

**Louisiana Sand Management Working Group Meeting**  
**3 March 2004**  
**Lindy Boggs International Center, University of New Orleans**  
**AGENDA**

**09:00 Open Session**

**I. Introductions, Housekeeping Items, Review of Agenda**

**II. Environmental Issues Update**

- A. Multi-Project Environmental Assessment for Ship Shoal – Barry Drucker, MMS [Handout No. 1/2]
- B. Multi-Project Environmental Assessment for Ship Shoal – Barry Drucker, MMS [Handout No. 1/2]
- C. Long-term Physical Study to Determine Cumulative Impacts of Sand Mining on Ship Shoal – Greg Stone, LSU [Handout No. 3]
- D. Baseline Biological Studies (Shrimp) of Ship Shoal Richard Condrey, LSU
- E. Results of MMS Study on How to Avoid Adverse Impacts to Archaeological Resources during OCS Dredging – Jacqui Michel, RPI [Handout No. 4]

**III. Resource Issues Update**

- A. MMS/La DNR Cooperative Agreement – Syed Khalil, DNR [Handout No. 5]
- B. MMS Position Paper on Establishing Project Priorities Group Discussion led by Tim Redding, MMS [Handout No. 6]
- C. Update on US.Seabed Project between USGS and UNO Shea Penland, UNO
- D. MMS Repository of O&G Data Submitted by Industry Barry Drucker, MMS [Handout No. 7]

12:00-13:00 Lunch

**IV. Review of Proposed Projects**

- A. New Cut – Chris Williams and John Hodnett, DNR; Brad Crawford, EPA
- B. Pelican Island, Rachel Sweeney, NOAA [Handout No. 8]

**V. LCA Comprehensive Plan Status Tim Axtman, USACE New Orleans District**

**VI. Multiple Use Issues Update**

- A. AAPL: OCS Committee Concerns Keith Couvillion (ChevronTexaco)
- B. Update on MMS Mapping of OCS Infrastructure (accuracy and completion) Tom Meyer, MMS, GOM Region
- C. MMS Study on Ship Shoal Oil & Gas Infrastructure Stability Barry Drucker, MMS [Handout No. 9]
- D. Lease Stipulations for Ship Shoal Blocks Barry Drucker, MMS [Handout No. 10]
- E. Status Sheet for MMS Activities in LA and JCR Special Issue on OCS Sand Barry Drucker, MMS [Handout No. 11/12]

**15:00 Closed Session (Federal, State, and Local Agencies Only)**

**VII. Action Items**

- A. Assignments
- B. Schedules
- C. Deliverables

**VIII. Wrap-up, Summary, and Adjourn**

## MEETING MINUTES

### 09:00 Open Session

#### I. Introductions, Housekeeping Items, Review of Agenda

#### II. Environmental Issues Update

##### A. *Multi-Project Environmental Assessment for Ship Shoal – Barry Drucker, MMS*

The final multi-project EA has essentially been completed; the document is going through a final edit and should be ready for distribution by the end of March 2004. The handout summarized the major recommendations to protect natural and cultural resources and oil and gas infrastructure. There was a question as to whether it was a “final” report or a draft for agency review. MMS indicated that it was final in terms of MMS review; however, they will distribute it soon and consider comments submitted by other agencies.

##### B. *Long-term Physical Study to Determine Cumulative Impacts of Sand Mining on Ship Shoal – Greg Stone, LSU*

The handout described the physical and biological objectives of the study and the general study methods.

Greg Stone noted that reports of the various studies conducted by the Coastal Studies Institute (CSI) of LSU on Ship Shoal are available at [www.csi.lsu.edu/cml2](http://www.csi.lsu.edu/cml2). He reviewed work starting in the mid-1990s. Phase 1 – Numerical modeling of waves using the STWAVE model. Initial approach was to model the regional wave field with and without the presence of Ship Shoal to determine the percent change in waves for different wave conditions. WAVCIS was implemented because of the lack of nearshore wave measurements. They also obtained detailed bathymetry of Ship Shoal. Conclusions of the Phase I studies include:

- Removal of Ship Shoal will alter wave propagation, dissipation, and wave energy distribution.
- Degree of alteration is dependent on wave conditions and length of the shoal.
- During strong storms, surf zone widened by 50%
- Wave energy dissipation – 70% occurs seaward of Ship Shoal during hurricanes.

Phase 2 – In-situ measurements of currents and bottom boundary conditions. Fair weather waves erode and winter storms cause accretion on Ship Shoal.

Dr. Stone reported on a new study to be jointly funded by the MMS and LDNR under the auspices of the LSU Coastal Marine Institute (CMI) that will focus on Ship Shoal Block 88 and South Pelto Block 13 that are proposed borrow sites for sand for the Whiskey West Flank and New Cut projects. This work will include modeling that will account for non-linear conditions.

The biological portion of the study effort was reported on by Dr. Condrey (see below).

##### C. *Environmental Investigation of the Long-term Use of Ship Shoal Sand Resources for Large-scale Beach and Coastal Restoration in Louisiana Richard Condrey, LSU*

Dr. Condrey outlined the hypotheses to be tested and study approach for the biological component of this study. The overall question is: Will the new benthic communities (post-

dredging) fill the same trophic function and provide the same energy transfer to white and brown shrimp as did the original communities? The study includes box cores for meio/macrofaunal community study and trawling for shrimp for 1 year pre-dredging and 2 years post-dredging. There will also be a companion/complementary study of shrimp and seatrout (to be carried out under a different MMS/LSU/CMI arrangement), using samples obtained from recreational fishers. He raised the question of how to trade off issues between impacts to fish and shellfish during dredging to broader impacts to fishery resources from loss of barriers/estuarine resources. MMS does not use this information to preclude areas from borrow, but rather to mitigate the impacts and increase protection of the resource while still providing access to the sand.

#### ***D. Results of MMS Study on How to Avoid Adverse Impacts to Archaeological Resources during OCS Dredging – Jacqui Michel, RPI***

The handout was the technical summary of this study that was completed in February 2004. There was much discussion on if and when MMS will decide on how the hazard and archaeological survey requirements will change, based on the study recommendations. MMS responded that Barry Drucker, MMS HQ, will be discussing the report and the recommendations with the MMS archaeologists in the near term to decide if survey requirements might indeed change. However, previous surveys accomplished under the present requirements do not have to be re-run.

The report (Research Planning, Inc., Tidewater Atlantic Research, Inc., and Baird & Associates Ltd., 2004. Archaeological Damage from Offshore Dredging: Recommendations for Pre-Operational Surveys and Mitigation During Dredging to Avoid Adverse Impacts. U.S. Department of the Interior, Minerals Management Service, Sand and Gravel Unit, Leasing Division, Herndon, VA. OCS Report MMS 2004-005, 75 pp. + appendices) is available at <http://www.mms.gov/sandandgravel/OtherGenericStudies.htm>

### **III. Resource Issues Update**

#### ***A. MMS/La DNR Cooperative Agreement – Syed Khalil, DNR***

The objective of the efforts under this agreement is to:

1. Provide a single source of information on every aspect of sand resources offshore Louisiana to engineers, policy makers, coastal planners, environmentalist, and public on an ENGINEERING SCALE
2. LDNR will act as a clearinghouse for development and dissemination of such information by coordinating among all those involved
3. Develop a database for *entire coastal Louisiana* containing geological and all the related data / information pertaining to sand resources which will be accessible to the public via internet

Assessment of OCS sand resources will be a multi-task and multi-year effort.

Task 1 – Defining Strategies – *Long & Short term*

Task 2 – Data Cataloguing- *Collection & Analyses*

Task 3 – Coordination with various agencies

Task 4 – Data Synthesis – *Geological/Geophysical Data*

Task 5 – Data Synthesis – *Miscellaneous Data (Bathymetry, LiDAR, Infrastructures, etc)*

Task 6 – Delineation of Thrust Areas for further Studies

Task 7 – Survey Category and Types in the Thrust Areas

Task 8 – Data Dissemination-Sand Resources Map

Projected Sand Requirements:

Barataria Basin Barrier Shoreline Restoration = ~40.72 million cubic yards (yd<sup>3</sup>)

Pelican Island = 2.6 million yd<sup>3</sup>

Whiskey Flank = 1.7 million yd<sup>3</sup>

Timbalier Island D&M = 3.6 million yd<sup>3</sup>

Total = ~50 million yd<sup>3</sup>

Block 88/89 - DNR doing vibracores in the next six month; 411 miles of survey lines

DNR also plans to conduct regional geological and geophysical surveys for assessment/evaluation of sand in other blocks in Ship Shoal and other sand bodies (Trinity, Tiger shoals).

South Pelto 12 and 13 - 410 miles of survey lines

Sandy Point tracking lines = 80 nm; cultural tracklines = 50 nm

Showed maps of the two blocks with large numbers of magnetic anomalies/clusters, sonar hits.

NMFS asked about hard evaluation of sand resources in the lower rivers (sand traps) for certain areas in the short term and east of Grand Isle. Yes, this will be considered.

### ***B. MMS Position Paper on Establishing Project Priorities Tim Redding, MMS***

The draft position paper was reviewed by the group. MMS asked for written comments to by 14 May 2004. Current policy is “first come, first served,” however, we should be identifying suitable uses of this finite resource. DNR said that they are taking the lead in process of prioritization; they have a commitment to work with agencies to develop consensus relative to the most appropriate use of available sand resources. Discussions between LDNR and the USACE have already occurred. It is DNR’s intent to coordinate with agencies before applying for a lease, so that only appropriate uses are proposed.

One approach is to identify how much sand is needed for barrier islands, then set that aside. Then consider other requests, such as levees. First section of the Morganza to the Gulf levee system is to be built by the end of 2004 (first 4 miles at a levee breach out of 74 miles). Geotechnical investigations show that it is better to have a sand base to construct the levee on, particularly in the marshes. Upland sources and river source, as well as a sand deposit in Cat Island Pass, are alternative sand sources under investigation.

Terrebonne Parish – use of sand for the levee is to protect the people. Costs will be a key issue. The Parish has a problem with restricting Ship Shoal sand only for barrier islands.

Governor’s office – represents entire state interests. They want to be involved but need time with new governor to develop best policy.

Dredging capability 10-12 million yd<sup>3</sup> per year, which is 1% of the total amount available. Over a 10-20 year period.

### ***C. Update on US.Seabed Project between USGS and UNO***

Chris Swanson from the University of Colorado gave the presentation. In the US.seabed database, there are 4,000 attributed sites in US waters. Their aim is to make diverse data useful quickly to users. Have only about 10% of the available data for La; there are 2,400 cores in La.

They want to:

- locate more sand bodies – wider choice of materials and locations.
- locate sand bodies located closer to nourishment projects.
- increase the reliability of sand body locations, materials and volumes, decrease project risks.
- assess statistical patchiness: how much sampling needed to adequately define a sand resource?
- understand shelf surficial sediment patterns: fate of eroded barrier island sediments.
- provide more options for sand esp. with concerns about infrastructure.

There were questions about uncertainty of the calculations of volumes. Can the USGS calculate the uncertainty in volume estimation? Yes, but this is the initial version; additional data will increase accuracy and precision.

#### ***D. MMS Repository of O&G Data Submitted by Industry Barry Drucker, MMS***

MMS researched the data repository in the Gulf of Mexico regional office and determined that there were little useful data on geological and geophysical resources or environmental data applicable to Ship Shoal. The handout provided a summary and example types of data.

### **IV. Review of Proposed Projects**

#### ***A. New Cut – Chris Williams and John Hodnett, DNR; Brad Crawford, EPA***

John Hodnett did presentation. The breach at New Cut had closed naturally as of May 2002. Hurricanes Lily and Isadore did overwash the closure. They did surveys to determine slope and elevation on adjacent islands. Now 1:50 vs 1:35. Elevation was 8 feet but now is 7 feet. Barrier flat is at elevation 4.0 feet. Also determined that they don't need containment. Ship Shoal may be the borrow source, but it is 10 miles away. Cat Island Pass (Monkey Bar site) was possible source but others (Terrebonne Parish) asked that they not use it (might want to construct a barrier island on the site). Now looking for Gulf side source that is closer than Ship Shoal. Now looking for initial fill of 1.2 million yd<sup>3</sup> in place. Projected construction is in 2005. Could be combined with Whiskey West Flank for economies of scale. For Whiskey West Flank, DNR is almost ready to request Phase II funding (1.7 million yd<sup>3</sup> in place). Could be ready at the same time as New Cut.

#### ***B. Pelican Island, Rachel Sweeney, NOAA***

MMS handed out the draft sand lease agreement for the Pelican Island project.

NOAA has identified four projects to restore over 10 miles of Barataria Bay barrier islands at \$100 million. They project needing 8-10 million yd<sup>3</sup> of sand in place. There is a potential 5<sup>th</sup> project that mines sand from the river to restore Scofield Island. The basic restoration plan is construction of island/dune of sand in front; restoration of marsh platform behind. The proposed borrow site for the Pelican Island project consists of 2.1 million yd<sup>3</sup> in southern part of Sandy Point. 1.6 in NW area.

During planning for these projects, it is important to define limits (infrastructure, archaeology, depth of closure, setbacks) early so know how much sand is possibly present, at every step of the process.

In future projects, they anticipate restoring 15-20 more miles and 2-30 million yd<sup>3</sup> of sand to complete the Barataria Bay barriers (including Shell Island). Possible source of sand is from the Mississippi River channel. Need to evaluate other sources other than the Gulf. River might be a good source of sand that is being lost to the shelf currently. The Achafalaya Basin has the same potential, esp. where there is a potential that the levees have to be raised since the basin is filling in and losing its ability to store water.

## **V. Status LCA Comprehensive Plan Tim Axtman, USACE New Orleans District**

Feb 2002 – Work on the plan started.

Jun 2003 – Pre-Draft report with recommended plan that best met objectives.

August 2002 – Received specific concerns from environmental non-governmental organizations requesting further public review of an alternative coastwide plan prior to final recommendation.

Sept 2002 – Prepared pre-draft identifying a final array of alternatives

1-15 Oct 2002 – MVD review of pre-draft

15 Nov 2002 – Submission to MVD/HQ USACE/OMB/CEQ for review

15 Nov 2002 – 2 Feb 2003 – Development of President's budget proposal. Specific budgetary language in 2 Feb 04 budget proposal said:

- Critical ecological needs to be identified;
- Develop near-term program of highly cost-effective projects to address them;
- Highlight key long-term scientific uncertainties and engineering challenges;
- Focus on the specific coastal areas that require the most immediate attention and the best way to sequence the proposed work over the next 10 years;
- USACE to develop long-term ecosystem restoration concepts, with the objective of determining whether they would provide a cost-effective way to create coastal wetlands (Got \$ 8M in funds for studies, with 50% cost share.)

Existing task force should increase efforts to build highly cost-effective freshwater and sediment diversion projects. Now:

1. ID Coastwide Framework (Master Plan)
2. ID process to define near-term (10 y) program
3. Prepare Draft LCA Ecosystem Restoration Report
4. Define Project Management Plans (PMPs) for FY05 studies

## **VI. Multiple Use Issues Update**

### ***A. AAPL: OCS Committee Concerns Keith Couvillion (ChevronTexaco)***

Industry has very high interest in coastal protection and OCS dredging. Tiger Shoal is a big producing region with lots of infrastructure. The Offshore Operators Committee looks at technical issues, such as soil stability and sediment transport in borrow sites. Time of sand use may affect pipeline conflicts. If the use is 30 years off, may not be an issue. Industry does not always remove pipelines. Regulations are such that the pipelines can remain in place as long as they don't present any conflicts. MMS has the option to require that they be removed if there are conflicts.

### ***B. Update on MMS Mapping of OCS Infrastructure (accuracy and completion) Tom Meyer, MMS, GOM Region***

All spatial infrastructure data are supplied by industry in NAD 27 as ASCII format. Uses ArcView to store/display the data. Well data are proprietary and thus NOT available. They do keep track of potential conflicts. If MMS gives a lease for sand mining, then MMS would consider whether a subsequent pipeline lease permit would interfere with the sand lease. Proposed lines don't get updated in the MMS database until "as built" diagrams and hydrostatic test results are submitted to MMS. He noted that verification of mapping information is required and is the responsibility of every contractor before beginning any activities involving dredging.

There was discussion about whether MMS should consider routing of new pipelines around sand resource areas. He provided a handout that was a bound copy of the slide presentation.

*C. MMS Study on Ship Shoal Oil & Gas Infrastructure Stability Barry Drucker, MMS*

*D. Lease Stipulations for Ship Shoal Blocks Barry Drucker, MMS*

*E. Status Sheet for MMS Activities in LA and JCR Special Issue on OCS Sand Barry Drucker, MMS*

There was no significant discussion of these handouts.

### **Closed Session (Federal, State, and Local Agencies Only)**

## **RECOMMENDATIONS AND FOLLOW-ON TASKS**

1. MMS will distribute to the La SMWG the final multi-project Environmental Assessment that should be completed by the end of March 2004 .
2. The La SMWG will be notified of any proposed changes to the current hazard and archaeological survey requirements.
3. The La SMWG will provide MMS comments on the draft prioritization process paper by 15 May 2004. Send comments to Tim Redding ([timothy.redding@mms.gov](mailto:timothy.redding@mms.gov)). Mailing address is: MMS-Leasing Division, Sand and Gravel Branch, 381 Elden Street, MS 4010, Herndon, VA 20170.
4. As the USGS and UNO continue work on the US.Seabed project in Louisiana, they should work on estimating the uncertainty in the sand volume estimates being generated.
5. It is important for DNR to look for sand sources inshore, including in the major river channels, in addition to the offshore sand shoals.
6. The issue of buffers around oil and gas infrastructure is of great concern. Work should continue to identify risks and mitigation strategies.
7. Work should continue on strategies to reduce the potential conflict between access to sand borrow sites and oil and gas leasing and infrastructure, both now and in the future. Ideas discussed to date include:
  - buffers (based on general guidelines, site-specific modeling, and monitoring to determine effectiveness)
  - setting aside lease blocks for exclusive use as sand borrow sites
  - requiring directional drilling into lease blocks that are priority sand borrow sites
  - requiring the removal of all abandoned pipelines that cause conflicts
  - re-routing of pipelines to avoid priority borrow sites by consensus rather than by regulation

**STATUS OF RECOMMENDATIONS FROM THE MAY 2003 LA SMWG MEETING**

<b>Recommendation</b>	<b>Status</b>
The FACA issue needs to be resolved prior to the next planned meeting	<b>Done.</b> There were both open and closed sessions to the March 2004 meeting.
All documents associated with activities of the group should be made available on the MMS website.	Still under development
The draft charter as written should be considered final.	<b>Done.</b>
MMS and the Louisiana Department of Natural Resources should agree on a MOU for a revived cooperative agreement which would involve the collection of additional geological and geophysical data and information offshore Louisiana	<b>Done.</b> Cooperative agreement signed and data collection objectives set.
More resource work is needed, however, future work will hinge on the USGS/UNO work geared towards compiling existing information. The group should discuss potential future work after such a compilation is completed.	<b>On-going.</b> New work identified under MMS/DNR Cooperative Agreement
MMS has a repository of O&G data submitted by industry in support of oil and gas leasing. This information needs to be assessed in terms of its applicability towards providing geological and geophysical resource information, as well as environmental information.	<b>Done.</b> Reported at the March 2004 meeting that there are very limited useful data available.
The Barrier Island Project Managers to submit lists of sand needs (initial and maintenance). This can be used as an initial step towards identifying project needs for OCS sand.	<b>Done.</b> Reported at the March 2004 meeting in handout No. 11. Will be regularly updated.
Prioritization is a long-term issue. As an initial step, reliable long-term estimates are needed; following that a system for project prioritization should be considered.	<b>Done.</b> Draft process for project prioritization distributed at March 2004 meeting; comments due to MMS by 15 May 2004.
The siting of oil and gas infrastructure within potential sand borrow sites should be considered to avoid the preclusion of sand areas from use	<b>On-going.</b> MMS is conducting a study to determine risks to oil and gas infrastructure, to be completed early 2005.
We need to have a better understanding of what is in the MMS database in terms of the accuracy and completeness of O&G infrastructure data for the Louisiana OCS.	<b>On-going.</b> MMS presentation at March 2004 meeting. Database is continually being updated.
The oil and gas industry needs to be involved in these multiple-use issues as there are infrastructure benefits as a consequence of barrier island restoration.	<b>On-going.</b> Oil and gas industry representatives attended the March 2004 meeting. New sand and gravel subcommittee of AAPL was formed. Periodic meetings between subcommittee and MMS planned; initial meeting already held at MMS GOMR office.
Have technical presentations on key MMS and other study results. It would advantageous for members of the LA SMWG to interact with the researchers directly on their study results	<b>On-going.</b> The presentations at the March 2004 included those by researchers doing various MMS studies.
MMS should have the LA SMWG review and refine the study objectives of the planned FY05 Ship Shoal environmental study	<b>Done.</b> The two lead researchers presented the study objectives and methods at the March 2004 meeting.



### ATTENDEES March 3, 2004 La SMWG Meeting

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**KEY TO AFFILIATIONS:**

A: ACADEMIA

CG: CITIZEN'S GROUP

D: DREDGING INDUSTRY

FG: FEDERAL GOVERNMENT

I: INDUSTRY (OIL)

LG: LOCAL GOVERNMENT

PC: PRIVATE CONSULTANT

SG: STATE GOVERNMENT