The Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. 1331, et. seq.) provides the authority to manage minerals on the OCS.

- 58 million cubic yards of OCS sand conveyed through 31 negotiated noncompetitive agreements.
- Projects completed in Florida, Louisiana, Maryland, South Carolina and Virginia.
- 180 miles of the Nation’s shoreline have been replenished/restored.
Impact of Program

- National Defense
  - U.S. Air Force (Patrick AF Base, FL)
  - U.S. Navy (Dam Neck Naval Facility, VA)

- NASA Space Program
  - Wallops Island, VA

- Habitat Restoration
  - Pelican Island/Raccoon Island, LA
  - Marsh Creation
  - National Park Service,
    Assateague Island, MD

- Storm & Infrastructure Protection
  - Brevard County, FL
  - Myrtle Beach, SC

- Provide resources that impact tourism, the largest U.S. industry
Ongoing Projects

- **Florida**
  - Brevard County – Mid Reach
  - Brevard County _ Submerged Bar
  - Cape Canaveral
  - Collier County
  - Duval County
  - Flagler County
  - Longboat Key
  - Martin County
  - Miami Dade
  - Mid Reach Brevard County
  - Patrick Air Force Base
  - Pinellas County
  - St. Lucie County

- **Virginia**
  - Dam Neck Naval Base
  - Fort Story Naval Base
  - Sandbridge Beach
  - Wallops Island

- **North Carolina**
  - Bogue Bank
  - Brunswick County
  - Surf City / North Topsail
  - West Onslow Beach and New River Inlet

- **Louisiana**
  - Cameron Parish
  - Caminada Headland
  - Pelican Island
  - Raccoon Island
Potential Future Nourishment Projects (Beyond 2012)

- Ocean Beach, California
- Rehoboth / Dewey Beach, Delaware
- Bethany / South Bethany, Delaware
- Barataria Basin, Louisiana
- Terrebonne Basin Barrier Shoreline, Louisiana
- Absecon Island, New Jersey
- Long Beach Island, New Jersey
3 Established Sand Management Working Groups (LA, FL, Mid-South Atlantic)

- Army Corps of Engineers
  - New Programmatic MOU
  - ACOE Road Show
  - Environmental Coordination

Other Collaboration Efforts
- NOAA NMFS
- FWS
- State Agencies (LA DNR, FL DEP, VA DEQ, etc.)
Roll of Science in Restoration and Planning
- State Coop Program formed in 1992
- Focus on identification & assessment of OCS sand resources
- 50/50 cost sharing of work between State and BOEM
- 16 states have participated at various times
- More than $7.5 million spent resulting in 67 completed studies
- In 2010, 3 State Coops funded: FL, LA and VA.

<table>
<thead>
<tr>
<th>State</th>
<th>Total COOP $ Spent</th>
<th>Volume of Material Leased from COOP (cy)</th>
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<tbody>
<tr>
<td>LA</td>
<td>$1,282,136.00</td>
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<td>MD</td>
<td>$530,383.00</td>
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State participation in Cooperative Agreement Program
- $12 million spent on Environmental Studies
- More than 40 studies
  - Site-Specific and Programmatic
- 8 Ongoing programmatic studies
- Have been referenced or represented in:
  - International Studies
  - Nationwide Studies
  - Peer Reviewed Journal Articles
  - USACE Analysis and Research
  - FWS/NMFS documents
  - Master thesis and PhD dissertations
  - Conference presentations/proceedings
  - In-house documents
Care is taken to reduce the impact of benthic communities

- Consultations (NMFS)
- Monitoring of dredges as they operate
- Studies

Best Practices to Reduce Physical Impacts During Dredging

- 3D morphological model for near and far field impacts associated with modifying bathometry
- Determination at what depth modeling can cease (impact on the seafloor is negligible)
- National Historic Preservation Act (NHPA) - Section 106
- Archaeological survey and report
- Identification of significant archaeological / cultural resources
- Avoidance and/or additional survey

Sonar image of the Jordan Bridge shipwrecks.
Future of Restoration in the Gulf of Mexico
- **Current Projects**
  - Pelican Island
  - Raccoon Island

- **Future Projects**
  - Cameron Shoreline Restoration
  - Barataria Basin Shoreline
  - Terrebonne Barrier Shoreline
Challenges in Coastal Restoration
Challenges Looking Forward

- Increasing Need for OCS Material
  - Decreasing supply of material available in State Waters
  - Sea level rise due to climate change
  - Increased storm activity

- Increasing Concerns
  - Funding Sources (Federal, State & Local)
  - Coastal Ecosystem Degradation (Wetlands, Barrier Islands, Beaches)
  - Marine Spatial Planning/Multi-Use Conflicts
  - Climate Change
  - Environmental Impacts
  - Coastal Fisheries and Hatcheries
  - National Commerce
Strategic Thinking: Addressing Challenges

- A Regional Approach
  - Sand Management Working Groups
  - Regional NMFS Biological Opinions

- Streamlined Processes
  - Identifying environmental studies based on prioritized information gaps
  - Placement of Regional staff dedicated to MMP

- Consideration of Multi-Use Issues
  - Effort to make sand resource location information more publicly accessible (Multi-Purpose Marine Cadastre)
In the past 20 years the MMP has…
- Spent ~$38 million dollars total (including base salary)
- Employed an average of 5 FTE/year
- Conveyed 58 million cubic yards of OCS material
- Signed 31 negotiated noncompetitive agreements
- Replenished/Restored more than 180 miles of the Nation’s coastline
- Completed 67 State cooperative agreement resource identification studies
- Completed over 40 environmental studies
- Established 3 regional working groups