

# Marine Minerals Information System (MMIS)

Lora Turner (BOEM Project Lead)

Brian Zweibel (DOI PM)

Cherie Jarvis / Alexa Ramirez (QSI PM)

Dave Stein (NOAA COR)

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#### What is the Marine Minerals Information System?

- MMIS is a tool to support a National OCS Sand / Sediment Inventory and foster access to the Nation's offshore mineral resources
- Serves current and historical marine minerals data and information (Atlantic, Gulf of Mexico, Pacific)
- Geodatabase and Query tools (SediSearch) lets users select sites and parameters to further analyze
- Web services to publicly share marine minerals information (planned)





#### What questions will the MMIS support?

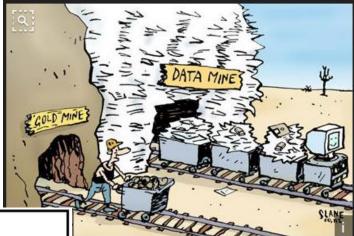
- Where are the OCS sand / sediment resources to inform management and environmental decisions within ocean planning and lease use?
- What is the extent of compatible sand / sediment resources in the OCS to support restoration?
- Where is the authoritative source data for sand resources?
- What vital marine mineral products and data on national, regional, and local scales do managers, planners, and scientists need?
- How do we improve sharing marine mineral datasets with our partners?

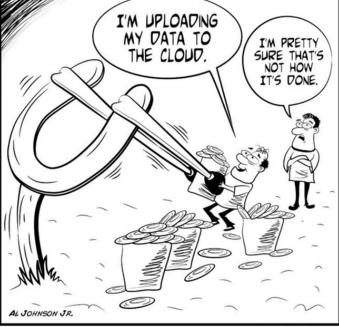




# **MMIS** in the Past









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## **System of Record**

- 30+ years of BOEM funded data
- Multiple formats
- Multiple locations











#### **Data Model**



ASAP / GSAP – Analyzed Geotechnical / Geophysical Source Data

Digital data from physical core samples





Digital derived data from external drives, CD's, paper sources

Cooperative Agreements





Leasing data

Dredge data





Environmental Studies Data



**Bathymetry & Backscatter** 



**Environmental Data** 



**Bottom Characteristics** 



Leasing / Planning/Construction

Lease Areas
Dredge Ageas
Beach Receivent Areas
Outer Continental Shelf Study Area
Beach Study Areas
Avoidance Areas
Sand Resources

Discover

**Analysis** 

**Id Gaps** 

**Metrics** 

MMIS is a **tool** to support a **National OCS Sand Inventory** 





## **Data Development**

#### 1996-2017

131,239 files processed out of 146,816 files

#### 2018-2022

275,000+ files projected

Negotiated Leases / EA Project Data 4,000 files (100GB)

Atlantic Coops Est 70,000 files (1TB) GOMR Coops Est 30,000 files (500GB)

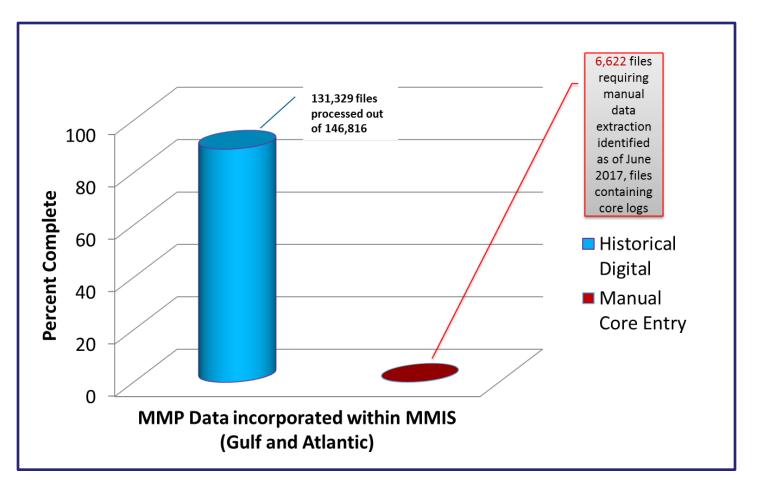
Pacific Coops Est tbd files (500GB)

ASAP Est 15,000 files (1TB) GSAP Est 15,000 files (1TB)





# Data Development Challenges

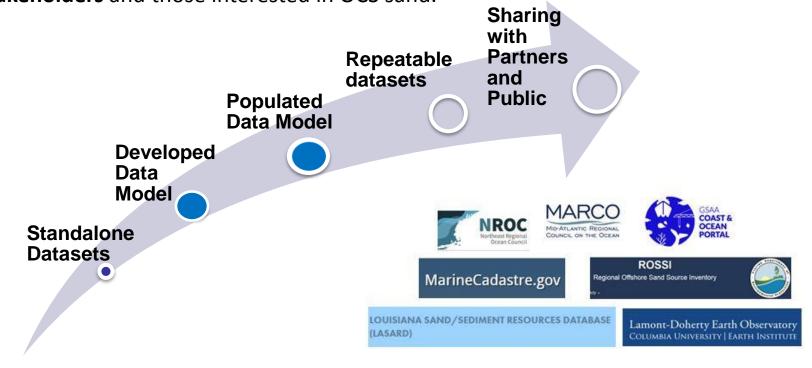






#### **Data Accessibility**

 Our goal is for BOEM to be the authoritative data source for federal offshore sand information and to provide credible and reliable information to stakeholders and those interested in OCS sand.

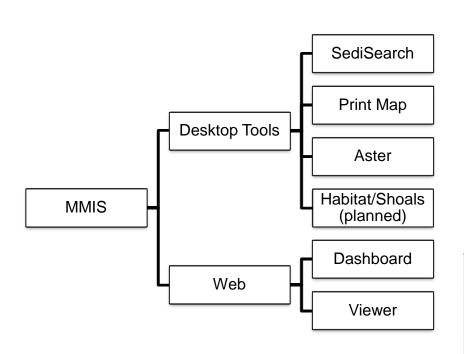


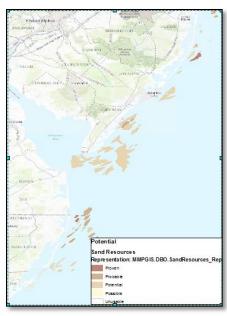
 Make information available through the Marine Cadastre and regional data portals such as those hosted by NROC and MARCO.

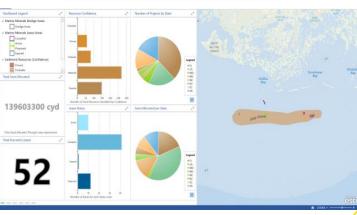




# **Products**

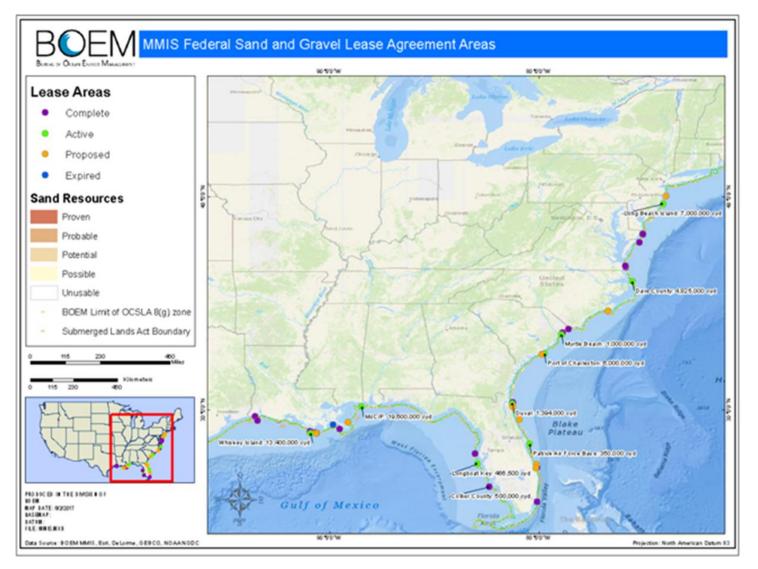








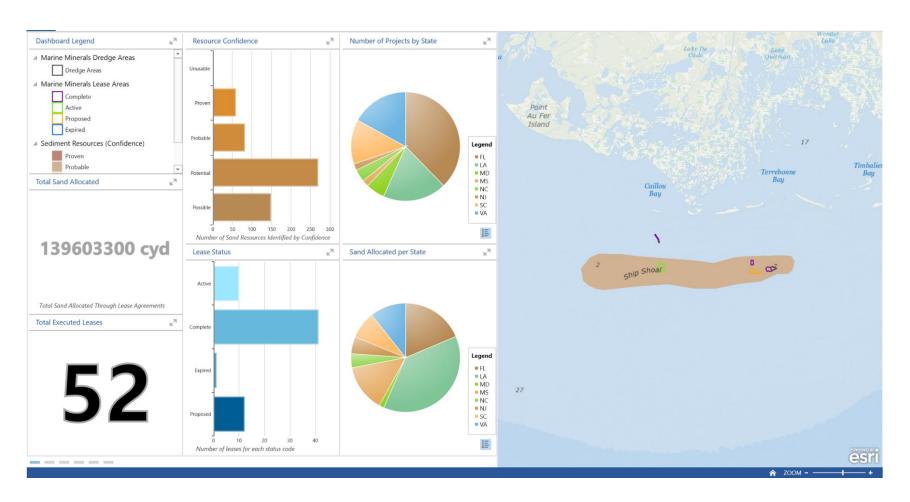
## **MMIS Project Dashboard**







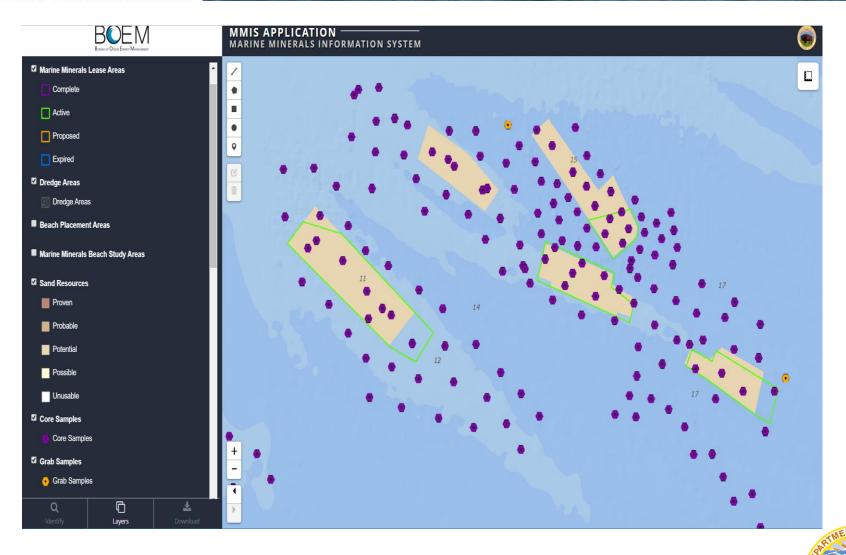
#### **MMIS Dashboard**







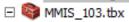
# **MMIS Viewer**





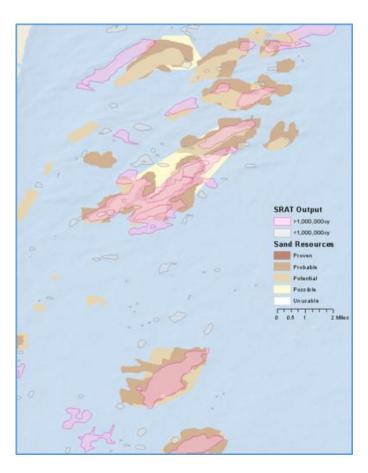
# **SediSearch**





SediSearch

SediSearch\_Sand\_Resources\_Rank\_Category.lyr



🖣 SediSearch	_ O X
Source Data	Sedi Search E
W: MMPGIS Year 3/Test   SedSearch.gdb	
Project Boundary	The SediSearch tool
III WMPGIS Vear 7/Test/ToolData/F Lohp	provides an opportunity to input information about a
Output Workspace	needed resource in order to
W: MMPGS I/Year 3 (Test I Output	match a potential beach
Minimum Volume	restoration project.
\$10000	Required parameters are starred below. If a beach
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4	particular attribute use the
Max Grain Size	widest value to include all
2	options. Munsell color is based on wet Munsell
Munsell Hue (aptional)	values.
9	
□ 7.9R □ 15R	Enter the desired
☑ 2.5/R	parameters into the
59.	respective locations in the user interface and click OK
7.5/R	to start the processing. The
□ 30YR	default bathymetry dataset
Ø 2.5V □ 5V	is NOAAs Coastal Relief Model, but it is
1 1	recommended that the user
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OK Cancel Environments << Hide Help	Tool Help
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#### **Next Steps**

- QSI supporting transition of system to DOI host
- Maintaining the system with DOI
- Training (MMP Staff and ¼ FTE DBA within DOI)
- Continued analysis work and products development
- Continued coordination with our partners (Cooperative Agreement States, Regional Planning Bodies, USACE, NOAA, USGS...)

