

Seagrass Mapping 2014



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Estero Bay ABM
Fort Myers, Florida
June 13, 2016



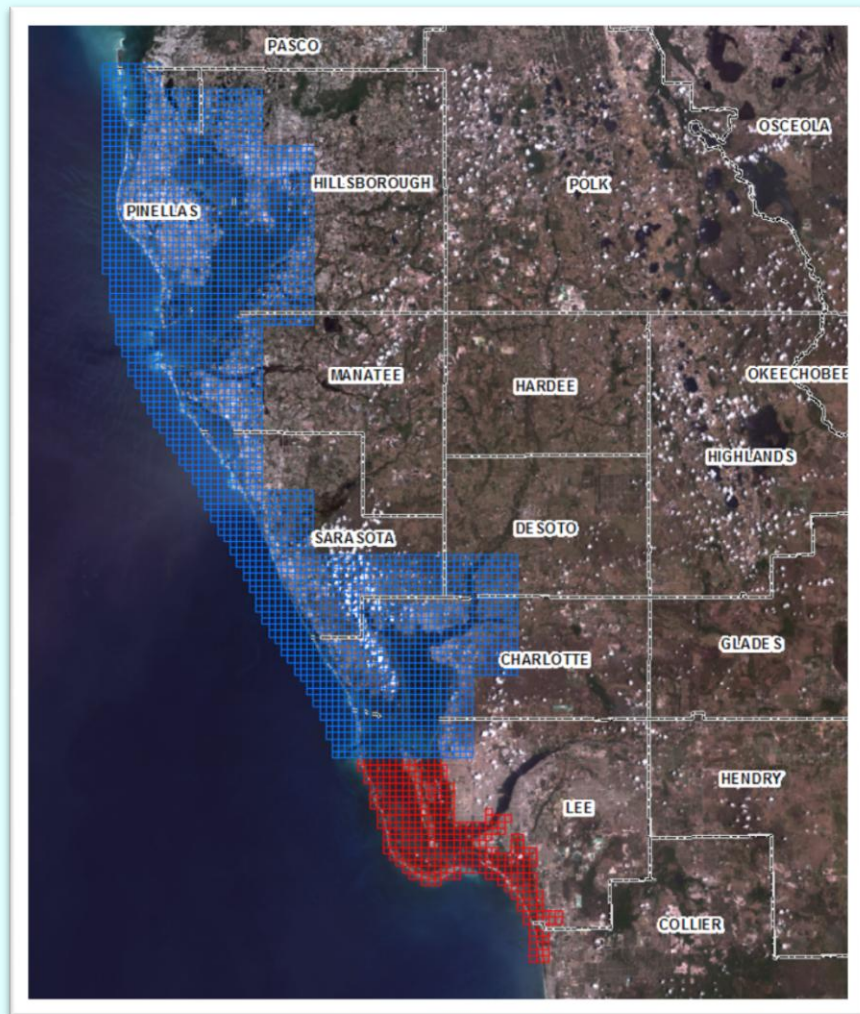
SWFWMD

- Biennial Mapping
- Different reporting segmentation system
- Seagrass maps for TBEP, SBEP, CHNEP
- Aerial Cartographers of America and Quantum Spatial (aka Photo Science)
- Collection window Dec '13 – Feb '14
- Field Verification: 327 sites visited, 6 field days



SFMWD

- Mapping not currently biennial
- Responded to LWC request for 2014
- Same reporting segmentation system, except for SWFWMD overlap
- Aerial Cartographers of America and Quantum Spatial (aka Photo Science)
- Acquired in Dec. 2013 – Feb 2014
- Field Verification (317 points)



Program Boundaries



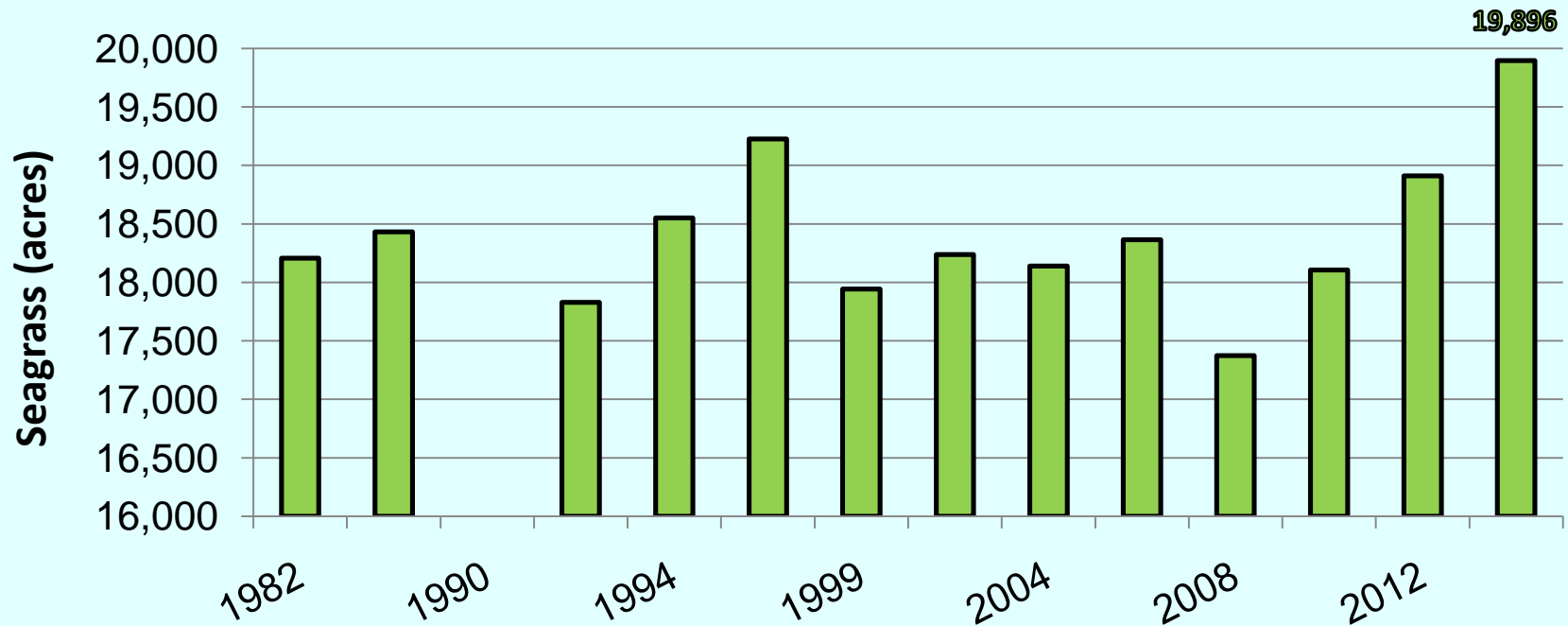
Southwest Florida WMD
Approximately 2,539 sq. miles



South Florida WMD
Approximately 330 sq. miles

*Coordinated to conduct concurrent mapping

Charlotte Harbor Seagrass Overtime



Segment	Restoration Target	2014 Target	Total Seagrass Target Acres	2008 Acres	2012 Acres	2014 Acres	% Target
Dona and Roberts Bay	21		112	187	181	203	181%
Upper Lemon Bay			1,009	1,148	1,276	1,357	134%
Lower Lemon Bay	380		2,882	2,607	2,785	2,893	100%
Tidal Myakka		37	456	311	287	419	92%
Tidal Peace	591	327	975	247	389	648	66%
West Wall	199		2,106	2,049	2,150	2,222	106%
East Wall	433	246	3,898	2,691	3,499	3,652	94%
Cape Haze		21	6,998	6,672	6,849	6,977	100%
Bookelia			3,342	3,689		4,086	122%
Pine Island Sound			26,837	27,507		29,114	108%
Matlacha Pass	1,733	1,043	9,315	7,995		8,272	89%
San Carlos Bay			4,372	6,469		7,167	164%
Tidal Caloosahatchee*	6		93	300		411	442%
Estero Bay	591		3,662	3,590		3,683	101%
Total	3,954	1,674	66,057	65,462	21,357	71,104	136%

Charlotte Harbor



Legend

SWFWMD_seagrass_2014

FLUCCS_CODE

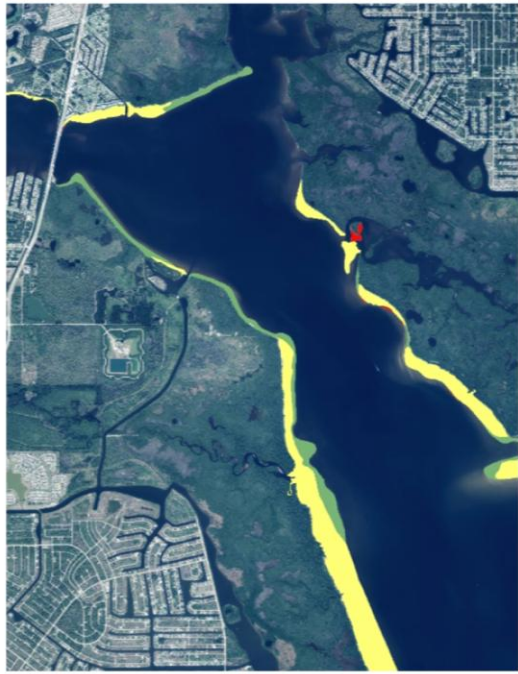
- | | |
|---|----------------------------|
|  | 0 - Land |
|  | 6510 - Tidal Flat |
|  | 6540 - Oyster |
|  | 9113 - Patchy Seagrass |
|  | 9116 - Continuous Seagrass |
|  | 9121 - Macroalgae |

* Oyster has been exaggerated on map for ease of viewing

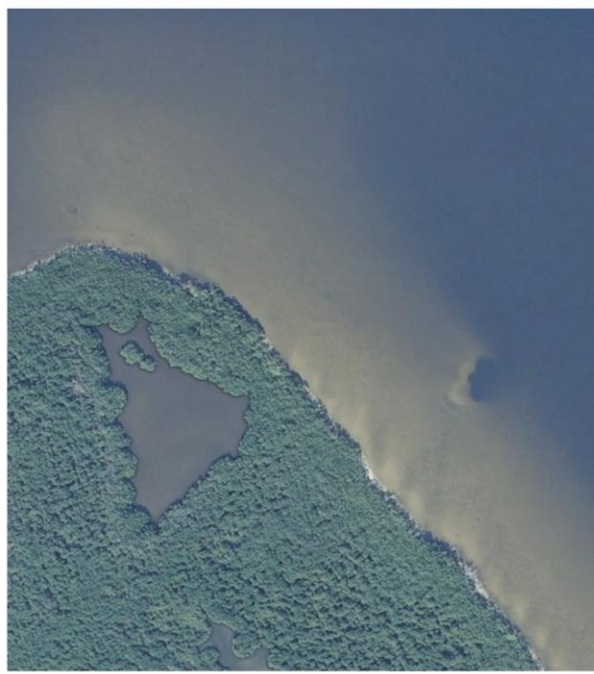
Increases (Green) in Charlotte Harbor



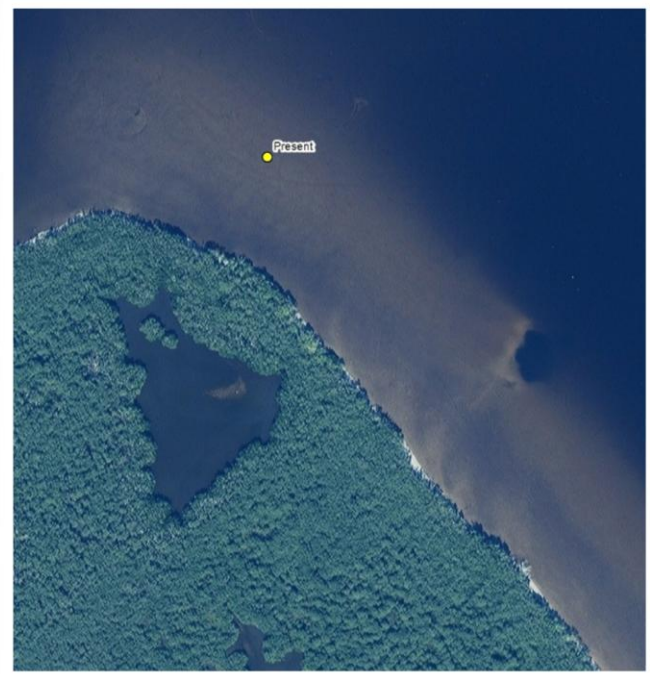
Myakka River Gains



Change Analysis

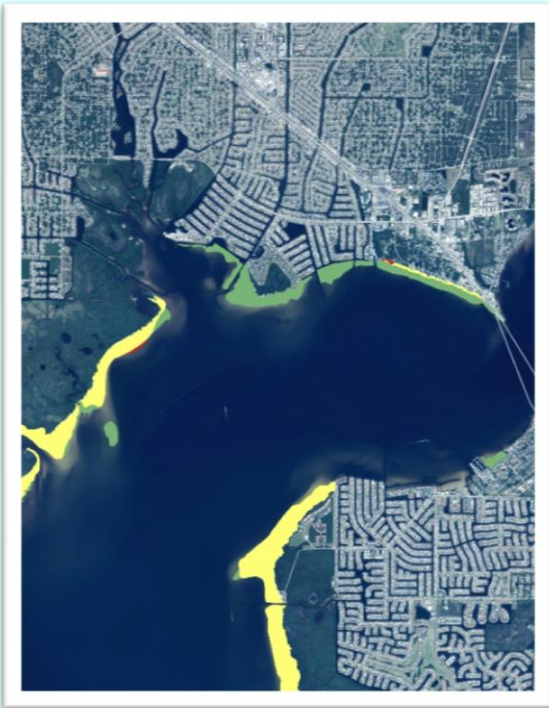


2012

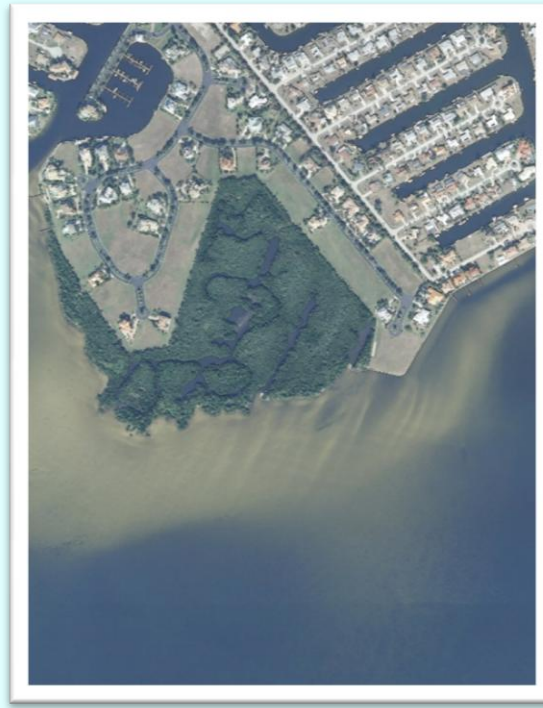


2014

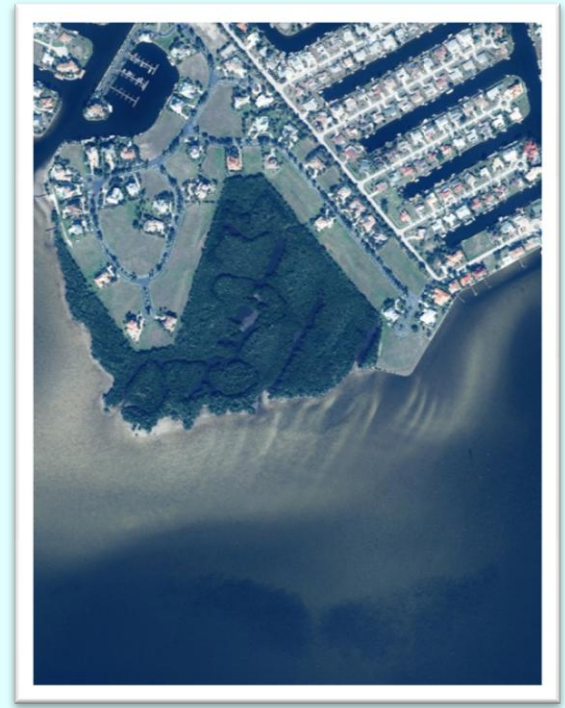
Peace River Gains



Change Analysis

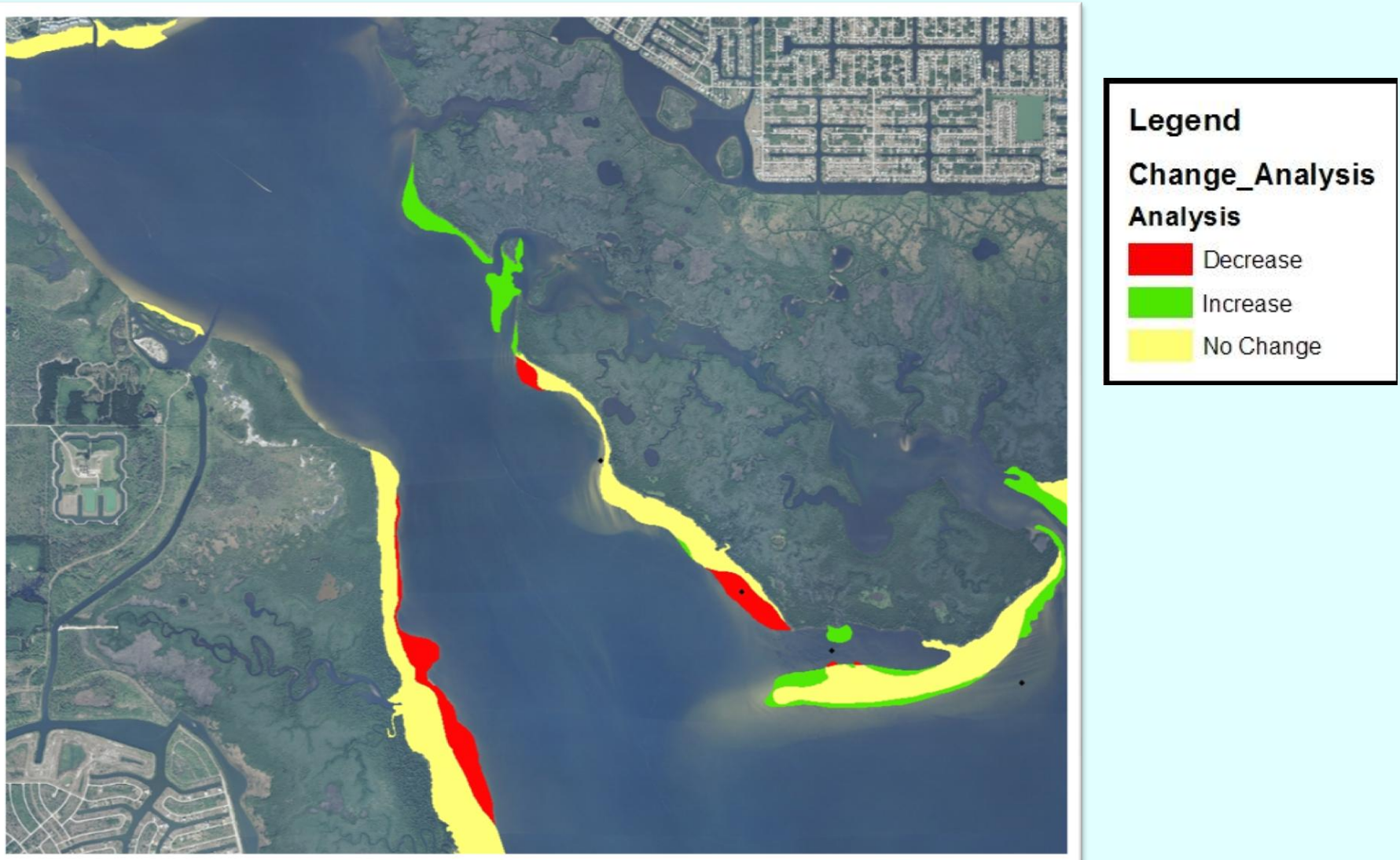


2012



2014

Myakka River Changes 2010 to 2012



Matlacha Pass

2008–2014 Seagrass

<u>Coverage</u>	<u>Acreage</u>
No Change	7,501
Gains	771
Losses	203

Legend

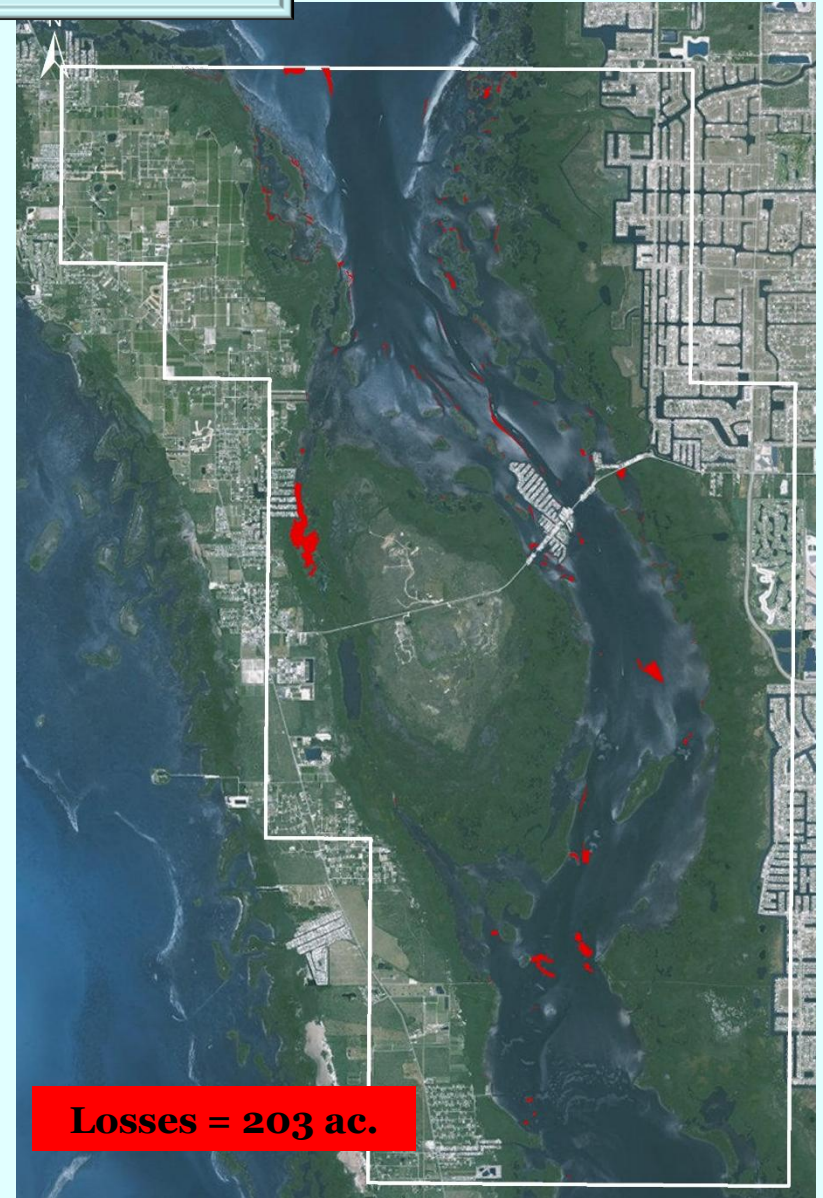
 NO CHANGE

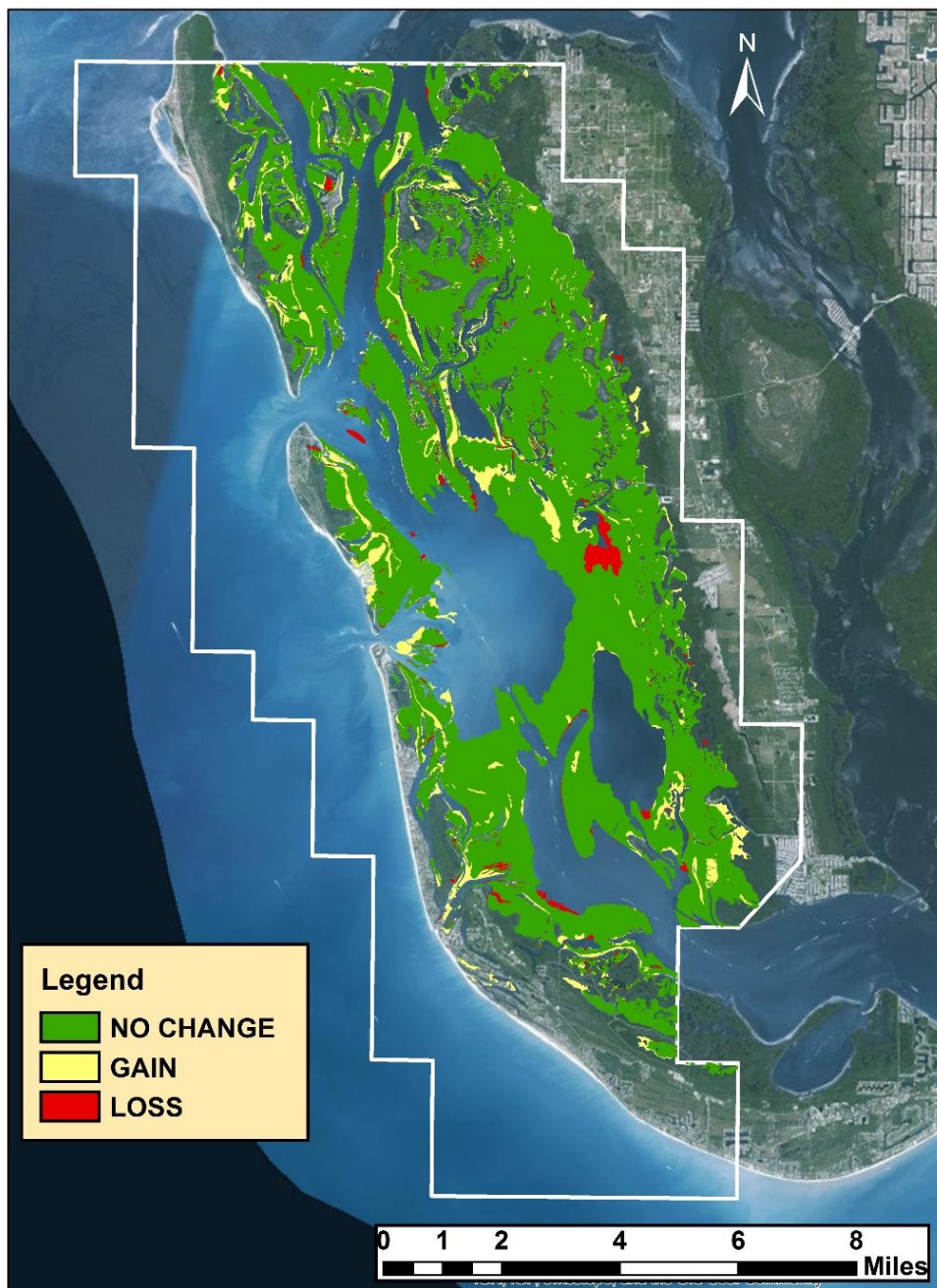
 GAIN

 LOSS



Matlacha Pass 2008-2014 Areas of Gains and Losses



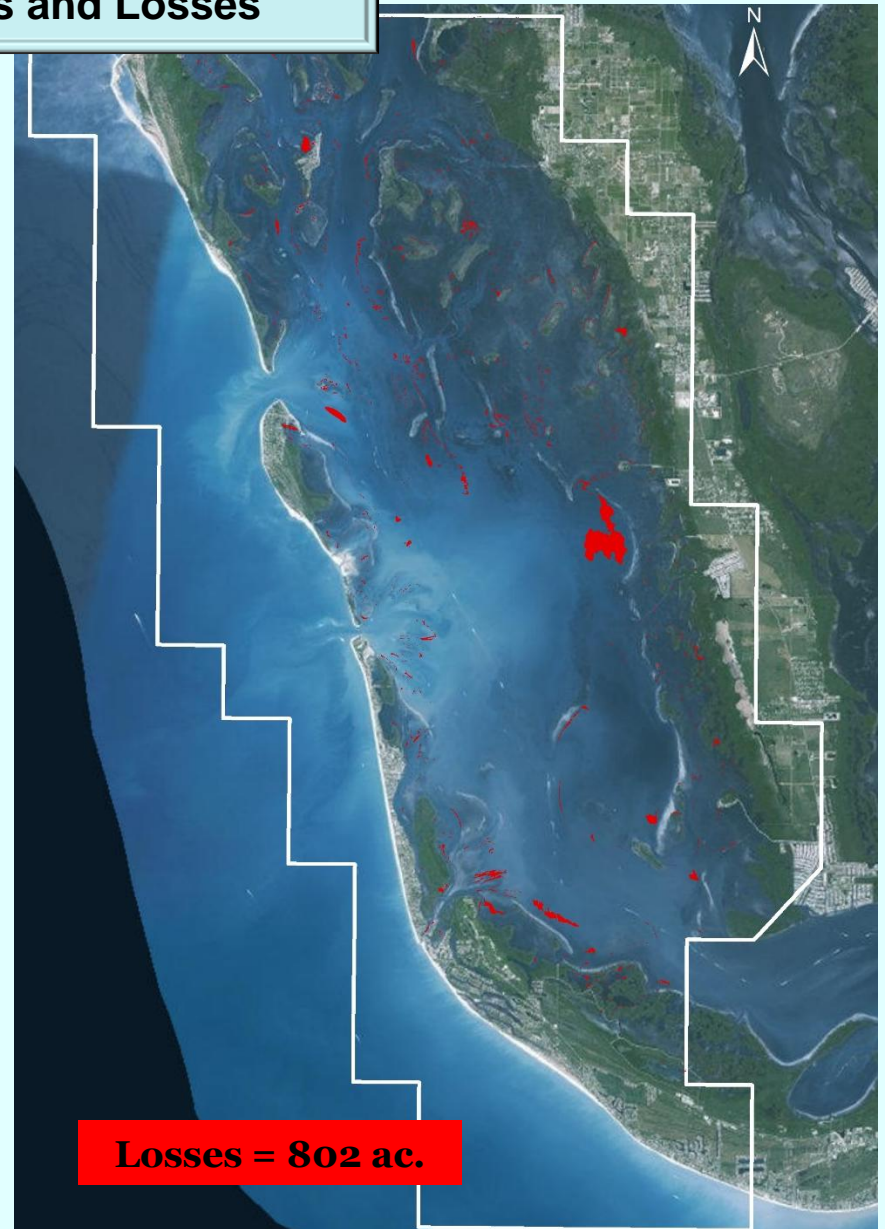
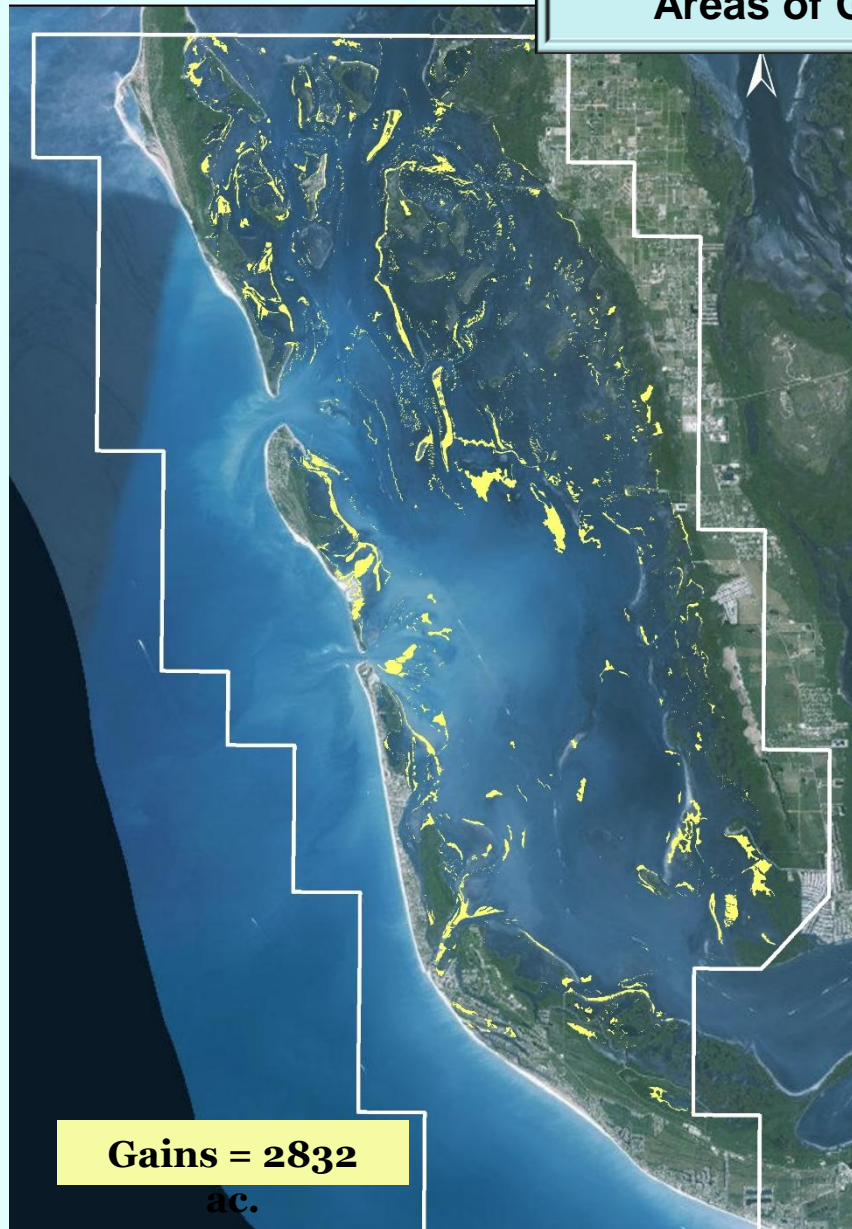


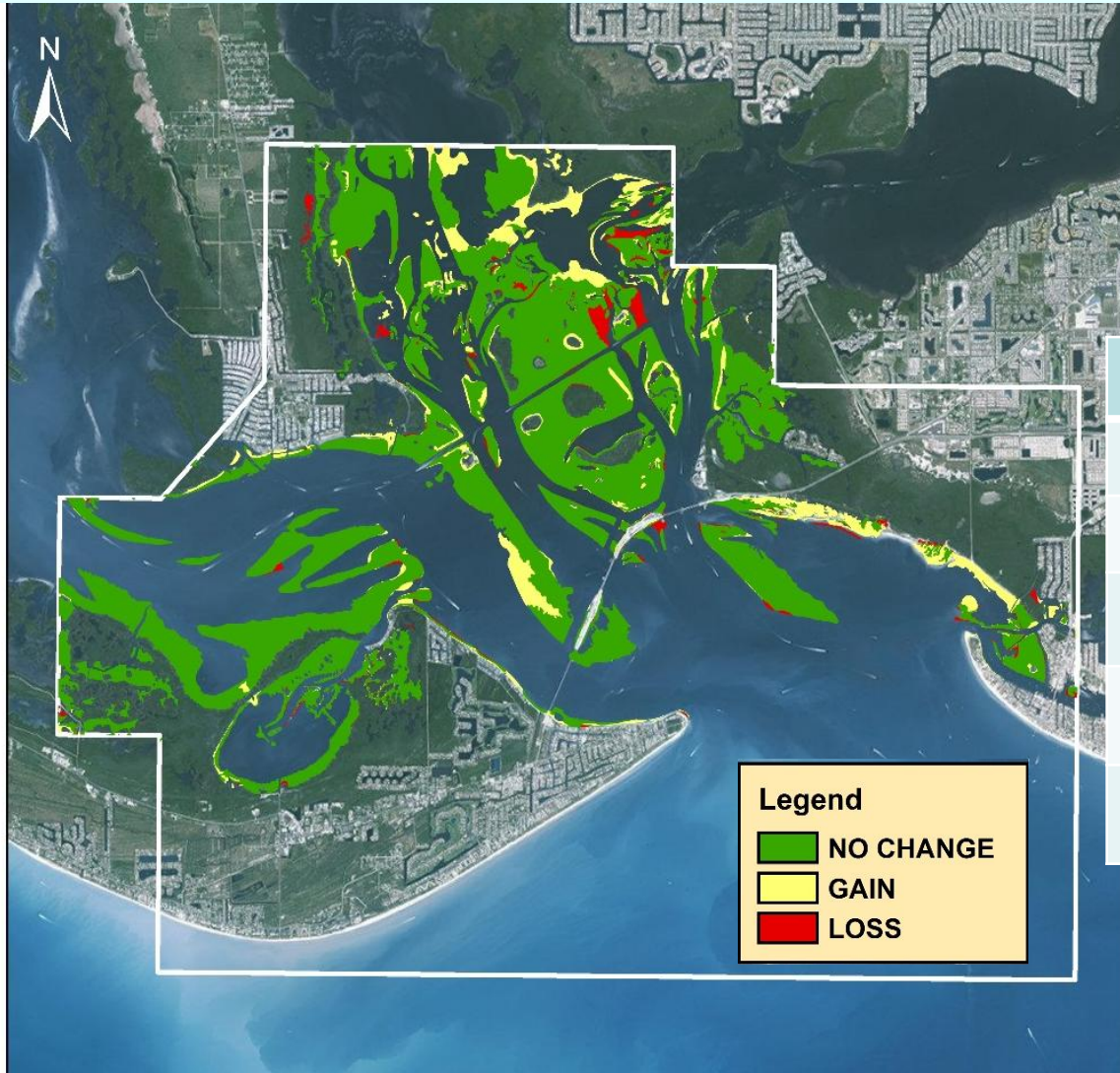
Pine Island Sound

2008–2014 Seagrass

<u>Coverage</u>	<u>Acreage</u>
No Change	26,282
Gains	2,832
Losses	802

**Pine Island Sound 2008-2014
Areas of Gains and Losses**





San Carlos Bay

Seagrass Change (2008-2014)

<u>Coverage</u>	<u>Acreage</u>
No Change	6,249
Gain	918
Loss	233

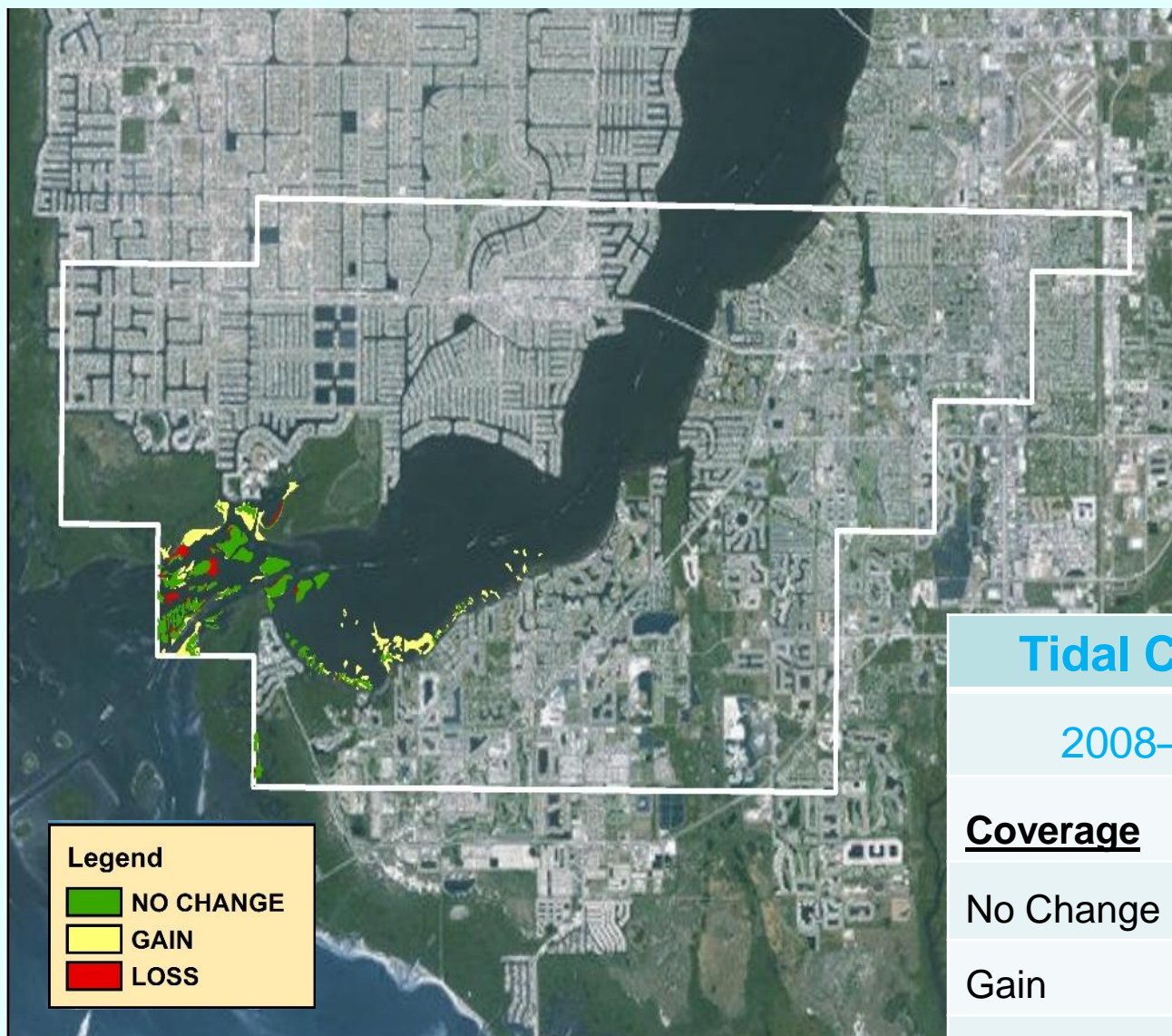


Gains = 918 ac.

**San Carlos Bay 2008-2014
Areas of Gains and Losses**



Losses = 233 ac.

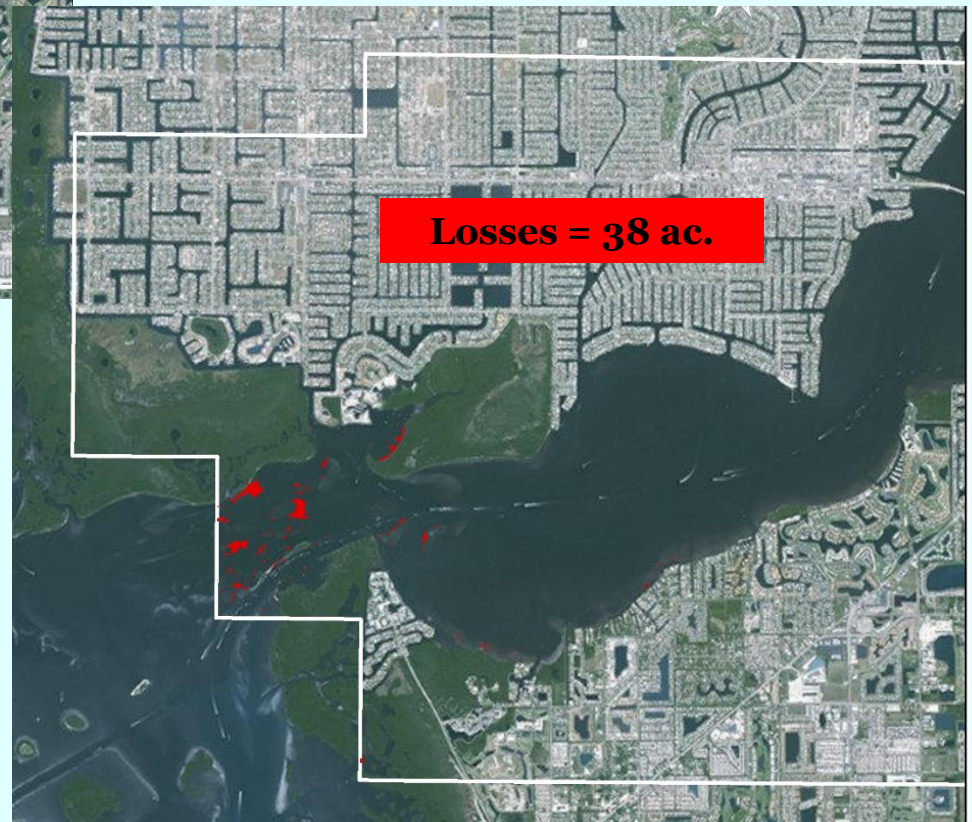
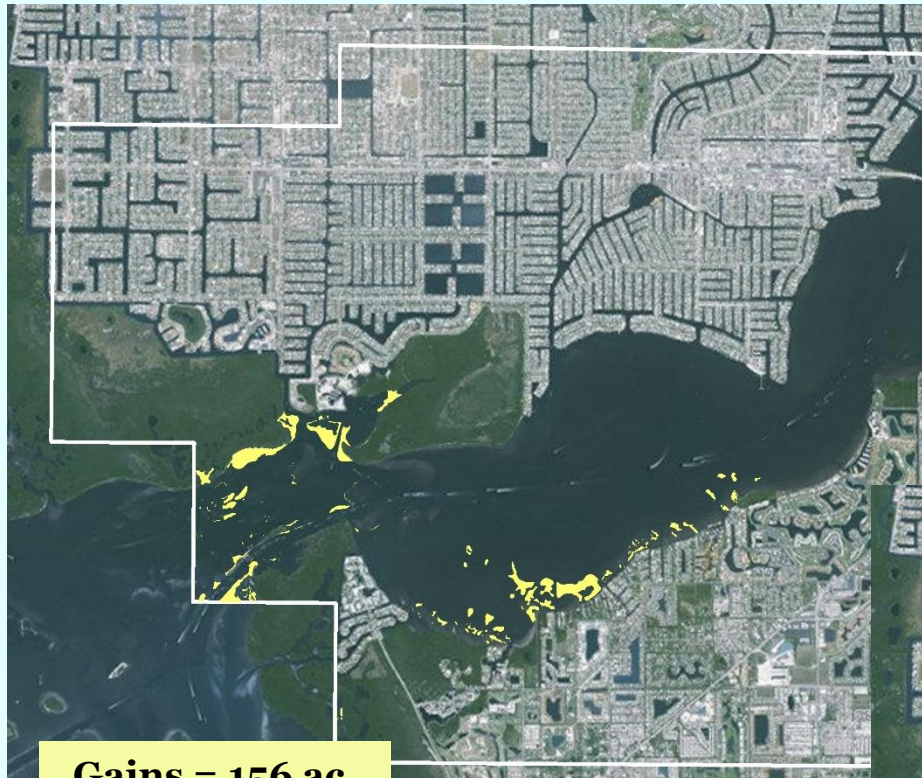


Tidal Caloosahatchee

2008–2014 Seagrass

<u>Coverage</u>	<u>Acreage</u>
No Change	254
Gain	156
Loss	38

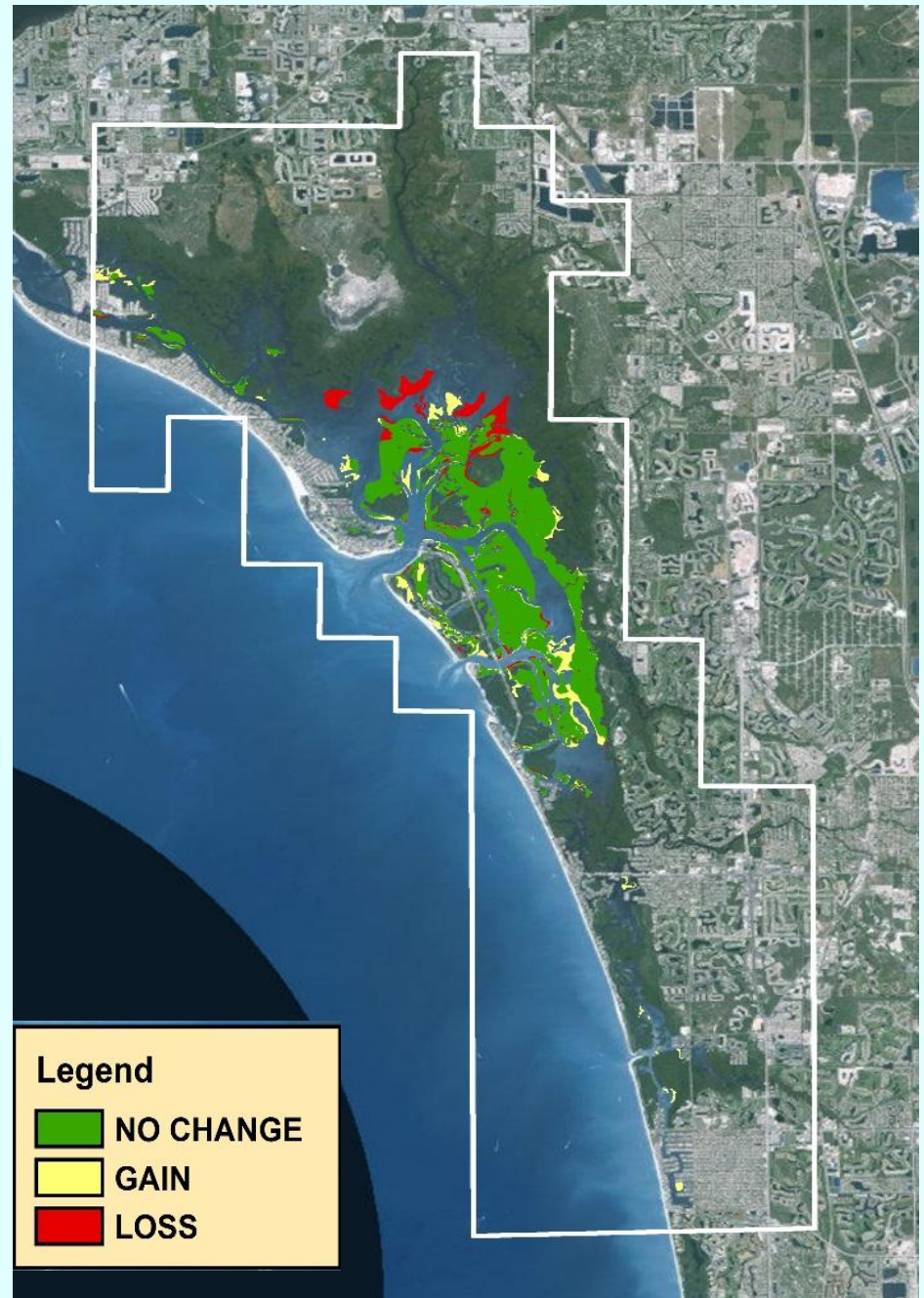
**Tidal Caloosahatchee 2008-2014
Areas of Gains and Losses**



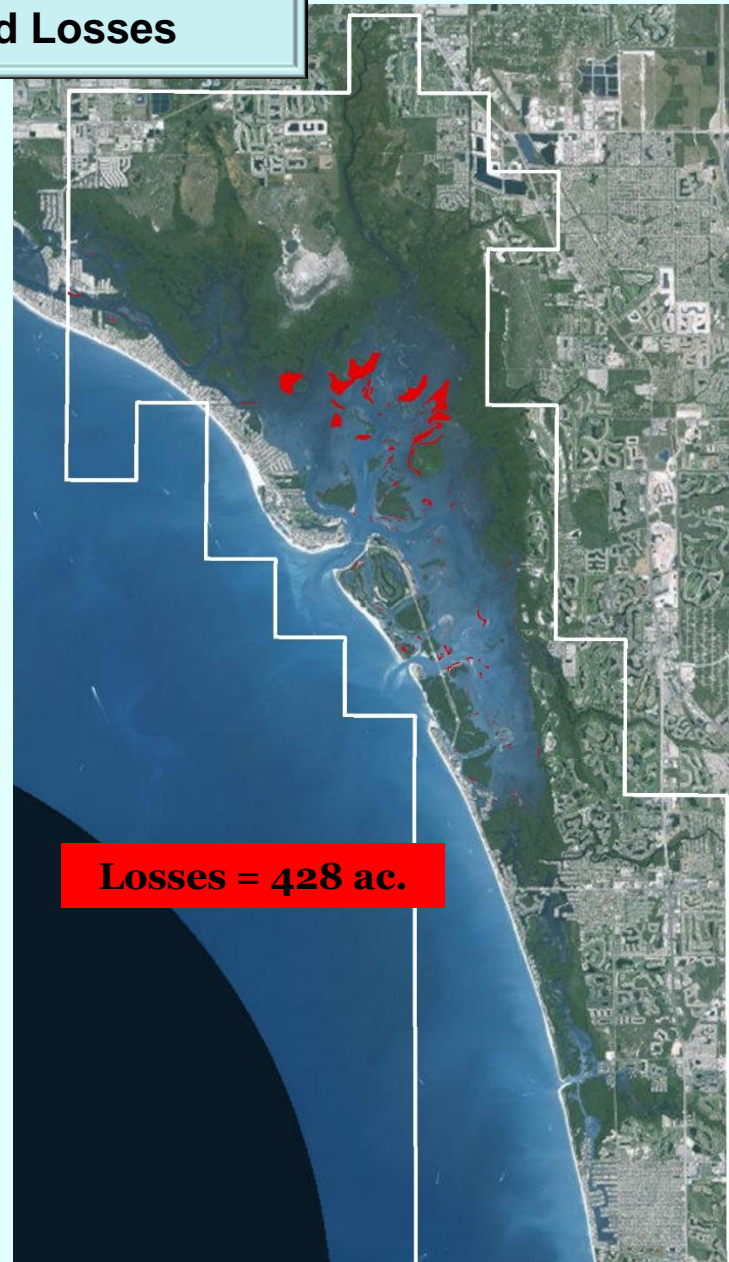
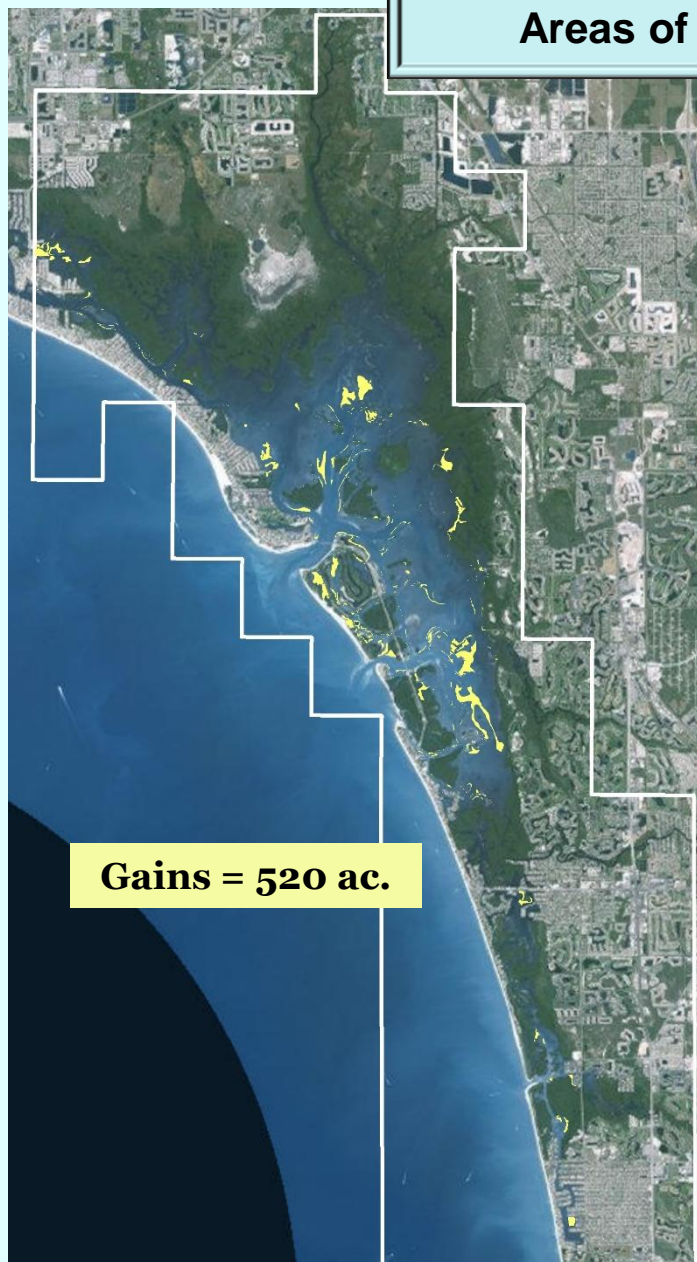
Estero Bay

2008–2014 Seagrass

<u>Coverage</u>	<u>Acreage</u>
No Change	3,162
Gain	520
Loss	428



Estero Bay 2008-2014 Areas of Gains and Losses



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Thank you to:

Southwest Florida Water Management District and South Florida Water Management District!

- Kris Kaufman – SWFWMD for all her help and guidance
- To all the volunteers on the west coast who helped acquire overall weather and water condition readings for daily flight determination
- All of SWFMWD's seagrass maps are available in our new Open Data Portal. The environmental data is located at http://data.swfwmd.opendata.arcgis.com/datasets?q=*&page=2&sort_by=name&sort_order=asc&group_id=d9a4213eb9ea4713bb710e03bdcc6648
- Imagery may be from SWFMWD Mapping and GIS Section. Jessica Hendrix will coordinate filling imagery requests, you simply supply her an external hard drive. Her email is jessica.hendrix@watermatters.org
- SFWMD seagrass maps are not yet available pending portal problems.
- Contact: Barbara Welch, bwelch@sfwmd.gov