Potential Projects

FOR DREDGED MATERIAL MANAGEMENT

Quick Facts

- The MDOT MPA is required to have a 20-year plan for managing dredged material and is always looking for new options
- Placement capacity is needed for at least 4.7 million cubic yards of dredged material every year

Every year, approximately 4.7 million cubic yards of sediment are dredged from the Chesapeake Bay and Baltimore Harbor to maintain the current 50-foot deep shipping channels.

Finding solutions with sustainable capacity for this volume of dredged material is an on-going challenge. Anticipated growth in both the volume of cargo and the size of the ships expected to call on the Port of Baltimore in the future has added pressure to the task. The Maryland Department of Transportation Maryland Port Administration (MDOT MPA) is exploring the following options to include in its long-term dredged material management planning:

- **Confined Aquatic Disposal (CAD):** A year after a pilot project tested a technique called Confined Aquatic Disposal, extensive monitoring showed successful implementation, including no adverse water quality effects. The project, near the Masonville dredged material placement site, involved dredging clean sand from an underwater site and moving it to a staging area for reuse as a construction material. The resulting underwater cavity, or "confined aquatic disposal cell" was filled with maintenance material dredged from the shipping channel. The underlying layer of clay in the cell serves as a barrier that prevents deposited sediments from spreading to adjacent water or aquifers. Monitoring will continue as the practicality of using this technique for sediment management in the future is further evaluated and determined.
- **Innovative and Beneficial Reuse:** Recovering capacity within the MPA Dredged Material Containment Facilities (DMCFs) by removing dredged material would help extend the life of existing placement sites and provide long-term sustainable capacity. Now recognized as a resource that can be repurposed as a useful product, with proper testing, screening and end use evaluation, dredged material can be utilized in a variety of applications that are safe for the environment and public health. MDOT MPA is actively exploring different technologies and processes to advance several demonstration projects, including using dewatered harbor channel dredged sediment as construction fill material; alternative landfill daily cover; and as a topsoil blend. Other potential reuse opportunities include working with partners and stakeholders to repurpose this resource in the capping of brownfields or to be processed and formed in to bricks or concrete alternative blocks.

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