

## Crews dredge Maryland waterways to give new life to fading island



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One of the busiest ports in the country is right in our backyard.

But once we make way for the huge ships to sail in what happens to the muck that we spend so much time and money dredging out?

It's this same sediment that is addressed in a law that passed earlier this month--- the water resources reform and development act of 2014.

It means some of the projects reusing silt from our waterways can expand.

Backhoes, tractors and plows aren't breaking ground on Poplar Island – quite the contrary in fact. They're building it up.

"The entire island is built out of dredged material from the shipping channels that lead up to the Port of Baltimore," Megan Garrett, an environmental specialist, said.

The rebuilding of Poplar Island has been an project going on 16 years.

"This is your office," Garrett said. "You know, you get to see wildlife: birds flying by, see little animals, muskrats running on the ground. It's a wonderful experience. It's absolutely beautiful, beautiful. And it's very hard to imagine that this was man made because it just looks so natural."

Project manager Justin Callahan first came to the island back in the early '90's. The goal he said is to bring back the speck of island back to life.

"There were just a handful of remnants," Callahan said. "The area maybe totaling 3 to 5 acres. And today, as it sits right now, the footprint of the island is about 1,140 acres."

The shoreline now is about equal to its size back in 1847. The ravages of time and weather eroded the island to virtually nothing.

"One of the questions we get all the time from visitors is, 'The island had eroded to 3-5 acres back in the 1990s, what would stop that from happening again?' The main difference here is that we've armored the shore line," Callahan said.

Crews have armored the shoreline with boulders, protecting what was once sediment at the bottom of Maryland waterways.

"We are using what would be considered a spoil: the dredge material. And we're actually converting it into a much needed habitat in the Chesapeake Bay. A remote island habitat," Callahan said.

The man-made remote island habitat is made from dredged sediment from The Bay approach channels to the Port of Baltimore.

"Green is good. That's what I always say," Bob Blama, another project manager, said.

He played a main role in re-using clean dredge material from the Susquehanna River to rebuild Battery Island.

"This is just material from farm fields that are coming down anyway," Blama said. "You may as well use it. It is clean material."

Battery Island's 11 acres is just a fraction compared to poplar's more than 1,100.

But crews using the same idea to bring Poplar Island back to life.

"You see, at Poplar, what they do-- they pump it into the cell, they let it drain, they move it with dozers and they keep pumping it to get to a certain point, then they sculpt it. We got to do it all at the same time," Blama said.

"While we're pumping, we go to sculpt it. When we're finished in two months, that's it," Blama said.

Jeffrey Price, a construction representative of the Army Corps of Engineers added, "the dredge was out in the channel, and there was a pipeline that ran from the dredge to the island.

"We would pump in certain locations to bring the elevation up and use dozers to actually shape the island," he continued.

Sediment from the waterways covered Battery Island by April of 2013. The next step was to replant the island with vegetation. Unlike Poplar Island Battery Island is exposed. There was no rock armor shielding the shore line.

"This is unconfined, no protection at all except the plants. Rationale? We don't have the money," Blama said.

But that didn't stop them from turning Susquehanna River silt into a wildlife sanctuary.

Not far off the shore, a separate island towers in the water, more or less a dumping site that Blama said was started in the 70s.

"It was just dredge material, just dumped on there and piled up. Because what we wanted to do was create wildlife habitat, we didn't want it to just pile up," Blama said.

If the ships continue to come in then dredging doesn't stop.

"If we don't dredge it, they have to light load their barges, which means they'll have to build their barge only halfway up, Blama said. So it's economical. Almost all of our dredging has to do with economics."

Callahan added, "it's incredibly important for a number of reasons.

"One, you're actually beneficially using this dredge material to create much needed habitat in the Chesapeake Bay. Two, quite simply, you're keeping the channels to and from the Port of Baltimore open for business," he said.

As we dig deeper for bigger ships it's the muck that's bringing new life to animals that come here.

"Definitely a lot of work, but you can look around and see it's a wonderful habitat for the birds, the fish, we have terrapins," Garrett said. "All different kinds of animals just living within the marshes."

To date, there is 177 acres of tidal marsh completed at Poplar Island. The group was authorized for expansion of an additional 575 acres. They're hoping to work on that project between 2016 through 2018.