

## Louisiana Sand Management Working Group Meeting **AGENDA - 2 February 2005**

## Lindy C. Boggs International Center, University of New Orleans

#### 09:00 **Open Session**

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

### II. **Environmental Issues Update**

- A. Utilization of Benthic Communities by Fish Populations on Ridge and Shoal Features Allen Brooks, USGS Coastal Ecology and Conservation Research Group, Gainesville,
- B. Environmental Investigation of the Long-Term Use of Ship Shoal Sand Resources for Large-Scale Coastal Restoration in Louisiana – Greg Stone, LSU [Handout No. 1]
- C. Baseline Biological Studies (Shrimp and Seatrout) of Ship Shoal Richard Condrey, LSU [Handout No. 2]

### III. LCA Comprehensive Plan Status – Tim Axtman, USACE New Orleans District

### IV. Resource Issues Update

- A. MMS/La DNR Cooperative Agreement Syed Khalil, La DNR
- B. MMS Position Paper on Establishing Project Priorities Tim Redding, MMS [Handout No. 31
- C. Louisiana Virtual SeaBed: UNO, USGS, INSTAAR Shea Penland PIES-UNO

### 12:00-13:00 Lunch

### **Multiple Use Issues Update**

- A. Impacts of Hurricane Ivan on oil and gas infrastructure Alex Alvarado, MMS GOM
- B. Update on MMS Study on Ship Shoal Oil & Gas Infrastructure Stability Rob Nairn, Baird & Associates [Handout No. 4]

### VI. Review of Proposed Projects

- A. Whiskey Island/West Flank Brad Crawford/Chris Williams, EPA/DNR
- B. Pelican Island, Rachel Sweeney, NOAA [Handout No. 5]
- C. Morganza to the Gulf Hurricane Barrier Bill Maloz, USACE New Orleans District

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

### VII. Action Items

- A. Assignments and Deliverables
- B. Schedules

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

### **MEETING MINUTES**

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

### **II.** Environmental Issues Update

### A. Utilization of Benthic Communities by Fish Populations on Ridge and Shoal Features

Allen Brooks presented the study design and initial results for this study of Ship Shoal. They are using both stable isotopes and gut content analyses to establish baseline data on the benthic communities that are important components of fish diets on Ship Shoal. Stations are located in proposed dredging areas, control areas, and "off-bank" areas that are north of Ship Shoal and in deeper water. Cruises were conducted in January and December 2004 and planned for April/May 2005. He also announced three reports of interest:

- 1) USGS Report 2004-5198. Literature search on benthic communities. Published.
- 2) Analysis of 18 years of SEAMAP data on fish utilization of shoals in the Gulf of Mexico (Sabine, Heald, Tiger, Trinity Shoals) that will be published soon.
- 3) Two-year study of the demersal fish on Ship Shoal, a landscape study of utilization. Study should be completed after one more year of field data collection.

There was discussion about how the study results will be used, whether as baseline for pre-/post-dredging monitoring of impacts or for EIS. MMS has already prepared an EA for dredging. It will be important to have data on which benthic communities are important prey for fish, so that guidelines for dredging could be developed to minimize impacts to these communities. Coordination and exchange of samples/data/information between the USGS cruises and the LSU biological cruises was also discussed.

# B. Environmental Investigation of the Long-Term Use of Ship Shoal Sand Resources for Large-Scale Coastal Restoration in Louisiana

Greg Stone presented information on the status of the physical tasks, which include Quantification of local and regional hydrodynamics for statistically significant meteorological conditions, pre-dredging. He also discussed the instrumentation and new buoy that will fill some gaps and provide real time data for Ship Shoal. The study also includes a biological component that was discussed by Richard Condrey in the presentation, which followed.

### C. Baseline Biological Studies (Shrimp and Seatrout) of Ship Shoal

Richard Condrey of LSU presented an update on this study. He has been joining SEAMAP cruises (July, Sept, Dec 2004) to collect additional data on Ship Shoal. Plans are for field data collection cruises in August and October 2005 and March 2006.

### III. LCA Comprehensive Plan Status

Tim Axtman gave an update on the LCA Plan with a lot of detail. The Near-term Plan was based on projects that are highly cost effective and achievable in a relatively short period of time. The current plan consists of (at a cost of \$2 billion):

- 1) 15 near-term critical projects
- 2) Science and technology program including demonstration projects
- 3) Increased beneficial use
- 4) Modification of selected structures
- 5) Large-scale long-term concepts

The 2005 Work Plan will include:

- 1) Completion of the barrier island feasibility study
- 2) Science and technology program development (hire director, support will be through funds from individual studies)
- 3) Develop the long-range beneficial use program
- 4) Conduct studies to modify/improve the Davis Pond and Caernaryon diversions
- 5) Long-distance sediment transport demonstration project
- 6) Third delta and Acadiana Bays studies
- 7) LCA Plan future development

### IV. Resource Issues Update

### A. MMS/La DNR Cooperative Agreement

Syed Khalil of DNR reported on the status of the study being conducted under the MMS/DNR MOU to assess offshore sand sources off the Louisiana coast and create a geospatial database (geological, environmental, and associated data) for better evaluation of the sand sources. They have conducted detailed geophysical and geotechnical surveys of Ship Shoal blocks 88/89 and Sandy Point. DNR estimates that 51 million cubic yards of OCS sand will be needed through 2010. DNR recommends:

- 1) Regional geological/geophysical surveys in other blocks of Ship Shoal and other shoals
- 2) Phased operation of such evaluations, consisting of:
  - a. Reconnaissance geophysical surveys
  - b. More detailed surveys in high potential sand areas
  - c. Vibracores where needed to confirm sand volumes
- 3) Continue coordination with other agencies in database design and development
- 4) Continue data input into database
- 5) Develop protocol for geophysical data collection

Barry Drucker of MMS made a comment that the results of DNR's work would be incorporated into the proposed FY 06 MMS LA site-specific environmental study to evaluate other areas besides Ship Shoal.

### B. Louisiana Virtual SeaBed: UNO, USGS, INSTAAR

Mark Kulp of UNO presented an update on the joint USGS/UNO effort to create a geospatial data warehouse and on-line user interface for geological and geophysical data for coastal Louisiana (including onshore and offshore). The URL for the visualization tools will be distributed to the LaSMWG as soon as it is available.

### V. Multiple Use Issues Update

### A. Impacts of Hurricane Ivan on oil and gas infrastructure –

Alex Alvarado gave a presentation on the extent of damage to oil and gas infrastructure during Hurricane Ivan, which was extensive. MMS is planning a study to determine where the mudslides occurred.

### B. Update on MMS Study on Ship Shoal Oil & Gas Infrastructure

Rob Nairn of Baird & Associates, Inc. presented some interim results of their MMS-funded study to determine appropriate buffers around oil and gas infrastructure. The study included rebathymetric surveys of the Holly Beach dredge pits specifically for this project. Data from other sites were presented as well. In summary, the interim results indicate that pit morphology evolution processes include:

Slope stability adjustment – soil type is a factor

Pit infilling (due to both regional/local sources of turbidity)

Pit margin adjustment

Berm evolution for multiple pits

The study deliverables will include recommendations for estimating buffers for different conditions. There will not be a single buffer but guidance on how to calculate buffers for different site conditions off Louisiana.

There was extensive discussion of the interim buffer of 300 m by DNR who are concerned over the size of the setback/buffer which might reduce the overall extent of some borrow sites and want the setback justified by credible scientific investigation/methodology.

# VI. Review of Proposed Projects A. Whiskey Island/West Flank

Brad Crawford of EPA provided an update of the proposed dredging of Ship Shoal for sand placement on the West Flank of Whiskey Island. They expect to need 4 million cubic yards of sand. They asked if stipulations would be required in the lease concerning how the sand should be removed from the borrow site. They want to give as much leeway to the dredger to keep the costs as low as possible. The project is now planned for initiation in Spring 2006; it has been modified and the sand volume needed increased to protect some marsh area east of the flank.

### B. Pelican Island

Rick Hartman of NOAA gave a brief update. They received \$60 million for the project last year. DNR has worked on the oyster lease issues, but there are still some delays. They had to get an ocean dumping permit from the USEPA/ACOE. They are also working internally on sea turtle issues. They continue to discuss the lease agreement with MMS. NOAA is collecting additional vibracores in the southern area to get total thickness of sand since the northern area is inaccessible because of the 300 m buffer around pipelines. They will be bidding out the project as either hopper barges or cutterhead dredging. They expect construction to begin in 2006.

### C. Morganza to the Gulf Hurricane Barrier

Bill Maloz of the ACOE provided an update on this project, which consists of:

72 miles of earthen levee

12 sector gate structures for flood control

12 environmental water control structures

Houma Navigation Canal Lock Complex

First construction is scheduled for Jun 2005. Total construction is estimated at 16 years - 2021 (assumes immediate start, steady funding stream & continuous construction) at a total cost of \$740 million. They want to use sand for the levee base following reasons: lower costs than all earthen levee; greater stability, less time to consolidate; and it will require a smaller footprint so there are environmental benefits. They looked at several sand sources: Ship Shoal, Cat Island Pass, Bayou Sorrel, Horseshoe Channel, sand from Alabama disposal sites, Bonnet Carrie spillway, and Mississippi River sediment traps. They have identified several sand stockpile areas along the levees. Their current focus is on the sand from maintenance dredging of Cat Island Pass, which is the closest source, therefore, sand from Ship Shoal will most likely not be accessed for this project. They are working with DNR on modeling of the potential impacts of using this inshore sand source.

### **VII. MMS Position Paper on Establishing Project Priorities**

The discussion of the December 2004 version of the priorities paper included the following questions, which focused on how to reduce impacts of oil and gas infrastructure on access to OCS sand off Louisiana:

- 1) What are the MMS requirements for abandoned wells and pipelines? The suggestion was that MMS should require removal of abandoned facilities so they will not interfere with sand access. MMS stated that the current regulations allow abandonment in place, as long as it does not pose conflicts with other uses of the seafloor. There was discussion about who would pay if the operator was defunct or could not be found. MMS agreed that they needed to discuss policy guidelines for oil and gas abandonment in good sand areas.
- 2) Has MMS considered designating pipeline corridors through sand areas? The State reviews all new well requests on land to determine if it is feasible to cluster them, to reduce the footprint of their impacts. Does MMS have this kind of authority? MMS

currently cannot officially set-aside areas for sand access. In deep water, wells are clustered around platforms because of the costs. However, MMS has guidelines for protection of certain features or resources, such as cultural resources. They agreed to consider access to sand as a resource that should be protected, to be incorporated into the plan review process. They requested that lease blocks of critical interest for sand be identified.

3) The issue of whether MMS could set aside areas for sand access on other shoals was raised. MMS did issue an Information to Lessees (see detailed discussion in the Priorities Paper that was distributed prior to the meeting) that included the following:

Stipulation No. 9 - Sand Dredging Operations: Limitation on Use of Leased Area The Minerals Management Service (MMS) is evaluating use of sand resources from the area covered by this lease (the "leased area") for nearby levee and barrier island restoration projects. As a result, the MMS may enter into non-competitive, negotiated sand and gravel leases with a third party during the term of this lease. Dredging of sand from within the leased area and the associated presence of an oceangoing dredge vessel may conflict with Lessee's oil and gas operations. Prior to construction or placement of any structure for exploration and development on the leased area, including, but not limited to, anchoring, well drilling, and pipeline and platform placement, Lessee shall notify in writing and consult with the Chief, MMS Leasing Division, regarding such planned activities.

The MMS will determine whether the planned activities conflict with ongoing or planned sand dredging operations. If MMS determines that Lessee's planned activities conflict with sand dredging, the MMS will require Lessee to conduct its operations in a manner to avoid such conflicts. In addition, MMS will coordinate all activities of the dredge vessel(s) and service vessel(s) in order to minimize conflicts with lessee's planned activities.

MMS said that it would consider developing more detailed language that would specify the types of requirements that could be included in priority sand areas, such as pipeline corridors.

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

Recommendation	Status
MMS will distribute to the La SMWG the final	Done.
multi-project Environmental Assessment that	
should be completed by the end of March 2004	
The La SMWG will be notified of any	No proposed changes to date.
proposed changes to the current hazard and	
archaeological survey requirements.	
The La SMWG will provide MMS comments	<b>Done</b> . A new draft dated December 2004 was
on the draft prioritization process paper by 15	presented at the February 2005 meeting.
May 2004	
As the USGS and UNO continue work on the	On-going.
US.Seabed project in Louisiana, they should	
work on estimating the uncertainty in the sand	
volume estimates being generated.	
It is important for DNR to look for sand	On-going.
sources inshore, including in the major river	
channels, in addition to the offshore sand	
shoals.	
The issue of buffers around oil and gas	<b>On-going</b> . Reported interim results of current
infrastructure is of great concern. Work should	study at the February 2005 meeting.
continue to identify risks and mitigation	
strategies.	
Work should continue on strategies to reduce	<b>On-going</b> . New action items were identified at
the potential conflict between access to sand	the February 2005 meeting.
borrow sites and oil and gas leasing and	
infrastructure.	

## ATTENDEES February 2, 2005 La SMWG Meeting

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