



Marine Minerals Program Science Strategy

COSA Meeting

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Overview Marine Minerals Program

- **Non-Energy Marine Minerals**
 - Primarily Sediment/Sand for Beach Nourishment and Coastal Restoration
 - Atlantic and Gulf of Mexico
 - National Offshore Sand Inventory
 - Marine Mineral Information System (MMIS)
- **Negotiated Noncompetitive Agreements**
- **Competitive Leasing**

Strategic Science Questions

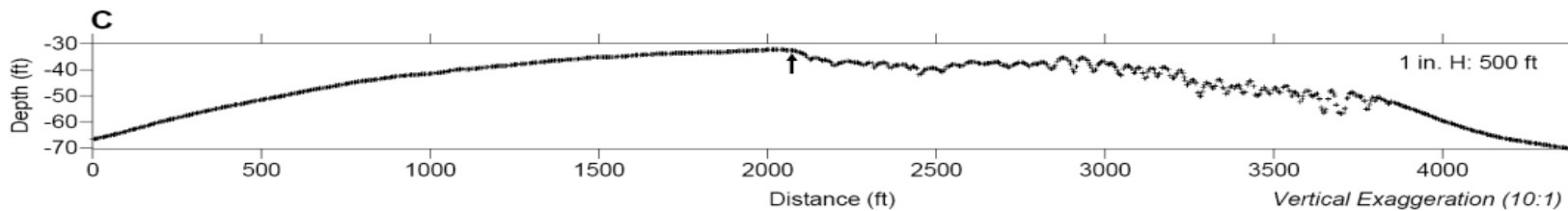
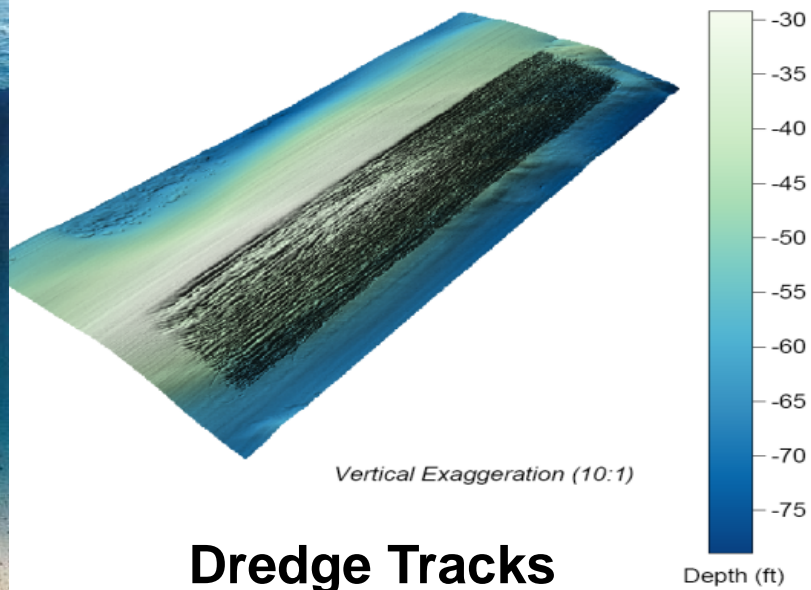
- What is Effect of Habitat or Landscape Alteration from Dredging on Ecological and Cultural Resources?
- How Best Assess Cumulative Effects?
- How Better Use Existing or Emerging Technologies?
- What are Best Resources, Measures, and Systems for Long-Term Monitoring?

Offshore Dredging

Hopper Dredge



Sand Ridge -
Wallops Island (VA)
Shoal A Borrow Area
Post-Construction Bathymetry (Hopper Dredge)



Potential Impacts

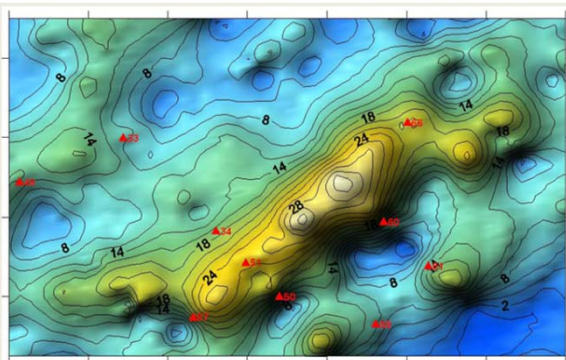
- Fish and Benthic Habitat
- T&E Species – esp., Sea Turtles
- Offshore Sediment Transport
- Submerged Cultural Resources



Ongoing Studies

- **Natural Habitat Associations and the Effects of Dredging on Fish at the Canaveral Shoals, East-Central Florida (NT-14-x12)**
- **Regional Essential Fish Habitat (EFH) Geospatial Assessment and Framework of Offshore Sand Features (NT-16-09)**
- **Sediment Sorting During Coastal Restoration Projects (NT-15-05)**

<https://www.boem.gov/NTStudies/>



Marine Minerals Studies Proposed for the FY 2019

| Profile Page # | Discipline | Office Ranking | Study Title |
|----------------|----------------------|---|---|
| 157 | FE | 1 | NY Bight Fish, Fisheries, and Sand Features: Improving Knowledge of Demersal and Benthic Organisms' Habitat Use, Impacts of Dredging, and Time Series of Recovery of Regional Offshore Sand Sources |
| 160 | PS | 2 | Fine-Scale Dive Profiles and Activity Patterns of Sea Turtles in the Gulf of Mexico |
| 162 | FE | 3 | Sediment Evolution Following Beach Fill Construction: A Literature Review and Technical Workshop |
| | FE = Fates & Effects | PS = Marine Mammals & Protected Species | |

Summary

- Information Needs for Decision Making
 - NEPA, ESA, EFH
- Partnerships
 - USACE, NOAA, USGS, Universities
- Leverage Funds and Cost Effectiveness
- Multi-Region and Program Utility



Questions ?

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