



Hart-Miller Island Backgrounder

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Operations at Hart-Miller Island, in the upper Chesapeake Bay, are vital to the safety of large ships that bring trade and tourists to Baltimore. Since 1984, the island has provided a safe and cost-effective placement site for sediment that is routinely cleared from the harbor and surrounding shipping channels. At the same time, the project has led to a new state park and created much needed habitat for wildlife.

Safe Passage

Sediment has entered and clogged shipping channels in the Chesapeake region since colonial times—and deep, clear channels remain important, as ships continue to increase in size.

The process used to remove sediment from the channels is called dredging. Dredging is a constant and challenging task. Today, partners at the Port of Baltimore dredge an average of 4.7 million cubic yards (mcy) of sediment from the harbor and Maryland waters of the Chesapeake Bay every year.

Once removed, dredged material must be placed in a new location, away from the shipping channels. For many years, when environmental impacts were under-emphasized, dredged material was disposed in the open waters of the Bay. This changed in 1968. The state asked experts to find better solutions, especially for sediment contaminated by chemicals and heavy metals.

The project at Hart-Miller Island was the first to meet this challenge, and the first to move beyond basic containment towards a concept known as “beneficial use.”



Hart-Miller Island plays a vital role in dredged material management, while serving as a popular destination for Maryland citizens and wildlife.

A Groundbreaking Project

Hart-Miller Island, located at the mouth of the Back River in Baltimore County, was proposed as a placement site in 1970. At the time, the historic island chain suffered from severe erosion. Port partners suggested using dredged material to reinforce the island remnants with more than 1,000 acres of new land. The new acres would be created with dredged material, but encased within a large wall or dike.

The project was the first of its kind in Maryland and raised many questions and concerns. Citizens, conservationists, and scientists sought assurance that leaks from contaminated sediment would not harm fish, wildlife, or water quality. They also feared future commercial use of the island, and shared concerns about noise, odor, and aesthetics.

Six years of studies and hearings ensued. Ultimately, plans for Hart-Miller Island were approved and the Port pledged to prioritize wildlife and recreation throughout its operation, and to provide continuous water quality monitoring.

The Hart-Miller Island Citizens Oversight Committee, which formed in 1983, meets monthly to share feedback and ask questions. The committee is invaluable for maintaining open dialogue with the public and ensuring that community needs have been met.

Growing an Island

The transformation of Hart-Miller Island began in 1981. Construction began on a large oval shaped dike, an enclosure created behind the original island remnants. The area inside



An aerial view shows the containment dike, which creates a secure settling basin for dredged material.

the dike serves as a settling basin for dredged material. Over time, the dike was raised to a height of 48 feet, which significantly increased its storage capacity. The height will be reduced once the project is complete.

The construction of the dike was completed and island began receiving dredged material in 1984. When filled, the facility will contain approximately 100 mcy of dredged material and create 1,100 acres of land.

The basin is divided into two areas, an 800-acre North Cell and a 300-acre South Cell. The South Cell, which stopped receiving material in 1990, has been developed and is managed for wildlife. The North Cell receives about two mcy of dredged material each year. Plans are underway for closing and creating a cover for the North Cell beginning in 2009.

The Maryland Department of the Environment, Maryland Environmental Service, Maryland Geological Survey, University of

Maryland, and U. S. Fish and Wildlife Service monitor conditions on and around the island to ensure the safety of fish, wildlife, and water quality.

The cost of operation to place material at Hart-Miller averages around \$3 per cubic yard. Compared to other sites, which range from \$11 to \$20 per cubic yard, Hart-Miller Island has been a cost-effective solution for managing dredged material—with added benefits for the public and bay wildlife.

Beneficial Use

Hart-Miller Island is an example of the beneficial use of dredged material. The containment area has reinforced the existing island, allowing for several acres to be designated as Hart-Miller Island State Park. Thousands of people visit the park each year to boat, fish, camp, swim, and relax on its sandy beach.

The island has also created a haven for wildlife, helping to offset loss of habitat throughout the Bay region. A wide range of wildlife visits the island, such as songbirds, owls, heron, deer, foxes, and muskrat. The Maryland Ornithological Society has observed 285 species of birds there, including a large num-



A heron at rest on Hart-Miller Island.

ber of waterfowl and migratory birds—at times creating the largest single concentration of waterfowl in the mid-Atlantic region.

Many partners have helped to protect and enhance habitat on the island, which now includes forest, a three-acre pond, a nesting island, 184 acres of wetlands and mudflats, and 110 acres of upland grasses.