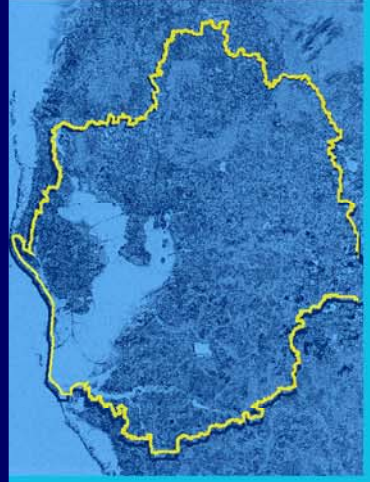
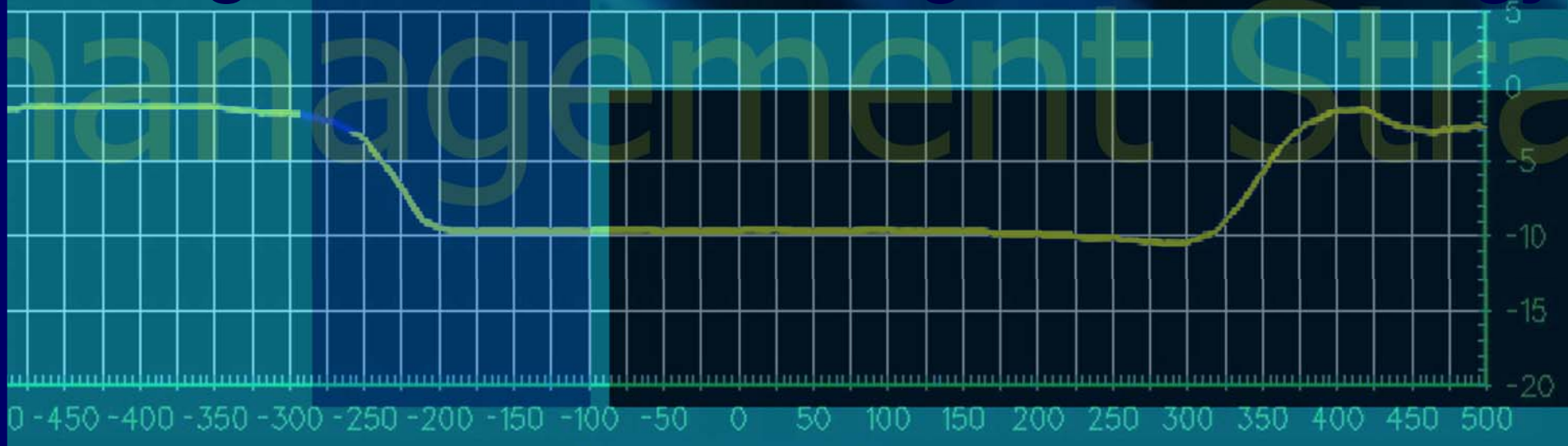


Implementing the

Tampa Bay
Dredged Material Management Strategy



Background

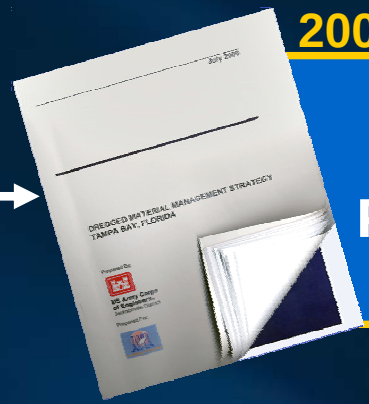
Implementing the
Tampa Bay Dredged Material Management Strategy (DMMS)

1972 Clean Water Act (CWA) Passed

1987 CWA Amended

1991 Tampa Bay Estuary Program (TBEP) Founded

1997 TBEP Management Plan Developed

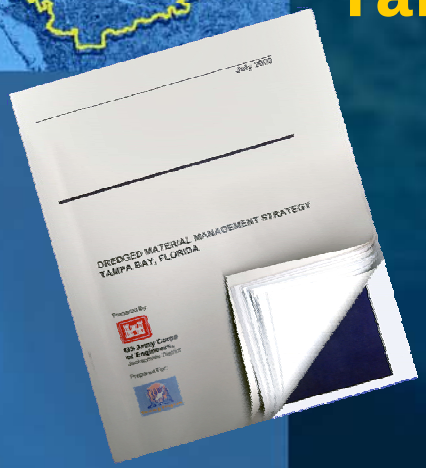


2000 DMMS Prepared

2002-2005 DMMS Implemented Dredge Hole Assessment Project

Presentation Format

Implementing the
Tampa Bay Dredged Material Management Strategy (DMMS)



- DMMS – Development
- DMMS - Conclusions
- DMMS - Recommendations
- Dredge Hole Assessment Project
- Project objectives / tasks
- Project results to date
- Next steps

Development

DMMS
Tampa Bay

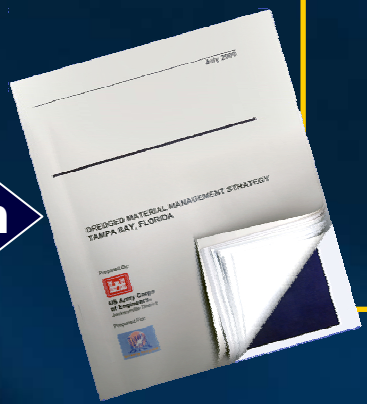
Tampa Bay Estuary Program Management Plan

- Action Plan 1
- Action Plan 2
- Action Plan 3
- Action Plan 5
- Action Plan 6

Action Plan 4
Dredging & Dredged Material Management

1. Committee
2. Report – **Strategy (DMMS)**

25-year plan



DMMS
Tampa Bay

Conclusions

Dredged material can be a resource

- Place material on beaches
- **Use dredged material beneficially**
- Manage aggressively existing upland areas
- Share placement areas

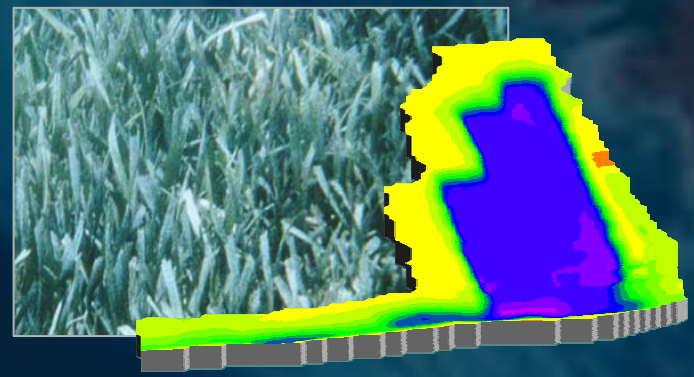

Egmont Key


Harbor Isles Lake

Recommendations

DMMS
Tampa Bay

- Additional study
- Data collection
- Computer model
- Analysis
- **Beneficial use investigation**
- Environmental inventory
- Economics
- Regulations
- Regional Sediment Management



- **Commercial applications**
- **Habitat restoration**

Resource Management Community Needs

DMMS

Tampa Bay

Recommendations

Resource Management Community Needs

52 habitat restoration sites / fill material

Dredge Hole Assessment Project

General Community Needs

Additional space for dredged material

Participating Agencies

DMMS

Tampa Bay

Tampa Estuary Program

Holly Greening
Nanette Holland

Environmental Protection Commission
Hillsborough County

Steve Grabe

Jan Platt

Hillsborough County
Florida

Florida Fish and Wildlife Conservation Commission

Ed Sherwood
Bob McMichael

Bill Fonferek

US Army Corps
of Engineers

Southwest Florida Water Management District

Brandt Henningsen

Project Objectives / Tasks

- Estimate the current habitat value of the selected holes
- Develop implementation plans for the ten selected holes

DMMS
Tampa Bay

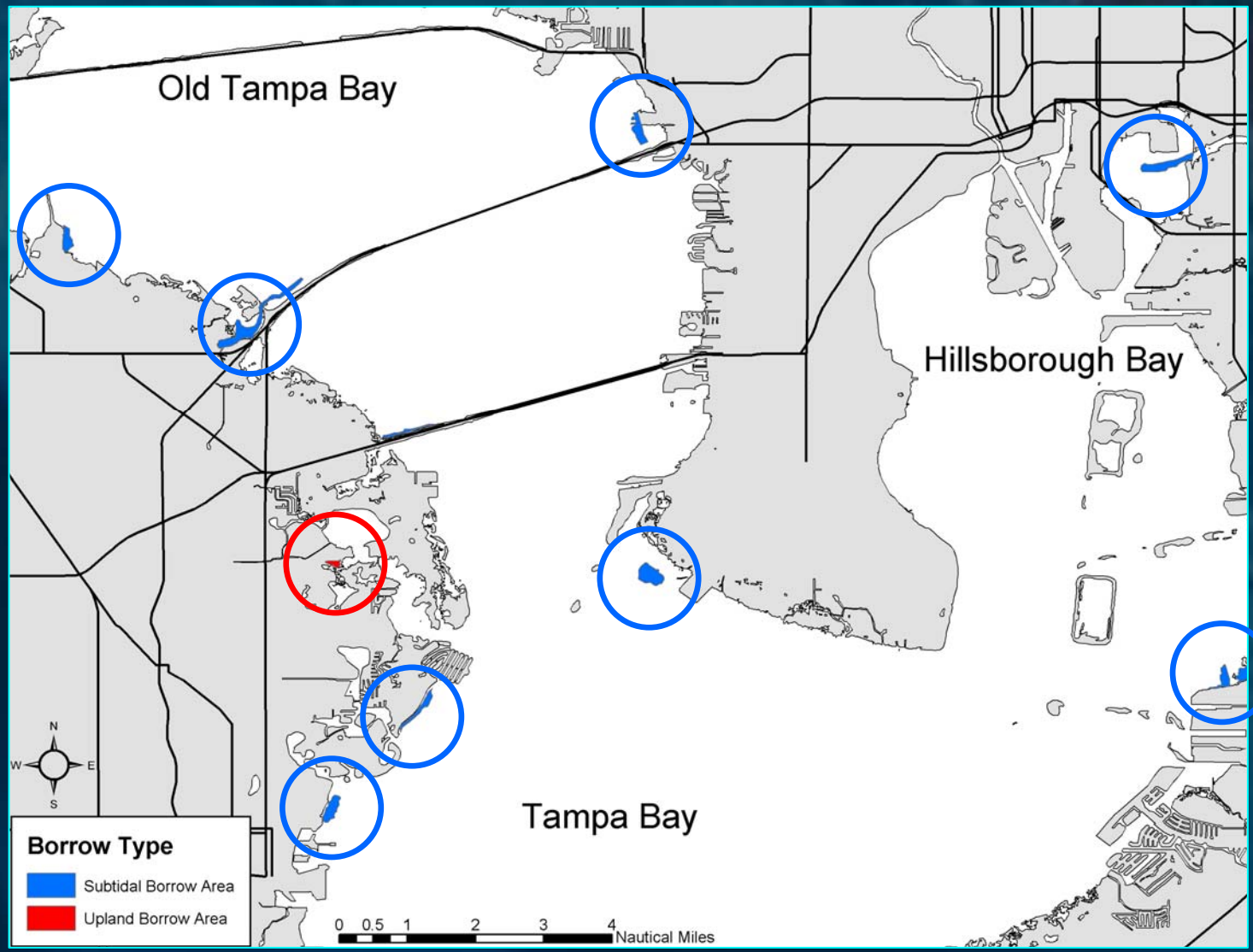
DMMS

Tampa Bay

Project Objectives/Tasks

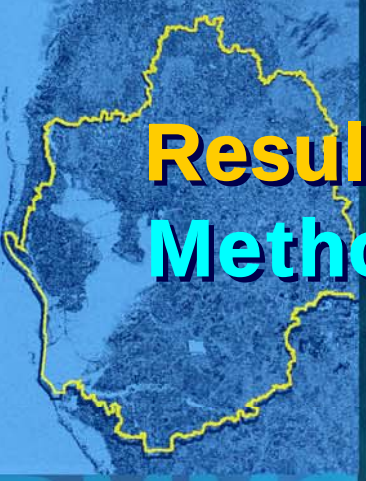
Task	Complete	Ongoing	Upcoming
Write Quality Assurance Plan	X		
Evaluate 28 holes	X		
Select 10 holes	X		
Conduct field sampling: • Water quality • Sediment quality • Fisheries • Benthos		X	
Analyze field data		X	
Develop plans for selected holes			X

Project Objectives / Tasks



Water/Sediment Quality

Results to Date – Water/Sediment Quality Methodology



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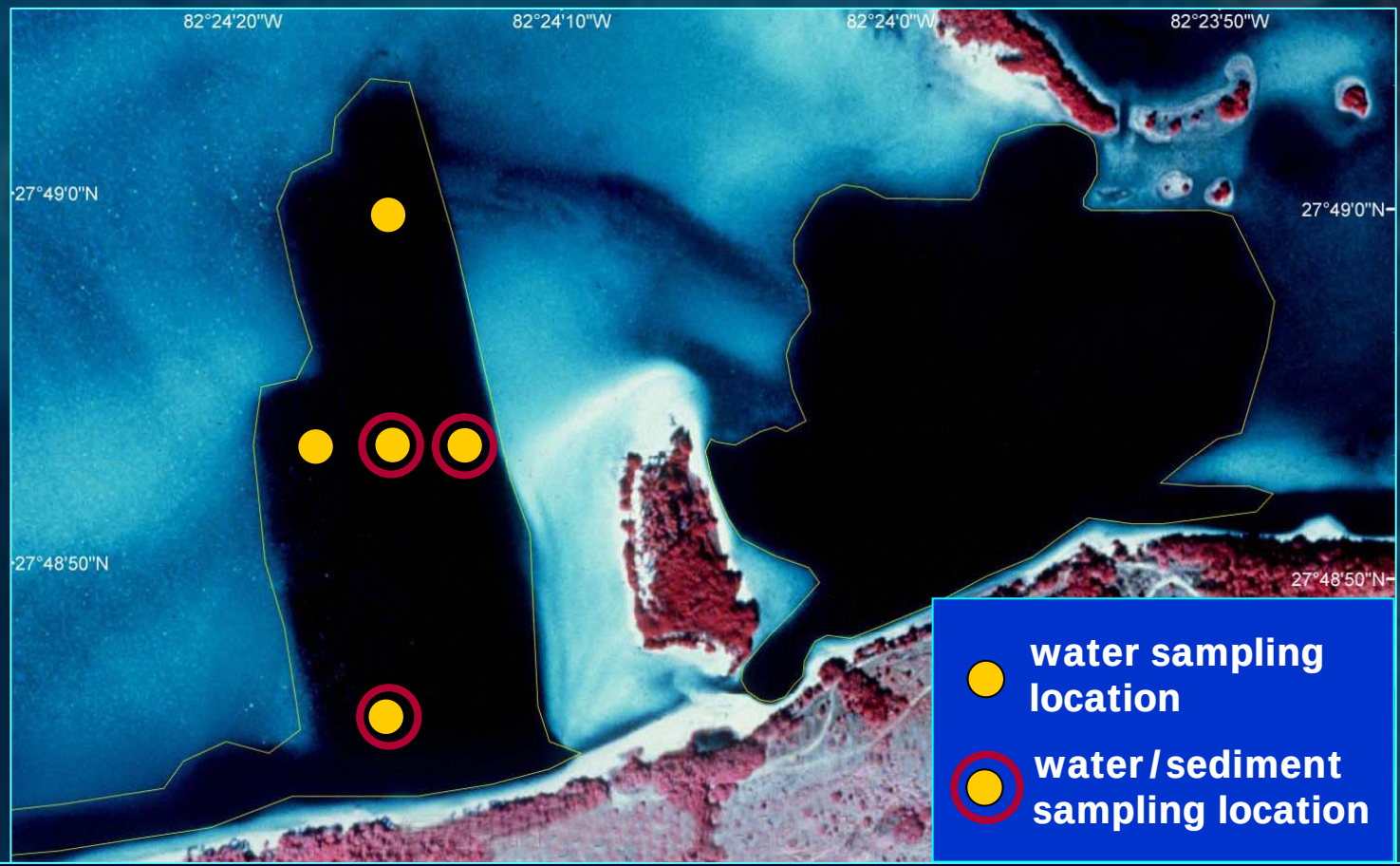

Water Quality
(Temperature, salinity, DO)

Sediment Quality
(Metals, PAHs, Pesticides, PCBs)

Results to Date - Water/Sediment Quality General Overview

DMMS
Tampa Bay

Water Quality

- Stratification only evident in McKay Bay hole
- DO≥4 at all sites except McKay Bay hole

Sediment Quality

- Organic contaminants < threshold effects level (TEL) or near maximum daily load (MDL)

Results to Date - Water/Sediment Quality Details - Whiskey Stump Key Hole #1

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Tampa Bay

Water Quality

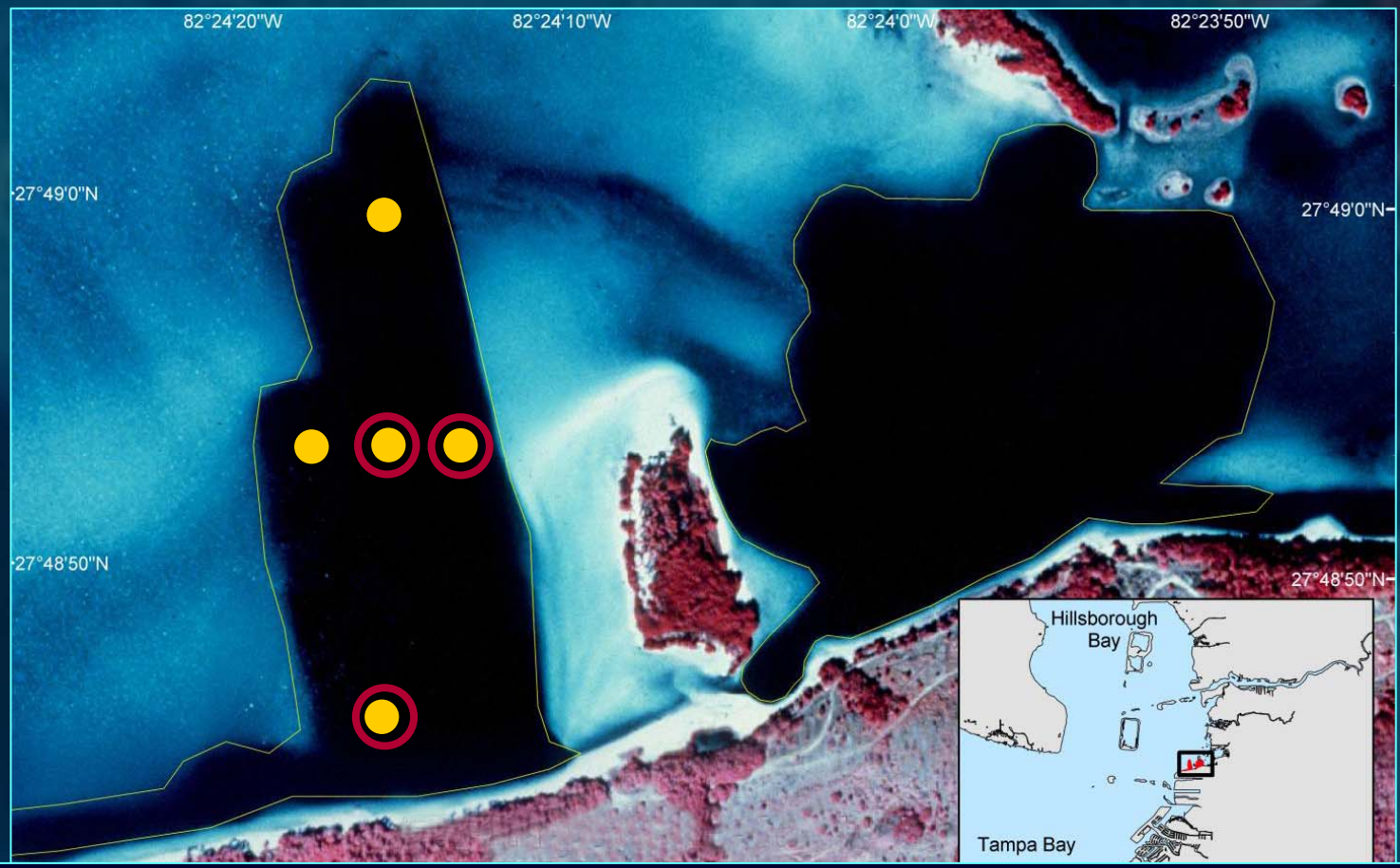
- Salinity: Polyhaline (21-25 ppt)
- No Stratification
- Dissolved Oxygen: >5 ppm

Sediment Quality

- Trace Metals: analysis ongoing
- Pesticides: <TEL
- PAHs: <TEL
- PCBs: <MDL

Benthos

Results to Date - Benthos Methodology



Benthos

(Taxa identification and counts)

Results to Date - Benthos General Overview

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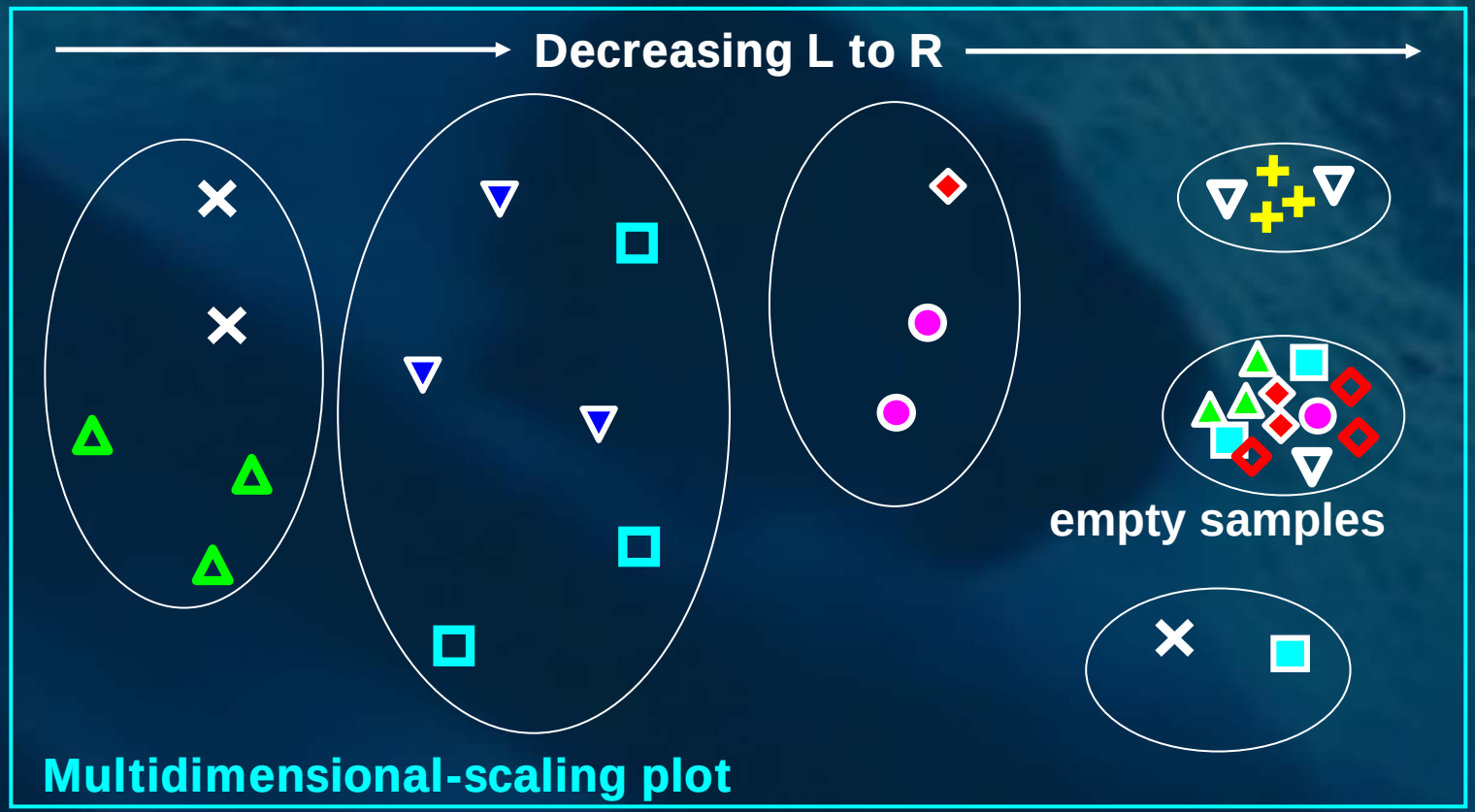
Fall 2002

- Dredge holes group by patterns of abundance, species richness, and diversity



DMMS

Tampa Bay

Results to Date - Benthos Details - Whiskey Stump Key Hole #1

Fall 2002

- 2 of 3 samples “empty”
- Mean number of taxa: 2
- Low mean abundance (50 m^{-2})

Spring 2003

- Abundance, numbers of taxa, diversity much higher than Fall (>12,000 m^{-2})
- Numerical dominants include: *Ampelisca vadorum* (Amphipoda) >80% and *Mysella planulata* (Bivalvia) 1%

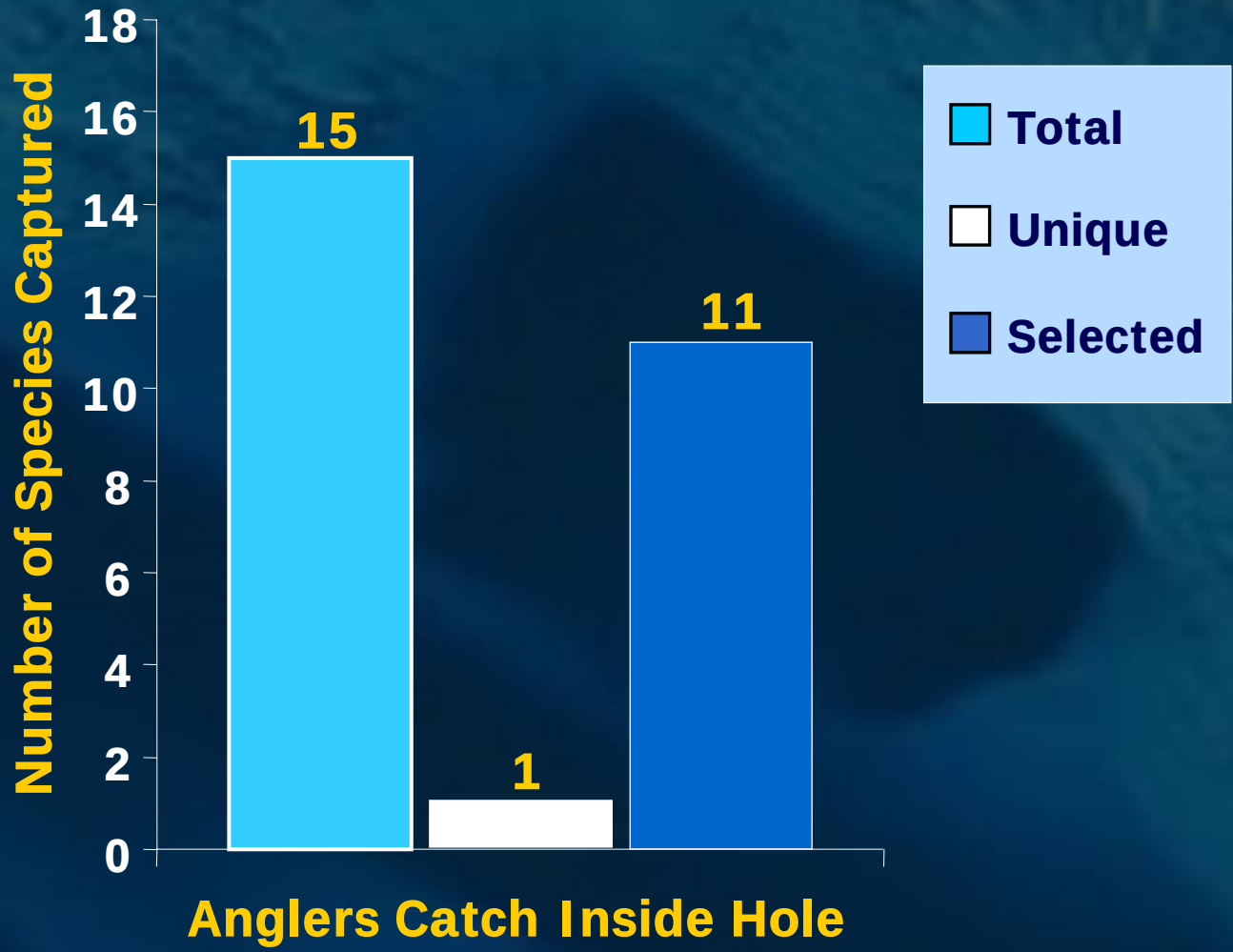
Fisheries

Results to Date - Fisheries Methodology

Objectives	Methodology
Estimate faunal composition	Fisheries-independent
Estimate angler utilization	Fisheries-dependent

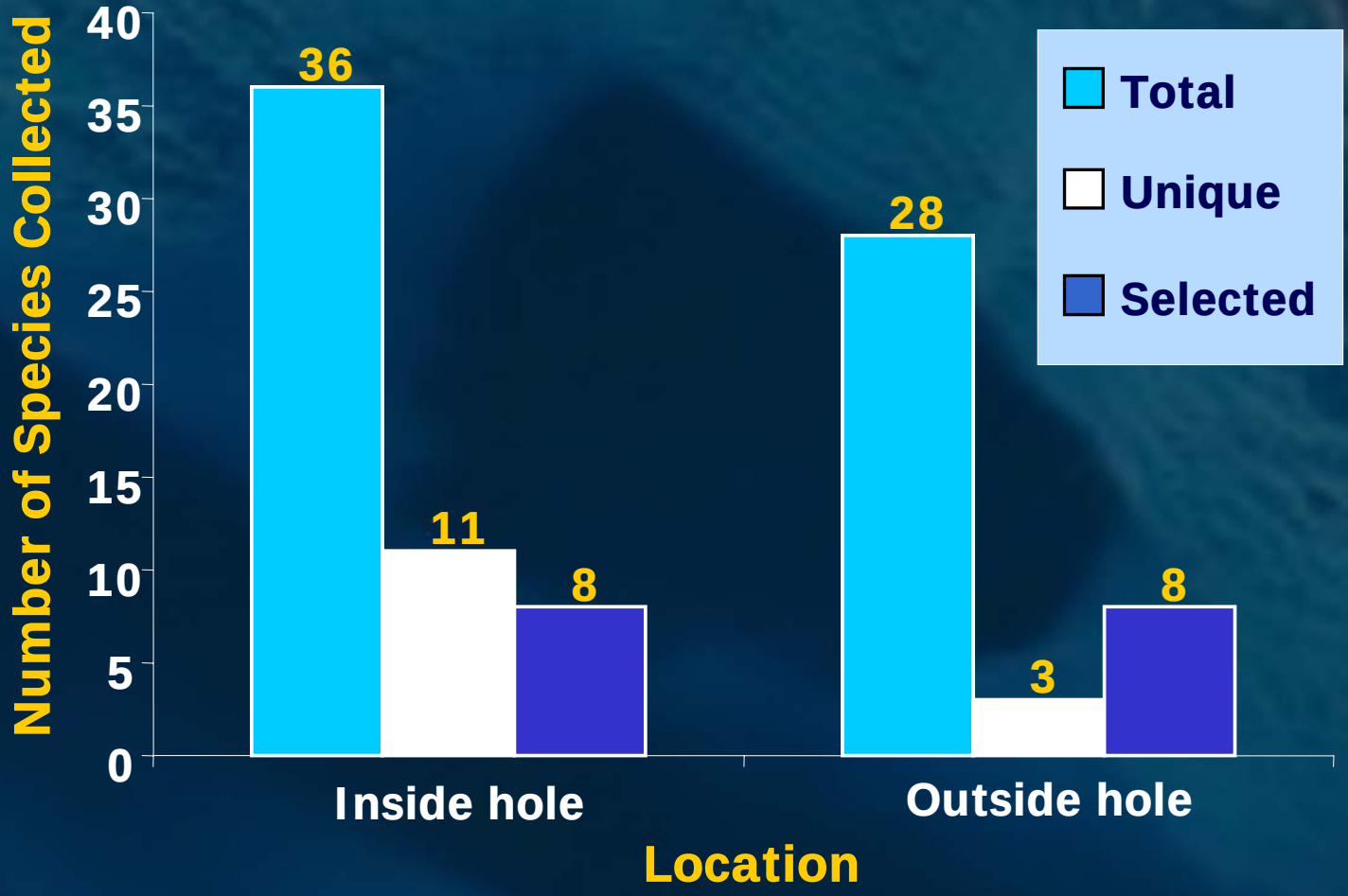
Results to Date - Fisheries General Overview

DMMS
Tampa Bay



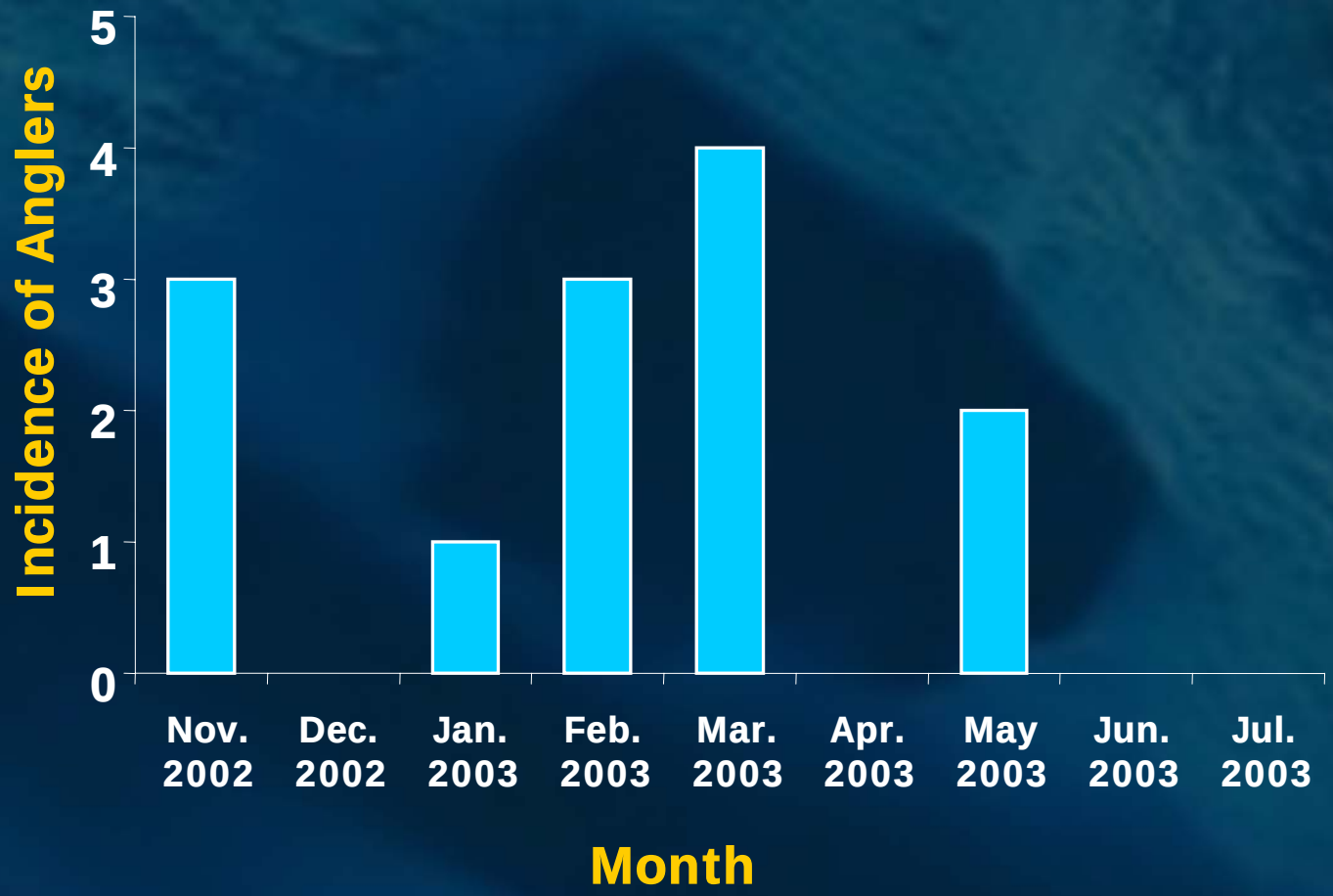
Results to Date - Fisheries
Details – Whiskey Stump Key Hole #1

DMMS
Tampa Bay



Results to Date - Fisheries
Details – Whiskey Stump Key Hole #1

DMMS
Tampa Bay



DMMS

Tampa Bay

Next Steps

Task	Complete	Ongoing	Upcoming
Write Quality Assurance Plan	X		
Evaluate 28 holes	X		
Select 10 holes	X		
Conduct field sampling: • **Water quality** • **Sediment quality** • **Fisheries** • **Benthos**		Fall, Winter 2003	
Analyze field data		Continue	
Develop plans for selected holes			Spring 2004

Presentation Summary

- The implementation of the DMMS is a community effort that balances the needs of resource managers and the general community and establishes a decisionmaking framework for prioritizing projects