2015 Gulf of Mexico

Offshore Sand Management Working Group

Introduction

New Orleans, Louisiana

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Introduction

- **BOEM Marine Minerals Program (MMP)**
- **MMS La SMWG → BOEM/GOMA Gulf of Mexico Offshore Sand Management Working Group**
- **Overview**
  - **History of SMWG**
  - **Impact of SMWG**
  - **BOEM MMP Status**

SMWG History 2003-2007

- **Bureau Priorities**: no dedicated GOM staff; no dedicated funding
- **Partnering:** Stakeholder engagement poor in most areas (SMWG good start); coordination with other agencies lacking
- **Stewardship of Mineral Resources:** Inventory of sand resources identified as primary need (did have strong but minimally funded co-op program)
- **Managing Multiple Uses:** Surface mineral access not considered when siting petroleum infrastructure, especially approving pipeline abandonment
- **Project Management, Planning, and Outreach:** Time required to get an agreement uncertain; requirements uncertain and inconsistent
- **Science-Informed Decisions:** Applied research to inform decision making advanced significantly during this time period

SMWG History 2009

- **Bureau Priorities**: Improving? 1 dedicated staff in Gulf Region; no dedicated funding; increased awareness of issues
- **Partnering:** Stakeholder engagement poor; coordination with other agencies lacking; restoration project construction timelines impacted
- **Stewardship of Mineral Resources:** Some accomplishments, (geological and geophysical data collected/analyzed) through co-ops; focused on near term use needs not regional resource management
- **Managing Multiple Uses:** Significant OCS Sediment Resources policy developed and Notice to Lessees (oil and gas) issued to inform stakeholders
- **Project Management, Planning, and Outreach:** Time required to get an agreement too long; NEPA and other compliance requirements not coordinated with other agencies

Impact of SMWG

Where we stand today:

Bureau Priorities: Support for the program at the highest levels in BOEM and DOI

- Dedicated funding
- 4 passionate and full-time dedicated staff in GOM (13 program-wide)
- Encouraging and fostering partnerships outside of Bureau
- Supporting (funding) MMP-specific science to inform decisions

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Bureau Support for MMP

BOEM OC
THE SCIENCE & TECHNOLOGY JOUR

The Marine Minerals Program: Meeting the Needs of Our Nation's Coastline

The Value of Marine Minerals Program Studie

Preserving History within Sand Extraction Areas

The Marine Mineral Resource Potential of the Pacific Outer Continental Shelf

Building Coastal With OCS Sand

Managing Shores for the Long

By Renee Orr • William Yancey Brown

Coastal resilience is a term we hear often, especially after Hurricane Sandy. This prompts some to ask, "How can we make our coasts more resilient?"

As the nation's steward of offshore energy and nonenergy mineral resources, the Bureau of Ocean Energy Management (BOEM) at the U.S. Department of the Interior (DOI) is making tangible contributions to building coastal resilience. For more than two decades, BOEM's Marine Minerals Program (MMP) has been a central player in coastal restoration by granting access to sand resources from the Outer Continental Shelf (OCS). BOEM agreements and partnerships with federal agencies, states and coastal communities enable us to provide sand to restore beaches, wetlands a
These efforts help to reduce the impacts of h
nor'easters and long-term erosion on vulnerable
infrastructure and habitat. Our goal is to contrib
nation's environmental, economic and recreati
being through safely completed, sustainable proj

BOEM is the only agency authorized to grant
OCS sand and has seen an increased number
for this resource in recent years, due to stronger
frequent storms and the depletion of suitable reso
state waters for restoration projects. Hurricane Sa
tober 2012, intensified the demand and stimulate
federal-state-private sector collaboration, whic
aged a change in perspective from a project-by-p
proach to broader regional approaches and more
efforts to build resilience for the long term.

The MMP is also actively leasing OCS materi
of Mexico coastal restoration projects for Louisia
island shorelines battered by Hurricanes Katrina
2005, Gustav in 2008, and Isaac in 2012, and
impacted by the 2010 *Deepwater Horizon* event.

BOEM does not conduct the dredging or und

BOEM Partnerships Strengthen Coastal Resilience, Environmental Stewardship

Restoration Progress Along the Gulf and Atlantic Coasts

By Abigail Ross Hopper

This fall, we will mark the third anniversary of Hurricane Sandy, which wreaked havoc along the U.S. East Coast. From flooding and waist-deep sand deposited on small town streets to damaged property, mangled infrastructure and battered wildlife habitat along the coast, Sandy's legacy will not be forgotten. The coastal communities that fared the best—where impacts were less severe—were those that had invested in their own resilience, those that had rebuilt beaches and dunes and other protective measures in the wake of previous storms or to combat long-term erosion.

The year 2015 also marks the 10th anniversary of Hurricanes Katrina and Rita, which devastated the Gulf of Mexico (GOM) Coast, as well as the fifth year since the *Deepwater Horizon* (DWH) tragedy, bringing other coastal ecosystem impacts and demonstrating the need for coastal resilience.

For more than 20 years, the U.S. Bureau of Ocean Energy Management (BOEM) has partnered with coastal communities, states and other federal agencies to help build that

The Long Beach Island Coastal Storm Damage Reduction Project in New Jersey, started in May 2015, is designed to complete the dune and berm system and reduce future storm damage. It is a partnership between BOEM, USACE and the New Jersey Department of Environmental Protection.

Impact of SMWG

Where we stand today:

Partnering: Key to recent program success

- Project Partnering: remove “stovepipe”
  - USACE Regulatory for most projects: identify agency roles and responsibilities from start; no duplication of effort
  - BOEM engaged at planning stage instead of “permitting” stage
  - BOEM involved in borrow area alternative screening: improve planning confidence (identify building material)
- Program Partnering :
  - Regional groups (GOMA)
  - Science efforts (USACE; Navy; USGS; States)
  - Monitoring efforts
  - Programmatic consultations (protected species, etc.)

Impact of SMWG

Where we stand today:

Managing OCS Mineral Resources: Can't manage the resource and be effective partners in Gulf restoration if we don't know what we have

- Marine Minerals Program geospatial database
- Gulf-wide offshore sediment inventory initiative
  - Understanding recent geology/evolution of shelf key
  - Existing data provides framework in GIS
  - Programmatic approach to collect, process, analyze and interpret new data
  - Uniform methods, various interpretation considered, standard formats

Impact of SMWG

Where we stand today:

Managing Multiple Uses: Shelf sediment resources need to be available for use

- IMPLEMENTING Significant OCS Sediment Resources policy
- Large component of Gulf MMP workload
- Coordination with petroleum industry stakeholders and Bureau of Safety and Environmental Enforcement
- Coordination with States for identification of “Significant” resources and during CZMA reviews
- For efficient conflict management reliable geologic/geophysical data are key (science-informed decisions)

Impact of SMWG

Where we stand today:

Project Management, Planning, and Outreach: Goes back to partnering

- Beyond SMWG, continued dialog with potential stakeholders (project managers, planners, scientific experts, etc.)
- All projects different: case-by-case approach instead of one-size fits all guidelines
- Provide scientific and technical support beyond the borrow area
- BOEM comes on early as part of the design or planning team
  - All agencies coordinating early on environmental/safety requirements met for agencies
  - Issues identified early on
  - Design to construction was 8-10 yrs, now less than 3

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Bureau of Ocean Energy Management

Role in Gulf Restoration Programs

FY 13- FY 16 Gulf of Mexico OCS Sand Projects

Project (funding)	Lead Agency	Sand Vol. (yd^3)	Status
Raccoon Island, LA (CWPPRA)	NRCS	1.2 million	Complete 3/13
Pelican Island, LA (CWPPRA)	NOAA-NMFS	5.5 million	Complete 2/13
Cameron Parish Shoreline, LA (State)	LA CPRA	5 million	Complete 3/14
Caminada Headland Increment 1, LA (CIAP)	LA CPRA	5.2 million	Complete 12/14
Caminada Headland Increment 2, LA (NFWF)	LA CPRA	8.8 million	Construction began 5/15
MsCIP Gulf Islands National Seashore, MS (Direct appropriations)	USACE	14 million	Environmental Review
Whiskey Island, LA (NRDA)	LA CPRA	13.4 million	Lease Signed 6/15
N. Breton Is., LA (NRDA)	FWS	1-6 million	Planning
E. Timbalier Is., LA (NFWF)	LA CPRA	6-10 million	Planning

Impact of SMWG

Where we stand today:

Science-Informed Decision Making: Problems never encountered before arise working in a new environment with different agency/ resource concerns.

- Often existing science not adequate to inform decisions → overly conservative or impractical mitigations, project designs, etc.
- Focused applied science develops tools needed to move forward with confidence
- Marine Minerals Program Science Exchange Meeting: December 2, 2015 New Orleans

Significance and Impact of SMWG

Example problems/science applied:

- Buried channel sands require deeper pits – understanding evolution of pits important to determine setback from pipelines and sensitive seafloor habitat. Recovery important for water quality/fish habitat (EFH)
- Shoal response to dredging – questions about habitat function of shoals. Linking process geomorphology to habitat
- Turtle tagging w USGS – more turtles than expected during relocation trawling, using opportunity of relocation trawling to access turtles for telemetry/tagging; inform future NMFS decisions

Conclusions and Long Term Strategy

- Build on program success – partnering focus

- Engaged in regional Gulf restoration planning efforts

- Improving stewardship capabilities → Gulf-wide offshore sediment inventory

Gulf-Wide Offshore Sediment Inventory

- Update from Gulf States offshore sediment management efforts
- Discussion on how we (states, BOEM, USGS, USACE, etc.) move forward toward a Gulf-wide inventory
- Understanding shelf geologic evolution important to locating discrete sand bodies (not just “low hanging fruit” bathymetric highs)
- Beyond the project scale, long term management as stewards of OCS mineral resources (managing use conflicts, decrease restoration planning uncertainty, etc.)