



# CLAM BAY

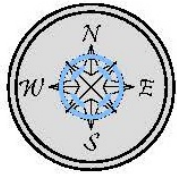
## A MANGROVE RESTORATION SUCCESS STORY

TURRELL, HALL &  
ASSOCIATES, INC.   
Marine & Environmental Consulting

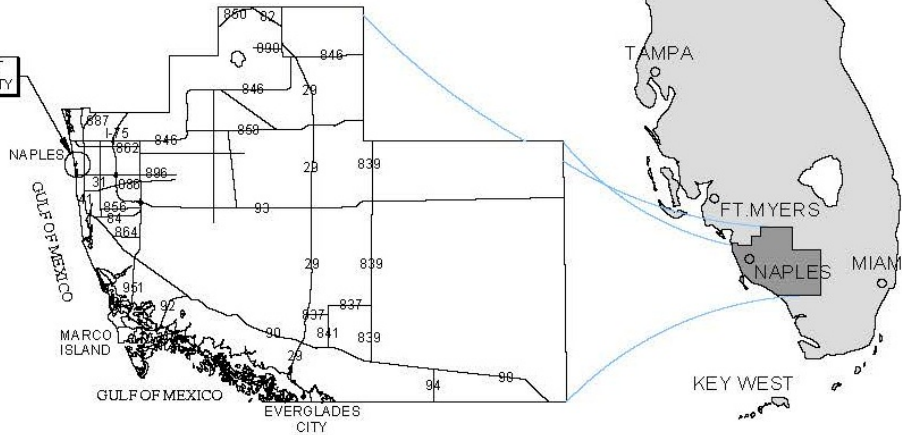
# LOCATION



## STATE OF FLORIDA



SUBJECT  
PROPERTY



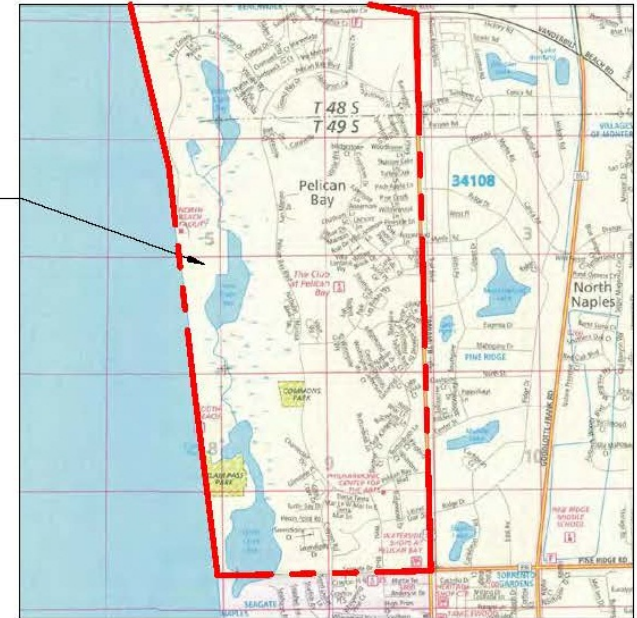
## COLLIER COUNTY

### NOTES:

<> THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY  
AND ARE NOT INTENDED FOR CONSTRUCTION USE.

<> LATITUDE: N 26° 13' 49"  
<> LONGITUDE: W 81° 48' 59"

SUBJECT  
PROPERTY



## VICINITY MAP

SUBJECT  
PROPERTY



## COUNTY AERIAL

# BACKGROUND

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- **1995 – Die-off**
- **Community effort with little county or state support**
- **1998 – Permits aquired**
- **Budget of over \$2 million to implement**
- **Ongoing Maintenance**
  - **Dredging Pass – 1999, 2002, 2007, 2013**



# AREA OF FOCUS





# DIE-OFF

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1995

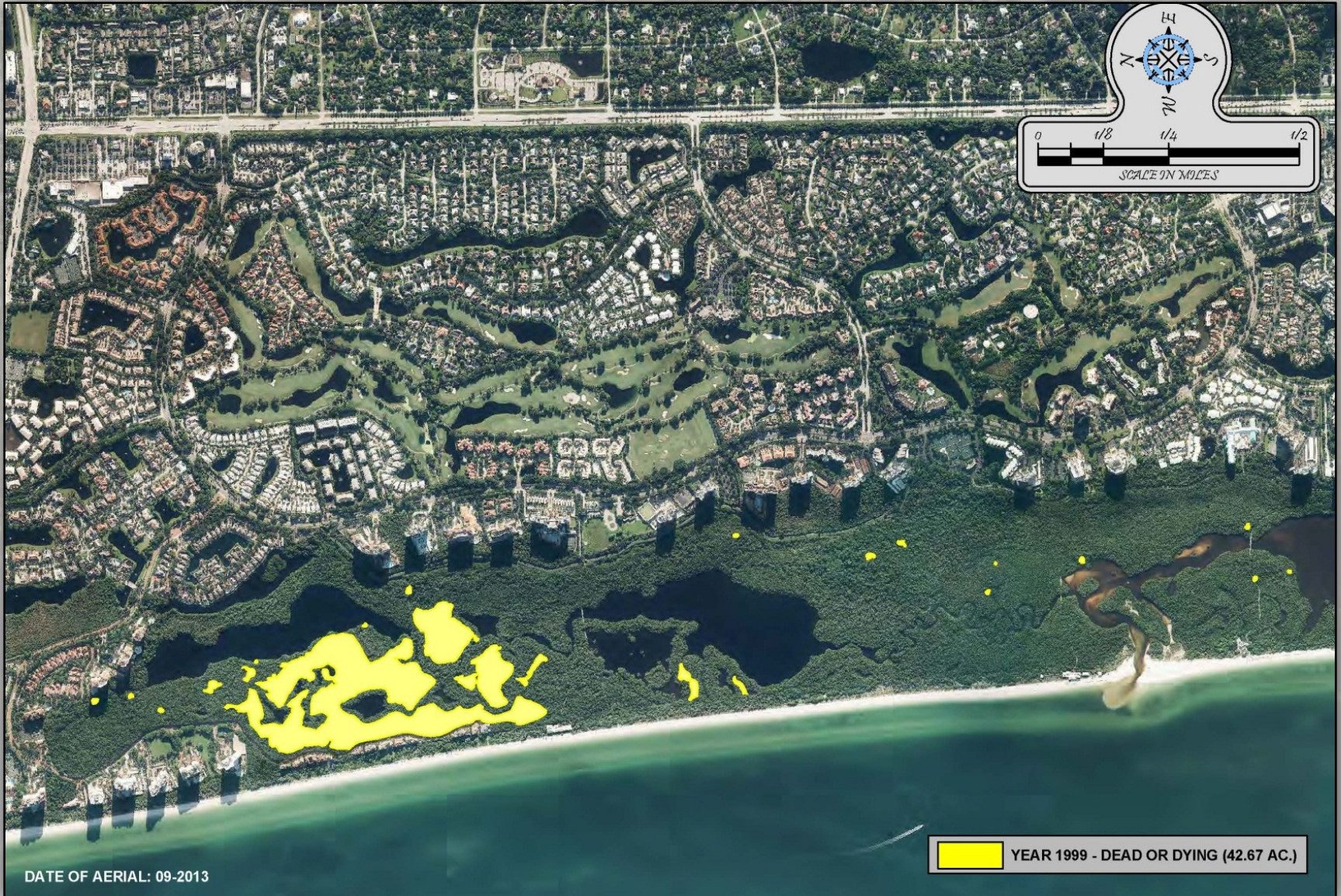


# DIE-OFF





# ORIGINAL CALCULATED DIE-OFF 1999





# CREEK DREDGING

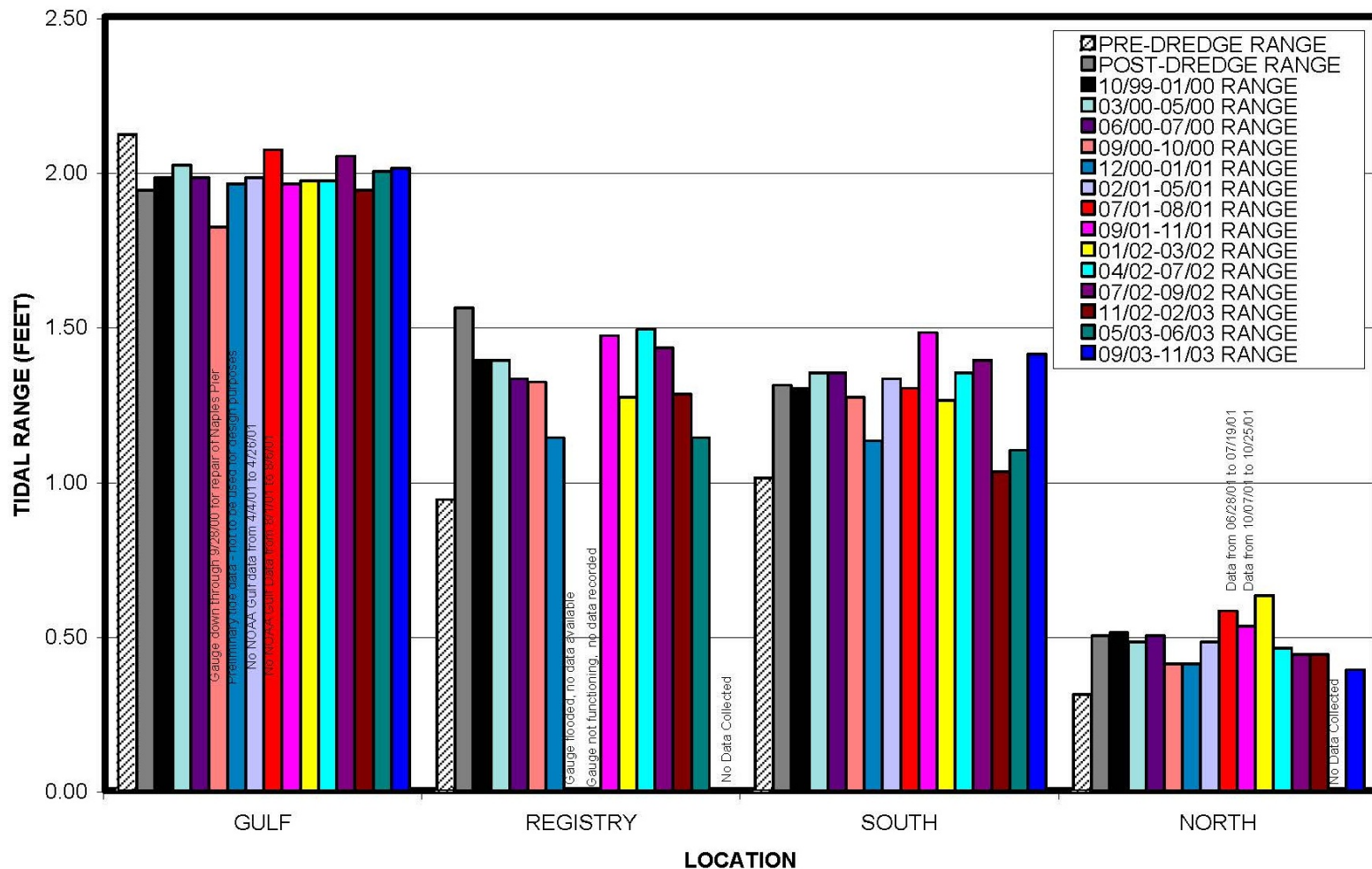




# TIDAL RANGE IMPROVEMENT



CLAM BAY TIDAL RANGES





# DIE-OFF 00' & 03'

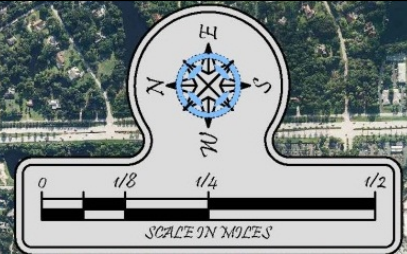




# HAND DUG CHANNELS



Approximately 13 miles of flushing channels have been installed



DATE OF AERIAL: 09-2013

1999	Cyan
2000	Magenta
2001	Blue
2003	Purple
2004-2005	Yellow
2005-2006	Orange



# HAND DUG CHANNELS





# HAND DUG CHANNELS

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# HAND DUG CHANNELS

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2005



# HAND DUG CHANNELS

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# RECOVERING AREA (MONITORING PLOT)

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# 2013

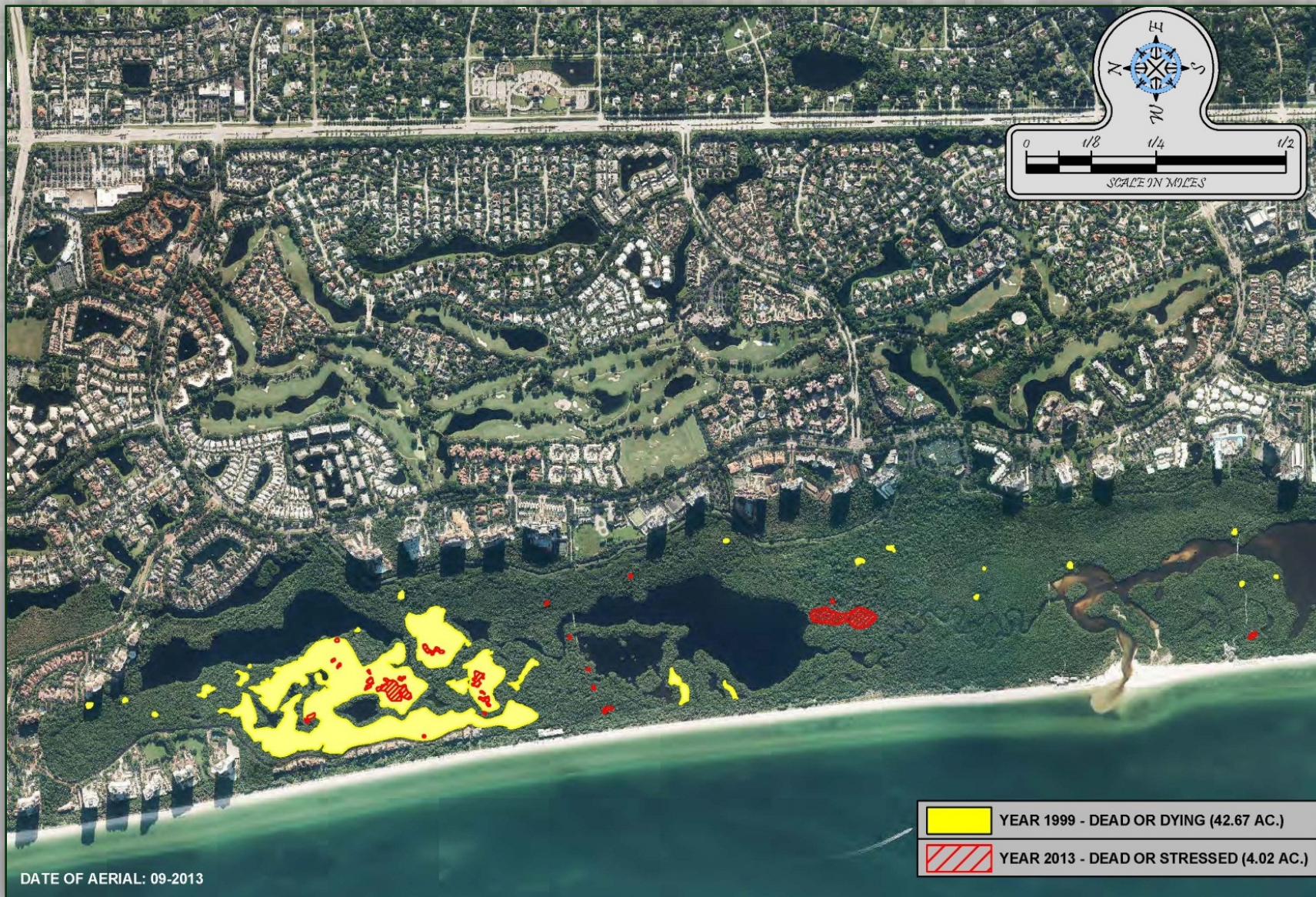


A total of 4.02 acres of mangroves are still considered dead or stressed, a momentous reduction from the original die-off of over 42 acres documented in 1999.





# 99' DIE-OFF COMPARED TO 13'





# MAIN DIE-OFF COMPARISON

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# QUESTIONS??

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