



The Morphological Evolution of Little Estero Island

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Estero Island, Lee Co.

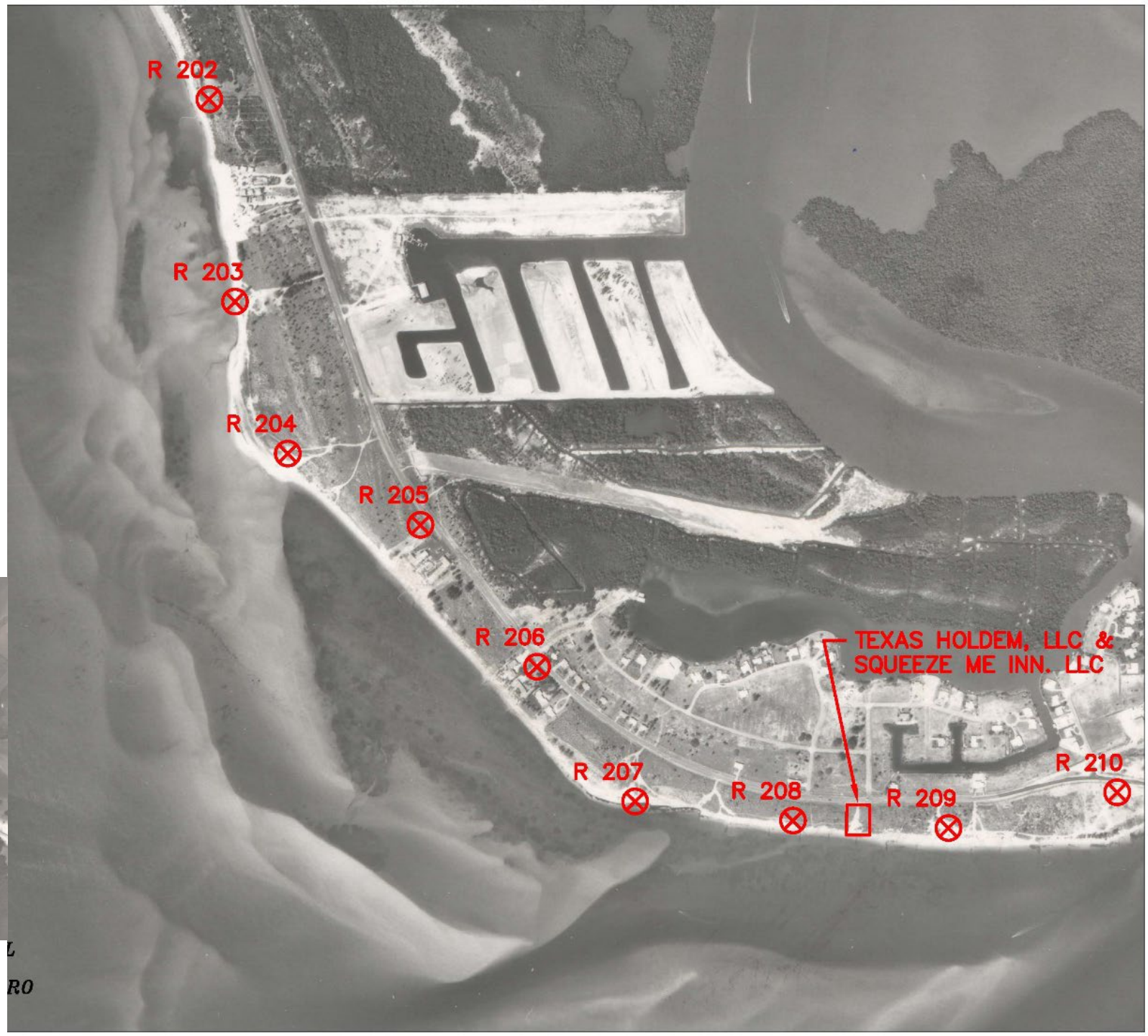




1968

Pre-emergence

Numerous submerged shoals exist as part of the Big Carlos Pass ebb tidal delta



L
RO



1970

R 202
R 203



R 204



R 205



R 206



R 207



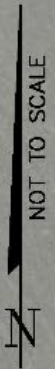
R 208



Shoals emerge

TEXAS HOLD
SQUEEZE

Beaches accrete
behind shoals



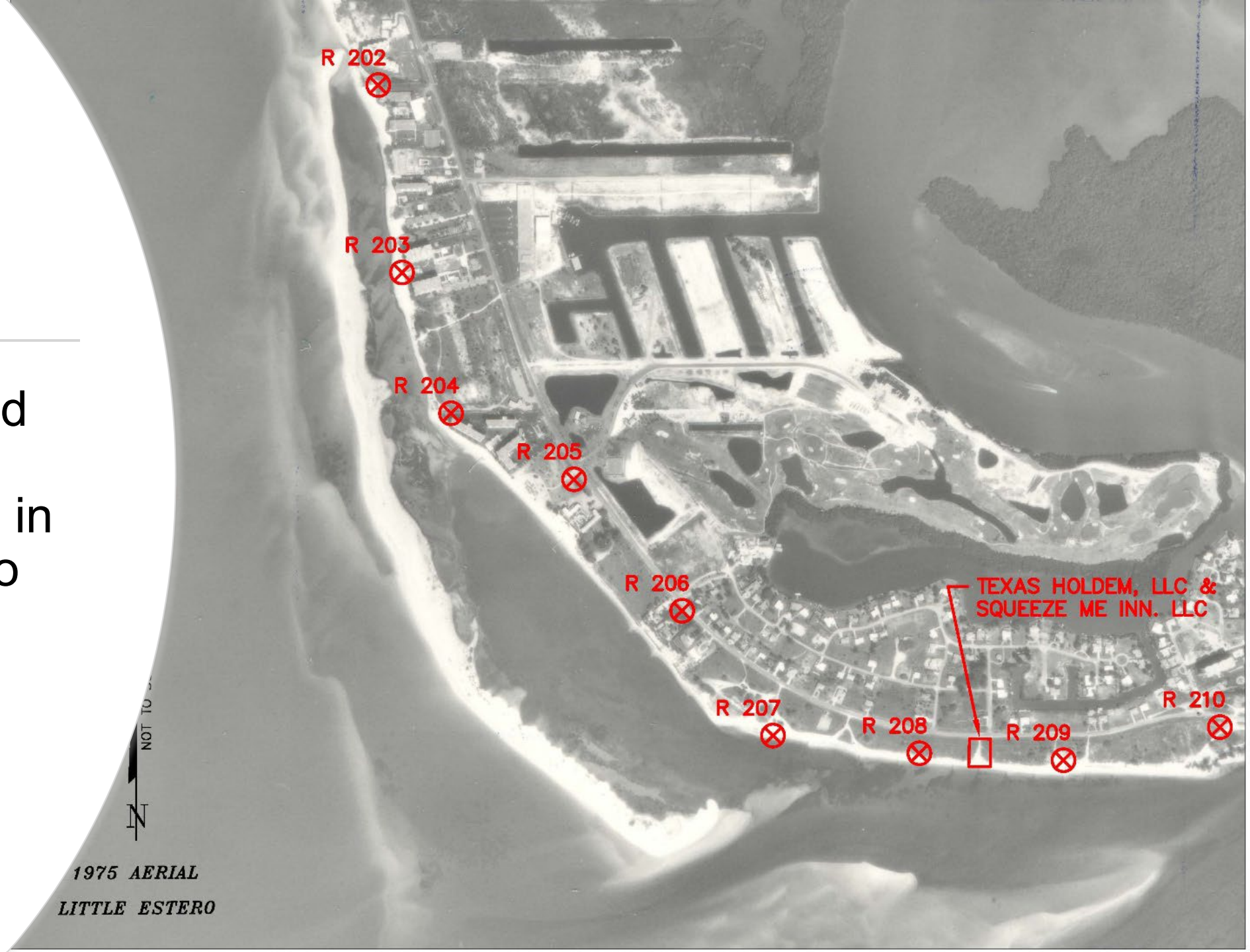
1970 AERIAL

LITTLE ESTERO



1975

Little Estero Island emerged from submerged lands in the Gulf of Mexico



1975 AERIAL
LITTLE ESTERO



1979

North attachment

Attached near R202 at north end. Recurved growth at south end near R207 encloses lagoon. Submerged sand bar parallels Little Estero Island.





1983

Partial dissintegration

June 1982 subtropical storm caused major impacts.

Southern half of Little Estero Island now submerged with remnant swash bar.

Parallel barrier sand bar continues to exist



1983 AERIAL
LITTLE ESTERO



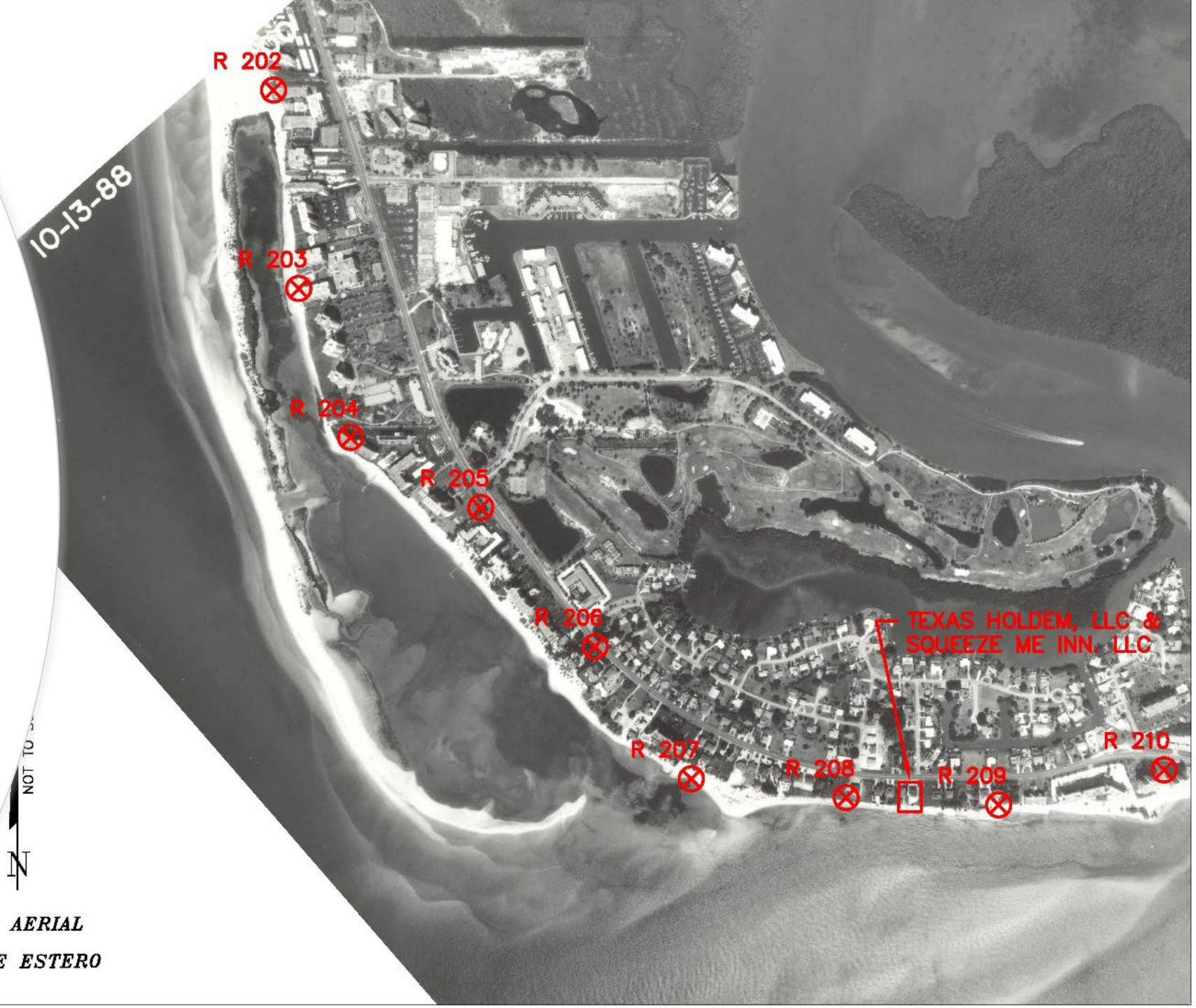
1988 Regrowth

Substantial regrowth
along southern half.
Caused by dominant
southward longshore
transport and the
emergence of sandbar.

10-13-88



1988 AERIAL
LITTLE ESTERO





1990

Second prong of growth.

1996

Reattachment at south end.





1999

New bar emergence

Submerged bar has emerged along southern half of Little Estero.

Attached at middle, growing south and east as barrier spit.



1999 AERIAL
LITTLE ESTERO



2001

Immediately prior
to southern
attachment near
R209.



2001 AERIAL
LITTLE ESTERO



2005 Post-Hurricane Charley.

2008 Landward migration.





2011

Lagoon truncation.



2017

Landward island migration.





2021
pre-lan

Little Estero
Island and
lagoon
becomes
narrow.





Sept. 2022 Post-Ian



R-200

R-201

R-202

R-203

R-204

R-205

R-206

R-207

R-208

R-209

R-210



THE END



Thank You