



Harbor Channel Sediment

CHARACTERISTICS & POTENTIAL FOR SAFE REUSE

Quick Facts

- Sediment that washes in from rainwater runoff and the Chesapeake Bay fills in Baltimore Harbor channels.
- Sediment cleared from harbor shipping channels during annual maintenance dredging is not hazardous.
- Dredged material from the shipping channels is mostly silt and clay, mixed with 70-80% water by weight.

Shipping channels in the Baltimore Harbor continually and gradually fill with sediment. Every year, the Maryland Department of Transportation Port Administration (MPA) and US Army Corps of Engineers dredge approximately 1.5 million cubic yards of sediment from the harbor channels to ensure safe passage for cargo ships.

Dredged material is usually transported to a designated placement site to dry out and become land. However, in the Baltimore area, placement sites for dredged material have become increasingly difficult to find. Port partners are exploring new ways to process and recycle dredged material to create useful products and restore the environment.

The use of dredged material from the Baltimore Harbor has previously raised safety concerns because the harbor was an industrial hub during a time when pollution was mostly unregulated. However, most of the sediment affected by those activities has already been dredged. Today, sediment from the shipping channels tests relatively clean — the combined result of regular dredging, less industrial activity, and protective environmental regulations.

Sedimentation is a natural process, and material that is removed during annual maintenance dredging has arrived in the channels fairly recently. In the Inner Harbor and Middle Branch of the Patapsco River, most of the sediment washes into the water through rainwater runoff. Sediment in the outer harbor, closer to the Key Bridge, is carried into the channels by waves from the Chesapeake Bay.

Characteristics of harbor channel sediment have been studied and monitored. In general, it does not contain pollutants at levels that could cause human or environmental harm and is not classified as hazardous. This means that much of the harbor's dredged material could be used for innovative and beneficial reuse projects. Examples include producing bricks, blocks, and engineered fill; creating topsoil; providing landfill cover; capping brownfields; stabilizing shorelines; and restoring wetlands and eroded islands.

The MPA is working with an interagency team to clarify the regulatory framework and permitting process for reuse projects in Maryland that are safe for both human and environmental health.

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