



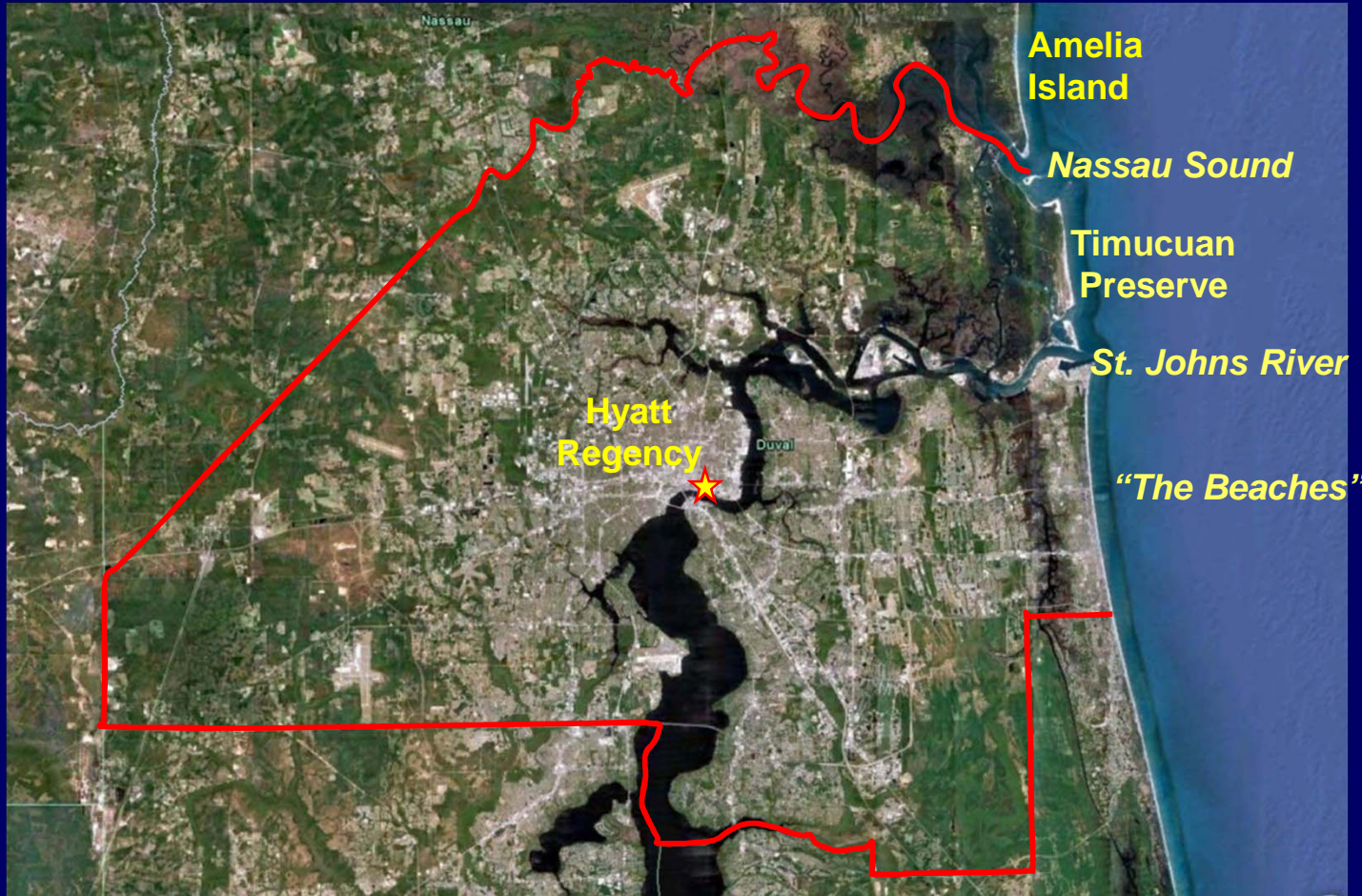
## Beach Renourishment in Jacksonville

Steven C. Howard, P.E., D.CE - Olsen Associates, Inc.

Kevin R. Bodge, P.E., Ph.D. - Olsen Associates, Inc.

Tom R. Martin, P.E. - U.S. Army Corps of Engineers

# Duval County, Florida



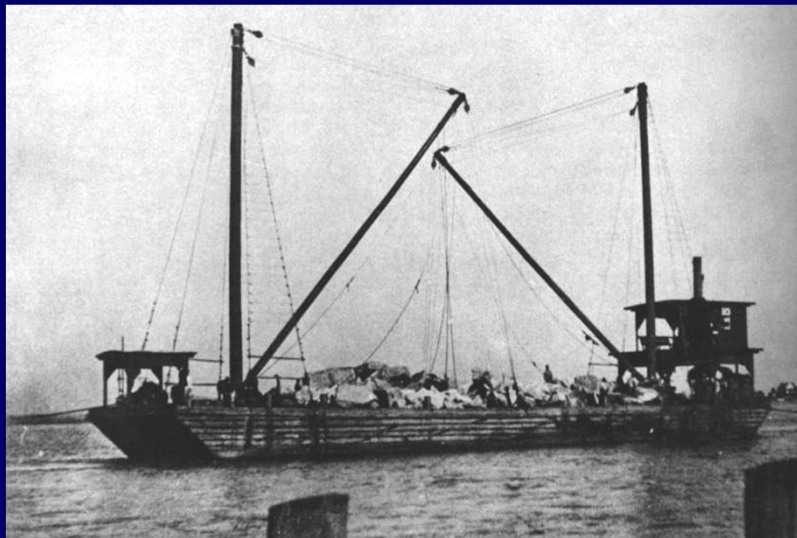
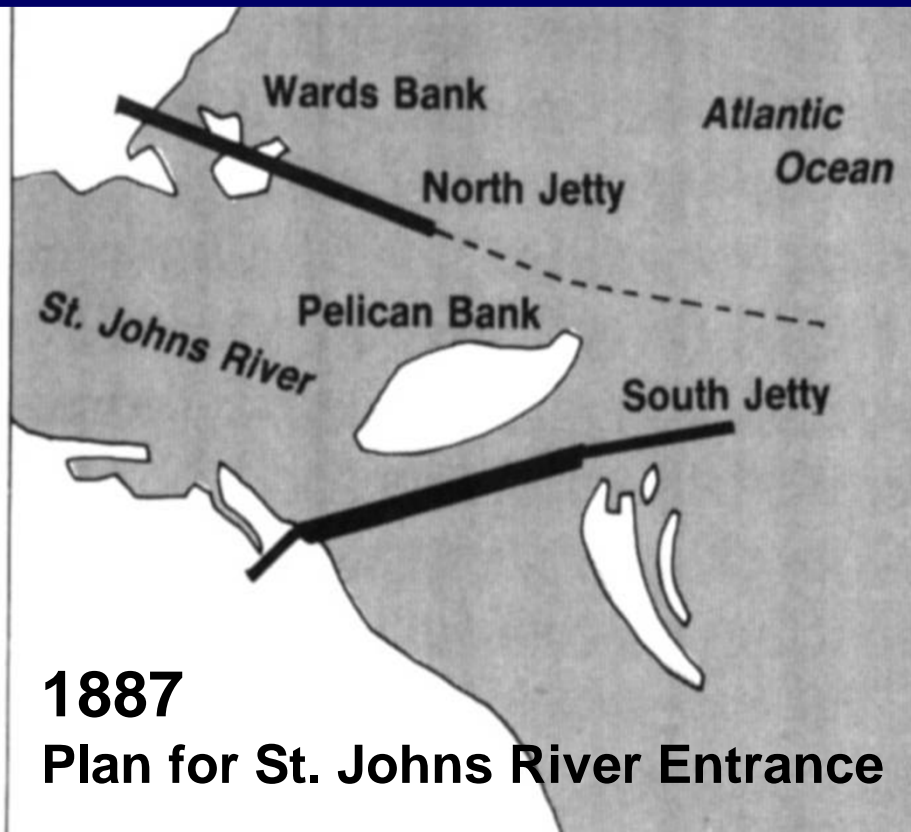
2010 Photograph

# Coastal Duval County



# St. Johns River Entrance

## Jetty Construction by Rail



## Placing Boulders

— 1871 shoreline

Amelia Island

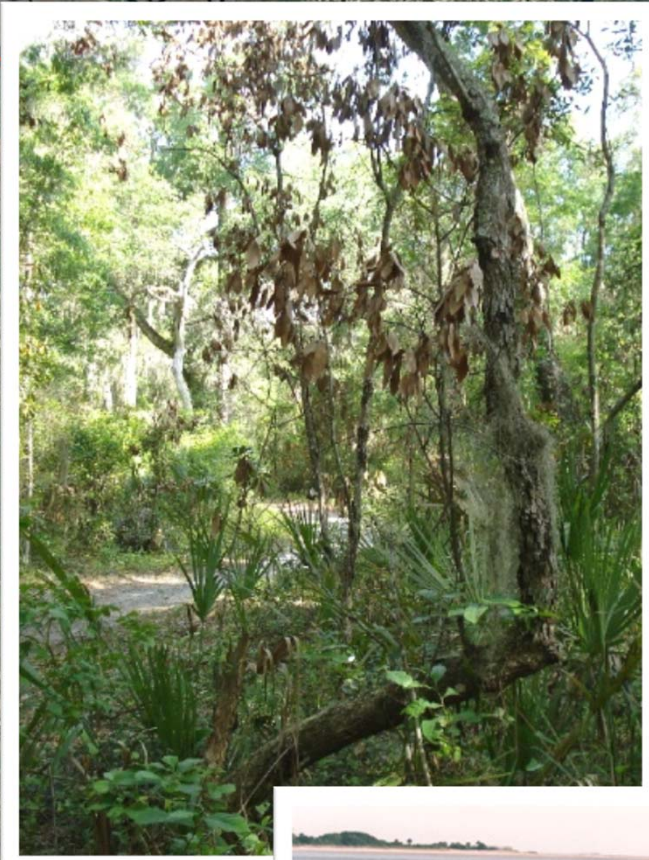
Nassau Sound

Little Talbot Island

Atlantic Ocean

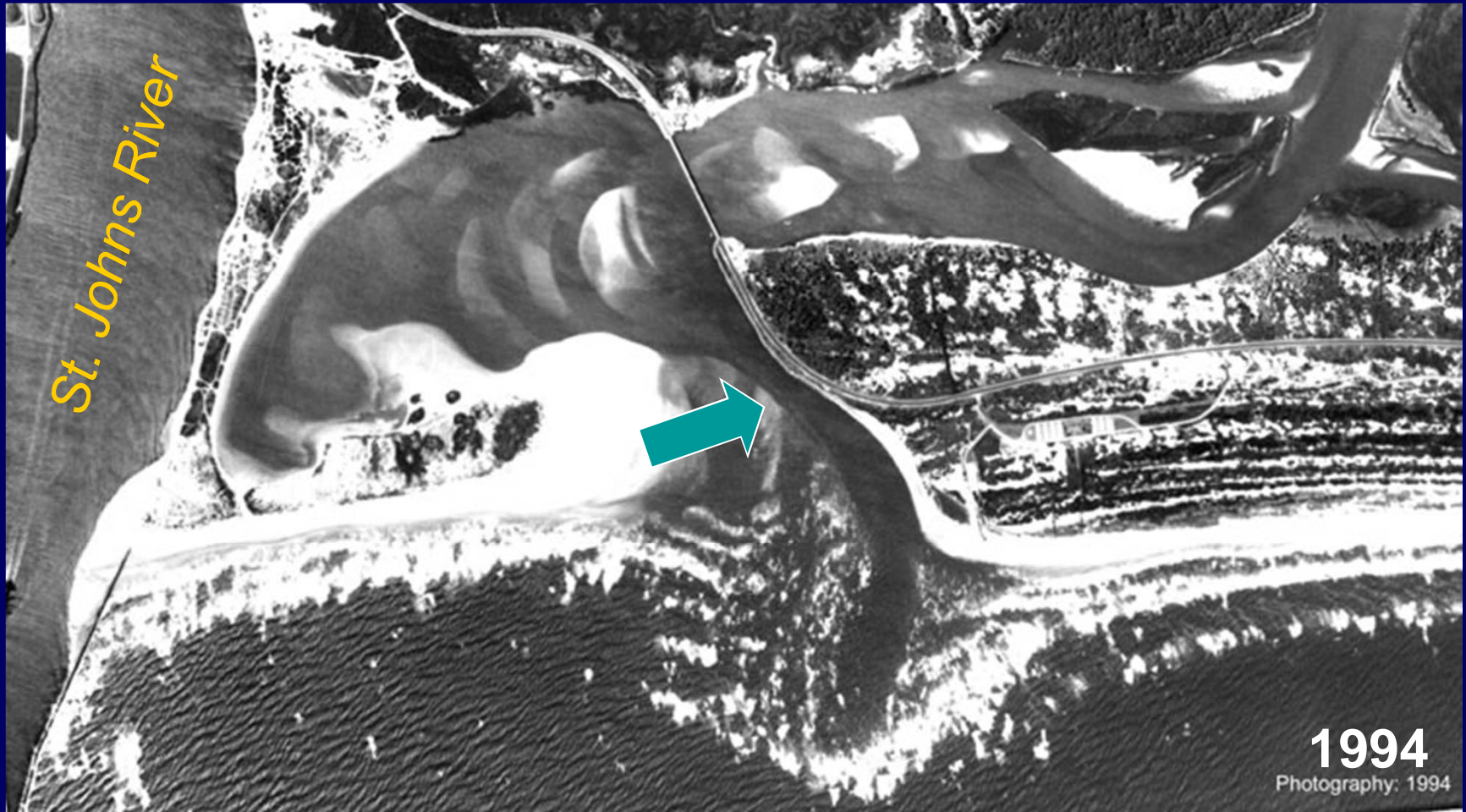
Ft. George Inlet

Johns River



# Timucuan Preserve

2001 Photograph



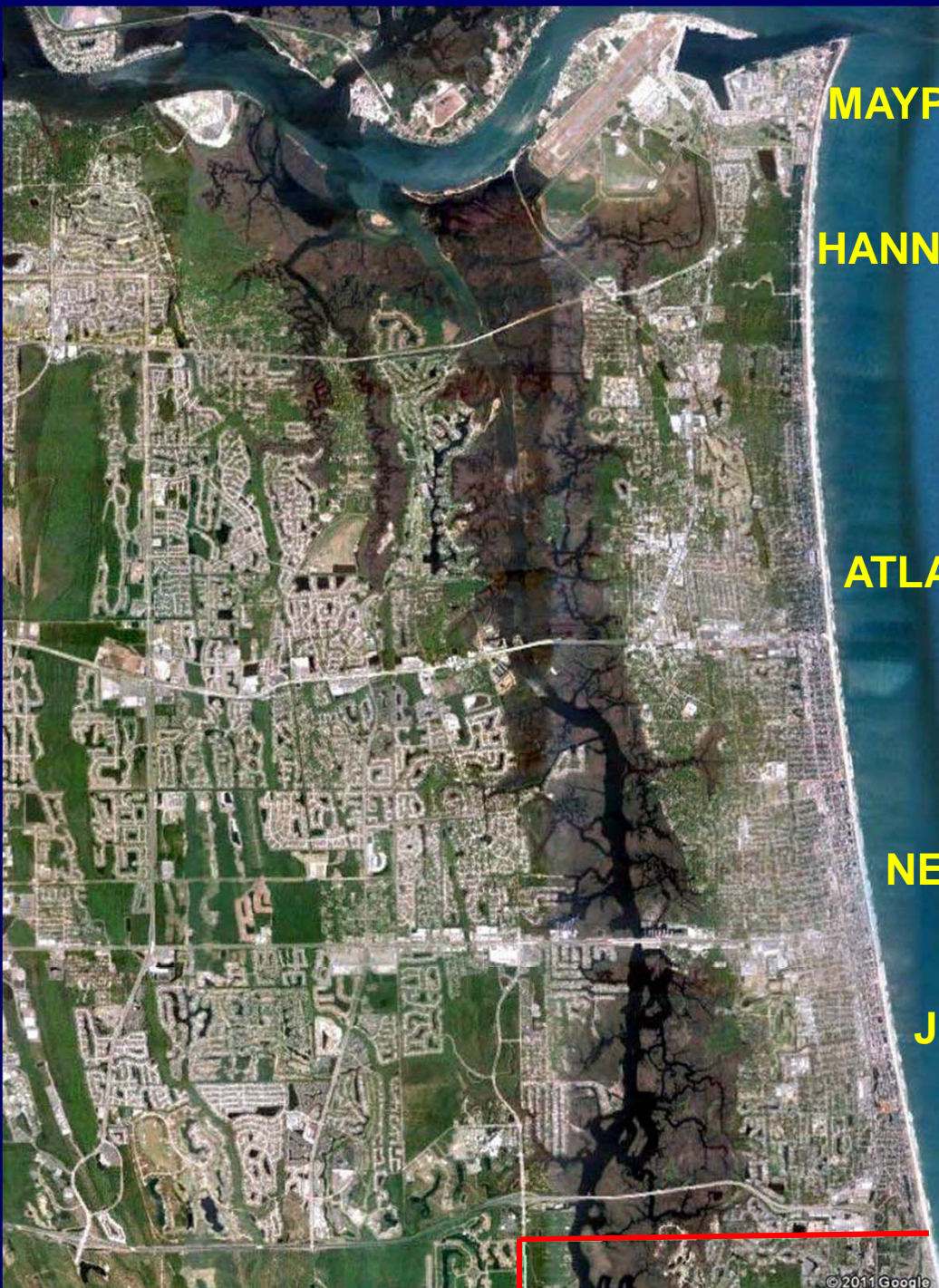
*St. Johns River*

**1994**  
Photography: 1994

**Huguenot Park  
(Ward's Bank)**

**Fort George  
Inlet**

**Little Talbot Island  
(State Park)**



**ST JOHNS RIVER ENTRANCE**

**MAYPORT NAS**

**HANNAH PARK**

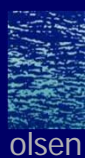
**ATLANTIC BEACH**

**NEPTUNE BEACH**

**JACKSONVILLE BEACH**

**ST JOHNS COUNTY**

©2011 Google



# Northeast Florida

— 1871 shoreline

Amelia Island

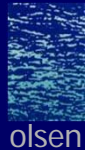
Nassau Sound

Atlantic Ocean

Ft. George Inlet

St. Johns River

2001 Photograph



# Disposal Prior to the Federal SPP, 1972



1910



1928





1939



1930's

# “Finest Beach in the World”



1920's & 1930's



Jacksonville Beach  
About 100,000 people  
witness the Navy's  
Blue Angels flyover in  
late 1950s.

## Jacksonville Beach Late 1950's







Typical storm damage from 1962 Northeaster and Hurricane Dora (1964) along Duval County, Florida shorefront

# Emergency Shore Protection, 1962



Beach erosion at Jacksonville Beach after  
Northeaster in 1962. Duval County, FL

# Emergency Shore Protection, 1962



# Emergency Shore Protection, 1963

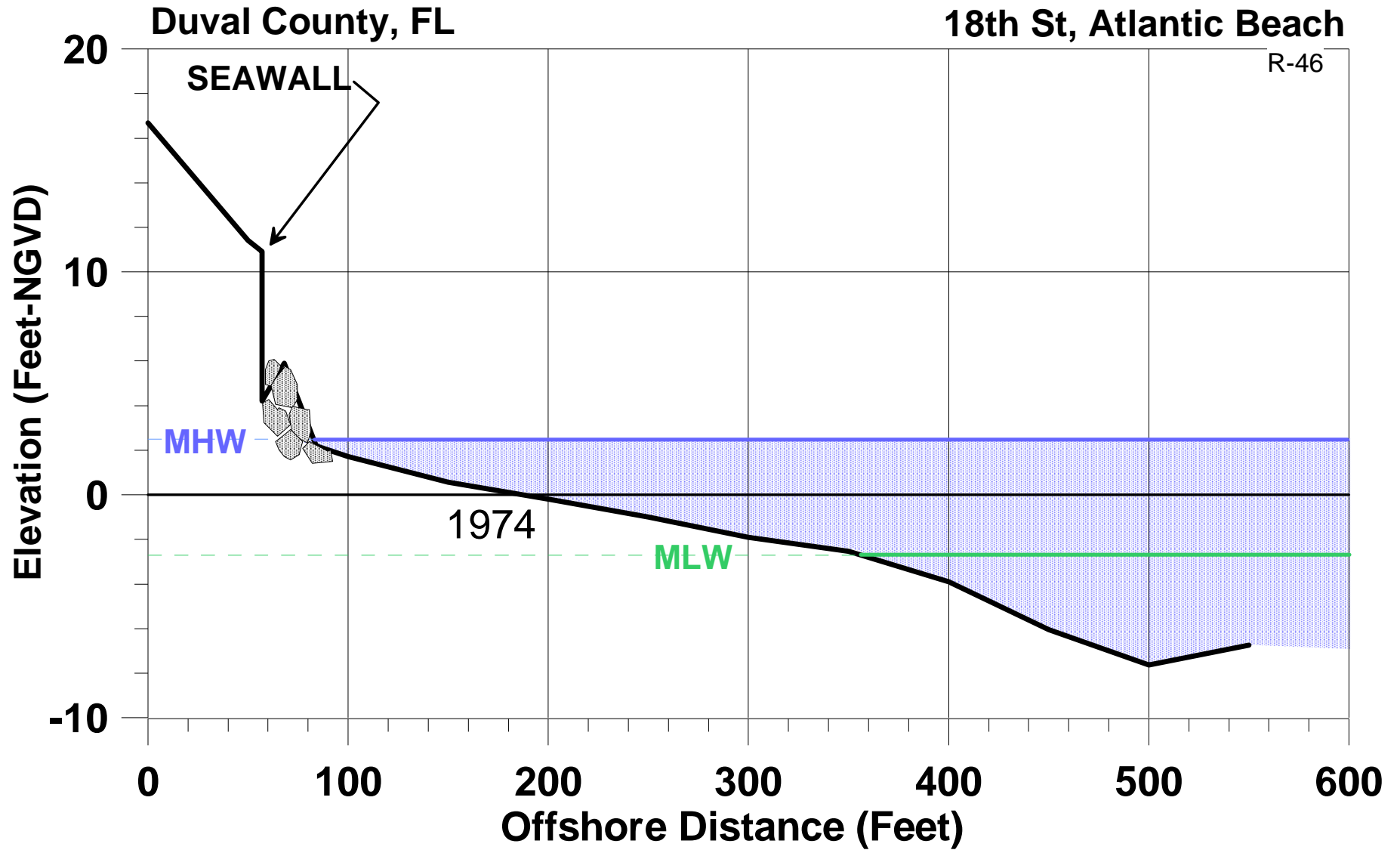


GRANITE REVETMENT AT JACKSONVILLE BEACH (1963)

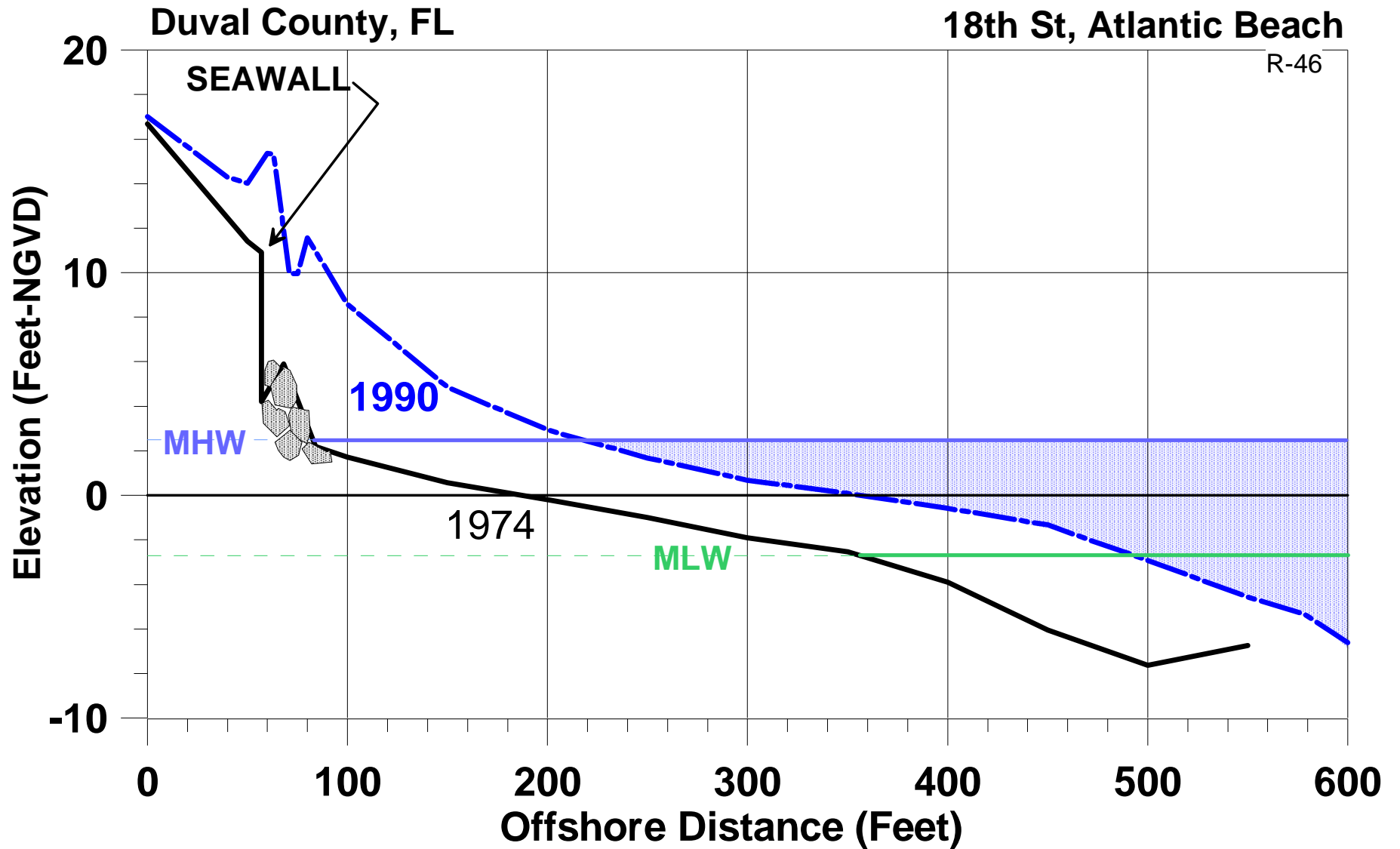
# Emergency Shore Protection, 1963



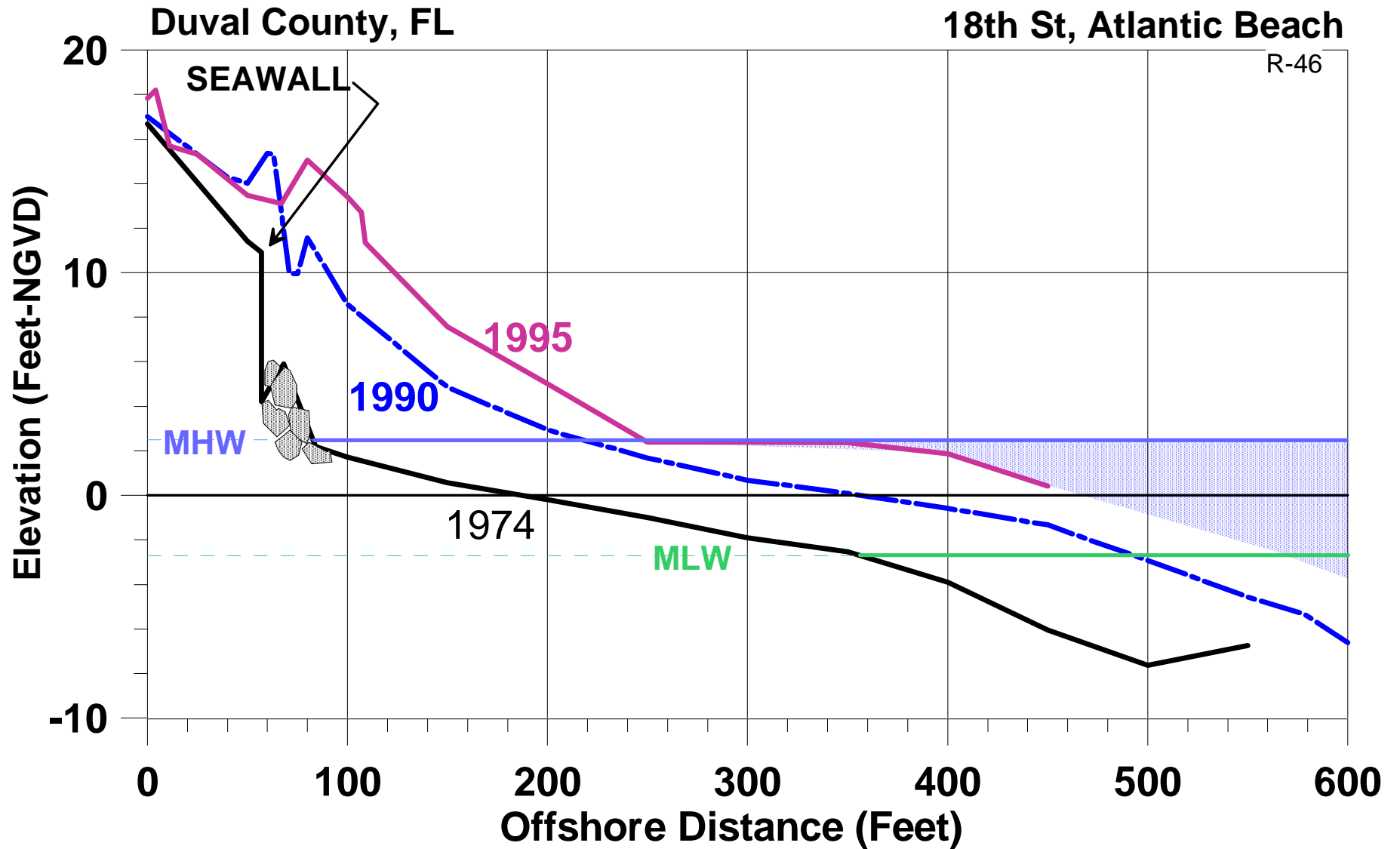
# BEACH PROFILE & FILL PERFORMANCE (Duval County)



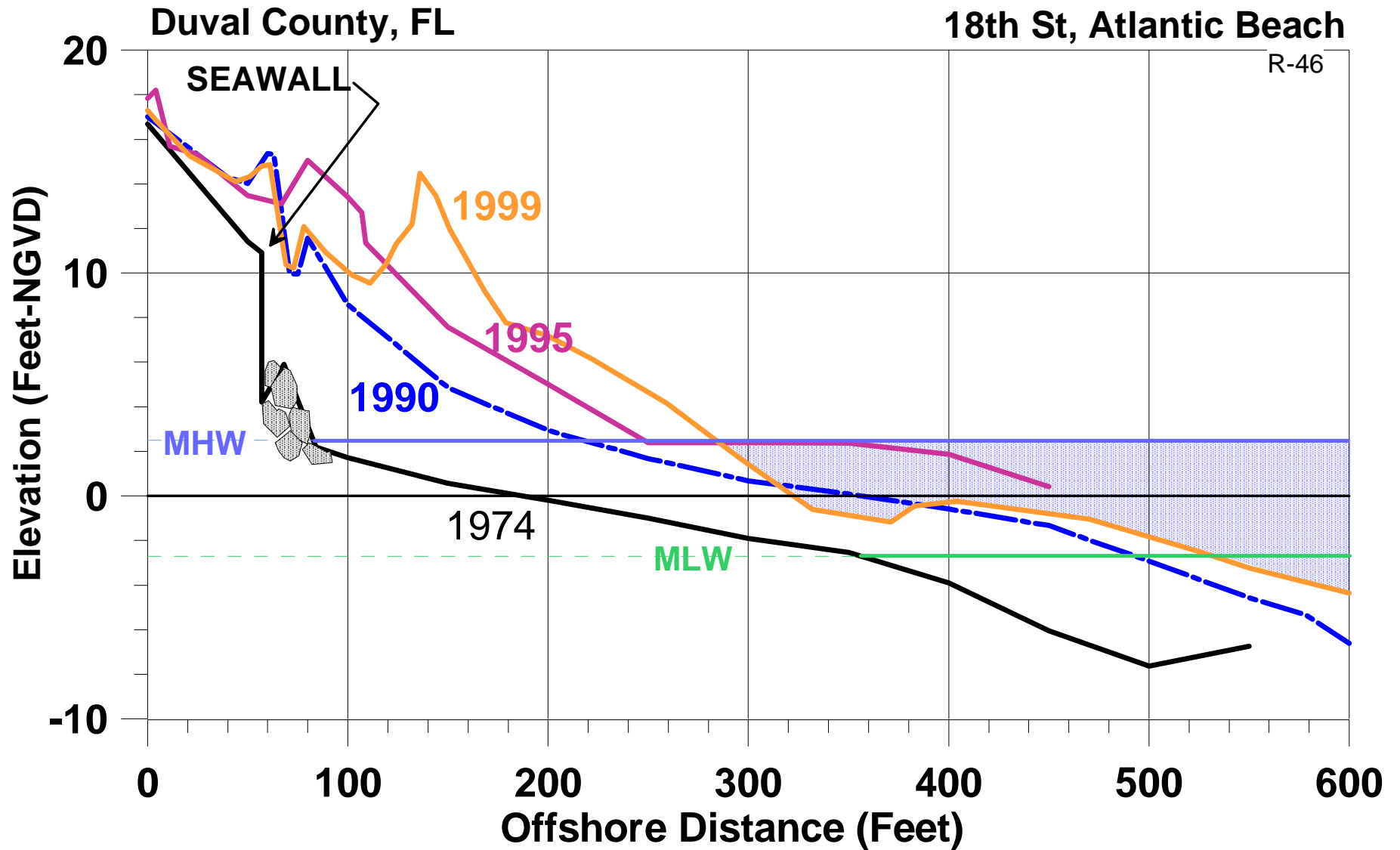
# BEACH PROFILE & FILL PERFORMANCE (Duval County)



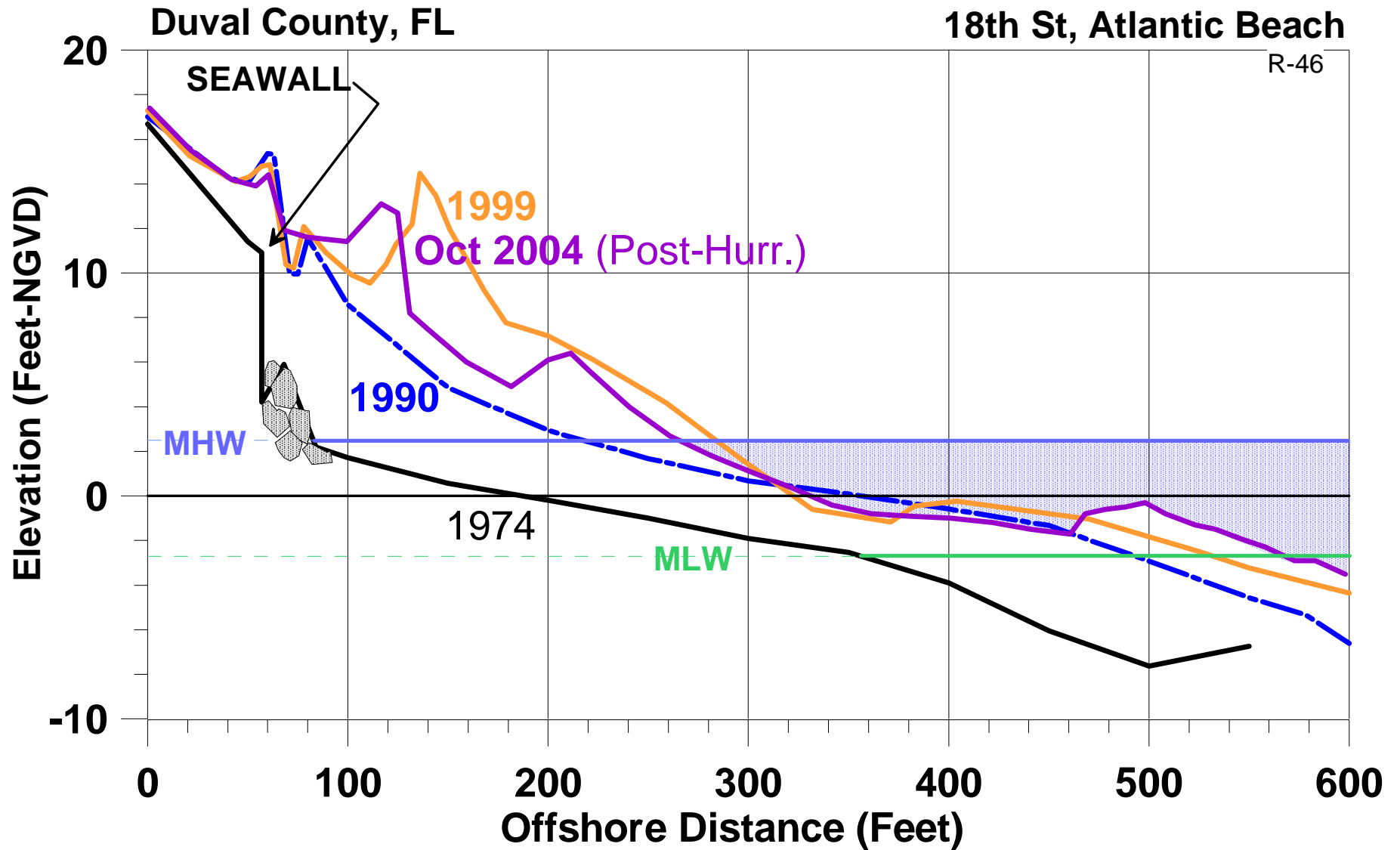
# BEACH PROFILE & FILL PERFORMANCE (Duval County)



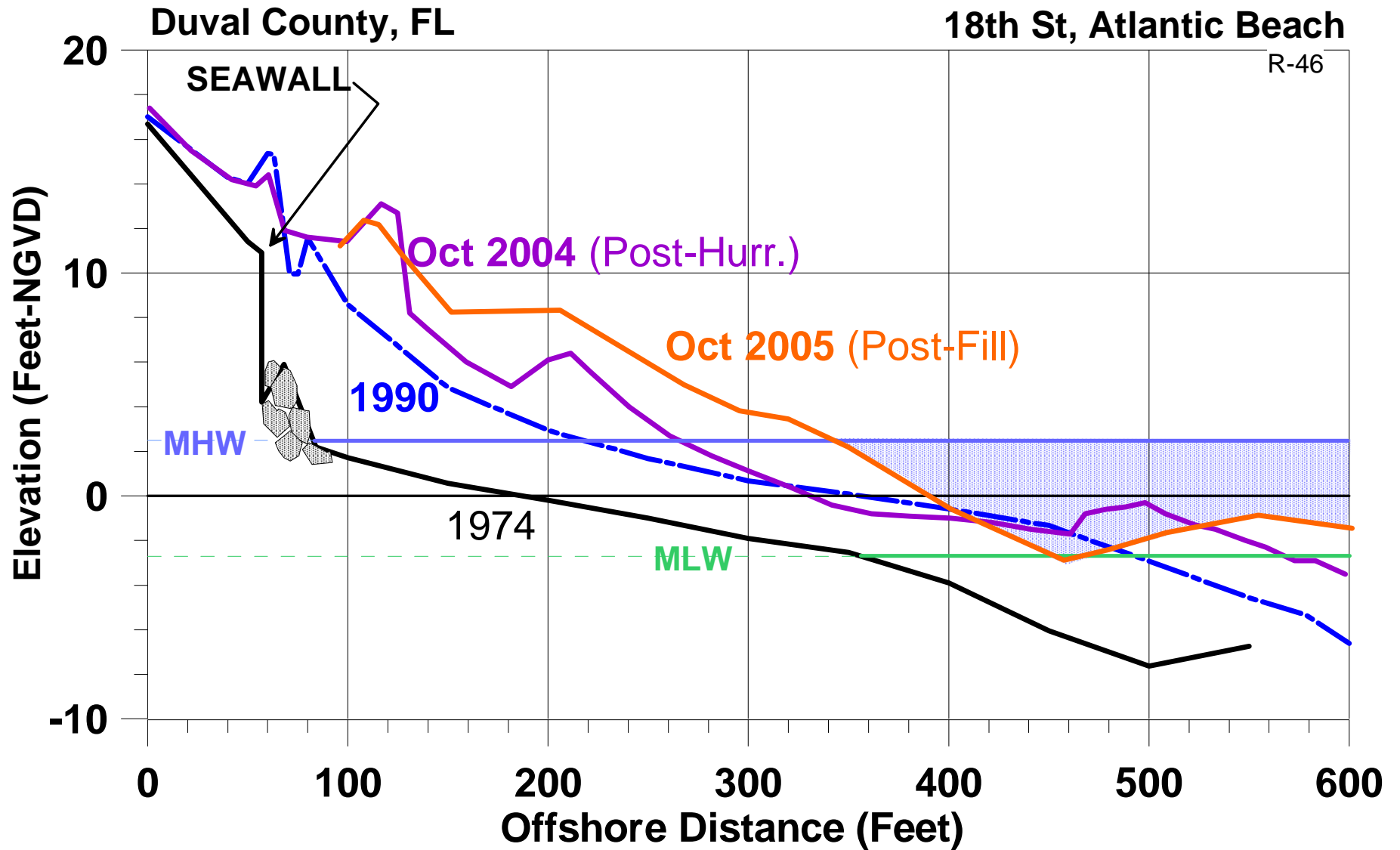
# BEACH PROFILE & FILL PERFORMANCE (Duval County)



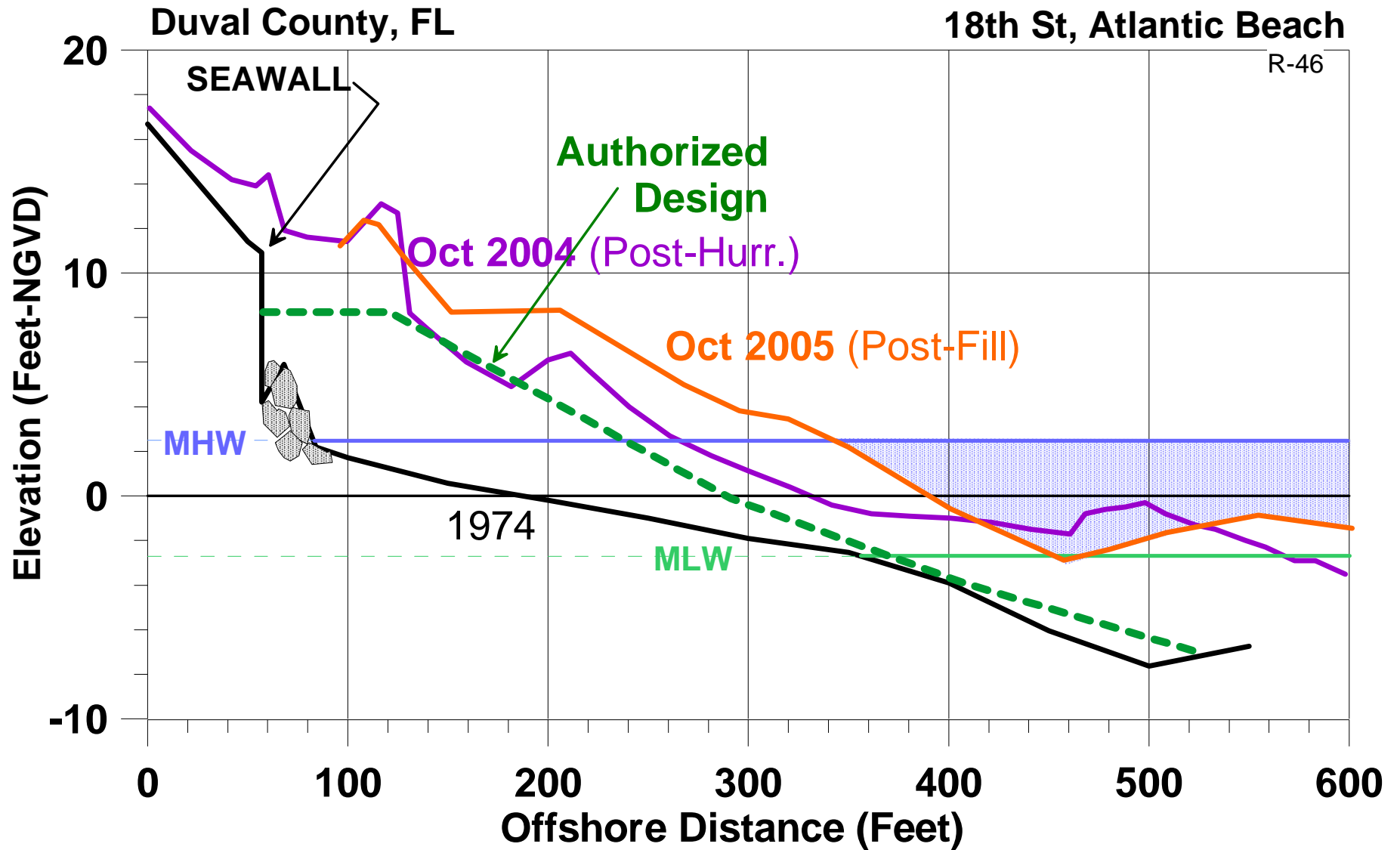
# BEACH PROFILE & FILL PERFORMANCE (Duval County)



# BEACH PROFILE & FILL PERFORMANCE (Duval County)



# BEACH PROFILE & FILL PERFORMANCE (Duval County)



June 1970

Looking north along shore of Atlantic Beach (one block south of pier).  
June 9, 1970



Aug. 1978



**8<sup>th</sup> Street  
Atlantic Beach**



March 2010

# JACKSONVILLE BEACH, 2011



# JACKSONVILLE BEACH February 2011

