



Jeff Reidenauer, PhD
Lora Turner
Marine Minerals Branch
Leasing Division

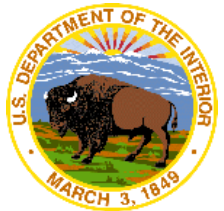
National Conference on Beach Preservation Technology
Jacksonville, FL

February 4, 2016



What I'll Cover:

- BOEM Authority
- Leases – Past, Current, and Planning Phase
- Marine Minerals GIS
- BOEM/FL Cooperative Agreements
- Sandy-funded Atlantic Sand Assessment Project
- Lease/Project Specific Data



2016 Blizzard



Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. 1331, et. seq.)

Public Law 103-426 (43 U.S.C. 1337(k)(2)) (1994): Amended OCSLA to allow BOEM to negotiate, on a noncompetitive basis the rights to OCS sand, gravel, or shell resources for (1) beach nourishment, shore protection, wetlands restoration projects undertaken by a Federal, state, or local government agency, or (2) use in construction projects authorized or funded by the Federal Government.

A 1999 Amendment: Prohibits BOEM from charging Federal, state, and local governments a fee for OCS sand



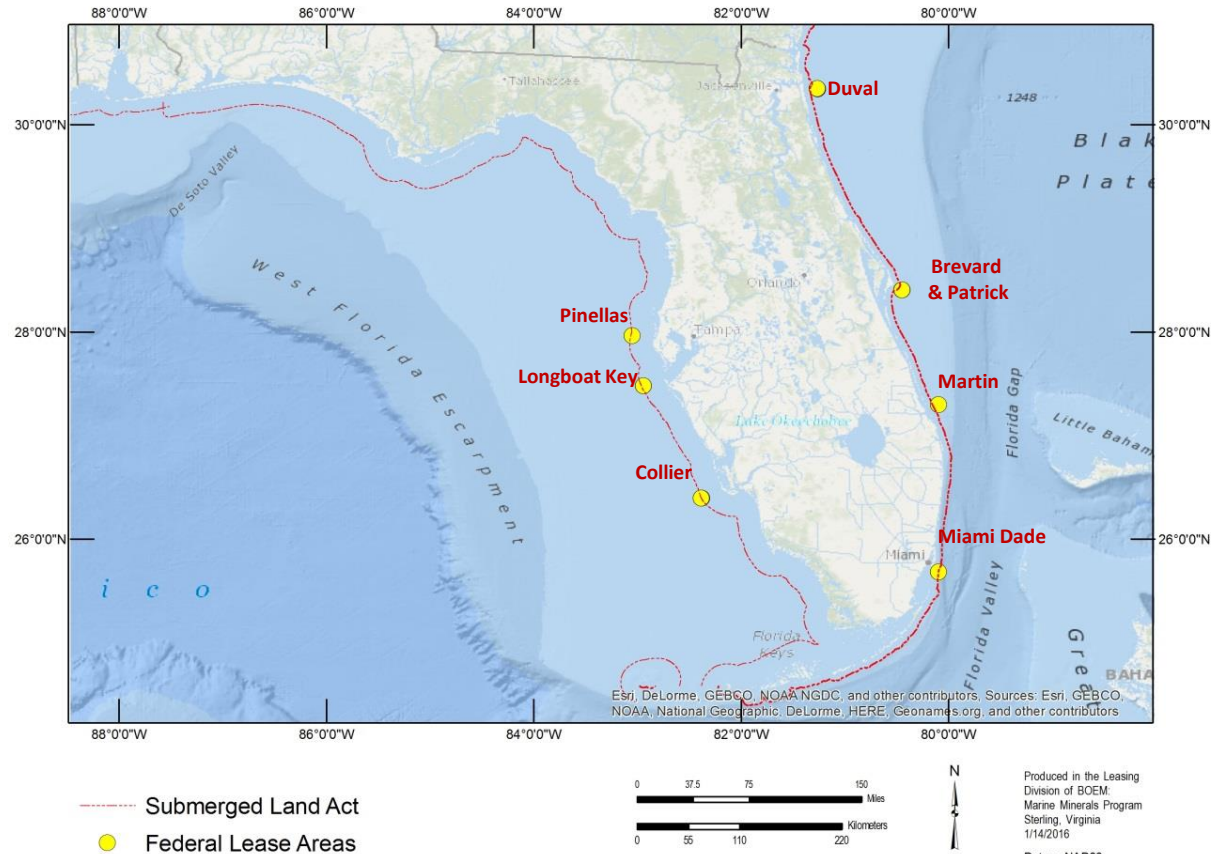
- Manage use of OCS resources in an environmentally responsible manner
- Assess and evaluate OCS sand resources
- Respond to requests for OCS sand resources through issuance of leases and agreements
- Coordinate w/ Federal, state, and local partners
- Conduct environmental studies to inform our decision-making



Completed FL Projects Using Federal Sand

Project	Volume (CY)	Year
Duval County	1,240,000	1995
Brevard County (North Reach)	4,500,000	2002
Brevard County (South Reach)(Amendment)	2,800,000	2003
Patrick Air Force Base	600,000	2001
Collier County	1,000,000	1996
Collier County	673,000	2006
Duval County (Amendment)	1,500,000	2005
Brevard County	2,000,000	2005
Patrick Air Force Base	350,000	2005
Brevard County	1,300,000	2010
Duval County	1,200,000	2011
Pinellas County	1,800,000	2011
Miami-Dade County	474,000	2011
Martin County	1,000,000	2012
Brevard County - N Reach (Amendment)	1,730,000	2014
Brevard County -S Reach (Amendment)	670,000	2014

Marine Minerals Program Federal Sand and Gravel Borrow Areas



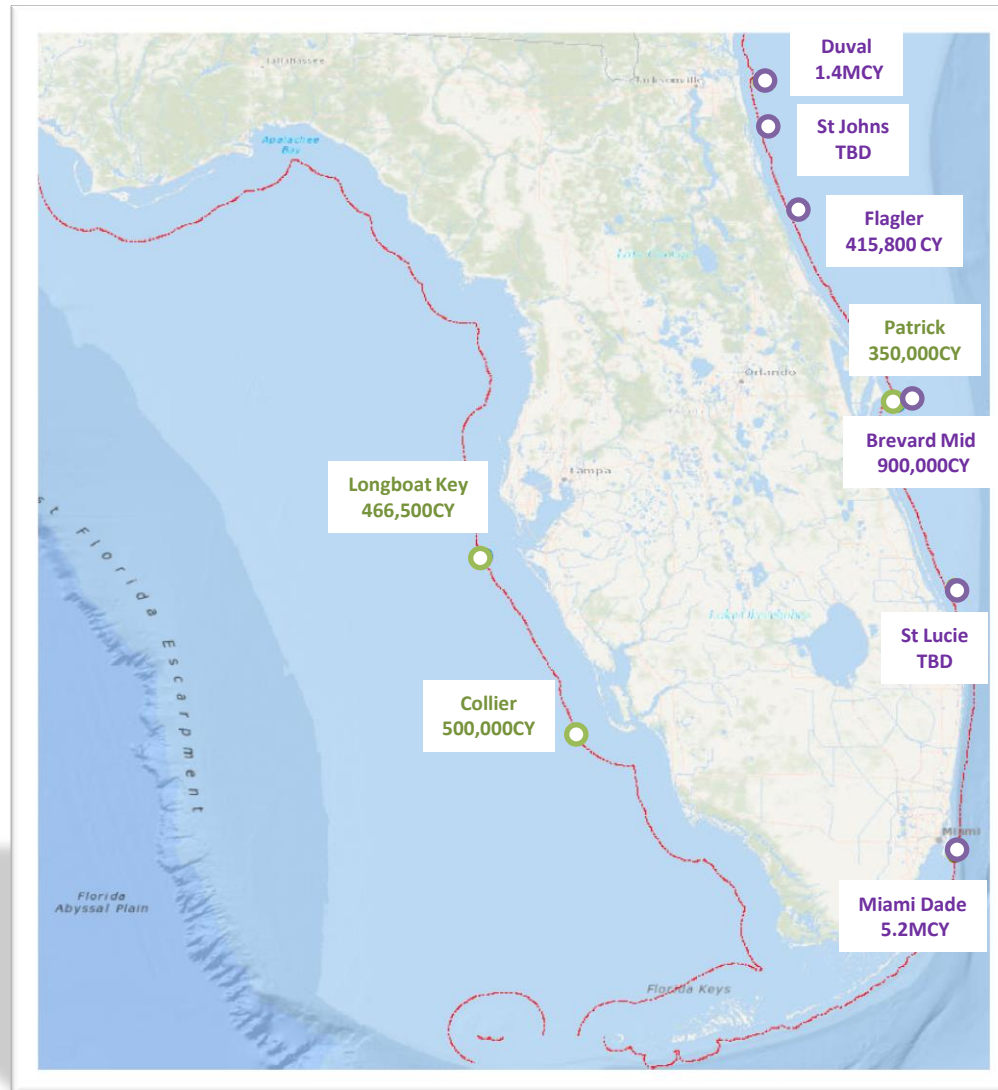
TOTAL = 22,837,000 cubic yards



Active Leases and Projects in Planning Phase

Project	Volume (CY)	Lease Expire
Patrick Air Force Base (amendment)	350,000	1/13/17
Collier County	500,000	4/14/18
Longboat Key (amendment)	466,500	10/10/16

○ Active Leases

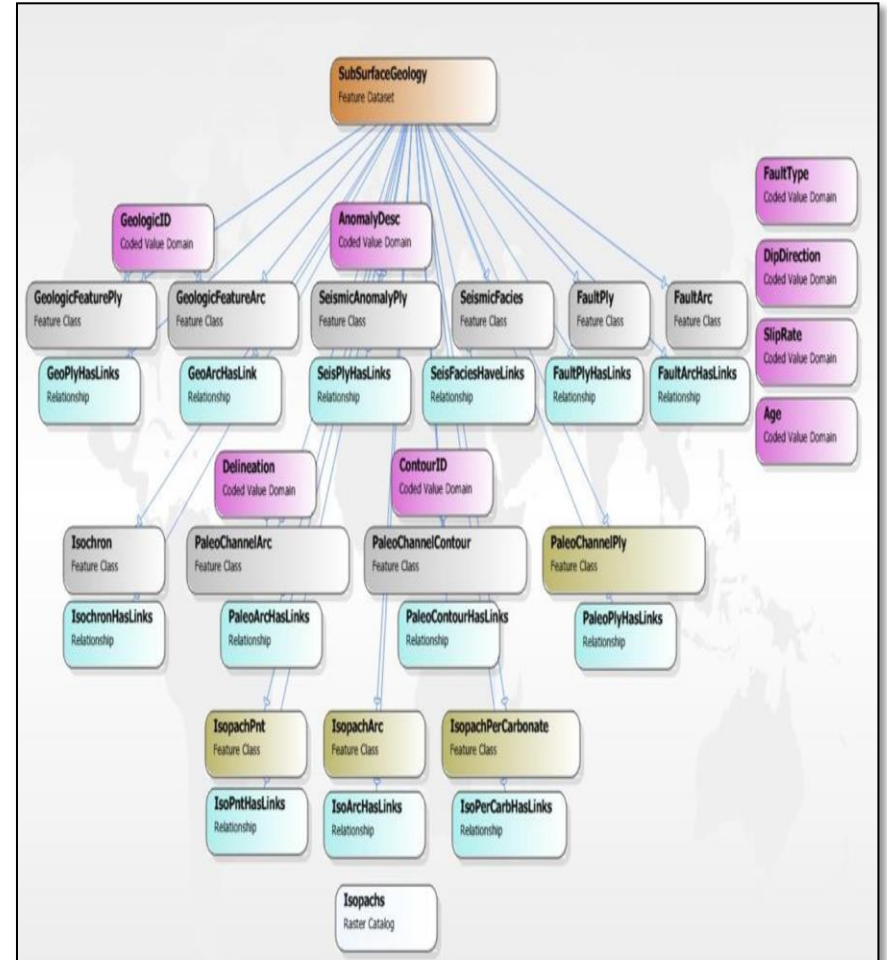
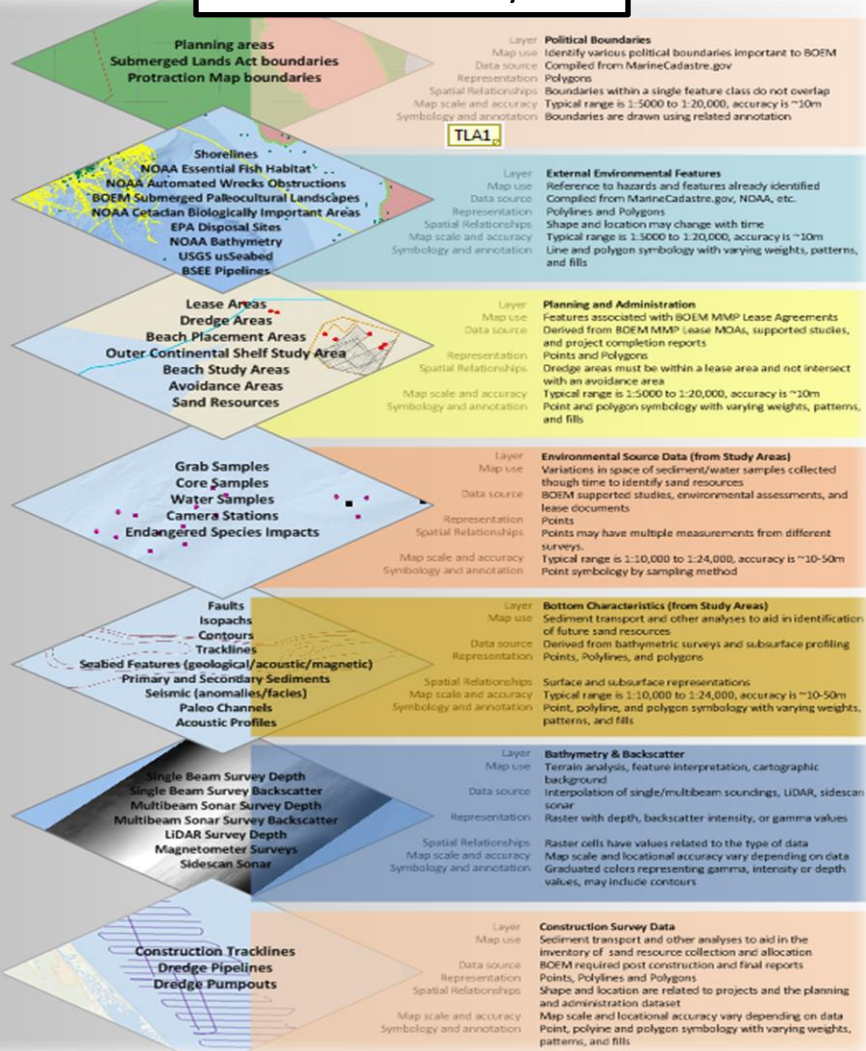


Project	Volume (CY)
Duval County	1,400,000
Brevard County (Mid-Reach)	900,000
Miami/Dade County	5,200,000
Flagler County	415,800
St Johns County	TBD
St Lucie County	TBD

○ Planning Phase



MMPGIS Thematic Layers



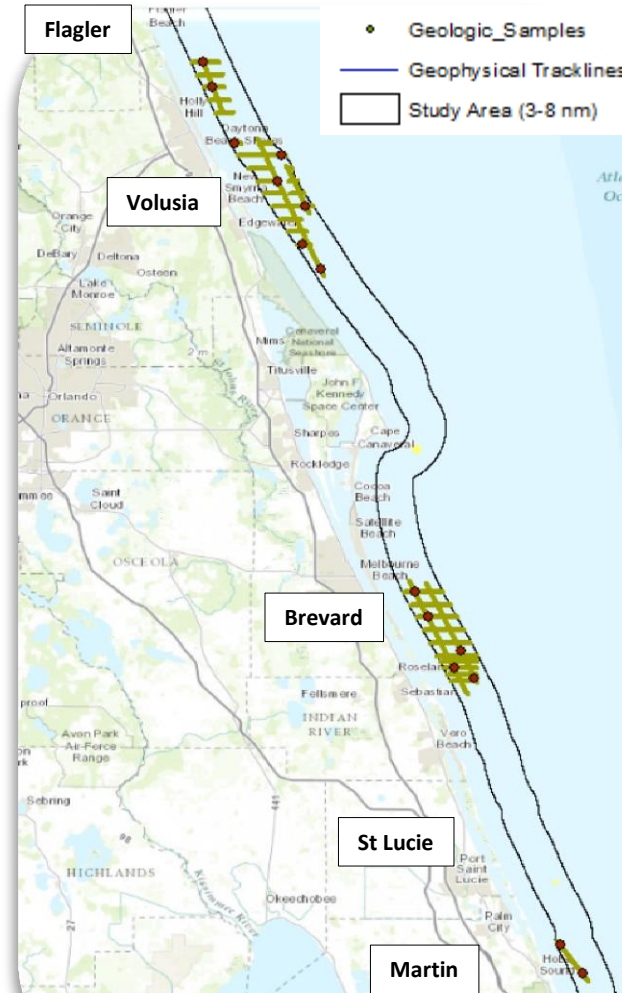
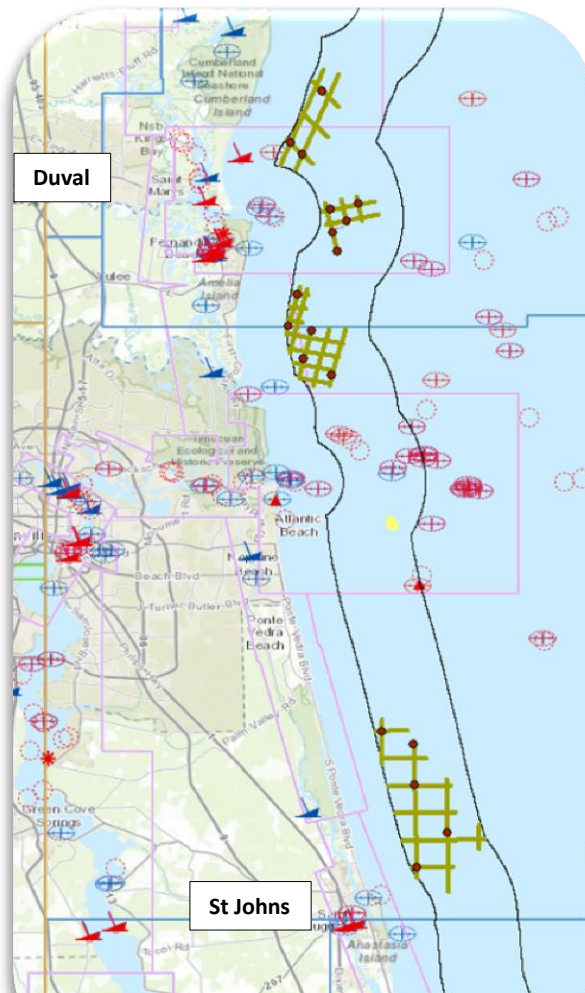
- Multi-Year Cooperative Agreements beginning in 1995
- A Geological Investigation of the Offshore Area along Florida's Central East Coast
- A Geological Investigation of the Offshore Area Along Florida's Northeast Coast
- Currently - Update to ROSS Database and Review and Synthesis of Existing Geophysical Data from Selected Areas on OCS along Florida's Central Atlantic Coast (Sandy Funding)



Atlantic Sand Assessment Project

Need to know what we have to manage the resource successfully

Resource Evaluation – Sand / Sediment Resource Delineation



Geophysical and Geotechnical Collection
Atlantic Sand Assessment Project (Hurricane Sandy Funding)



Atlantic Sand Assessment Project

Need to know what we have to manage the resource successfully

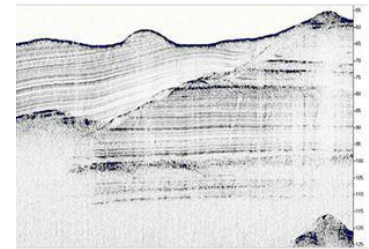
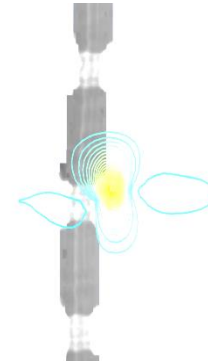
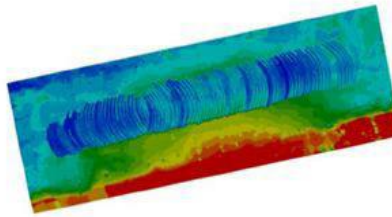
Resource Evaluation – Sand / Sediment Resource Delineation

Identification and Analysis of Sediment / Sand Resources

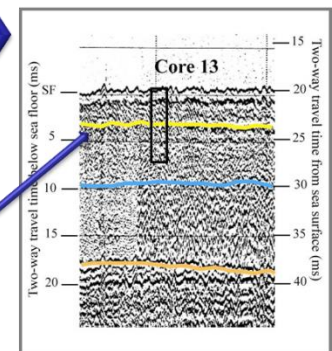
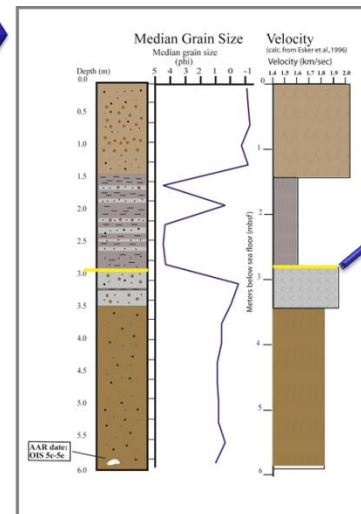
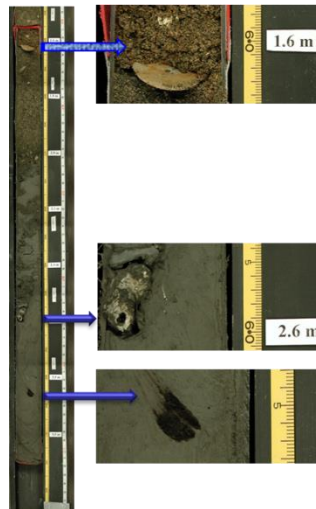
Bathymetry

Magnetometer

Chirp sub-bottom seismic



Vibracores / Grab Samples



**BOEM Environmental
Studies Program**

Marine Minerals Program Geospatial and Information System (MMPGIS)

Identification and Analysis of Sediment / Sand Resources

Bathymetry & Backscatter

Single Beam Survey Depth
Single Beam Survey Backscatter
Multibeam Sonar Survey Depth
Multibeam Sonar Survey Backscatter
LiDAR Survey Depth
Magnetometer Surveys
Sidescan Sonar

Environmental Data

Grab Samples
Core Samples
Water Samples
Camera Stations
Endangered Species Impacts

Bottom Characteristics

Faults
Isopachs
Contours
Tracklines
Seabed Features (geological/acoustic/magnetic)
Primary and Secondary Sediments
Seismic (anomalies/facies)
Paleo Channels
Acoustic Profiles

Environmental Samples Tables

Table LinkDocuments								
Field name	Data type	Allow nulls	Default value	Domain	Prec- ision	Scale	Length	
OBJECTID	Object ID							
ReportTitle	String	Yes					250	
Report	String	Yes					250	
GlobalLinkID	GUID	Yes			0	0	38	

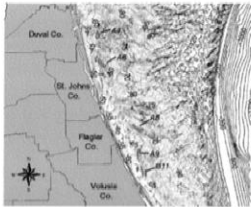
Table CoreLayers								
Field name	Data type	Allow nulls	Default value	Domain	Prec- ision	Scale	Length	
OBJECTID	Object ID							
StudyID	String	Yes					250	
CoreID	String	Yes					50	
CoreLayerID	String	Yes					50	
SampleID	String	Yes					50	
TopInterval	Double	Yes			0	0		
BottomInterval	Double	Yes			0	0		
PhiMean	Double	Yes			0	0		
MunsellHueWet	String	Yes					10	
MunsellValueWet	Double	Yes			0	0		
MunsellChromaWet	Double	Yes			0	0		
Lithology	String	Yes					50	
Comments	String	Yes					250	
GlobalLayerID	GUID	Yes			0	0	38	
Layers GlobalSampleID	GUID	Yes			0	0	38	

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Mapping offshore resources with our partners

Capturing where it is, what it is, how much is there

MMS 2008-06
Final Biological Characterization/Numerical Wave Model
Analysis within Borrow Sites Offshore of Florida's Northeast
Coast Contract No. 1435-01-05-CT-39075-M05PC00005
Report Volume II Appendices A-D



Submitted to:

Department of the Interior Minerals Management Service (MMS)
Sand and Gravel Program Leasing Division Herndon, VA

Prepared by:



Scientific Environmental Applications, Inc. (S.E.A.)

In Cooperation with:



The Louis Berger Group, Inc.

HYDROGRAPHIC REPORT
Depth and direction based on measured values

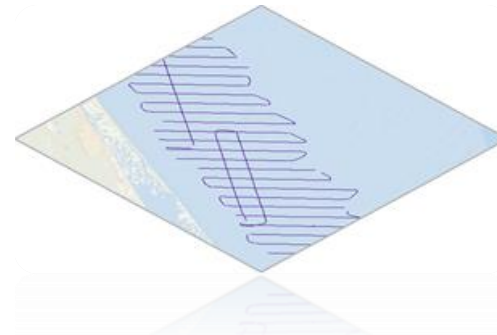
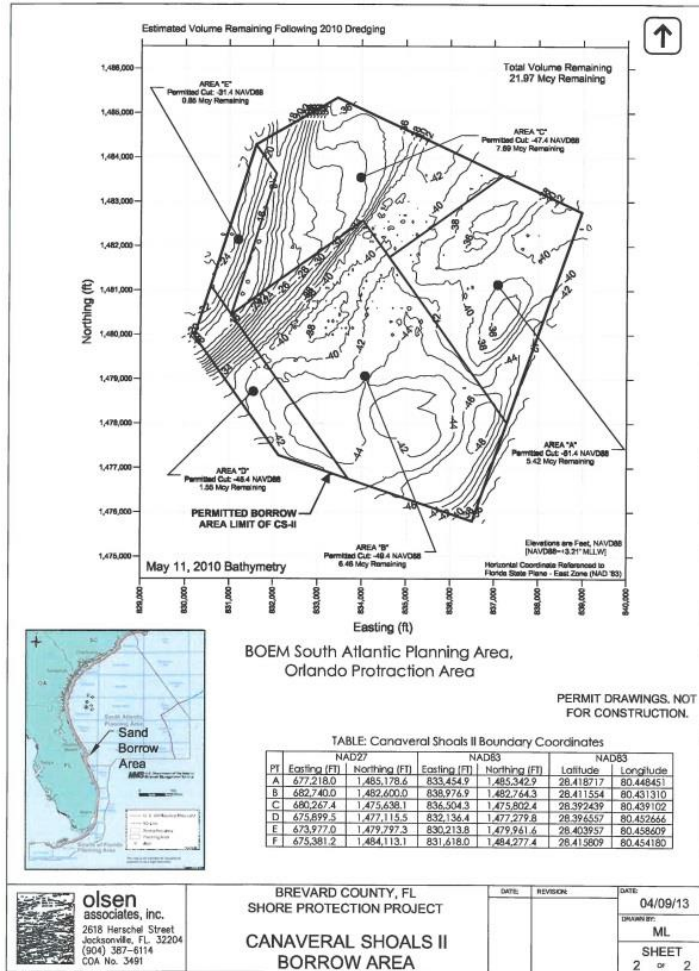
Project Name: MMS Field Study 2006 CT - 39075
Sample Name: NE 1-A4-24
Sample Date: 11-23-05
Analysis Date: 11-23-05
Analyst: SEA Inc.
Survey ID: 575,213
Station: 2,162,367
Datum: FL State Plane East NAD 83

SP	Depth (m)	Direction (°)	Speed (m/s)	Current (m/s)	Wave (m)	Wind (m/s)
30.13	29.75	0.00	-0.03	0.33	5.49	
Wave Number	Wave State (ft/s)	Wave State (Millimeters)	Current Retained	% Weight Retained	Current Retained	% Weight Retained
14	-0.50	1.41	0.01	0.04	0.01	0.04
18	0.00	1.00	0.03	0.08	0.04	0.12
25	0.50	0.71	0.05	0.15	0.08	0.27
35	1.00	0.50	0.23	0.78	0.32	1.05
45	1.50	0.35	0.83	2.75	1.15	3.80
60	2.00	0.25	2.59	8.61	3.74	12.41
80	2.50	0.18	9.95	33.04	13.69	45.45
120	3.00	0.11	13.92	46.20	27.62	91.65
170	3.50	0.09	1.96	6.49	29.57	98.14
200	3.75	0.07	0.15	0.50	29.72	98.64



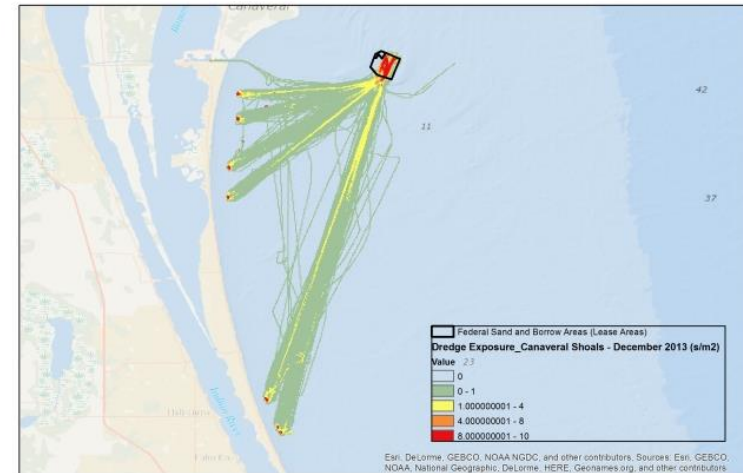
Marine Minerals Program Geospatial and Information System (MMPGIS)

Coastal Restoration / Offshore Dredging Projects



Construction Tracklines
Dredge Pipelines
Dredge Pumpouts

BOEM and USACE

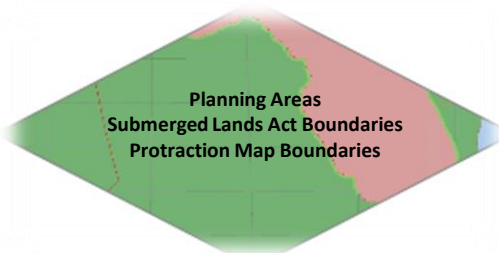


Marine Minerals Program Geospatial and Information System (MMPGIS)

Resource

Planning and Administration

Planning Areas / Boundaries



Partner Data

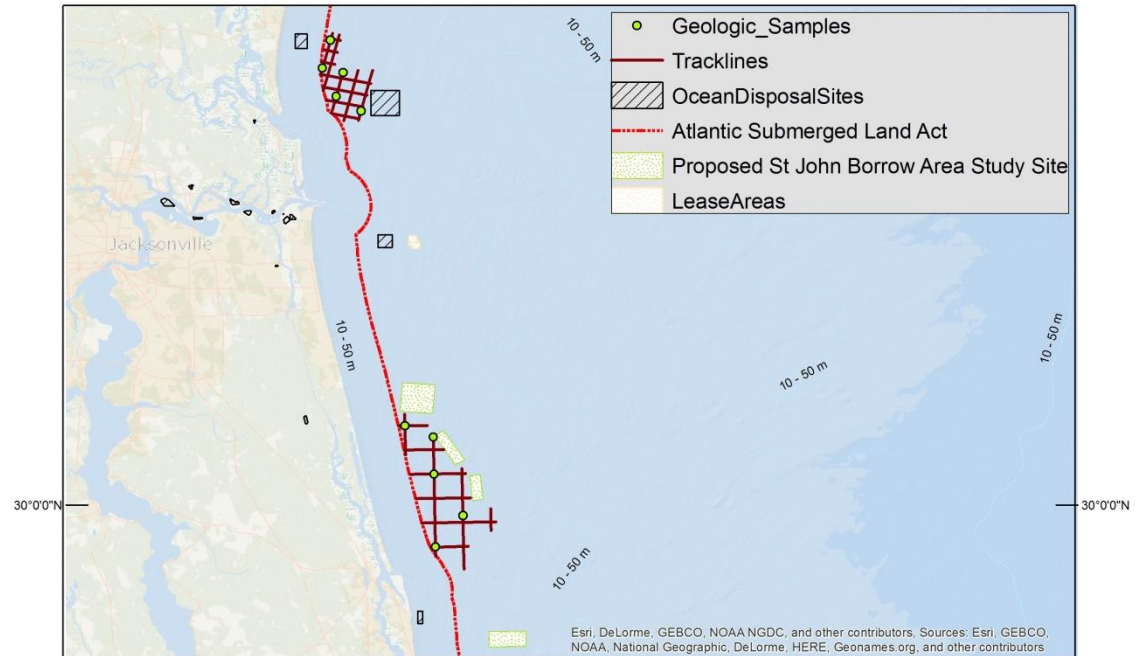
Shorelines
NOAA Essential Fish Habitat
NOAA Automated Wrecks Obstructions
BOEM Submerged Paleocultural Landscapes
NOAA Cetacean Biologically Important Areas
EPA Disposal Sites
NOAA Bathymetry
USGS usSeabed
BSEE Pipelines

Leasing / Environmental



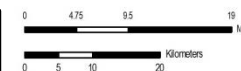
Marine Minerals Program

Planning



Marine Cadastre

- Lease Areas (dataset registered)
- Significant Sand Resource Areas (dataset in development)
- Consume partner data



Produced in the Leasing
Division of BOEM:
Marine Minerals Program
Sterling, Virginia
1/14/2016
Datum: NAD83





journalmediagroup

PRINT THIS

Sand Wars: Treasure Coast fighting Miami-Dade efforts to ship our sand south

By Lisa Broadt of TCPalm

Posted: Sept. 22, 2015



Local News / Broward News

Could we run out of sand for eroded beaches?

In South I
investmer

Or in the

For more

Much of South Florida's shoreline has seen severe erosion this year because of large waves, strong winds and tropical systems. (Mark Randall / Sun Sentinel)



By **Ken Kaye** - Contact Reporter
Sun Sentinel

OCTOBER 29, 2015, 3:47 PM

With king tides, persistent winds and large waves from Tropical Storm Erika and Hurricane Joaquin making erosion particularly bad this year, the demand for sand is high – but is it possible we could run out?

The state says there is a ready supply for the next 50 years. But experts say it has become ever more difficult to find sources of high-quality beach sand for renourishment, an ongoing practice in southeast Florida since the late 1950s.

New England Center for Investigative Reporting | (<http://necir.org/2013/12/18/the-start-of-the-sand-warscoastal-communities-vie-for-sand-to-protect-against-rising-seas/>)

ENERGY AND ENVIRONMENT

December 18, 2013

The Start Of The “Sand Wars”

By Beth Daley



The New York Times | <http://nyti.ms/1f9R67V>

U.S.

Where Sand Is Gold, the Reserves Are Running Dry

By **LIZETTE ALVAREZ** AUG. 24, 2013

FORT LAUDERDALE, Fla. — With inviting beaches that run for miles along South Florida's shores, it is easy to put sand into the same category as turbo air-conditioning and a decent mojito — something ever present and easily taken for granted.

As it turns out, though, sand is not forever. Constant erosion from storms and tides and a rising sea level continue to swallow up chunks of beach along Florida's Atlantic coastline. Communities have spent the last few decades replenishing their beaches with dredged-up sand.

But in South Florida — Miami-Dade, Broward and Palm Beach Counties — concerns over erosion and the quest for sand are particularly urgent for one reason: there is almost no sand left offshore to replenish the beaches.

Website: <http://www.boem.gov/Marine-Minerals-Program/>

Fact sheets: <http://www.boem.gov/BOEM-Fact-Sheets/>

- MARINE MINERALS FACT SHEET
- HURRICANE SANDY FACT SHEET
- ATLANTIC SAND ASSESSMENT FACT SHEET
- SEA TECHNOLOGY MAGAZINE ARTICLE BY DIRECTOR HOPPER

Contact : jeffrey.reidenauer@boem.gov
lora.turner@boem.gov

