

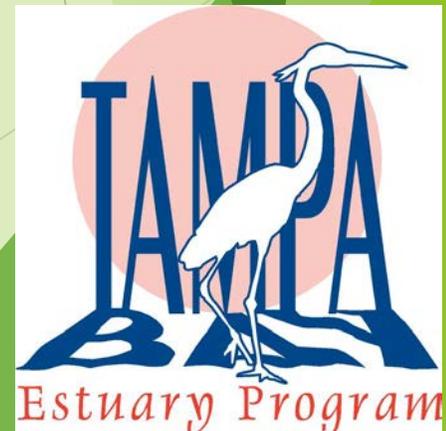
Tampa Bay Dredge Hole Assessment: Update to the ABM Habitat Restoration Committee



Gary Raulerson, Ecologist
Tampa Bay Estuary Program
graulerson@tbep.org

727-893-2765

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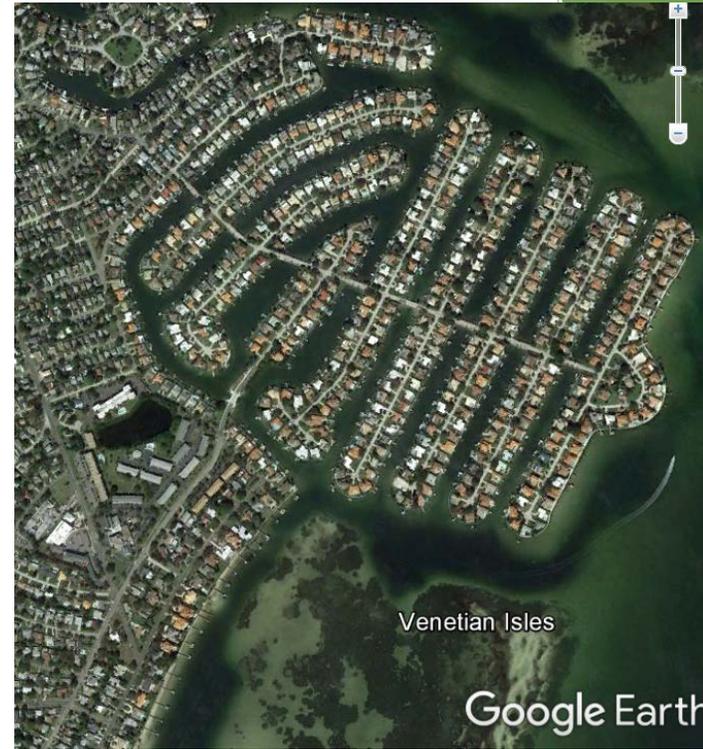
Presentation Overview

- ▶ Why dredge holes?
- ▶ 2005 study and report
- ▶ More recent dredge hole filling projects
- ▶ Why are we doing this again (definition of insanity?) - No!
- ▶ Current project update



Dredge holes

- ▶ Created ca 1950s
 - ▶ Channels
 - ▶ Fill nearby areas
- ▶ Water quality
- ▶ Sediment quality
- ▶ Biological impacts
- ▶ U.S. Army Corps of Engineers defines “beneficial” uses of dredged material as those that incorporate ecological concepts and engineering designs with biological, economic, and social feasibility



Original Study (2002-2005)

- ▶ Fisheries sampling
 - ▶ 11 sites
 - ▶ Oct 2002 through Mar 2004
 - ▶ Ranked by abundance, richness, similarity
 - ▶ Angler surveys
- ▶ Benthic
 - ▶ 16 in Aug/Oct 2002
 - ▶ 14 in Apr/May 2003
 - ▶ Ranked by TBBI, abundance, richness, similarity, sediment characteristics, toxicity, DO
- ▶ USACOE - Survey

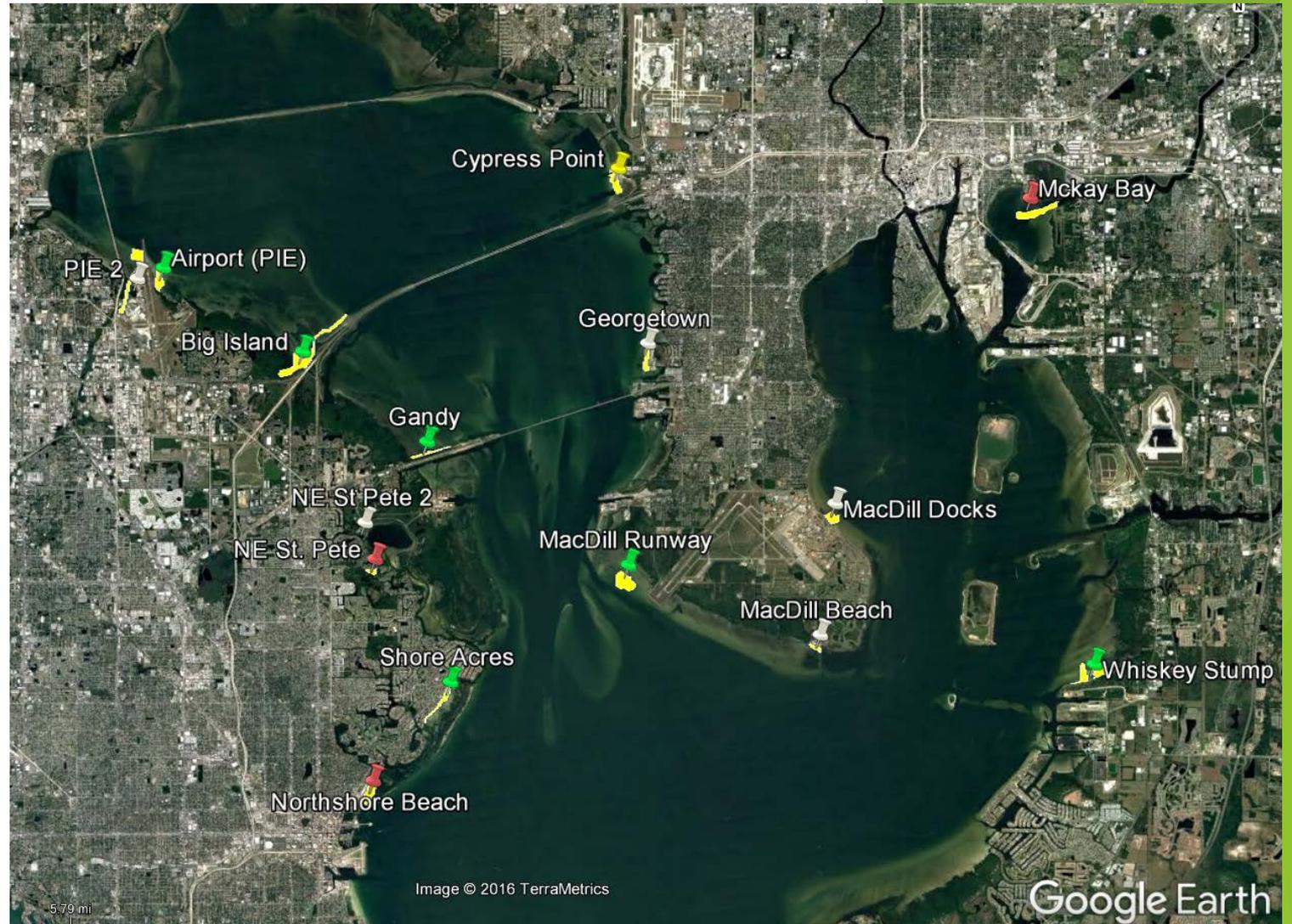
**Tampa Bay Dredged Hole
Habitat Assessment Project**



**Final Report
April 2005**

A report to the
U.S. Environmental Protection Agency, Region 4
By the Tampa Bay Dredged Hole
Habitat Assessment Advisory Team

2002-2004 survey,
11 w/ fisheries and
benthic survey, 5
more with additional
benthic analysis



Ranking in 2005 Study

Location	Fisheries	Benthic	*(ACOE)*	Score	Recommendation
Shore Acres	High	High	High	0.955	Leave as-is
Gandy	Medium	High	Med-low	0.833	Leave as-is
Whiskey 2	Medium	Medium	High	0.707	Leave as-is
MacDill Runway	Medium	Medium	High	0.687	Leave as-is
Whiskey 1	Medium	Medium	High	0.672	Leave as-is
Big Island	Not ranked	Medium	Low	0.545	Leave as-is
Airport PIE 1	Medium	Medium	Low	0.530	Leave as-is
Cypress Pt	Medium	Low	Low	0.359	Partial fill
North Shore Beach	Medium	Low	High	0.293	Fill to match
NE St Pete Pit 1	Not ranked	Low	Low	0.180	Fill to various
McKay Bay	Low	Low	High	0.101	Fill to match

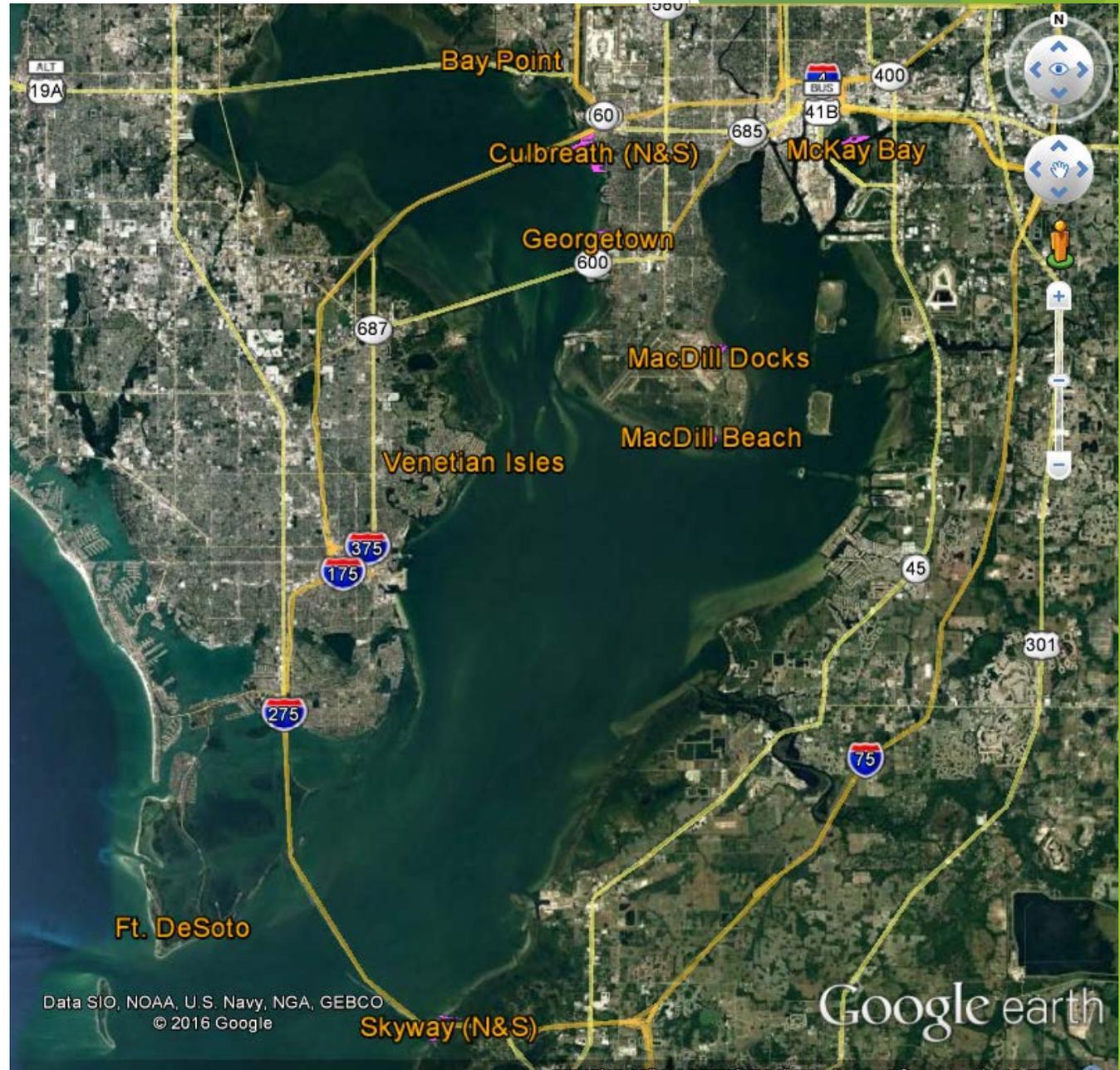
2016 Project

- ▶ Why are we doing this again (definition of insanity?)
 - ▶ No! Still an issue, there are holes to be surveyed!
 - ▶ Primarily sites not monitored first time around



2016-2017 Site Selection

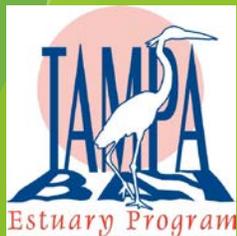
- ▶ Previous sampling?
- ▶ Previously filled?
- ▶ Likelihood for restoration (fill availability)



2016 Project Partners

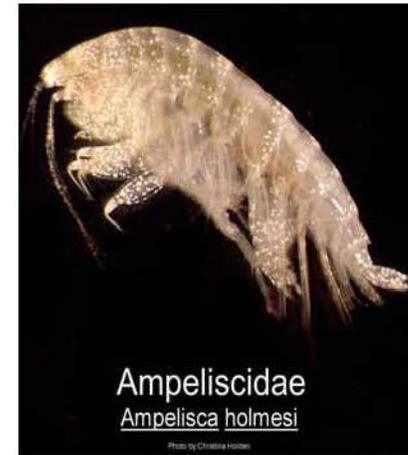


**US Army Corps
of Engineers®**



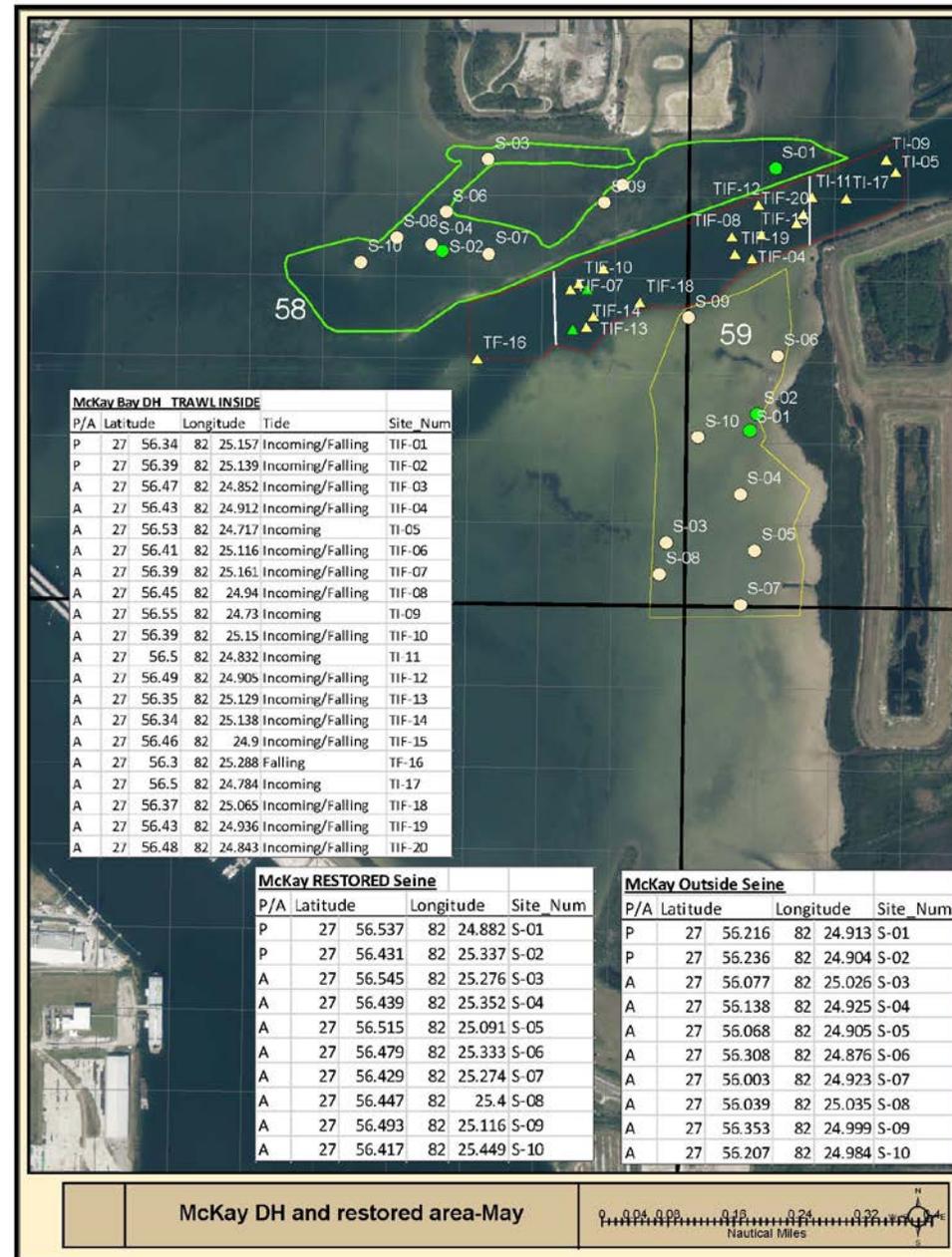
Current Benthic Work

- ▶ Collected first samples (August 2016)
- ▶ Analysis underway
 - ▶ Macroinvertebrate sorting
 - ▶ Grain size
 - ▶ Sediment chemistry
- ▶ 2nd sample set in Spring 2017



Fisheries Analysis

- ▶ Seine
- ▶ Trawl
- ▶ Go-pro



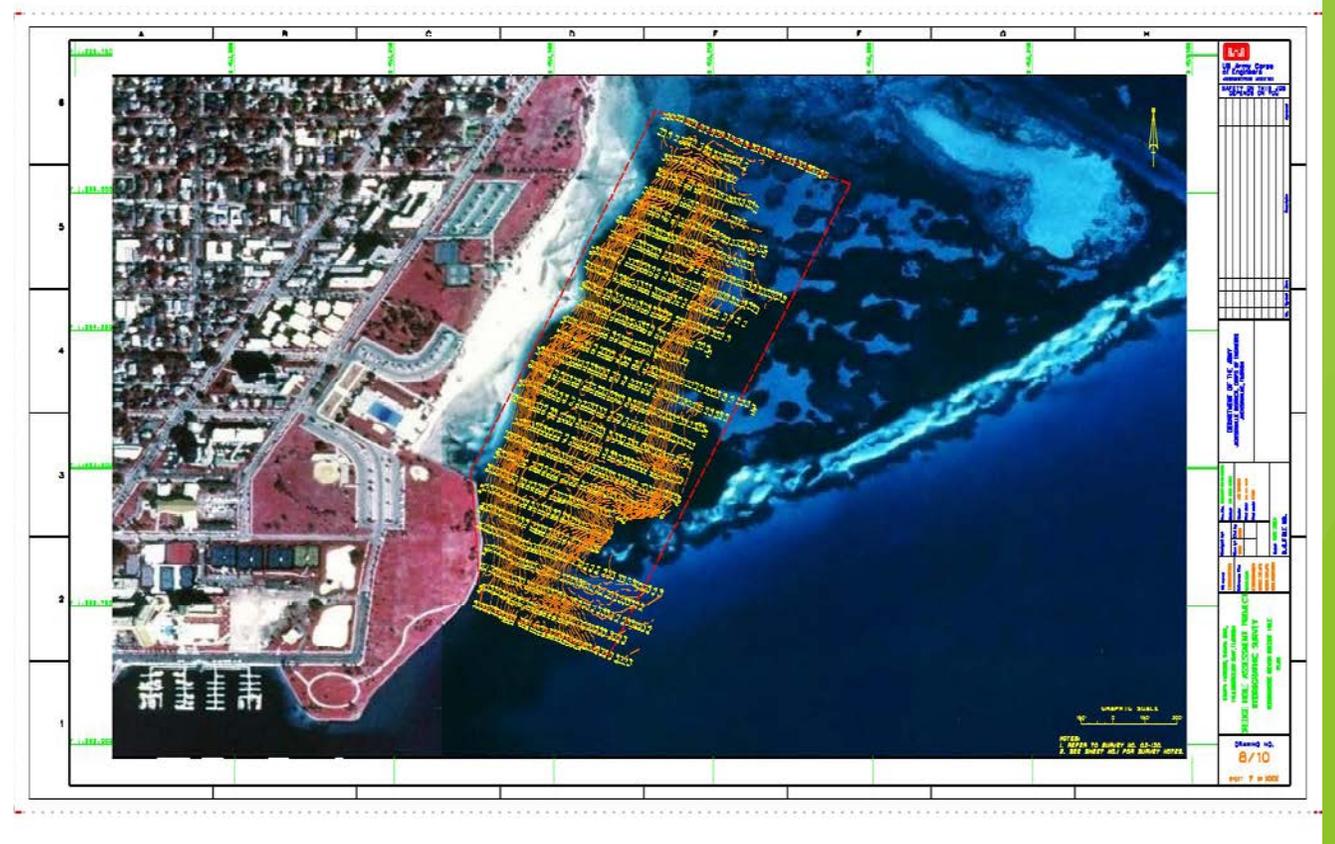
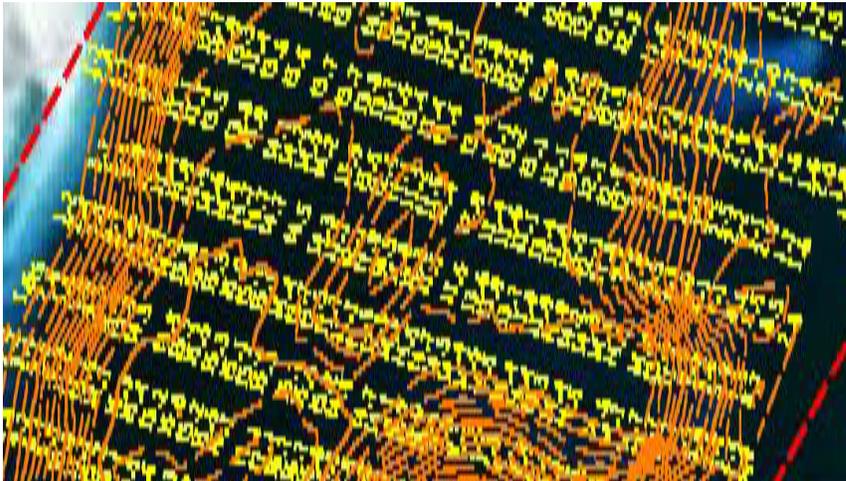
Fisheries Analysis

- ▶ Six months of sampling complete
- ▶ Initial QA/QC of data
- ▶ Seines, trawls, go-pros
- ▶ Ancillary data



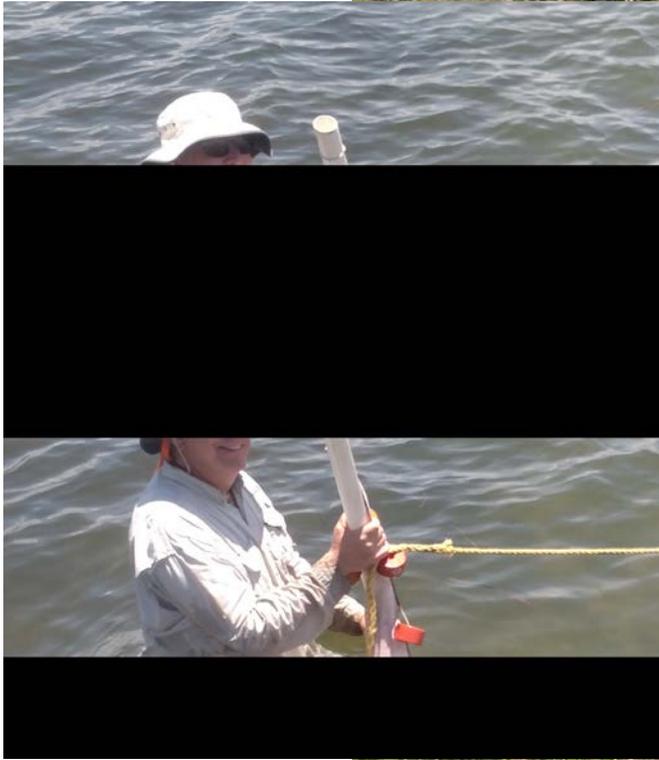
US Army Corps of Engineers Survey (2017)

- ▶ Hydrographic surveys
- ▶ Volume
- ▶ Depth cross-sections
- ▶ Relative access to sediment



Next Steps

- ▶ Complete sampling and analysis
 - ▶ Benthic - Spring 2017 sample
 - ▶ Fisheries - monthly through April 2017
 - ▶ Recreational Survey(?) - Summer 2017
 - ▶ USCOE Surveys - Summer 2017
- ▶ Comparative ranking (modeled after 2005 report?)
- ▶ Fisheries - CPUE, Richness, Unique species, anecdotal
- ▶ Benthos - Richness, diversity, TBBI, DO, sediments
- ▶ Likelihood for restoration (fill availability)



Gary Raulerson, TBEP
graulerson@tbep.org
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Thank You!

