



November/December 2011

The Dredging *Link*

2011 Weather Wreaks Havoc on Channels and Placement Sites

Twenty inches of rain fell in the region during August and September, coupled with extreme global weather events throughout the year. Collectively, this has affected dredging and the management of dredged material in several surprising ways. The two big late summer storms that hit Maryland and surrounding states caused tremendous flooding and soil erosion.

Thousands of tons of sediment were scoured from behind the Conowingo dam, causing the Chesapeake Bay to look like chocolate milk for many days. That sediment has now accumulated in the deep channels of the Bay, perhaps faster than anticipated.



Poplar Island restoration site
Courtesy of U.S. Army Corps of Engineers

The Army Corps of Engineers is dredging the approach channels to Baltimore this fall. They have found that the amount of sediment they need to dredge significantly exceeds original estimates. For example, the Corps anticipated needing to dredge 1.4 million cubic yards from the Craighill Channel, one of two channels leading into Baltimore. However, the volume of sediment has increased by 400,000 cubic yards.

This means that additional money will be needed for the dredging contractor, as well as additional space at Poplar Island to accommodate the inflow of dredged material.

Both the Corps and the Maryland Geological Survey expect that this pattern will continue, as recently scoured sediments continue to be deposited into dredged channels.

Weather has also impacted the newly constructed wetland marshes at Poplar Island. "Too much of a good thing" has drowned much of the low marsh at the island, where repeated heavy rain combined with extraordinarily high tides over an extended period have caused a significant decrease in plant survival. (Scientists believe that the "North Atlantic Oscillation," a local phenomenon associated with "El Nino," is responsible for the recurring high tides that have been noted throughout the region.) A more normal weather year in 2012 will hopefully reverse some of this year's loss.

Scientists who monitor the development of Poplar Island are watching the marshes and attempting to calculate the effects of Mother Nature's unusual weather this year. One of the things they noted, for example, was a bumper crop of mosquitoes. They also noted that the grass planted in June struggled to take hold during the extended period of 100-degree weather. Those plants, however, appear to have done well as the season progressed.

Poplar Island is an experiment in adaptive management, where biologists tweak plans for habitat creation as they observe how plants and animals respond to island conditions. Lessons learned at Poplar Island should aid in the recreation of other eroded islands both here and in other parts of the world. Island recreation is considered a major beneficial use of dredged material.



Farring-Baybrook Park is one of the largest open spaces in Baltimore City, but years of neglect have left it overgrown and vulnerable to dumping.

As a cornerstone of the Brooklyn and Curtis Bay communities and a large part of the Masonville Cove watershed, it was a natural choice to involve stewardship of the park as part of the community enhancements and environmental restoration associated with the DMCF at Masonville Cove. MPA, Maryland Environmental Service, Baltimore City Parks and Recreation, The Baybrook Coalition, The Living Classrooms Foundation, and the National Aquarium brought students and community members together for a three-day effort to clean up the park and make it more inviting.

From October 19th – 22nd, 87 community members and students worked to remove debris and invasive plants as well as plant native trees. Volunteer groups included employees from Host Hotels, Inc., students from Ben Franklin High School at Masonville Cove, members of AmeriCorps and Baltimore Port Alliance, and local citizens. The Parks and People Foundation provided financial support for the event, including reusable water bottles for all volunteers. The combined effort made quite an impact!

- 4,740 lbs. of trash removed, including mattresses, furniture, a bike, and other bulk items. Tires removed from the stream bed were taken to Ben Franklin High School to be used as part of an urban garden
- 33 native trees planted, mulched, and staked
- 3 tons of organic debris removed
- 2,000 square feet cleared of invasive plant species and mulched

Bi-annual volunteer cleanups of Farring-Baybrook Park are scheduled to continue into 2012, please keep an eye out for opportunities to be a part of this transformative effort!



The **2011 Annual Report** of the Dredged Material Management Program is now available. This document summarizes the year's accomplishments and challenges, and makes recommendations to the Executive Committee for the coming year.



Topics which headline the 2011 Annual Report are the shortage of placement capacity, especially for harbor work, and the implications of budget cuts at both the federal and state levels. The Port of Baltimore must prepare to receive larger ships after the Panama Canal expansion is completed in 2014—it is critical to ensure both adequate dredged material placement capacity and money to accomplish needed dredging. The report lays out seven recommendations for 2012.

- Working with Congress to secure support for the Army Corps of Engineers dredging program
- Working to pass a Water Resources Development Act (WRDA) bill
- Adopting Harbor Team Recommendations
- Securing placement sites for material from the C&D Canal approach channels
- Working on requirements for the Chesapeake Bay's "pollution diet" or Total Maximum Daily Load (TMDL)
- Developing business plans for implementation of innovative reuse projects
- Strengthening coordination with the Army Corps of Engineers at all levels

The **Harbor Team Recommendations Report** is also available. The team reviewed multiple options for placement of dredged material and made several recommendations for further study. They include further study of innovative reuse; various configurations of the Cox Creek and Millennium properties; and a pilot test of "confined aquatic disposal" for the harbor. These recommendations are provided as backup options to the Coke Point proposal, which remains the Harbor Team's top priority.

Both of these reports are available online at www.mpasafepassage.com

Good Year for the Port of Baltimore

2011 has been a very good year for business at the Port of Baltimore. The Port handled more autos in the first half of 2011 than any other U.S. port, while overall cargo tonnage is expected to finish the year at pre-recession levels. For the third straight year, the Port set a record for cruise passengers, exceeding 200,000 for the second consecutive year. The Port of Baltimore's public marine terminals specialize in containers, cars, heavy equipment and forest products. The private marine terminals handle bulk commodities such as sugar, coal, salt, and iron ore.

In 2012, a 50-foot container berth at Seagirt Marine Terminal will be completed. Baltimore will become only the second East Coast port to have both a 50-foot channel and 50-foot berth. The deep berth will be able to accommodate supersized container ships that will begin calling after the completion of the Panama Canal expansion in 2014.