

An island reborn



Photo by Pamela Wood — The Capital

David Bibo of the Maryland Port Administration points out the location of Poplar island on a map inside a trailer on the island. Once more than 1,100 acres, the island had washed away to a few tiny dots in the bay when construction began in 1998. BELOW: The Chesapeake Bay's Poplar Island is being restored using material dredged from the bay's shipping channels. This area eventually will become a wetland.

Dredged material used to create wildlife sanctuary at Poplar Island

By **PAMELA WOOD**, Staff Writer

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POPLAR ISLAND - Once upon a time, Poplar Island was more than 1,100 acres and supported farms, homes and even a sawmill and a school. Later, it was a haven for hunters and Presidents Franklin D. Roosevelt and Harry S Truman used the island as a retreat.

But over the years, the Chesapeake's winds and waves ate away at the island at a rate of 13 feet per year and it eroded into almost nothing. By the late 1990s, the once-vibrant island was just three little dots in the Chesapeake Bay, totaling less than 3 acres.

Poplar Island had almost disappeared.

Then officials hit upon an idea that they say is a perfect solution: use muck dredged from the bay's shipping channels to rebuild the island into a wildlife sanctuary.

"This is a win-win for everybody," said David Bibo of the Maryland Port Administration, one of the lead agencies on the Poplar Island project. After all, the dredged material needed to be put somewhere. And the long-abandoned island off the coast of Talbot County presented an opportunity to create a home for birds, terrapins and other critters.

The result is an ambitious, complex and expensive project that officially started in 1998 and continues today.

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"In years past, dredged material was considered a trash product," said Kevin Brennan, an official with the U.S. Army Corps of Engineers, another key agency working on Poplar. "But you've got to do something with it."

Other projects elsewhere for getting rid of dredged material lead to public outcry and even legal action, as boaters, environmentalists and residents worried that they might do more harm than good. Open water dumping of dredged material has largely been abandoned in favor of island restoration.

Dredging is needed to keep the bay's shipping channels deep enough to allow large ships to pass through and keep the Port of Baltimore humming. In any given year, the Maryland Port Administration needs to clear out 4.7 million cubic yards of sediment that washes into the channels and the Baltimore Harbor.

The Poplar Island project - officially called the "Paul S. Sarbanes Ecosystem Restoration Project" - uses only "clean" material dredged from the approach channels that run up the bay toward Baltimore. Dredged material from closer to the city is considered potentially contaminated and isn't used at Poplar.

Once the current project is complete in approximately 2015, Poplar will be restored to about 1,140 acres.

"The island we have now replicates the footprint of the 1850s," Mr. Brennan said. There are discussions of enlarging the island another 575 acres beyond that, a task that would take until 2021.

Half of the crescent-shaped island will be "uplands," or dry land with trees, shrubs or meadows. The other half will be wetlands planted with marsh grasses.

The island is protected by stone riprap, and large culverts allow the tides to sweep into the wetland areas. The riprap is necessary to keep the island from washing away again.

Turning the dredged material into solid land is quite an undertaking. First, the shape of the island was created with a giant perimeter sand dike that has been reinforced with armor stones. Various sections, or "cells," were created within the island's boundaries.

Each winter, the bay's shipping channels are dredged.

"They dredge it up, they put it in barges and push it down here by tug," Mr. Brennan explained.

Then a device called a "snorkel" shoots water into the material, making for a mixture that's 90 percent water and 10 percent dredged material. That facilitates the journey through pumps and pipes to the various cells on the island.

Once placed in the cells, the material is allowed to dry out over the summer months to become solid land, a process called "dewatering."

About 2 million cubic yards of dredged material are sent to Poplar each year. All told, the island will accept 40 million cubic yards. The total cost is expected to run \$426.9 million - \$111.5 million from the state and \$315.4 million from the federal government.

Layers of dredged material are built up over time and eventually, grasses and shrubs are planted to create the wetlands or the uplands.

A few wetlands areas of Poplar Island are complete, though much work remains to be done. The project is coordinated by the Army Corps and the Maryland Port Administration, but most of the work is carried out by the Maryland Environmental Service, an independent state agency that does environmental projects. The U.S. Fish and Wildlife Service and other environmental agencies are involved as well.

Though Poplar Island is an active construction site, visitors are welcome. It's a popular destination for schoolchildren on field trips and tours can be arranged for the general public - although the island is off-limits for boaters.

Already, Poplar Island has become a haven for birds. Great blue herons, ospreys, red-winged blackbirds and double-crested cormorants are among the 101 bird species that have been documented on and around Poplar at various times of year. A nearby wooded island is home to a heron rookery and bald eagles nest there. Poplar Island officials hope that once trees sprout from Poplar, herons and eagles will nest there, too.

Diamondback terrapins also flourish at the island, boosted by a program in which schoolchildren - many in Anne Arundel County - raise turtles in their classroom and then release them at Poplar Island.

The island is a quiet oasis, far from the rush of human activity on the mainland. Birds chirp and call and blue water stretches for seemingly forever.

One day, when Poplar Island is complete, it could become a nature park, with passive recreation such as birding and nature watching allowed.

VISITING POPLAR

Tours can be arranged for anyone wishing to see the work at Poplar Island. Tours generally depart from Knapps Narrows in the Talbot County town of Tilghman Island, about 90 minutes from Annapolis. A boat ferries visitors to the island.

To arrange a tour, call 410-770-6503 or send a message to poplartours@earthlink.net.

The island is off-limits to boaters and unscheduled visitors.