

BIG RIVER COALITION



Sean M. Duffy, Sr.
Executive Director
4741 Utica Street, Suite 200
Metairie, LA 70006

Office (504) 833-4190 x 805
Cellular (504) 338-3165

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Re: Beneficial Use of Dredged Material Update on the Ten-Year Anniversary of Hurricane Katrina

The Big River Coalition (BRC) was created in Fiscal Year 2011 in response to the announcement by the Commander of the United States Army Corps of Engineers' (USACE) Mississippi Valley Division that amended past funding management for the Lower Mississippi River (LMR) navigation channel. Prior to this time the Mississippi River Ship Channel often received both supplemental appropriations and/or the USACE would reprogram funds from other projects to maintain the Ship Channel. This position change immediately meant the Mississippi River's navigation channel would no longer receive preferential treatment. Shortly after the 1989 grounding of the M/V MARSHAL KONYEV (Pilottown) that, in essence, closed the navigation channel to all ship traffic, the USACE's Headquarters announced in a position statement that it would maintain the nation's most critical navigation channel. The BRC originally focused on securing additional funding to supplement the shortfall in the Corps' Operations and Maintenance budget, striving to establish a legislative firewall around the Harbor Maintenance Trust Fund and representing members of the Mississippi River navigation industry in matters related to coastal restoration. As the membership grew and continued to make effective progress on these initiatives, members requested that the Coalition actively advocate for the deepening of the LMR navigation channel to 50 feet. The Coalition comprises over 100 maritime entities that rely on the full availability of the Mississippi River navigation channel and properly operating maritime infrastructure to effectively transport nearly 500 million tons of imported/exported cargo annually.

The BRC like many others remembers the destruction of Hurricane Katrina and a time when many wondered if the impacted region could be rebuilt. Navigation stakeholders worked tirelessly with our Government partners to recover the Mississippi River Ship Channel. As the local population worked to recover there was a rallying cry being heralded across the Gulf Coast, that the region had to achieve meaningful coastal restoration in the next decade. The time is now. Hurricane Katrina's painful 10-Year Anniversary has arrived.

BIG RIVER COALITION

The Corps’ Mississippi Valley New Orleans released a report titled *Mississippi River Southwest Pass Hopper Dredge Pump-Out Review* on November 9, 2007. After the release of this report members of the navigation industry began to meet with members of the Corps New Orleans District, the dredging industry and representatives of the Louisiana Department of Natural Resources’ Office of Coastal Management to discuss the idea of hopper dredge pump-out. These discussions led to the formation of the Beneficial Use of Dredged Material Subcommittee.

When this Subcommittee was formed the average per cubic yard cost for cutterhead dredges was much higher than the costs of hopper dredges. The original intention was to adapt hopper dredge pump-out so that hopper dredges could be utilized to increase the beneficial use of dredged material. Oddly enough, a few years later the costs of cutterhead dredges declined and became comparable to the cost of hopper dredges. As a result of the Subcommittee’s findings when cutterhead costs came down, the Corps, Bar Pilots and BRC were prepared for a cutterhead dredge pilot project to be conducted in Southwest Pass. The pilot project was successfully conducted in 2009, when the cutterhead dredge E.W. ELLEFSEN removed 2,896,991 cubic yards (2.89 million cubic yards or mcy) and 46 acres of new Louisiana was created. The table below indicates each year the number of acres created via beneficial use or “sediment recycling” (the term preferred by the BRC) has increased since cutterhead dredges were added back to the toolbox for channel maintenance in Southwest Pass. In Fiscal Year 2014 two cutterhead dredges were used to perform channel maintenance in Southwest Pass for the first time in decades. The figures for 2015 are the best estimates available based upon the cubic yardage, the actual numbers may differ when more comprehensive surveys can be done. However, please note that since 2009 nearly 5,000 acres has been created along the Mississippi River Delta. There are many benefits to this recycled area of Louisiana including vast wildlife habitat restoration and increased protection surrounding the Mississippi River Ship Channel (buffer zone).

Fiscal Year	Southwest Pass	Hopper Dredge Disposal Area
2009	46 Acres	
2010	50 Acres	466 Acres
2011	102 Acres	70 Acres
2012	530 Acres	70 Acres
2013	228 Acres	781 Acres
2014	419 Acres	Combined with FY 15
2015	1,100 Acres	900 Acres
Total	2,475 Acres	2,287 Acres

The Bar Pilots have served as the stewards of this program and have come to appreciate the cutterhead dredges for the advantages of sediment recycling and their ability to cut a clean and continuous channel. The program however also depends on the use of hopper dredges to maintain the other lane of the deep-draft channel. The process is implemented by the Corps, who discusses with the Bar Pilots the area(s) it is going to utilize a cutterhead dredge in, once there is an

BIG RIVER COALITION

agreement reached the Corps must let that area of the channel begin to fill in. The cutterheads will restore the area but are more efficient when it can cut down the channel continuously. When an area is being prepared for a cutterhead dredge one side of the channel is left to silt in, there is basically only one lane of the highway known as Southwest Pass open. At all cost the other side of the channel must be maintained and this is the role of the hopper dredges. When the cutterhead(s) are working the Bar Pilots are automatically dealing with only one lane of the highway (Southwest Pass) open, this is done to help restore the land protecting Southwest Pass and to eventually open up a deeper channel. Sediment recycling along Southwest Pass helps to protect the nation's most important shipping channel, where approximately 500 million tons of cargo transit annually.

In FY 2015 there were a total of three cutterhead contracts utilized to perform channel maintenance from Southwest Pass and upriver to approximately Mile 5 Above Head of Passes and/or in the Hopper Dredge Disposal Area (HDDA). Since the Corps began keeping daily records of Mississippi River stage levels in 1935, the crest on July 27, 2015 of 15.64 feet is a record for late July and record stages were also recorded in early August. The record late summer stages were driven by the frequent storms that the prevailing weather pattern El Nino carried across the Mississippi River Basin. **The total for sediment recycling in the area of Southwest Pass and the HDDA was 20,720,525 cubic yards a record amount throughout Corps' history.** This record was achieved through the Corps and Bar Pilots agreeing upon two extended cutterhead contracts for channel maintenance and a two-phase cutterhead contract for the removal of nearly 10 mcy from the HDDA.

The breakdown of the 20.7 million cubic yards (mcy) showed: 11,074,121 mcy being removed from the navigation channel in the area of Southwest Pass and 9,646,404 mcy from the HDDA. The top three records for sediment recycling along the Mississippi River Ship Channel are listed below:

- 1) **20.7 mcy in FY 2015**
- 2) 19.8 mcy in FY 1961
- 3) 18.5 mcy in FY 1987

The previous record amounts of sediment recycling in 1961 and 1987 are due to the deepening of the Mississippi River Ship Channel. The 1961 amount was achieved when the channel was deepened from 35 feet to 40 feet. The 1987 amount was achieved when the channel was deepened from 40 feet to 45 feet.

The MVN will remove a total of 45 mcy in FY 2015 with the noted work of the cutterheads handling 20.7 mcy and the rest being removed from the channel by dredges (hoppers, dustpans and cutterheads) in the area of Southwest Pass, on the Crossings Above New Orleans and in the New Orleans Harbor. This will be done with 936 dredging days. It is important to acknowledge that the Corps has long been committed to coastal restoration through the beneficial use of dredged material since 1976 and has created 18,084 acres in and around Southwest Pass.

BIG RIVER COALITION

This year the record amount of beneficial use had additional benefits for channel maintenance since at least one cutterhead dredge contract was awarded after there were no bids received by the industry hopper dredges. Six times in Fiscal Year 2015 there were no bids received from solicited hopper dredge contracts, many of the industry hopper dredges are engaged in Hurricane Sandy related restoration work in the New York/New Jersey area or engaged on east coast channel deepening projects. Although, there remains a reduced draft restriction in Southwest Pass and an extensive flocculation based transit restriction was required, there is no doubt that without cutterhead dredges being utilized in Southwest Pass that these restrictions would have been much more severe.

The BRC also led the way to a long-standing elevation limit for the beneficial use of dredged material being increased. The previous height limitation for beneficial use along the Mississippi River Ship Channel was 4.5 feet Mean Low Gulf (MLG). This limit had been imposed on most disposal areas outside of the Wildlife Management Areas (WMA) on the eastern side of the channel. The impact on the Corps and navigation industry was that it had to pump further distances to find places to beneficially use dredge material since the 4.5 MLG limit, although barely above the waterline, had been reached in many places along the extreme lower river. The effort to raise this height limitation began several years ago, but because of this effort the Corps can now place material approximately 2.5 feet higher. The new elevation limit outside of the WMAs is now 4.5 feet in the North American Vertical Datum of 1988 (NAVD 88). The Coalition is proud of this advancement. However, it believes that even higher elevations will be needed in the future to protect the Ship Channel from storm surge while promoting the environmental benefits of sediment recycling.

“Advocating for a Mightier Mississippi River”

The Big River Coalition is committed to protecting maritime commerce across the Mississippi River and Tributaries (MRT). The Coalition focuses on maximizing transportation efficiencies on the deep-draft ship channel from Baton Rouge to the Gulf of Mexico. As concerns grow about the future management of the Mississippi River system, and efforts are increased to help reduce or prevent adverse impacts related to flood protection, protecting water supplies, recreational boating, fishing, invasive species, coastal restoration, and minimizing the negative impacts of runoff and pollutants, it is critical to the nation’s economy that navigation remains unimpeded. The best economic estimates available indicate that the MRT has over a \$200 billion annual impact on the economy of the United States. Therefore, as visions of the future of the MRT are shaped, it is imperative that navigation representatives strive to ensure that systematic approaches protect maritime trade by maintaining fully authorized channel dimensions while also updating and maintaining our navigation infrastructure, specifically the locks and dams along the MRT. The Big River Coalition missions are focused on securing increased funding from the Harbor Maintenance Tax and the Inland Users Fuel Tax, efforts to deepen the Lower Mississippi River to 50 feet and to increase the beneficial use of dredge material or “sediment recycling.”

BIG RIVER COALITION

PowerPoint Photo Log

The PowerPoint photos to highlight this report are available on the Big River Coalition's website at the following link:

http://bigrivercoalition.org/currentnews/Katraina_10_Year_Anniversary_Sediment_Recycling_Photos.pptx

The PowerPoint helps showcase the benefits of the efforts described in this Update.

The following photo log describes the noted text for each picture.

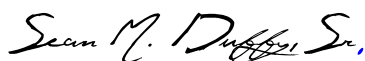
Photo Slide Number 1: This photo was taken by the Corps Mississippi Valley New Orleans in 1985 and shows the bird's-foot delta from Cubits Gap to the end Southwest Pass (channel to the right).

Photo Slide Number 2: This photo was provided by Weeks Marine Inc. as taken by Patrick M. Quigley in 2015 and shows the bird's-foot delta from Cubits Gap to the end of Southwest Pass (channel to the right). Quick comparison indicates there is more land in this region than there was thirty years ago in 1985. Based upon side-by-side comparison of Photo Number 1.

Photo Slide Number 3: This 2015 photos shows beneficial use of dredged material in the West Bay receiving area at the elevation limit of 4.5 feet Mean Low Gulf (MLG).

Photo Slide Number 4: This 2015 photos shows beneficial use of dredged material in the West Bay receiving area at the increased elevation limit of 4.5 feet North American Vertical Datum (NAVD 88). Actually notes indicate that this inspection showed that the surveyed height was still below 4.5 feet NAVD 88.

Sincerely,



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Attachment