

Meeting Summary

Bureau of Ocean Energy Management (BOEM), Marine Minerals Program
In Partnership with the Gulf of Mexico Alliance (GOMA)
Gulf of Mexico Offshore Sand Management Working Group

Tuesday, October 13, 2015

9:00 am – 4:30 pm

I. Introduction

The Bureau of Ocean Energy Management (BOEM), in partnership with the Gulf of Mexico Alliance, convened the Gulf of Mexico Offshore Sand Management Working Group (SMWG) on October 13, 2015 at the Intercontinental Hotel in New Orleans, Louisiana. As part of BOEM's collaborative engagement, this meeting was also webcast to support remote participation. The hybrid meeting took place the day before the American Shore and Beach Preservation Association's 2015 National Coastal Conference. Seventy one participants attended the meeting in person, and 25 participated via webinar. Participants included representatives from federal, state, and local agencies, academic and research institutions, and consultancies.

The meeting purpose and objectives were to:

- Provide the working group and interested stakeholders with an update on BOEM's Marine Minerals Program (MMP)'s and SMWG efforts;
- To share information on gulf-wide sand inventory initiatives from various states;
- To discuss lessons learned from recent sand management efforts;
- And to identify opportunities for continued GOM SMWG activities.

The webinar was recorded, and is available to the public at <http://kearnswest.adobeconnect.com/p3c85d1umtg/>. The meeting agenda is available as an Appendix, and the presentations from the meeting are available on the [SMWG project website](#).

This meeting summary document summarizes key outcomes and next steps from the meeting. It focuses on group's discussions rather than the formal presentations made. It is not intended to be a detailed transcript. The meeting was facilitated by Kearns & West (K&W).

II. Overview of Action Items from Meeting

Action Item	Lead	Timeline
Post working group sign-up sheets; invite additional interested individuals to sign up.	BOEM	October 31, 2015

III. Discussion Highlights

A. MMP and SMWG Overview (Mike Miner, BOEM)

Mike Miner, from MMP's Gulf of Mexico Region (GOMR) at BOEM, presented an overview of MMP and SMWG efforts. He provided a brief history of SMWG meetings in the Gulf region, BOEM's partnership with the Gulf of Mexico Alliance (GOMA), new MMP developments, sediment budgets and outer continental shelf (OCS) sand value, and significant sand resources. Mr. Miner noted that funding and support for MMP has grown and that partnerships (both project and program partnering) have been key to recent program success. Key partnerships include those with regional groups and with other state and federal level agencies on science efforts.

Mr. Miner highlighted that MMP's current initiatives include mapping and tracking resources (e.g., Gulf-wide Sand Inventory Initiative); implementing sediment resources policy; planning and managing projects; coordinating with partners; and applying science to solve problems.

B. Gulf-wide Sand Inventory Initiative

1. Panel Presentations

Representatives from Gulf states presented on the progress and current status of their state-specific sand inventory initiatives, demonstrating an array of program successes and lessons learned related to tracking sand resources. State presenters also highlighted key needs for moving their projects forward, citing that stakeholder engagement, partnerships, and having accurate data on hand are critical to project success. Below are key highlights from each state presentation:

- **Texas Database**

Ray Newby, from the Texas General Land Office, provided an overview of the state's coastal programs and touched on the important of collecting sediment data. Specifically, he mentioned the challenge of having sediment data scattered across multiple databases in inaccessible formats. As a potential solution, he suggested creating a geodatabase as a clearinghouse, while also acknowledging that there are hurdles related to creating a repository of this sort.

- **Louisiana Sand Resources Database (LASARD)**

Rick Raynie, from the Coastal Protection and Restoration Authority of Louisiana (CPRA), presented an overview of the state's database, which was initiated in 2003 with funding from the Marine Minerals Service (MMS). LASARD makes standardized and properly formatted data available to users through CPRA's publically accessible spatial viewer, a new user friendly interface. Louisiana developed standard operating procedures and recently updated them to include new data types that are being collected today.

Following the presentation, there was a brief period for meeting participants to ask clarifying questions. Key discussion takeaways included:

- **Pipeline buffer distance:** Louisiana typically uses 500 meters as the pipeline buffer distance.

- **LASARD features:** LASARD incorporates some legacy data, but the state is still coming up with a strategy for older analog data. The database is updated regularly to track restoration and dredging projects, which accounts for updated data after projects are complete.

- **Alabama Database**

Steve Jones, from the Geological Survey of Alabama, presented on the Offshore Alabama Sand Information System (OASIS). Key efforts that the state is currently undertaking include compiling all available supporting sand resources to construct interactive mapping software layered with sediment data. The state identified this need after it found a lack of accurate data from initial sediment studies; these studies also over represented viable sand and sediment around Alabama beaches. Reviewing the current data will help identify outstanding data gaps and address critical needs for beach resources. Mr. Jones concluded his presentation by mentioning that Alabama is interested in the work that BOEM is doing and would like to see a working group established to focus on offshore sand interests.

- **Florida Database**

Jennifer Coor, previously a Coastal Geologist with the Florida Department of Environmental Protection (DEP) and currently with the USACE, provided a synopsis of Florida's new, improved database called ROSSI (Regional Offshore Sand Source Inventory), which is a combination of two previous databases: ROSS (Reconnaissance Offshore Sand Search), and OSSI (Offshore Sand Source Inventory). ROSSI includes reports and is a master repository of all data, in one uniform, consistent format, which enforces consistency of data structures across projects, both historic and future. ROSSI will soon incorporate new features, including the Florida Geological Survey (FGS) Coastal Atlas in its entirety. The state is working to register the database with data.gov.

Following the presentation, there was a brief period for meeting participants to ask clarifying questions. Key discussion takeaways included:

- **ROSSI features:** Artificial uses (e.g., reefs, military zones, etc.) are included in some data layers. ROSSI is focused on geotechnical data. Performance data on the beach nourishment process is publicly available through Florida DEP. Once a borrow area has been completely expended, the color code is changed on the chart to update the data so it is known that there is no more sand in that borrow area.

- **Mississippi Update**

George Ramseur, from the Mississippi Department of Marine Resources, provided an informal update on the current sand inventory efforts underway in Mississippi. The state government is growing more interested in restoration issues. The state has been focusing on trying to encourage utilizing offshore resources, including sand. Sand is the state's preferred material for offshore coastal structures. Mississippi is going to need more sand in the future (millions of cubic yards of sand for some upcoming projects).

- **BOEM Gulf-wide efforts/ MMP Geospatial Information System (GIS) Database**

Lora Turner, Oceanographer with BOEM MMP, presented an update on the Marine Minerals Geospatial and Information Management System, and also discussed BOEM's goals for this Gulf-wide initiative. Partnering with coastal stakeholders (there are currently 13 Atlantic cooperative agreements in place), BOEM is developing a relational geodatabase in order to help quantify marine minerals at the local, regional, and national scale by combining datasets, identifying data gaps, and filling gaps where possible. Primarily, this GIS tool is an important instrument for decision making efforts.

2. Discussion

A panel discussion followed the state and BOEM presentations, during which audience members made comments and asked questions of the panelists. BOEM staff also asked the meeting participants to respond to the following two discussion questions: 1) How can BOEM and stakeholders achieve a Gulf-wide Sand Inventory initiative (e.g. how to manage, fund, etc.); and 2) How can the database best serve everyone's needs?

- **State of knowledge--MMP has identified a need for more resource management:** BOEM staff reiterated that one of the foci of this SMWG meeting is to determine the state of knowledge in this working group and discuss how to meet current sand resource management needs.
- **Involvement with state coastal management programs:** One participant asked what type of involvement panelists had with their state coastal management programs. Responses included:
 - Alabama has too many data gaps around offshore sand deposits to be able to address coastal management programs.
 - Florida has a very integrated coastal management program; the Department of Environmental Protection coordinates with all coastal programs even before getting to permitting. Typically, local governments do not always engage everyone, but Florida makes a dedicated effort to engage as many agencies as possible at the earliest stages before permitting. They are trying to minimize all adverse environmental impacts to beach projects.
 - Texas would like to see more coordination and partnership in BOEM and at the state level for marine and spatial planning (identifying sand sources for restoration projects).
- **Addressing cultural resources:** A participants asked the state representatives how they handled cultural resource issues. Responses include:
 - Alabama does not have good information on offshore culture resources. Most of their information focuses on the state's inland cultural resources exists.
 - Florida has many cultural and environmental resources and uses three approaches to address these: 1) avoid the resources; 2) do upfront mitigation or; 3) monitoring and mitigation.

- Texas does not have a set procedure and handles these on a case-by-case basis. If the cultural resource is significantly compromising access to sand from a source, it may be worth the expense of investigating.
- **Clearing abandoned pipelines:** In response to a question about the potential to clear abandoned pipelines, panelists replied that some states allow pipelines to remain when not actively used. BOEM staff clarified that its sister agency, the Bureau of Safety and Environmental Enforcement (BSEE), manages and regulates pipelines. If a pipeline is classified as an obstruction, it can be removed. The most recent active company is the responsible party.
- **Using data in systematic decision making:** One participant asked if panelists could provide any examples of data being collected and decisions made on a more systematic level, to identify the most convenient or financially feasible options. Responses included:
 - Louisiana has some procedures that have opportunistically utilized data that's been collected (e.g., a sandstorm investigation protocol).
 - Texas does not have any dedicated programs for reconnaissance, although it does have several academic programs taking advantage of grants to do proactive research in the field.
 - Florida does not have any dedicated programs either; however, certain efforts are being made to identify the sources for long-term planning prospects.
- **Utilizing known resources:** It is important to monitor the sediment of which states and BOEM are already aware. New sources aren't always necessarily needed. It is important for BOEM and states to invest in the low-hanging fruit (tapping the sand that is already being tracked). States had varying uses for existing resources:
 - Florida has sediment impoundment basins that are dredged routinely; however, these are not enough to keep up with the state's needs.
 - Alabama does have impoundment basins, but these are not dredged regularly.
 - The only borrow area that Louisiana has reused is in the Mississippi River; the state has limited sediment supplies and not a lot of sand. Louisiana is looking at various barrier islands and shorelines in the system, to track sediment changes over time in a way that they haven't in the past.
 - Texas uses regular survey monitoring but does not currently track adequate information on sand movement off of beaches.
- **Sand placement and structures:** A meeting participant asked if state datasets also include sand placement and structures and whether there are plans to add those in the future. Responses include:
 - Texas does not currently have this information but would like to add it in the future.
 - Louisiana's system provides some information on structures in place and includes a data inventory of public infrastructure, but the state is still working on making this information available to the public.

- Alabama has a detailed inventory of shoreline data, but these data are not currently in the database (available by request).
- Florida is in the process of incorporating data into ROSSI, but not for earlier data. Other sources track past information if available (the joint coastal permit (JCP) and FCP sites).
- **BSEE sediment areas:** A contractor attending the meeting inquired whether the sediment areas that BSEE established would be set aside for states to use for their projects. The areas are mineral resources that are federal taxpayer property and must remain available. BOEM staff confirmed that the agency identifies sites of offshore sediment which are then reviewed; however, staff are not looking at it project by project. This is not just a short term management plan; the areas that are prioritized right now are from the states. The questioner noted that industry would like to be considered one of the stakeholders on these issues and wants BOEM to be transparent so that industry can stay abreast of upcoming projects and priorities. BOEM staff agreed that they are interested in keeping industry in the loop.
- **Allocating resources for a particular use:** A meeting participant asked if states had a programmatic way for allocating sediment resources for particular uses (i.e., where it's not "first come, first serve")? Responses included:
 - Alabama noted that it has some projects that are set aside for a particular purpose.
 - Florida has a borrow area delineation process that involves using a permit for a borrow area for specific projects; the permit is used for that one project until it is expended.
 - In Texas, as sand sources are identified, they are leased from the state to the local sponsor with a negotiable time period.

C. Barrier Island Restoration Using GOM Shoal Sands: Success Stories, Lessons Learned

1. Caminada 1 and 2 Projects

Brad Miller and Clayton Breland from CPRA, and Steve Dartez from Coastal Engineering Consultants, presented on the Caminada 1 and 2 projects. They discussed the planning and permitting process, provided an operational overview, and reviewed lessons learned during the projects (focusing on borrow design, turtle trawling, dive teams, etc.). They described their strategies, tactics, and methods for extracting sand from selected project areas, as well as the project contract modifications and other challenges faced throughout the process.

The Caminada projects are two of the largest headland restoration projects in the Gulf of Mexico. Details on each project can be found in the presentations on the SMWG project website. In terms of key lessons learned, the presenters emphasized the importance of:

- Engaging all agencies and stakeholders early and often during design and permitting;
- Designing and permitting as many construction access options as practical to allow the contractor flexibility;

- Planning for environmental contingencies in the project design;
- Staying in constant contact with the regulatory agencies; and
- Expecting the unexpected.

Following the presentation, participants had the opportunity to ask follow-up questions or share initial comments. Key discussion takeaways included:

- **Previous work at Caminada:** The Caminada area was not previously dredged. The project team was required to dredge at least 12 hours per day.
- **Science monitors:** When doing these types of projects, it is important to design for contraction and slippage. The team was able to go out before the project was put in, as the beach nourishment would progress from west to east, and then would go measure the subsidence. The existence of sand over mud creates a different environment than in other instances.
- **90% removal requirement:** BOEM staff inquired why 90% of the sand had to be removed by the contract (and what was the motivation behind this), and asked if this requirement affected operations and costs in any way. The presenters indicated that 90% was the design cut and was instituted with the specifications to best utilize the resource. The purpose was to get contractors to think about best practices for sand removal. The presenters noted that Ship Shoal is the last usable sand body in reachable distance of Caminada. The project team didn't want contractors searching for the best sand and then leaving good sand behind that couldn't be reclaimed easily in the future. Dredging the barrier with the cutter head didn't take extra time. The magnitude of costs is directly related to the distance between the sand source and the restoration target.
- **Turtle impacts:** There was a project in 2011-12 during which the trawl hit many turtles, killing two. BOEM should consider in future NEPA analyses whether high sand areas are attracting turtles.
- **Systematic effort to monitor the magnitude and destination of transport:** The project team is looking at barrier islands in their effort to monitor the magnitude and destination of sand transport. Most projects do not monitor sand being lost. This is important because it may be cheaper to recycle sand rather than going offshore to get more.

2. Mississippi Coastal Improvements Program

Justin McDonald from the U.S. Army Corps of Engineers (USACE) presented on the Mississippi Coastal Improvements Program (MsCIP), highlighting the program's history, objectives, and lessons learned. The program involves 15 projects along the Mississippi Coast, all of which have been completed. Key recommendations lessons learned from MsCIP include:

- Thoroughly investigate the viability of all borrow options early during project development.
- Communicate early and often with all agencies and partners involved.
- Perform cultural resource surveys of borrow and placement sites immediately upon identification of the areas.

- Hold industry days to solicit feedback from the dredging industry during the project design and planning phases.
- Understand the risks associated with not thoroughly investigating the viability of borrow sites during the feasibility phase of a project.

3. Whiskey Island

Concluding the “Barrier Island Restoration” session was a presentation on the NRDA Caillou Lake Headlands Restoration Project on Whiskey Island, given by Greg Grandy, Coastal Engineering Consultants. Mr. Grandy’s presentation provided an overview of the project and described some of the challenges encountered, such as cultural resource detections and exposed pipelines, as well as solutions adopted to overcome these barriers. In most cases, coordination with the agencies and contractors involved helped address the unexpected issues. Other key lessons learned included:

- It was important to leverage previous work.
- It is important to remain proactive and flexible. The more flexibility maintained for contractors, the better off the project will be.

4. Discussion

Following the presentation on Barrier Islands Restoration, meeting participants were invited to ask follow-up questions and share comments. Key discussion takeaways included:

- **Involving industry:** After the MsCIP project team’s second industry day, it had to completely redesign the borrow area it was using, after receiving industry insight about best use and optimization of the borrow area for design. This insight provided the team with more sound knowledge.
- **Pipeline material:** The pipeline for the Whiskey Island restoration project will likely be a combination of a soft line and a hard line; it will transition from a steel pipeline to some combination of a floating pipeline. The project team needs to work with pipeline operators when pipeline paths are crossed. The contractor doing the work is responsible for contacting the operator.
- **Long-term use of resources:** It’s great that contractors and project managers are thinking about the long-term use of sand resources. These geologic resources will not be able to be extracted in the same quantity again, and they should be used wisely. Project teams should consider the level of survey in order to fully understand what the resource has to offer. Everything may not actually be available for extraction.

IV. Wrap-up & Next Steps

Key Themes: The facilitator and BOEM thanked participants for attending the meeting and for their contributions. The facilitator highlighted several key themes from the meeting. These included:

- Opportunities for partnership—the more we work together and communicate, the more likely we are to succeed.

- Coordination with partners, agencies, and stakeholders at all stages of a project can be a challenge but is a key to success.
- Relationships matter. The people in this room can build relationships and work together to build on the progress made today.

Working Groups: The facilitator also suggested that working groups be formed to continue collaboration on Gulf-wide sand inventory efforts. These working groups could be useful for ongoing engagement with regulators and practitioners, using data and experience to inform policy. The facilitator invited participants to sign up for working groups in which they were interested. Proposed working groups are listed below:

- 1) Gulf-wide Sand Inventory (focus on why material was lost)
 - Members (who signed up at the workshop):
 - Doug Piatkowski, BOEM
 - Ray Newby, Texas General Land Office
 - Beau Suthard, CBI
 - Victoria Curto, HMM
 - Mel Landry, NOAA
 - Kenny Jacobs, Williams
 - Jim Flocks, USGS
 - Ioannis Georgiou, University of New Orleans
- 2) Data-focused (thinking about the database and GIS information)
 - Members (who signed up at the workshop):
 - Jim Flocks, USGS
 - Ioannis Georgiou, University of New Orleans
- 3) Operational Lessons Learned
 - Members (who signed up at the workshop):
 - Greg Grandy, Coastal Engineering Consultants
 - Steve Dartez, Coastal Engineering Consultants
- 4) Dredge Technologies (how can technology be adapted to extract more of the resource efficiently?)
 - Members (who signed up at the workshop):
 - Doug Piatkowski, BOEM
 - Ray Newby, Texas General Land Office
 - Jase Ousley, US Army Engineer Research and Development Center
- 5) Biological Opinions & NEPA
 - Members (who signed up at the workshop):
 - Doug Piatkowski, BOEM
 - Mel Landry, NOAA
 - Brad Miller, CPRA

BOEM staff will extend the invitation to join these working groups to all workshop participants.

Appendix: Meeting Agenda

AGENDA

**Bureau of Ocean Energy Management (BOEM), Marine Minerals Program
In Partnership with the Gulf of Mexico Alliance
Gulf of Mexico Offshore Sand Management Working Group**

**Tuesday, October 13, 2015
9:00 AM - 4:30 PM**

Location: Intercontinental Hotel
Melpomene Room
444 St. Charles Ave.
New Orleans, LA 70130

Information for Remote Participants:

Call-in Number: 1-866-244-8528

Participant Passcode: 640961

Webinar Link: <http://kearnswest.adobeconnect.com/boemsm/>

Note: Please follow the Adobeconnect instructions to join the webinar audio. The above dial-in number is an alternate way to connect to the meeting if not joining the webinar.

Meeting Purpose/Objectives:

- Receive update on BOEM Marine Minerals Program (MMP) and Sand Management Working Group (SMWG) efforts
- Share information on gulf-wide sand inventory initiatives
- Discuss lessons learned from recent sand management efforts
- Identify opportunities for continued Gulf of Mexico (GOM) SMWG activities

Agenda

TIME	ITEM
8:30-9:00	Arrivals
9:00-9:15	<p>Welcome & Introductions</p> <ul style="list-style-type: none"> • Introductions of new MMP staff and Headquarters staff (Mike Miner, BOEM) • Review agenda, meeting objectives, and process approach (Facilitator) <p><u>For Webinar Participants:</u></p> <ul style="list-style-type: none"> • Please select *6 or the mute button to mute your audio to the phone <ul style="list-style-type: none"> • Please do not put the line on hold! • Click the “raise hand” icon in the top of the webinar window to enter the discussion queue • You can also share questions using the chat pod in the bottom left of the webinar window • Click the “full screen” button – top right of the presentation pod – to make the presentation bigger

TIME	ITEM
9:15-9:30	MMP and SMWG Overview (Mike Miner, BOEM) <ul style="list-style-type: none"> • History of SMWG • GOMA Partnership • New MMP Developments • Sediment Budgets & OCS Sand Value • Significant Sand Resources • Goals
9:30-10:30	Gulf-wide Sand Inventory Initiative <ul style="list-style-type: none"> • Texas database (Ray Newby, Texas General Land Office) • Louisiana database (Syed Khalil/Rick Raynie, CPRA) • Alabama database (Steve Jones, Geological Survey of Alabama)
10:30-10:45	Break
10:45-12:00	Gulf-wide Sand Inventory Initiative (cont.) <ul style="list-style-type: none"> • Florida database (Jennifer Coor) • BOEM Gulf-wide efforts/MMP GIS Database (Mike Miner/Lora Turner, BOEM) • Discussion
12:00-1:30	Lunch (on your own). See “Dining Options” handout.
1:30-2:45	Barrier Island Restoration Using GOM Shoal Sands: Success Stories, Lessons Learned <ul style="list-style-type: none"> • Regroup, introduction to Afternoon Session, and introduction of new participants (Facilitator) • Caminada 1 and 2 (Brad Miller/Clayton Breland, CPRA and Steve Dartz Coastal Engineering Consultants) <ul style="list-style-type: none"> ○ Planning & Permitting ○ Operational Overview ○ Issues & Lessons Learned (e.g., borrow design, dive team, turtle trawling, etc.). ○ Discussion
2:45-3:00	Break
3:00-4:20	Barrier Island Restoration Using GOM Shoal Sands: Success Stories, Lessons Learned (cont.) <ul style="list-style-type: none"> • MsCIP (Justin McDonald, USACE) • Whiskey Island (Devyani Kar, CPRA and Greg Grandy, Coastal Engineering Consultants) • Discussion (Facilitator)
4:20-4:30	Wrap Up & Next Steps (Mike Miner, Facilitator)
4:30	Adjourn