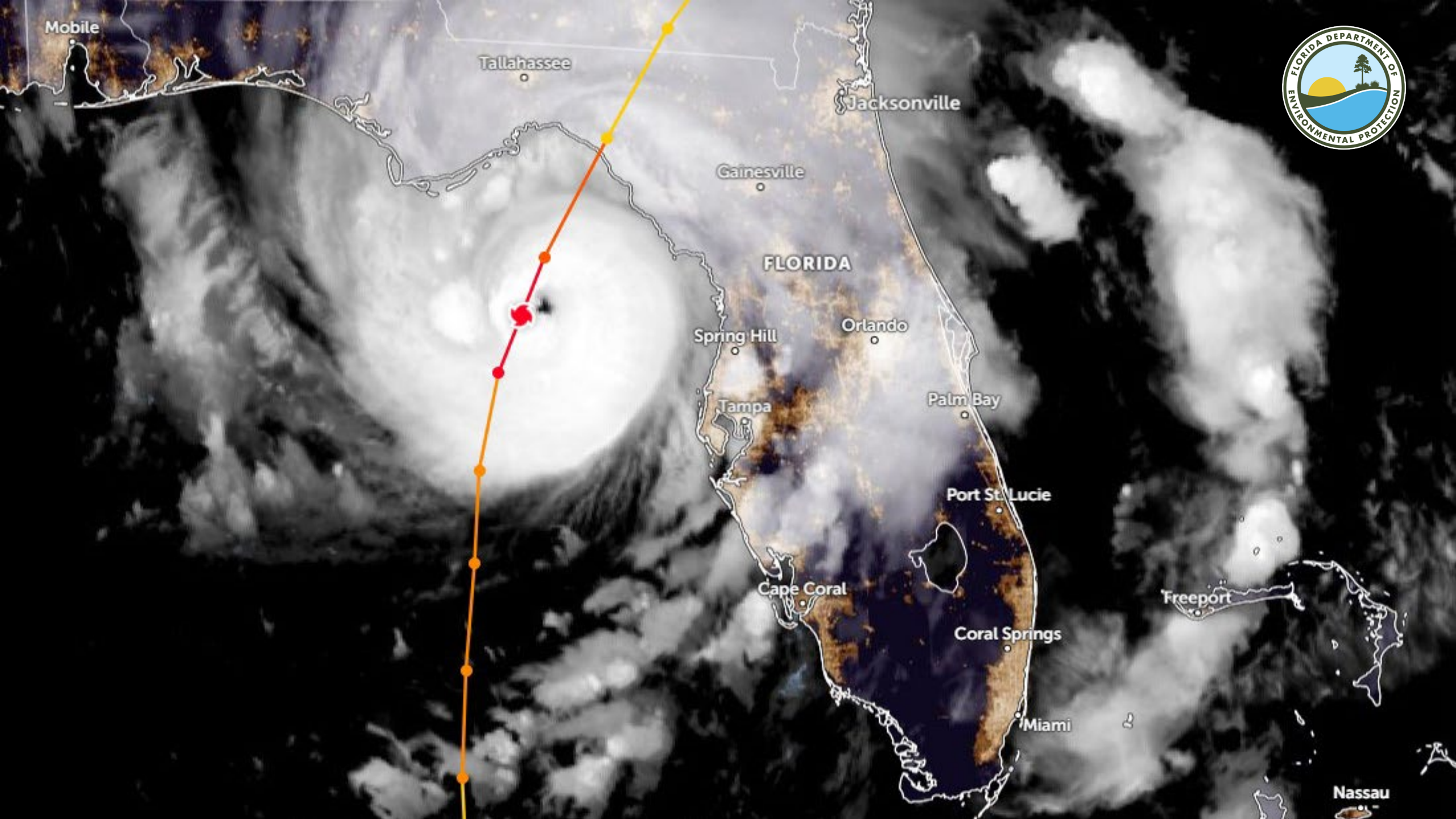




Hurricane Idalia & the Florida Big Bend Coast

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February 7, 2024
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Mobile

Tallahassee

Jacksonville

Gainesville

FLORIDA

Spring Hill

Orlando

Tampa

Palm Bay

Port St. Lucie

Cape Coral

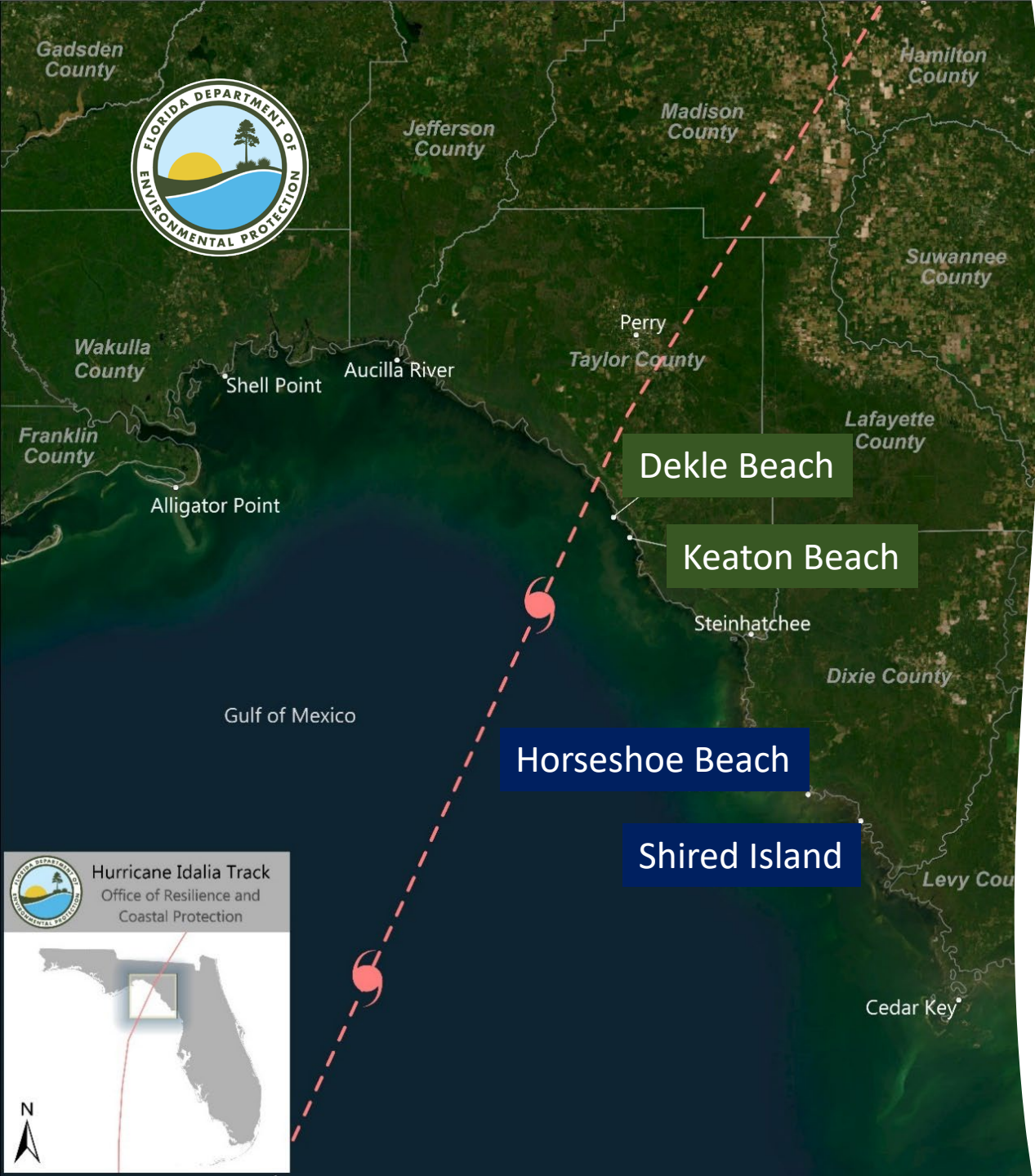
Coral Springs

Miami

Freeport

Nassau





Category 3 Hurricane Idalia makes landfall in Taylor County, August 30, 2023

- Greatest impact extended east of the eye from Dekle Beach south through the Cedar Keys
- Storm tides estimated from 7 to 12 feet along the coast
- Cedar Key tide gage measured +8.4 ft. NAVD
- NOAA buoy off St. Petersburg measured waves to 33.8 feet



Coastal Damage Assessment

A snapshot of DEP data points
Collected within the Coastal
Building Zone on Horseshoe Beach
after Hurricane Idalia.





Hurricane Idalia – Major Structural Damages

County	# Single-Family Dwellings Damaged	# Multi-family Dwellings ¹ Damaged	# Other Major Structures ² Damaged	Total # Damaged ³
Taylor	87	2	17	106
Dixie	103	2	60	165
Levy	4	14	6	24
Pinellas	1	2	0	3
Manatee	3	0	0	3
Sarasota	3	0	0	3
Charlotte	1	1	0	2
TOTAL	202	21	83	306



Hurricane Idalia – Armoring Damage

County	Major Damage (Feet)	Minor Damage (Feet)
Taylor	0	0
Dixie	559	739
Levy	544	0
Pinellas	0	74
Manatee	0	0
Sarasota	1135	2,682
Charlotte	0	320
TOTAL	2,238 (0.43 miles)	4,972 (0.72 miles)



Historical Damage Perspective

YEAR	Hurricane	# of Major Structures
2022	Ian	4,503
2018	Michael	2,725
1995	Opal	1,129
2004	Ivan	1,000+
2017	Irma (non-Keys)	813
2004	Jeanne	644
2004	Frances	546
2005	Dennis	448
2020	Sally	336
2023	Idalia	306
2004	Charley	~250
1985	Kate	242
2016	Matthew	187
1985	Elena	165
2022	Nicole	158
1979	Frederic	101



Taylor County

- 106 major structures damaged mostly due to Idalia's winds; only 1 SFD destroyed
- Storm tides 6 to 8 feet
- Only minor beach erosion
- Wetlands showed substantial resilience
- Big Bend Seagrasses Aquatic Preserve – no decline in abundance or density of seagrasses



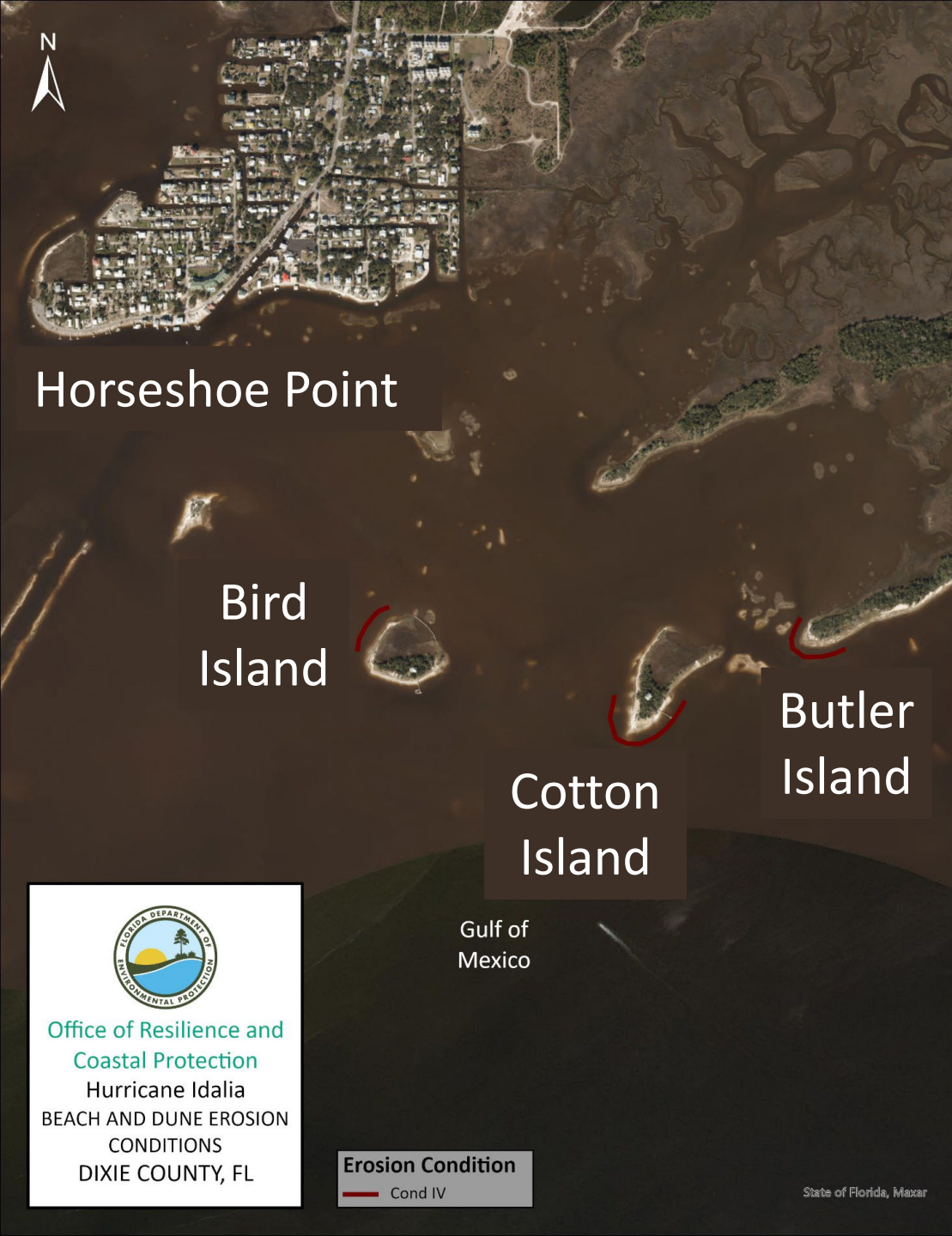
Structural Wind Damages – Taylor County

Dekle Beach



Keaton Beach





Northern Dixie County

- 165 major structures damaged, including 96 destroyed
- Horseshoe Beach with 53 SFD's destroyed; another 50 with major structural damage
- Most damage due to the storm surge and waves
- Damage comparable to March 1993 Storm of the Century
- Major beach and dune erosion on Bird, Cotton and Butler Islands
- Adjacent wetland shorelines resilient with little erosion

Southern Dixie County

- Storm tides between 8 to 12 feet county-wide
- Major beach and dune erosion on Shired, Big Pine and Little Pine Islands
- The wetland shorelines were anchored by oysters and wetland plants and experienced little, if any, shoreline retreat
- Big Bend Seagrasses Aquatic Preserve – no decline in abundance or density of seagrasses

Shired
Island

Big Pine
Island

Little Pine
Island

Gulf of
Mexico



Office of Resilience and
Coastal Protection
Hurricane Idalia
BEACH AND DUNE EROSION
CONDITIONS
DIXIE COUNTY, FL

Erosion Condition
Cond I
Cond IV

State of Florida, Maxar



Horseshoe Beach WeatherSTEM Station Photos

8:00 p.m. August 29 Pre-storm

7:20 a.m. August 30 During storm





Cotton Island erosion – Pre-storm (left); Post-storm (right)





Shired Island, Dixie County (critical erosion area)





Horseshoe Beach, Dixie County – Storm Tide





Horseshoe Beach Marina & Main Canal





Horseshoe Beach – Grade Level Dwellings Destroyed





Horseshoe Beach: Structures floated off their foundations





Horseshoe Beach dwellings destroyed





Horseshoe Beach dwelling destroyed





Levy County

- Mostly minor beach erosion on Cedar Key
- Major beach and dune erosion on Deer Island and Gomez Key north of Cedar Key
- Major beach and dune erosion on Seahorse Key and Atsena Otie Key south of Cedar Key
- Idalia, one of many storms to shape history of Cedar Key
- 24 major structures damaged to wind, storm surge and waves.





Cedar Key, Levy County – Storm surge and wind





Armoring vs. Living Shoreline





THANK YOU

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