



The Cox Creek Placement Site

www.mpasafepassage.org

The Cox Creek Dredged Material Containment Facility is one of the sites used for placement of sediment that has been cleared from shipping channels in and around the Baltimore Harbor.

The Cox Creek facility is located on the western shore of the Patapsco River, one mile south of the Francis Scott Key Bridge. It represents the effective re-use of a past industrial site and has triggered the restoration of wildlife habitat in the neighboring Swan Creek watershed.

The Cox Creek facility began receiving dredged material in 2005 and has become increasingly active with the closure of the Hart-Miller Island placement site in 2009.

Safe Passage for a Thriving Port

The Port of Baltimore is an important gateway for commerce and travel, generating \$2.4 billion in wage and salary income and \$1.9 billion in business revenue, while delivering a wide range of goods to the East Coast and heartland states of America.

Providing clear, deep shipping channels is vital to port business. That's not easy, because sediment has entered and clogged shipping channels in the Chesapeake region since colonial times. The process used to remove sediment from shipping channels is called dredging.

Dredging is a constant and challenging task—and the challenge grows as ships continue to increase in size. Today, partners at the Port of Baltimore dredge an average of 4.7 million cubic yards of sediment from the harbor and its approach channels every year.



The Cox Creek Dredged Material Containment Facility is an important placement site for material dredged from the Baltimore Harbor.

Once removed, dredged material must be placed in a new location, away from the shipping channels. Some of the dredged material is directed to the Cox Creek facility, which was specially designed to receive sediment from the Baltimore Harbor.

Renovations for the 21st Century

The U.S. Army Corps of Engineers constructed the Cox Creek site in the 1960s. It operated through 1984, mostly as a private industrial site, and fell into disuse until the Maryland Port Administration acquired it through purchases in 1993 and 1997.

Renovations at the site strengthened the dike and raised its walls to a height of 36 feet, which matches that of the adjoining land. Within the dike, approximately 102 acres are available for dredged material placement. Here, the sediment is drained of excess water and settles into dry land.

The diked area was designed to hold material from the Baltimore Harbor, which is more

likely to contain heavy metals and other industrial contaminants.

Larger amounts of dredged material began arriving at Cox Creek after Hart-Miller Island closed in 2009. Managers estimate its total capacity at 6 million cubic yards, with an operational life of 10 to 12 years.

Restoring Swan Creek Habitat

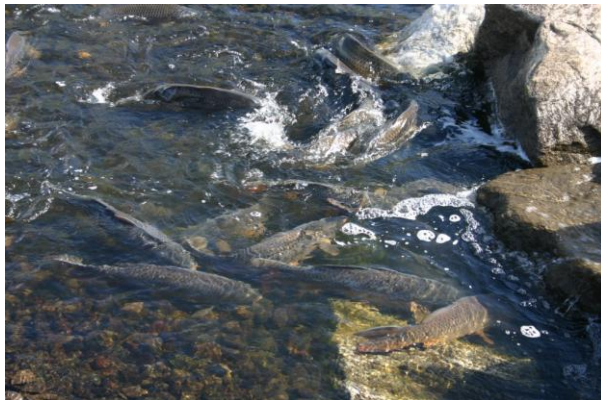
Swan Creek, which flows into the Patapsco River and ultimately the Chesapeake Bay, adjoins the Cox Creek placement site.

As part of the required mitigation for constructing the dike, wildlife habitat has been improved on 11.13 acres of Swan Creek wetlands. The area includes 3.59 acres of open water, 3.92 acres of low marsh, 2.81 acres of high marsh, and .81 acres of salt bush.

Before the restoration, the wetlands had lost their tidal connection and invasive plants crowded out important native species. The tidal connection is now restored, and native grasses and shrubs have been planted to replace the invasives.

Approximately 140 reef balls were installed offshore to improve aquatic habitat and protect the beach from erosion.

The Swan Creek wetlands already attract egrets, herons, and ibis. Sampling has shown



Pond carp spawning in the riffle at Swan Creek.



Volunteers at work in the Swan Creek wetlands.

a large increase in the types and numbers of fish and benthic species that populate the reef ball area.

The Future of Cox Creek

Cox Creek has become an increasingly important placement site. Its unique terrain may also provide other valuable functions for the Port of Baltimore.

The Cox Creek placement site includes approximately 100 upland acres, beyond the diked area. This is an unusual asset for dredged material containment facilities. The land has access to railroads and highways and could be an efficient location for a port terminal on the western side of the harbor.

Cox Creek may also play a role in the cutting-edge management of dredged material known as “innovative reuse.”

Innovative reuse converts dredged material into a resource. Already, innovative reuse has applied dredged material to replenish beach sand, protect shorelines, and generate top soil for use in agriculture. Partners at the Port of Baltimore are actively exploring the options for innovative reuse, and the 100 acres at Cox Creek might be suitable for staging these activities in the future. One demonstration project is underway at Cox Creek, and material has been removed from Cox for two other projects. ■