



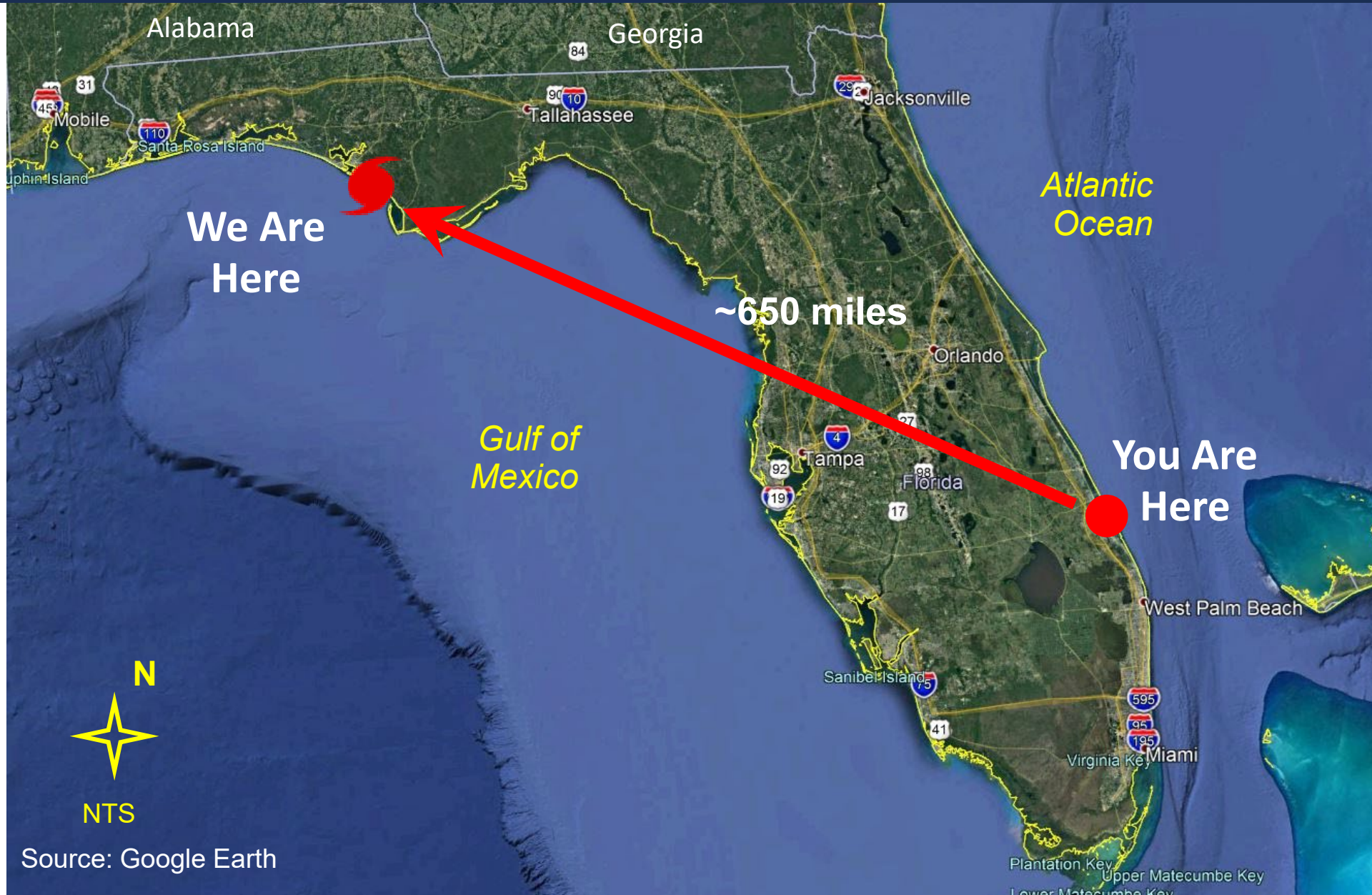
After the Storm:
Mexico Beach and St. Joseph Peninsula
Hurricane Michael Recovery

Michael Dombrowski, P.E.
MRD Associates, Inc. - Destin, Florida



2019 FSBPA 62nd Annual Conference
September 18, 2019

PROJECT LOCATION



Source: Google Earth

INTRODUCTION – HELLO MICHAEL!

- October 10, 2018.
- Strongest hurricane to make landfall in the Florida Panhandle.
- Landfall between Mexico Beach and Tyndall AFB.
- Category 5 Storm.
- Peak winds at 160 mph.
- Peak storm surge between 9 and 14 feet.



THE "UNFORGETTABLE" COAST



Source: Google Earth

CITY OF MEXICO BEACH, FLORIDA



Mexico Beach Canal

Gulf of Mexico

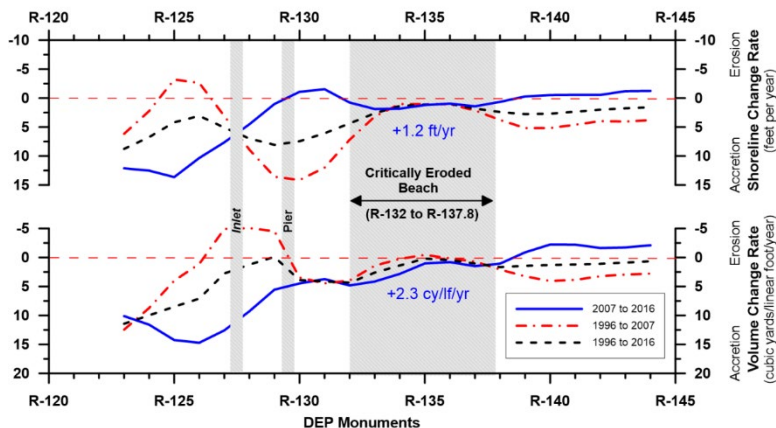
City of Mexico Beach

- ★ Inlet Sand Bypassing & Beach Restoration
- FEMA Berms
- TDC Beach Restoration
- ★ Existing Projects
- Post-Storm Projects



Source: Google Earth

CITY OF MEXICO BEACH - INLET SAND BYPASSING



- Pre-Hurricane Michael.
 - Truck-haul project - 2019.
 - Upland disposal – “Critically Eroded Shoreline”.
 - Modification of JCP and USACE Permit and USFWS B.O. to allow for sand bypassing.
- Then, this happened...



CITY OF MEXICO BEACH – POST HURRICANE MICHAEL



CITY OF MEXICO BEACH - FEMA BERMS

- Authorized March 14, 2019
- Permitting – Sand bypassing
- FEMA Project Worksheet Justification
- Category B – Beach Berm
- R-127.5 to R-144: 16,000-feet
- 97,000 cubic yards
- 155,320 sea oats
- 12,400 feet sand fencing
- Construction started May 2019
- Final completion September 2019
- Total Cost: \$5.2M



CITY OF MEXICO BEACH - BEACH RESTORATION



- Authorized January 2, 2019
- Bay County TDC – Local Sponsor
- Beach and Dune Restoration
- R-127.5 to R-144, 3.1-miles
- Preliminary Design
- Geotechnical Investigation (APTIM)
- Design and Permitting
- 550,000 cubic yards
- Total Cost: \$9.2M
- Construction in 2021



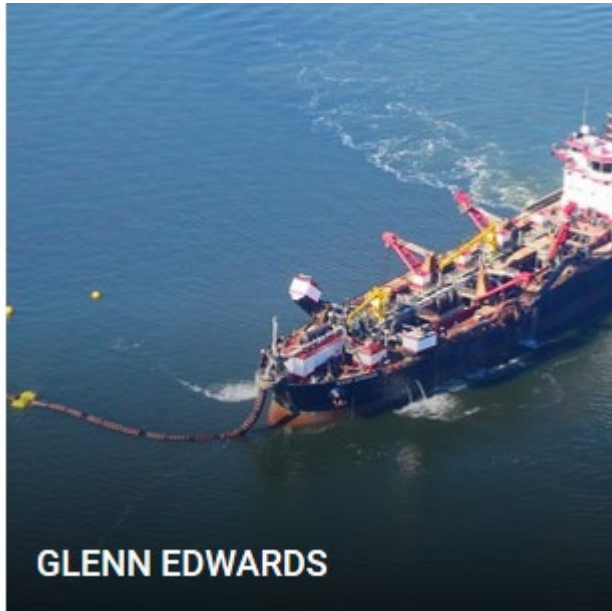
GULF COUNTY, FLORIDA



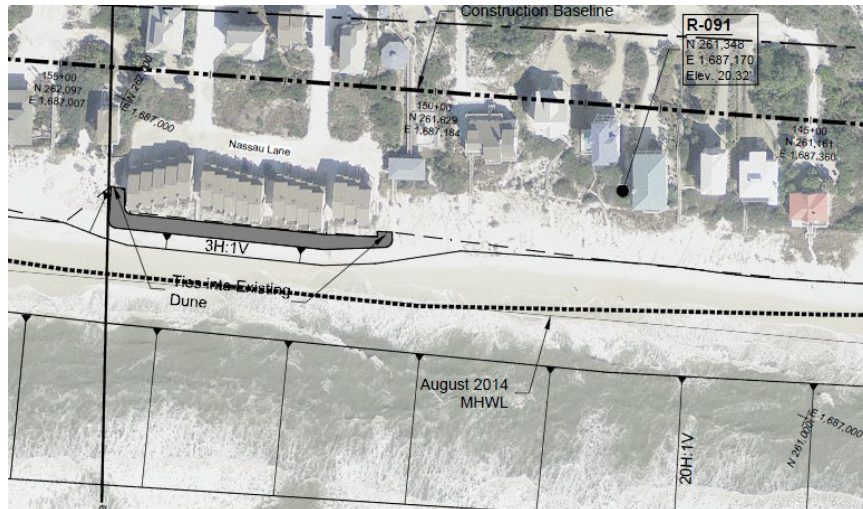
- ★ St. Joseph Peninsula Beach Restoration
- ☞ FEMA Berms
- ☞ Michael's Cut
- ★ Existing Projects
- ☞ Post-Storm Projects

Source: Google Earth

ST. JOSEPH PENINSULA - BEACH NOURISHMENT



- Pre-Hurricane Michael.
- Pipeline and equipment mobilized to the site.
- Glenn Edwards was in route.

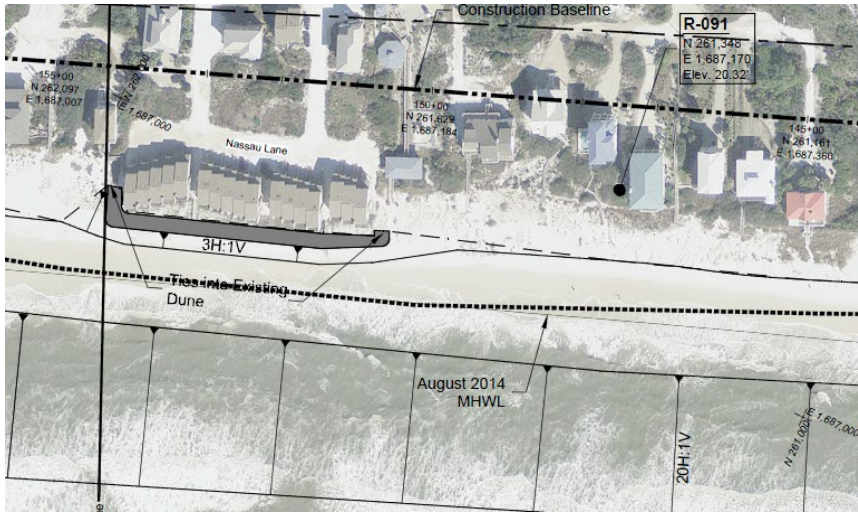


Then, this happened...

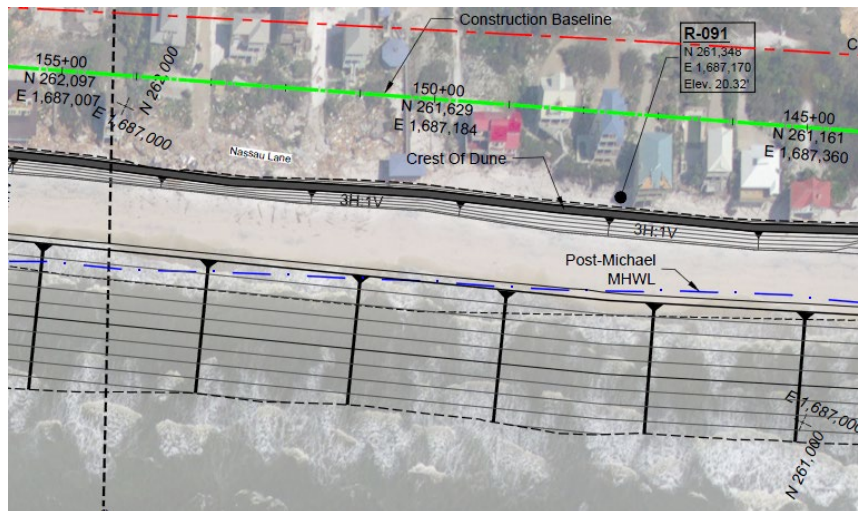
ST. JOSEPH PENINSULA – POST HURRICANE MICHAEL



ST. JOSEPH PENINSULA - BEACH NOURISHMENT



- Post-Hurricane Michael.
- Delayed by 1-year.
- Modify the construction template.
- Re-mobilize the Glenn Edwards and team.
- Commence this Monday!
- Interest payments on the MSTU – \$ from RESTORE.



ST. JOSEPH PENINSULA STATE PARK – MICHAEL'S CUT

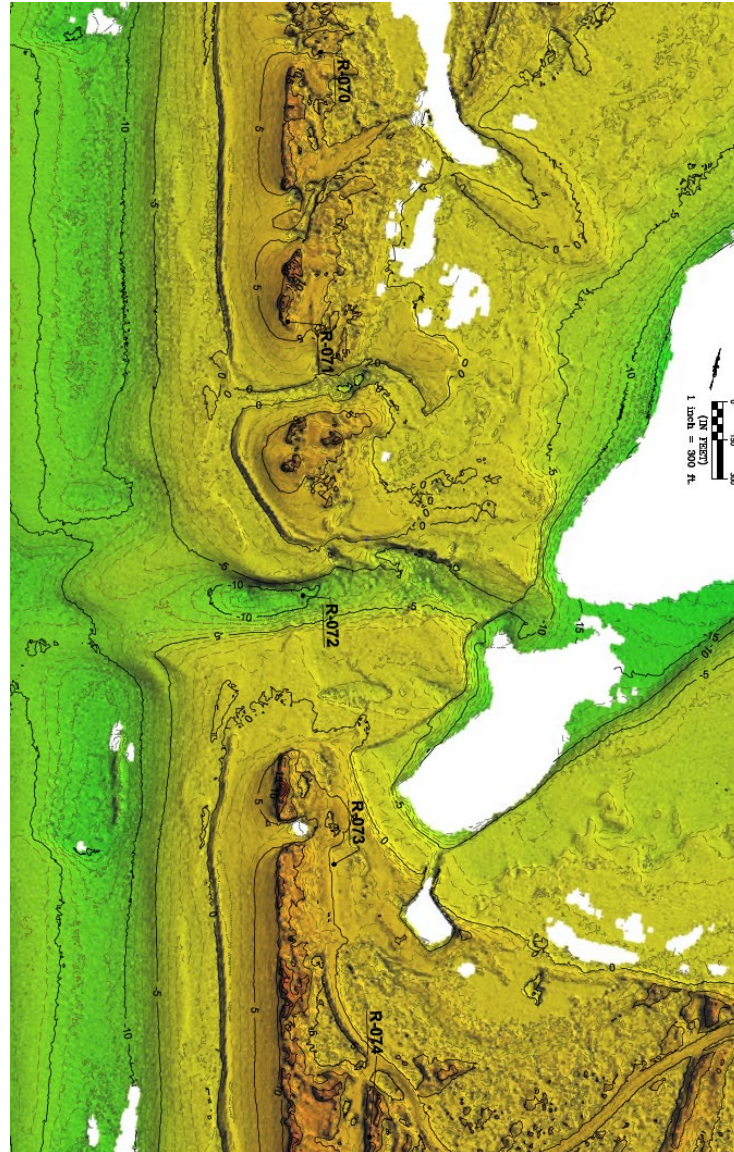
View Northwest to Gulf of Mexico



02/27/19



View Northeast to St. Joe Bay



Source: USACE/NOAA

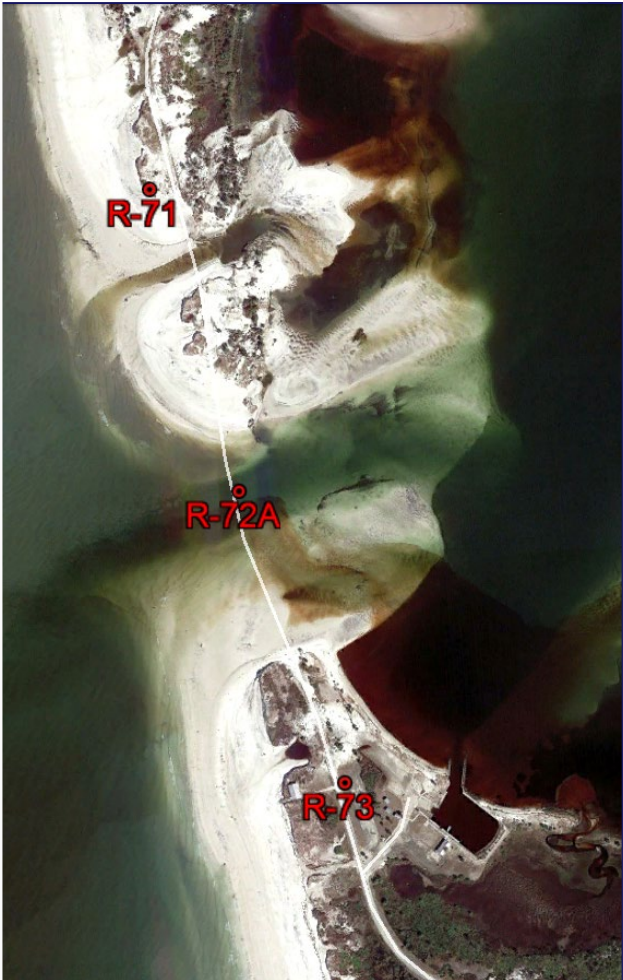
ST. JOSEPH PENINSULA STATE PARK – MICHAEL'S CUT

10/20/15



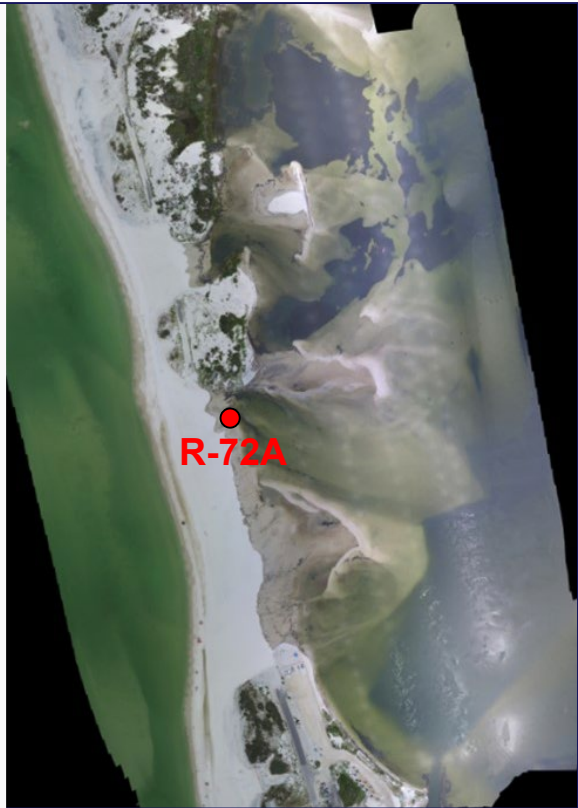
Source: Google Earth

04/27/19



Source: Google Earth

08/01/19



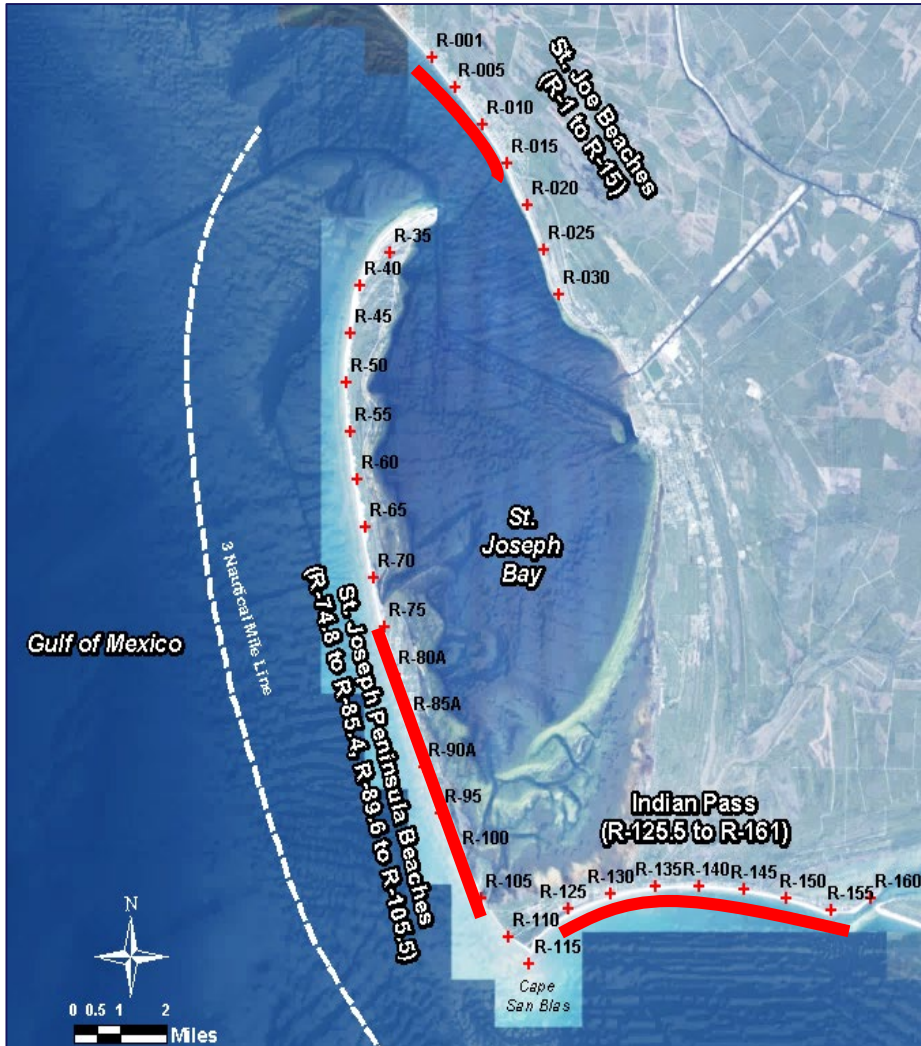
Source: MRD

ST. JOSEPH PENINSULA STATE PARK – MICHAEL'S CUT



- Authorized April 11, 2019.
- Design, permits, construction documents.
- Closure of the breach and restore the beach and dune system under the County's beach fill project contract with Manson Marine Construction – October 2019.
- Rebuild the access road, utilities and culverts – November 2019.
- Total Cost: \$4.3M

GULF COUNTY - FEMA BERMS



- Authorized March 2019
- FEMA Project Worksheet Justification
- Category B- Beach Berm
- 52,655-feet
- 305,358 cubic yards
- Total Cost: \$16M
- Design and Permitting
- Construction in 2020

THE "UNFORGETTABLE" COAST

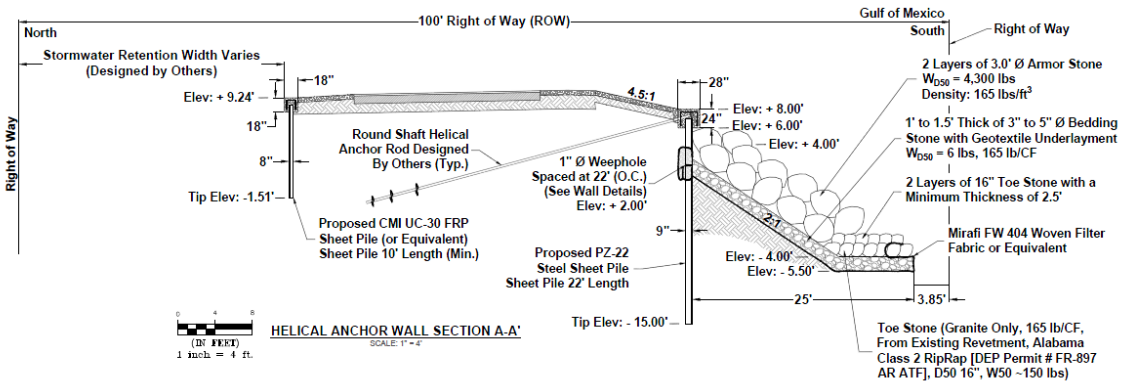


Source: Google Earth

ALLIGATOR POINT – POST HURRICANE (VARYING)



FRANKLIN COUNTY, FLORIDA



**Alligator Point Road and
Revetment**



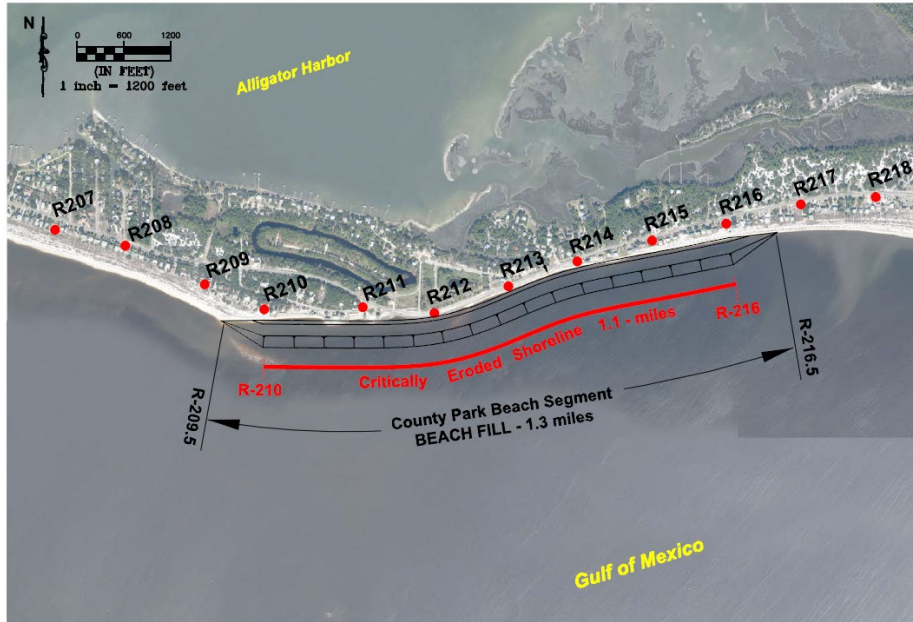
Beach Restoration



Existing Projects

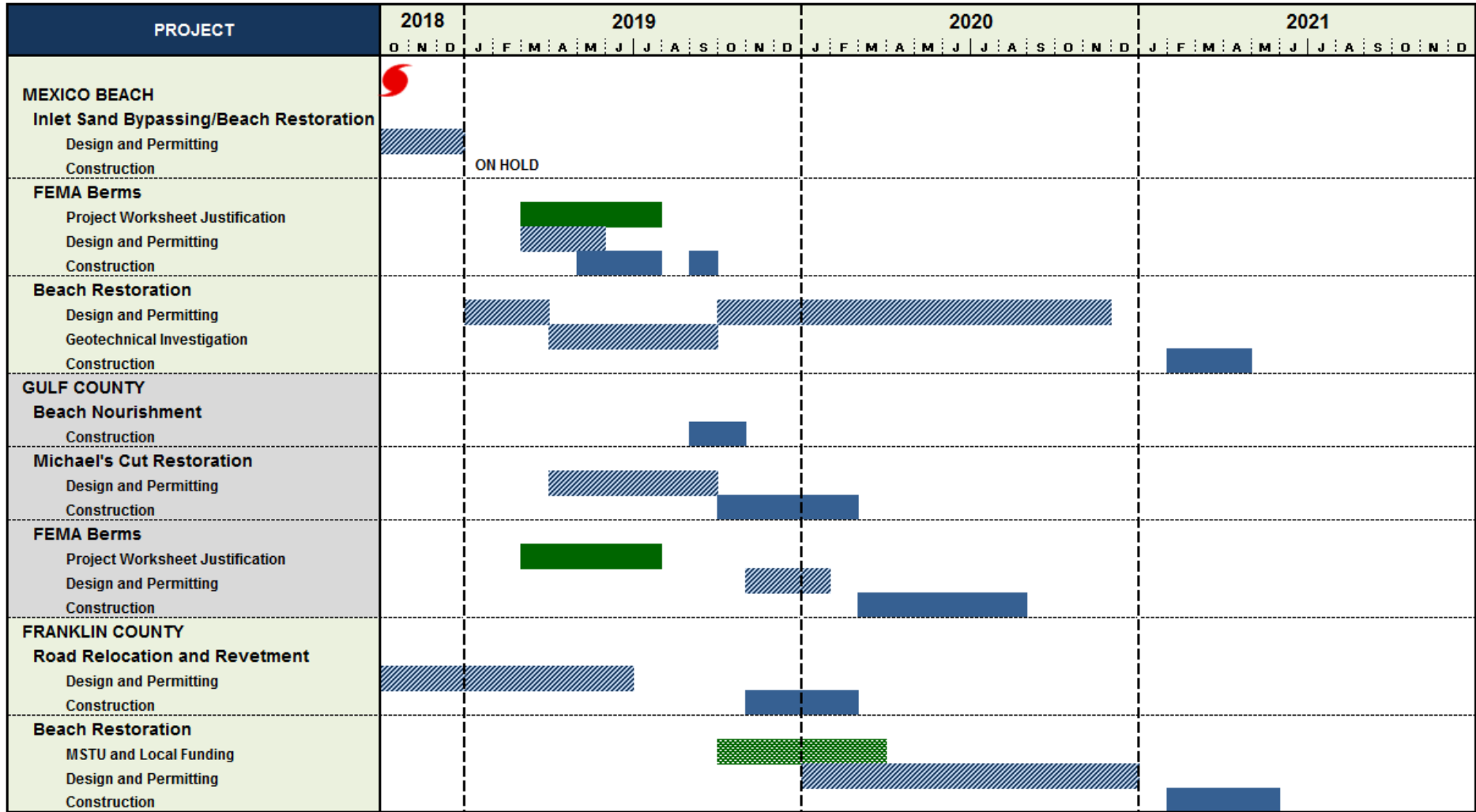


Post-Storm Projects



- 1.1-mile Beach and Dune
- Total Cost: \$10+M
- MSTU and Local Funding
- Design and Permitting
- Construction in 2021

PROJECT TIMELINES



THANK YOU!

**Don't let "The Unforgettable Coast"
be forgotten!**