

Confined Aquatic Disposal (CAD)



DREDGED MATERIAL MANAGEMENT PROGRAM

Dredging maintains safe passage for vessels making their way through the navigation channels that serve the Port of Baltimore, a key economic driver for waterborne commerce in Maryland. Removing sediment annually from the channels ensures the safety of our marine highway and helps businesses at the Port continue to thrive.

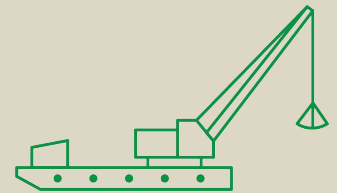
Finding new placement capacity is a challenge in the Baltimore region. In addition to dredged material containment facilities (DMCF) or innovative reuse and beneficial uses of dredged material, a third management option is being investigated called Confined Aquatic Disposal, or CAD.

Underwater locations suitable for a CAD site include sandy material that can be dredged and used in innovative reuse or beneficial use projects. Sediment removed from the shipping channel is then confined in the resulting depression. Sand is also important structurally so the CAD cell doesn't lose capacity from when it is dredged and when it is filled with sediment from the shipping channel.

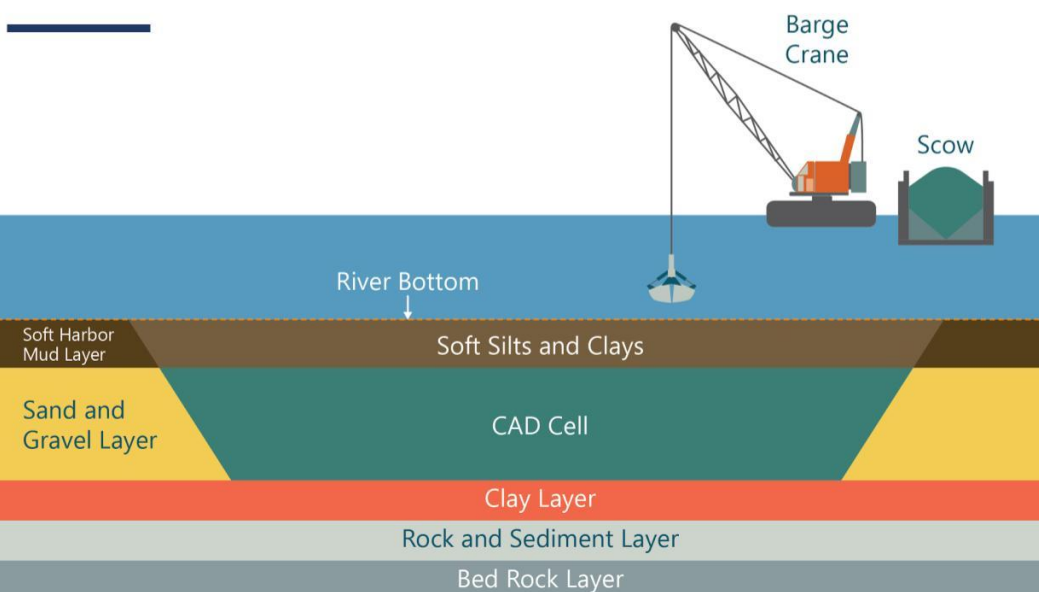
A successful CAD Pilot Project was constructed and filled in Baltimore Harbor in 2016-2017 and studied extensively. CAD has been used in Boston, Newark Bay, and multiple west coast locations.



The Maryland Port Administration (MPA) is responsible for waterborne commerce in the State of Maryland, which requires significant maintenance dredging of the navigation channel system.



CAD is being investigated as a potential dredged material management solution used as part of the State of Maryland's Dredged Material Management Program (DMMP), which identifies options for dredged material placement for channels serving the Port of Baltimore.



CAD has three key stages:

1. A depression (or cell) is excavated into the sand layer of the river bottom.
2. Excavated sand is used in a beneficial or innovative manner, such as wetland creation or structural fill.
3. The depression is then filled in with dredged material.



Confined Aquatic Disposal



CAD PILOT PROJECT A SUCCESS

To maintain the mandated 20-year dredged material capacity plan for the State of Maryland, MPA began investigating whether CAD is an alternative dredged material management method feasible for Baltimore Harbor maintenance dredged material. Following the 2016 CAD Pilot Project, planning goals were identified to be taken into consideration while exploring a second CAD pilot project: evaluate different site conditions that may influence other locations within the harbor region; operate a larger capacity cell with the potential for multi-use or multiple cells within an established area; and determine cost-effectiveness.

If an additional CAD pilot project is deemed feasible and an acceptable site is selected, MPA would seek the necessary State and Federal permits from regulatory agencies to ensure environmental impacts are minimized and that environmental and safety standards are comprehensively addressed. Community feedback will be incorporated and addressed throughout the vetting of this alternative method of dredged material management.

GOAL

CAD is a potential solution that MPA aims to continue to investigate, building on the successful implementation of a small-scale CAD pilot project adjacent to the Masonville DMCF.

NEXT STEPS

Concerns have been raised about the next CAD pilot project, so the project has been paused and MPA has reconvened the Bay Enhancement Working Group and formed a CAD Subcommittee to investigate feasibility considerations, including human and environmental health and safety, benefits to the State as well as process for site selection of a second pilot project.

The Subcommittee will submit a report to the DMMP Management and Executive Committees and the general public in 2025.

MPA is expanding engagement efforts to reach more people, create opportunities for additional dialogue, and incorporate feedback into the planning process.



If you want more CAD information, please visit the Maryland-DMMP.com website and sign up to receive the CAD Bulletin.

For projects like CAD that involve work in or near Maryland waters, both State and Federal permits and coordination are necessary. This integrated approach ensures that environmental and safety standards are comprehensively addressed.



www.Maryland-DMMP.com

