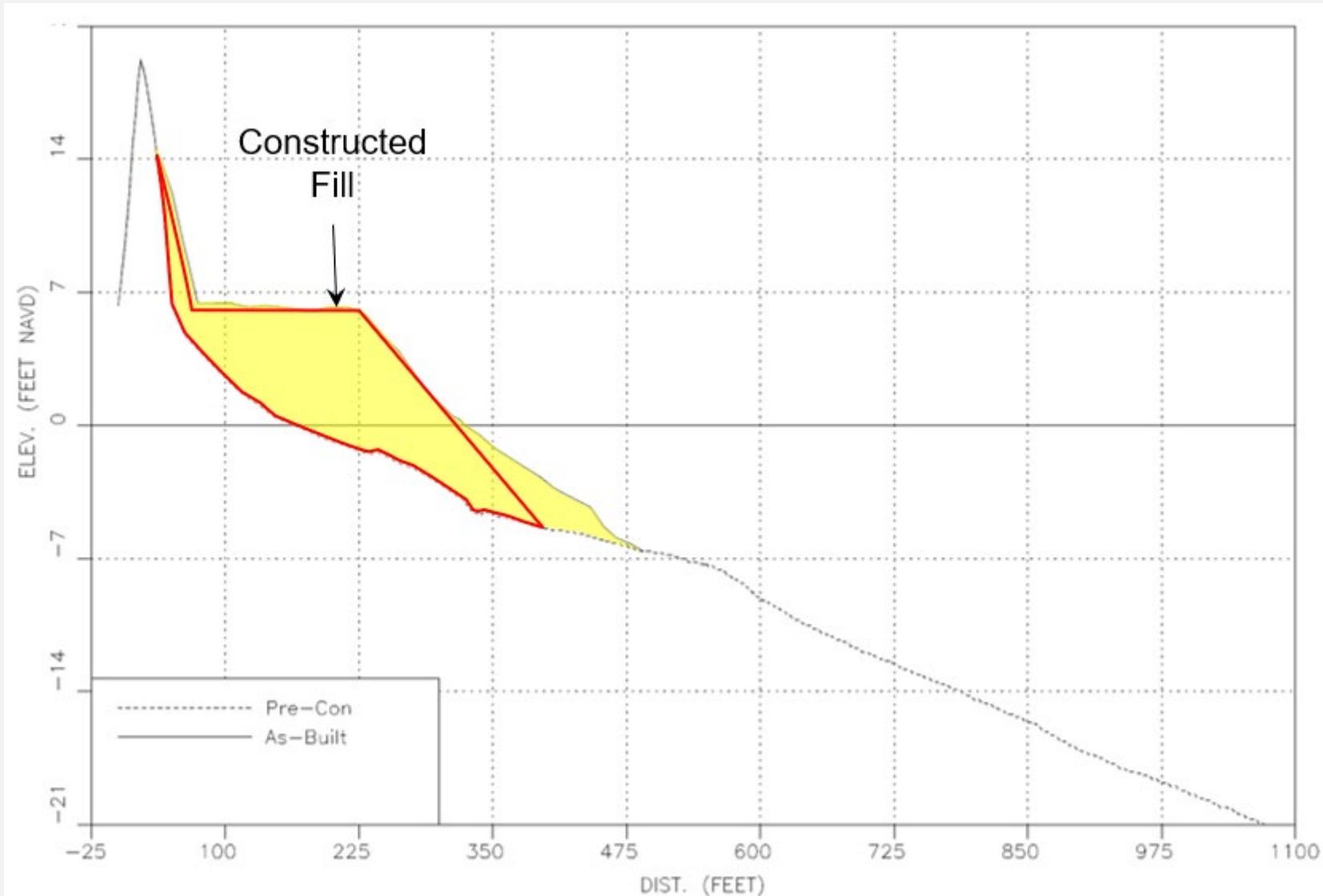
# Storm Damage Reduction Project



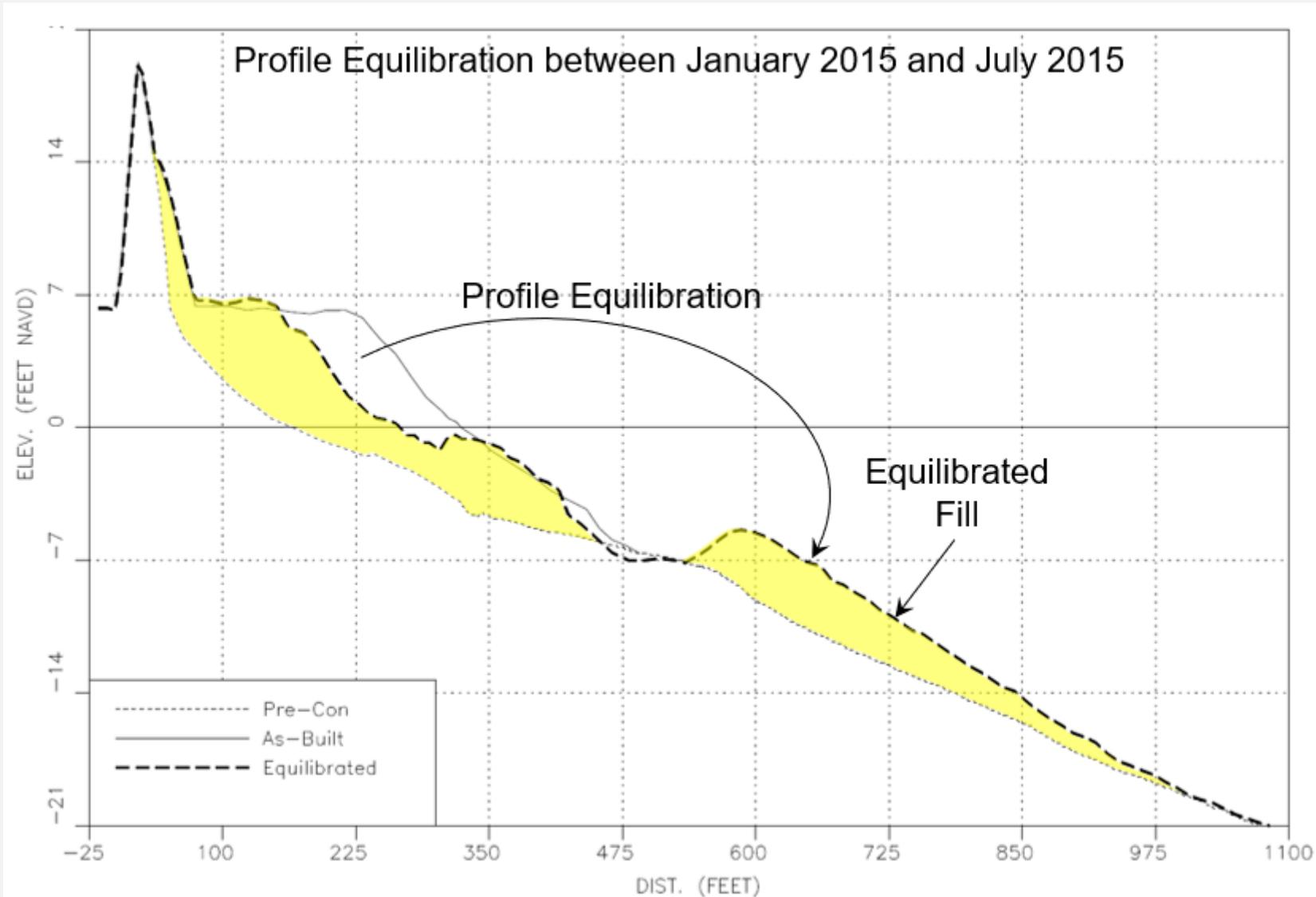
**Nourishment Interval**



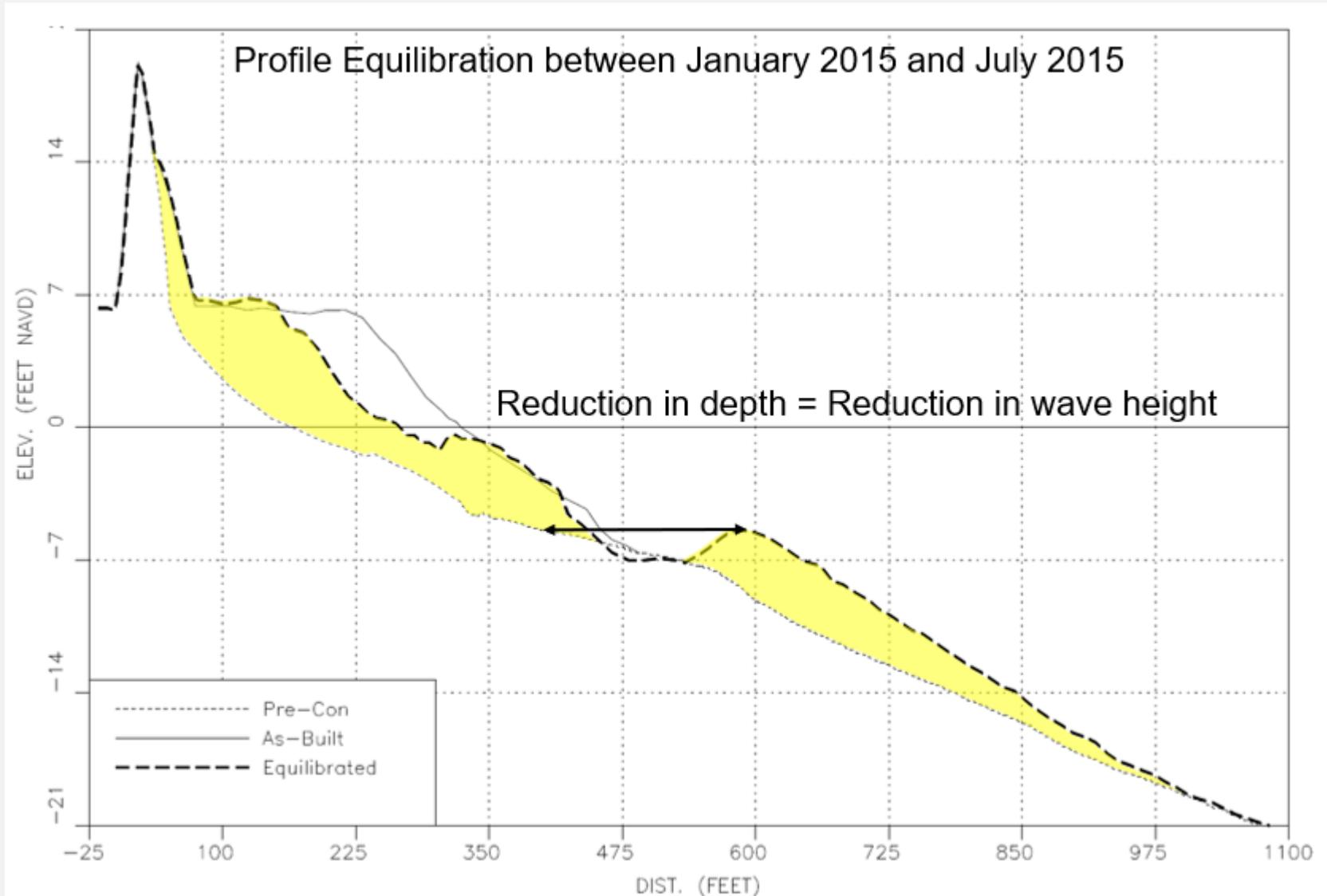
# Profile Equilibration



# Profile Equilibration



# Profile Equilibration



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# Sea Turtles

- May 1 through Nov 15 – Morning monitoring of all beaches for turtle nests (N.E.S.T.)
- Nighttime turtle observer on-site in construction zone
- Nesting surveys between sunrise and 9 am each morning – must clear beach prior to construction equipment moving out from construction zone
- Minimize construction zone in evening
- Relocation trawling
- Protected species observers

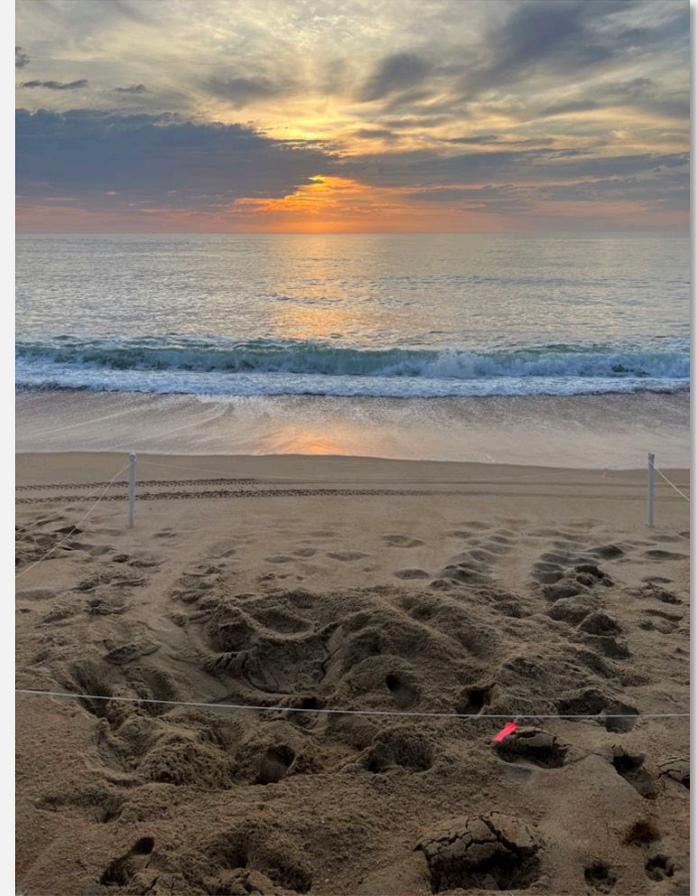


Photo Courtesy of Nestonline.org

# Birds

- Construction personnel trained to recognize Piping Plover and Red Knot
- Dedicated contractor representative conducts daily shorebird surveys in the morning to determine if Piping Plover or Red Knot are present.



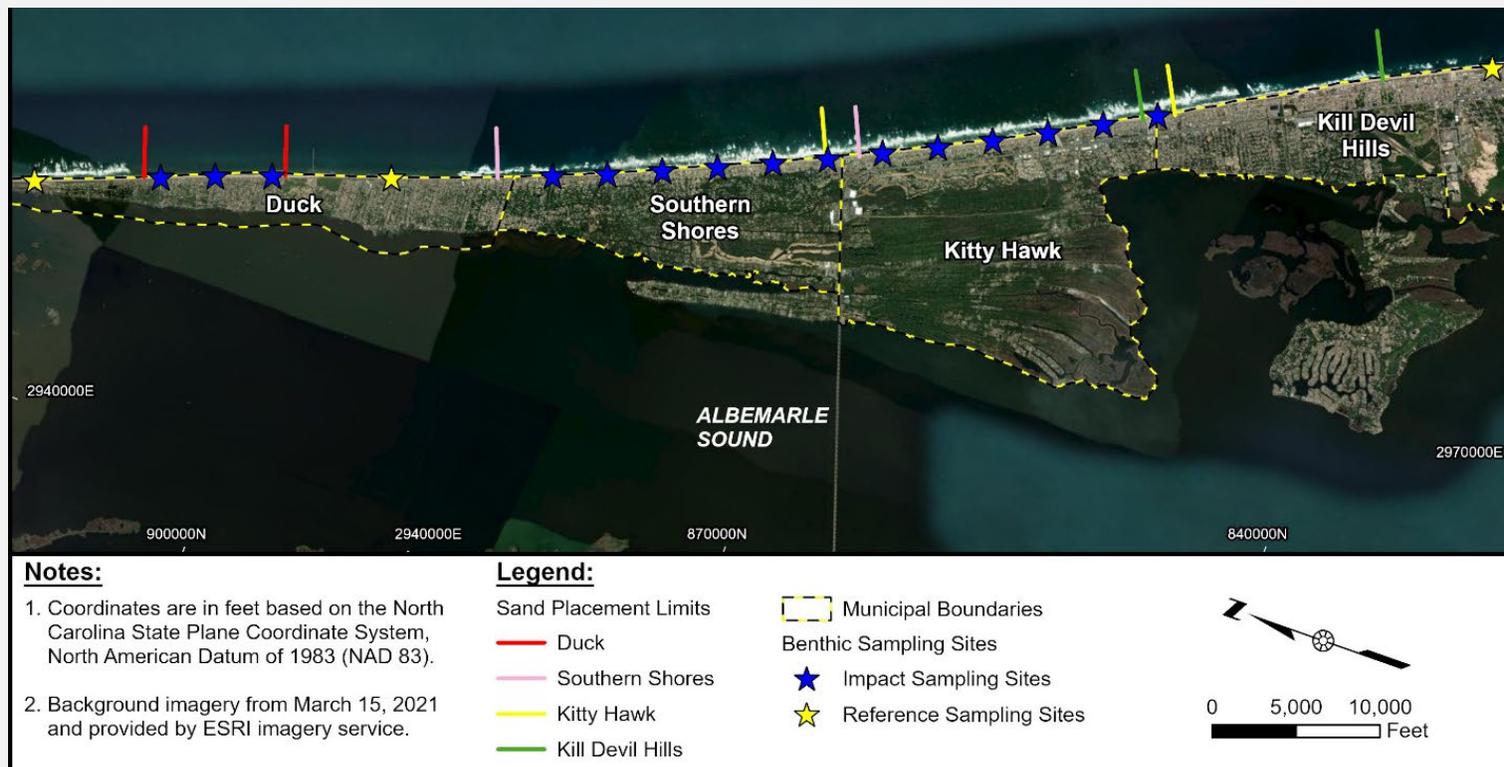
Piping Plover  
Photo Courtesy of Audobon.org



Red Knot  
Photo Courtesy of Audobon.org

# Benthic Monitoring

- Pre- and Post-Construction benthic monitoring
- Pre-Construction Sampling – staggered sampling prior to construction of individual segments
- Post-Construction Sampling – staggered sampling following construction of individual segments
- 1-Year Post-Con Sampling will be conducted at the same time in mid-summer.



Please check [MoreBeachToLove.com](https://www.morebeachtolove.com) for updates throughout construction

Contact Information:

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Project Manager  
(910) 399-1905 - Office

