# Sarasota Bay Habitat Assessment and Restoration
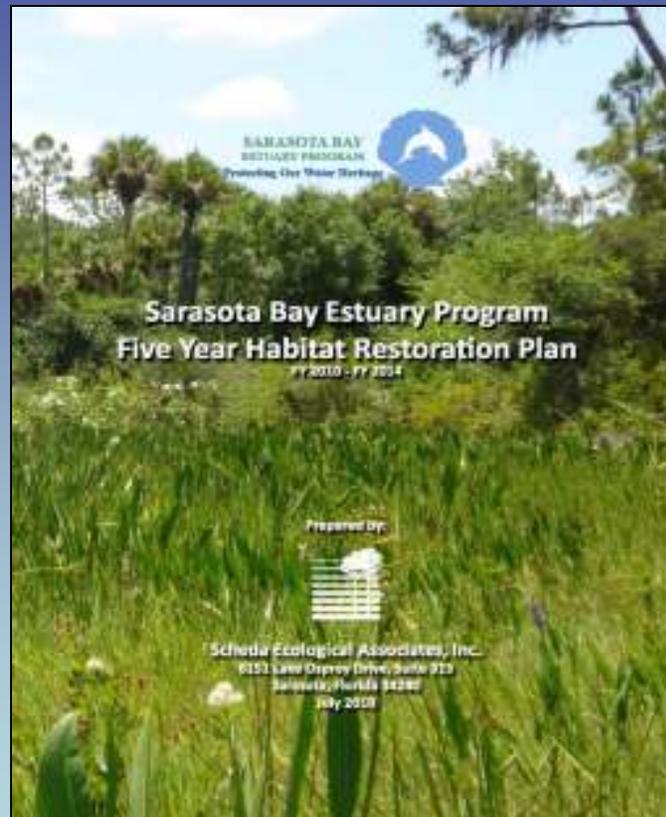
Jay Leverone, Ph.D. Staff Scientist
Coastal Habitat Integrated Mapping and Monitoring Program Workshop
April 29 – 30, 2014

# 2003 Habitat Assessment Analysis

- Estuarine fisheries habitat was characterized throughout the bay using an integrated mapping approach:
  - geomorphology
  - shore morphology
  - Intertidal vegetation
- Classes were tabulated to derive indices that summarize the individual habitat features within each bay segment
- Indices provide a means to:
  - rank the spatial distribution of critical habitats
  - evaluate restoration strategies
- Basis for 5-year Habitat Restoration Plan

Table 3.1-2   Summary of geomorphology, shore morphology and intertidal vegetation features within the NEP study area.

Feature	Length (feet)	Percentage
Geomorphology		
Altered	1,379,127	63.7
Bight	48,346	2.2
Tidal Creek	116,747	5.4
Embayment	150,212	6.9
Linear Shoreline	460,873	21.3
Creek Mouth	11,186	0.5
Shore Morphology		
Bulkhead	981,120	45.3
Riprap	203,089	9.4
Beach	93,229	4.3
Upland Shoreline	82,445	3.8
Patchy Wetland Fringing	75,201	3.5
Solid Wetland Fringing	184,216	8.5
Deep Wetland Fringing	547,190	25.3
Intertidal Vegetation		
Australian Pine	7,726	0.4
Brazilian Pepper	29,090	1.3
Cattail	3,067	0.1
Juncus	3,172	0.1
Leather Fern	8,111	0.4
Mangrove	903,210	41.7
None	1,094,429	50.5
Other Vegetation	52,925	2.4
Spartina	11,898	0.5
Terrestrial Vegetation	52,863	2.4
Total Length	2,166,490	
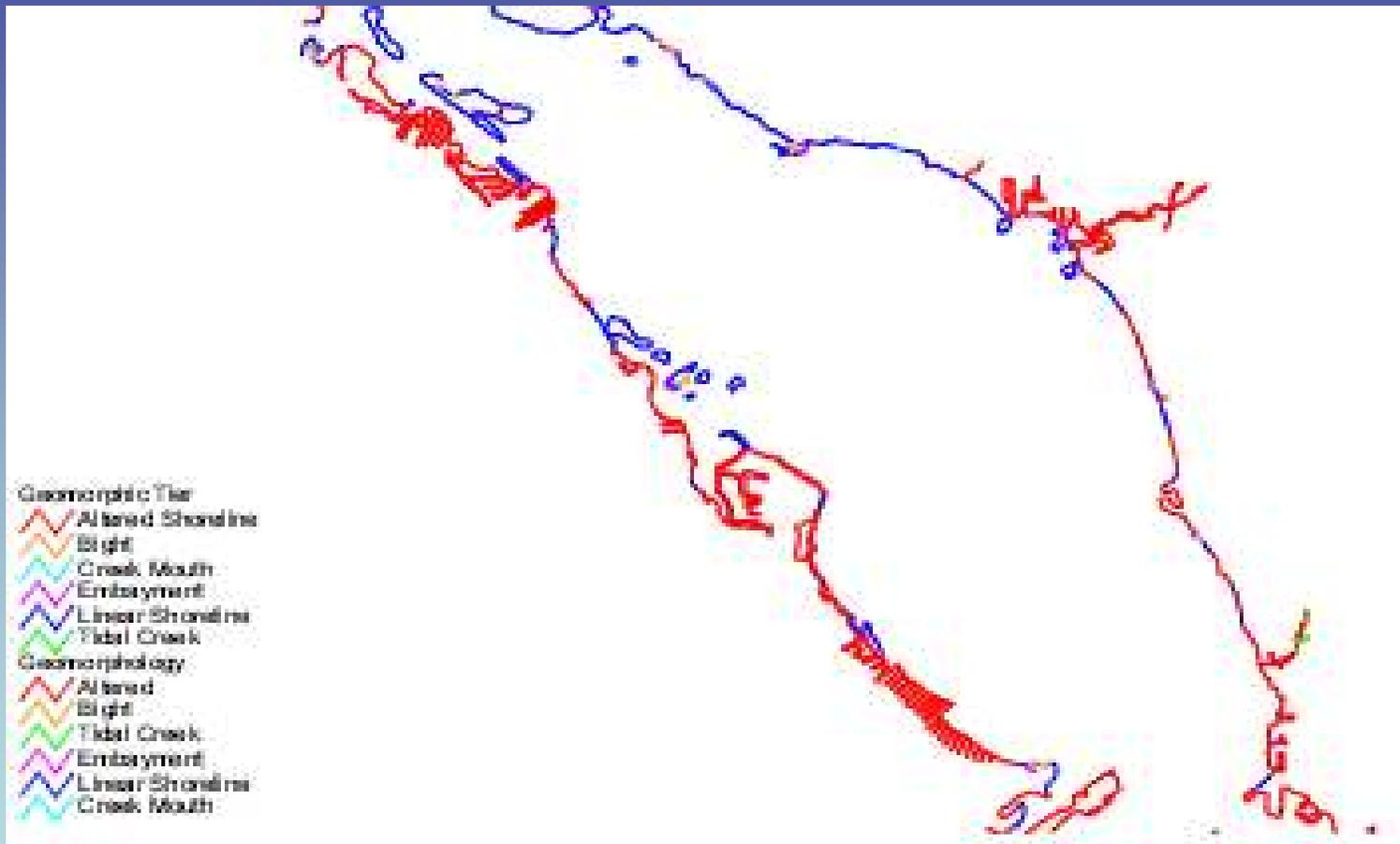
Geomorphic Tier

Shore Morphology Tier

Vegetation Tier

Legend

tiers-99

——— <all other values>

MORPHOLOGY

——— Beach

——— Bulkhead

——— Deep Wetland

——— Patchy Wetland

——— Riprap

——— Solid Wetland

——— Upland Shoreline

0   0.5   1   2   3   4
Miles
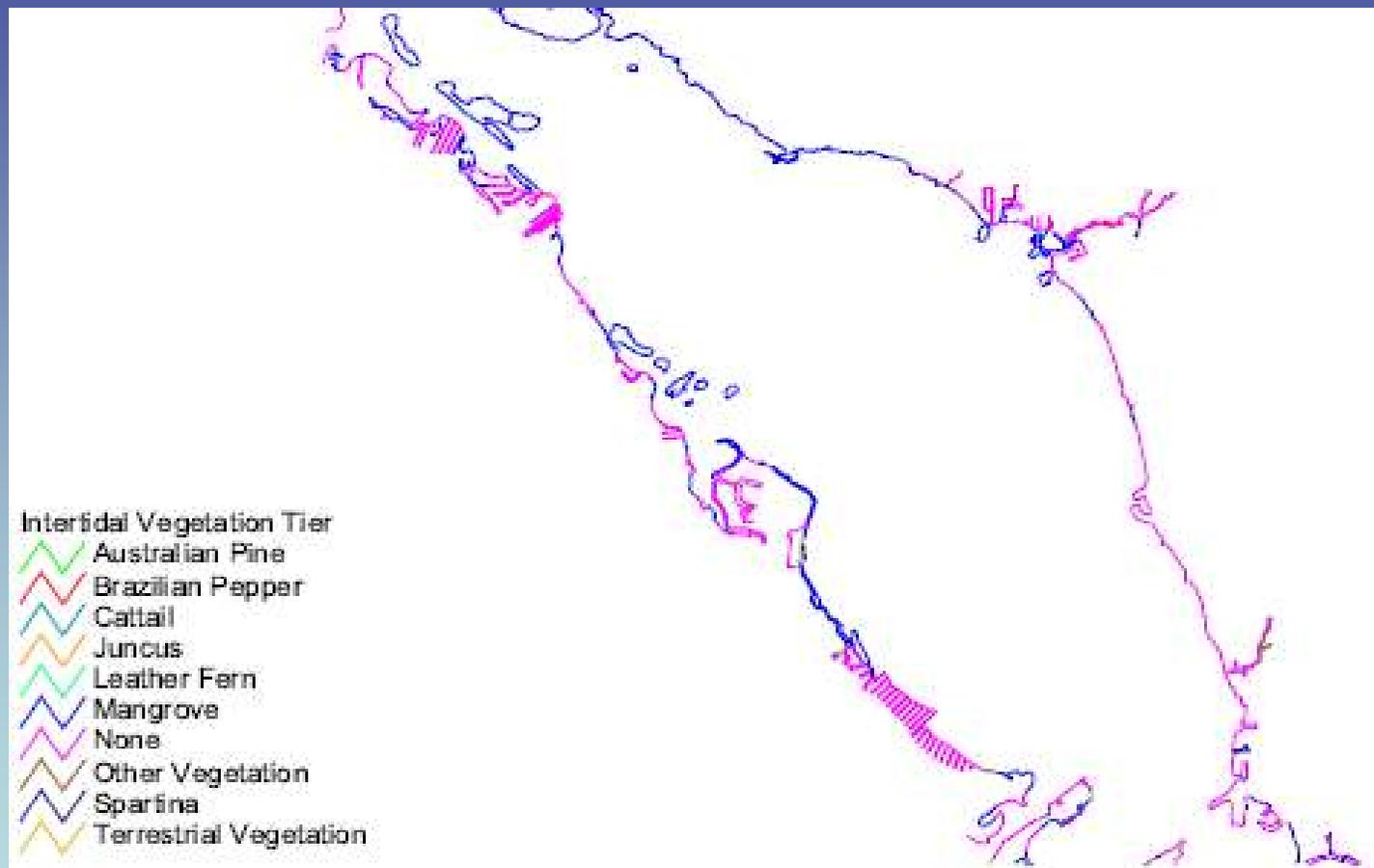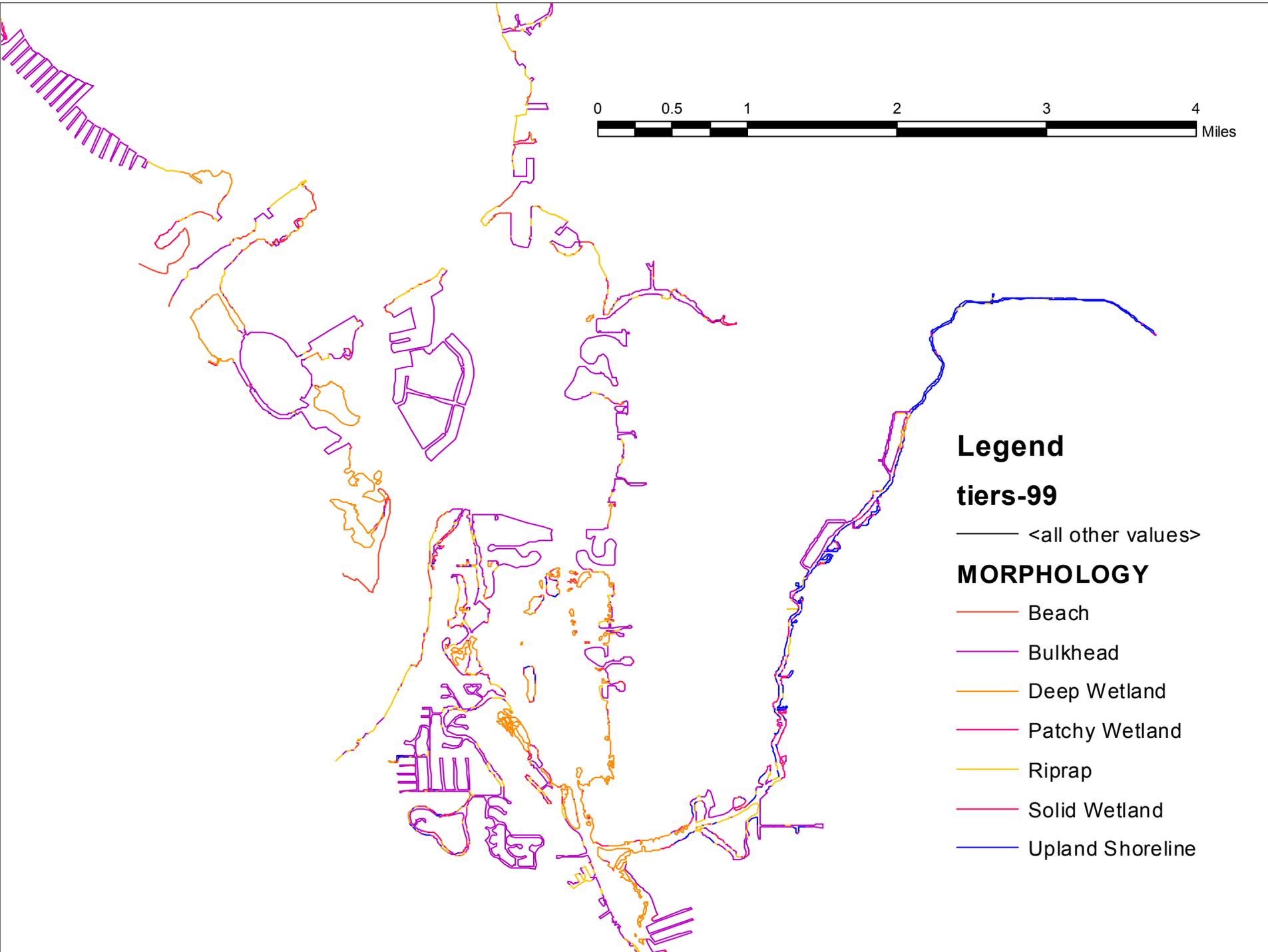
Five-Year Habitat Restoration Plan
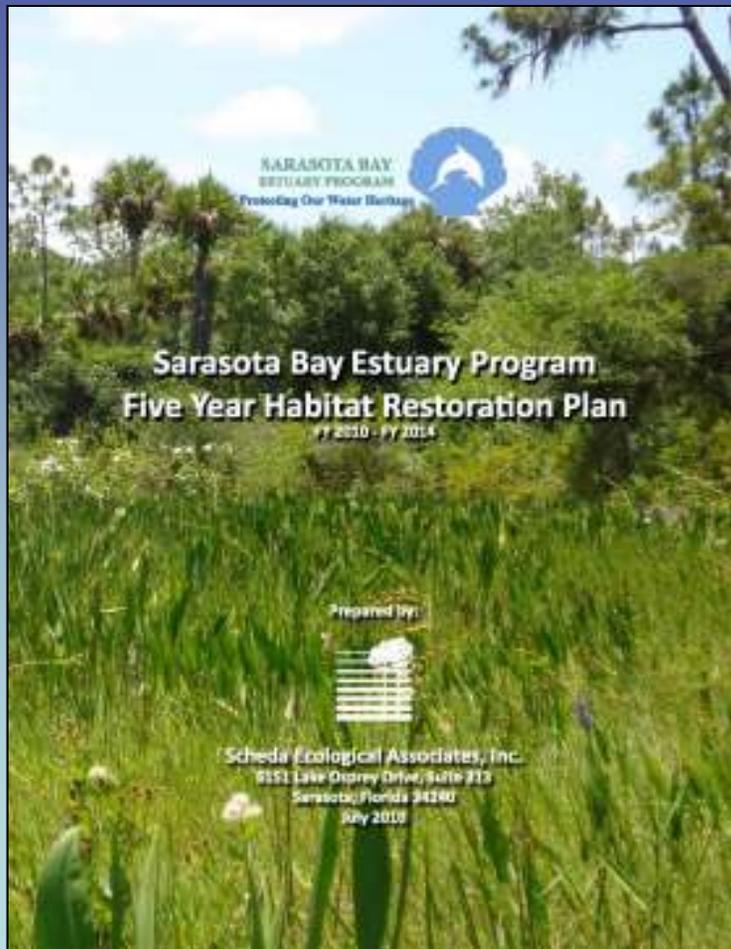
- **Updated for 2011-2015**

- **Serves as the planning document for CCMP Action Item: Freshwater and Saltwater Wetlands**

- **"Restore the Balance" of historical habitats**

Five Year Plan:
Site Ranking Methodology

LOGISTICAL CONSIDERATIONS

- Cost per acre
- Proximity to preserved land
- Potential restoration magnitude
- Partnership opportunities
- Community support
- Construction feasibility

HABITAT CONSIDERATIONS

- Potential fisheries habitat
- Salinity classification
- Opportunities within tributaries
- WQ improvements
- Shoreline enhancement
- Protected species benefits
- Historic habitat improvements ("restoring the balance")

Saltwater Wetlands (Coastal/Estuarine)

North Lido Park

FISH Preserve

Quick Point / Durante Park

Bowlees Creek Island

- Exotic maintenance and burning
- Restoration of tidal creek
- Volunteer clean-up opportunities

Ungerelli Preserve
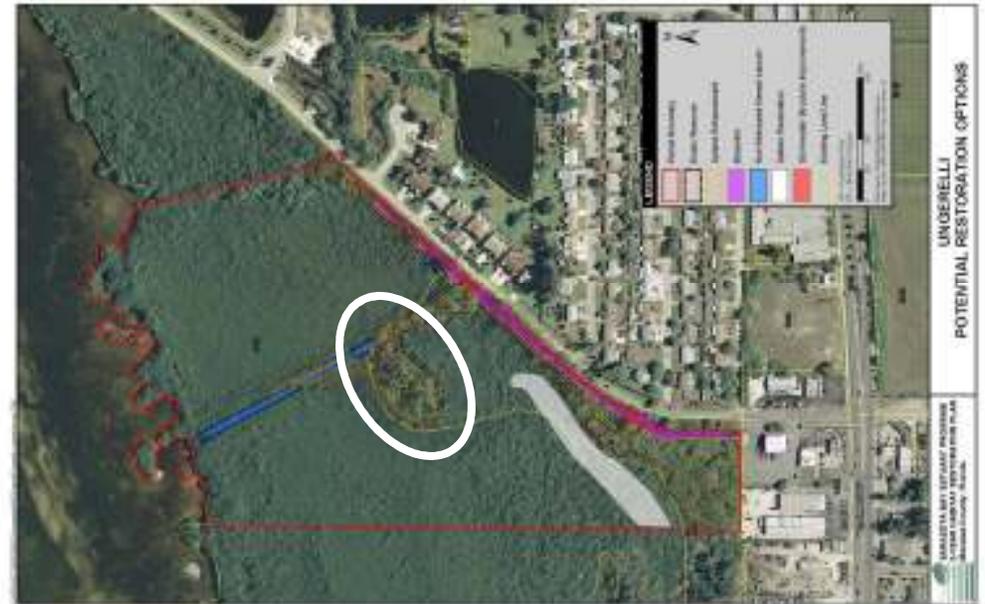
- Worked with Manatee County on initial phase (exotic removal)
- Complete remaining restoration plan phases, including importing fill for upland planting pad
- High/low marsh wetland creation

South Lido Park

- **High and low marsh creation; tidal creeks; dunes**
- **Creatic mosaic of interconnected water features**
- **Removal of mosquito ditching (hydroblasting)**

Freshwater Wetlands

South Creek
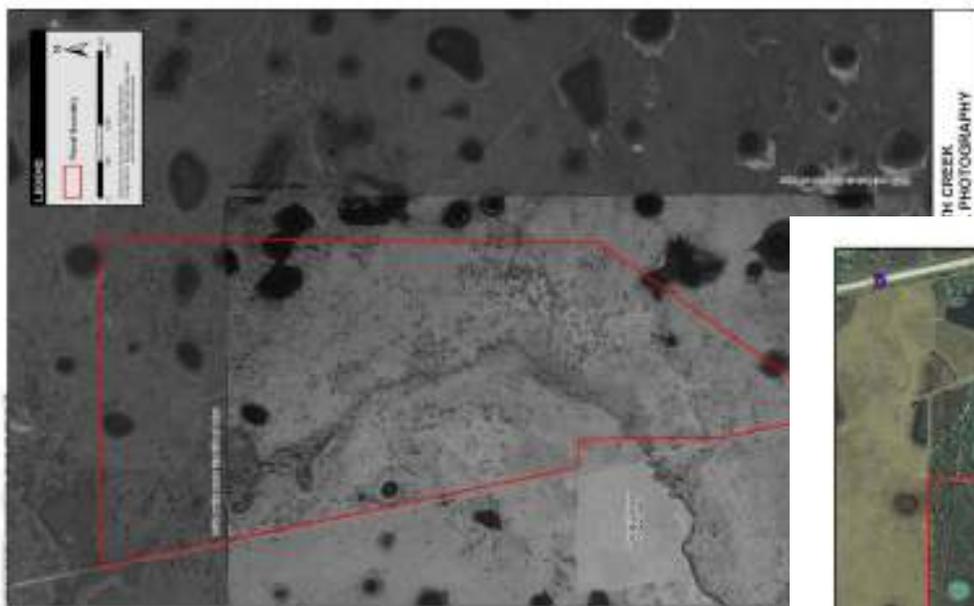
- **Number one ranking in Five Year Plan (FY2011)**
- **Florida Parks (Oscar Sherer State Buffer)**
- **Best opportunity to enhance freshwater wetlands within SBEP watershed**

Red Bug Slough

- Channelized stream within developed sub-basin of Phillippi Creek (Procter & Clark Roads)
- Habitat improvements include channel stabilization and restoration; exotic removal and wetland creation
- Included in Sarasota County Roberts Bay North Watershed Management Plan

Living Shorelines

Herb Dolan Shoreline
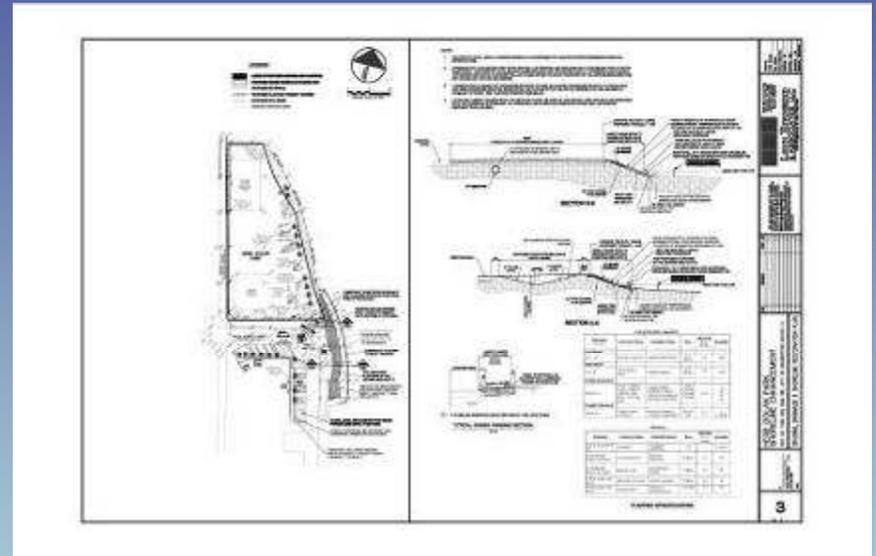
- 2500 Avenue A, Bradenton Beach, Manatee County
- removal of an existing rip rap revetment
- create a living shoreline using environmentally friendly stabilization techniques

Pinecraft Park

- **Phillippi Creek below Bahia Vista Street**
- **Shoreline stabilization and planting; terraced littoral wetlands**
- **Habitat improvements along western shore; upland drainage improvements**
- **Included in Roberts Bay North Watershed Management Plan**

New College of Sarasota

Bayshore South Reef

Jiggs Landing

Joan Durante Park

Bowlees Creek

Bowlees Creek Island

Whale Key Reef

Crosley Estate

Indian Beach / Sapphire Shores

Longboat Key

Sarasota Bay

MANATEE COUNTY

University Pkwy.

SARASOTA COUNTY (to I-75)

Walker Reef

Caples Hall

Hart Reef

Whitaker Bayou

Sportfisherman Reef

Whitaker Bayou

Pioneer Park

Hog Creek

Ken Thompson Park

Sixth Street Canal

Quick Point

Perico Bay   888 Reef   rt Water Crossing

Sarasota

G.Wiz

New Pass

Miller Reef

Fruitville Rd.   (to I-75)

Sarasota BayWalk

Pop Jantzen Reef

Marie Selby Botanical Gardens

Lido Key

Hudson Bayou

North Lido Park

Evans Reef

Gulf
of
Mexico

South Lido Park

Pinecraft Park

Ungerelli Perserve

Coker Reef

Big Sarasota
Pass

Bee Ridge Rd.   (to I-75)

Roberts
Bay

Roberts Bay Bird Colony

Proctor Rd.

Phillippi Creek

Red Bug Slough

Clark Rd.   (to I-75)

Silvertooth Reef

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Most Visited   Getting Started   ArcGIS Help   Cross Puz   FDEP NNC   FTP   Regions   SBEP   SC Library   Water Atlas   Webmail   US EPA WQ Stds   CERF

Silvertooth Reef

Clark Rd   (to I-75)

Siesta Key

White Beach Oyster Habitat

Little Sarasota Bay

41   75

Turtle Beach Oyster Habitat   Pelican Cove

Catfish Creek

Jim Neville Preserve

North Creek

Palmer Point Park

Bay Preserve at Osprey

Historic Spanish Point

Blackburn Point Park

681

South Creek

Casey Key

Blackburn Bay

Laurel Ave.

(to I-75)

Project Status

HABITAT RESTORATION - Completed
HABITAT RESTORATION - In Progress
HABITAT RESTORATION - Planned
ARTIFICIAL REEFS - Completed
ARTIFICIAL REEFS - In Progress
OYSTER HABITATS
SEAGRASS HABITAT
GULF COAST HERITAGE TRAIL AUTO ROUTE

SARASOTA BAY
ESTUARY PROGRAM

PROJECT AREA

Rattlesnake Key

Venice Inlet   Venice

Venice Ave.

jay.leverone@gmail.com   Sarasota, FL, USA: 73°F   Thu: 80°F   Fri: 81°F

start   Habitat Restoration ...   2003 SBEP Habitat As...   Sarasota Bay Habitat...   10:35 AM

Habitat Restoration Map | Sarasota Bay Estuary Program - Mozilla Firefox

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SARASOTA BAY ESTUARY PROGRAM
HABITAT RESTORATION PROJECTS

Anna Maria Sound

Tampa Bay Reef
Bulkheads Reef
Emerson Point Reef
Emerson Point

Terra Ceia Bay

Palmetto

Anna Maria Island

Robinson Preserve
Perico Bayou

Grassy Point
Neal Preserve

Herb Dolan Park

Pal

1912 Cortez Schoolhouse
Bradenton Beach Pier Reef   Cortez
Leffis Key Reef   FISH P
Coquina Beach

Leffis Key

Longboat Pass

Sister Keys

Joan Durante Park

Robinson Preserve (2007)
Acreage: 487
Restored and enhanced
intertidal wetlands, saltern and
uplands. This is the largest
restoration project in the
SBEP watershed.
(2012) An additional 150 acres
were acquired for future
restoration.
Amenities: trails, boardwalk,
picnic areas, observation
tower, kayak launch and
camping.

Manatee River

10th St.

Ballard Elementary School

Pine Island

denton

Honi Hanta

53rd. Ave.

Jiggs Landing

h Reef

Bowlees Creek

Bowlees Creek Island
Whale Key Reef

jay.leverone@gmail.com   Sarasota, FL, USA: 73°F   Thu: 80°F   Fri: 81°F

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Thank You!