



SEDIMENT TO SOLUTIONS
CHANNELING INNOVATION



Dredged Material Reuse

Brownfields Conference

November 16, 2021



Dredged Material Management

Harbor Channel Material - Where do we go next?

Dredging

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Port of Baltimore Shipping Channels Maintenance Dredging



Port of Baltimore's shipping channel

Maintaining a 50' depth
keeps channels safe and
open and the Port
competitive.



Annual maintenance of the State's marine highway

136 miles of dredged
channels/yr.



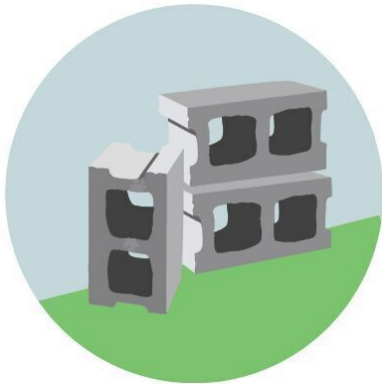
4.7mcy of material is dredged annually

Harbor channel material:
1mcy/yr
Bay channel material
C&D Canal approach
channel material





Innovative Reuse and Beneficial Use



Building
Materials



Habitat
Restoration



Manufactured
Topsoil



Site
Reclamation

MPA Innovative Reuse Goal:
Long-Term Sustainable IR/BU to Address Capacity Recovery

Innovative Reuse & Beneficial Use

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Statutory Definitions:

Innovative Reuse (IR):

“includes the use of dredged material in the development or manufacturing of commercial, industrial, horticultural, agricultural or other products.”

Beneficial Use (BU):

“Means any of the following uses of dredged material from the Chesapeake Bay and its tributary waters placed into waters or onto bottomland of the Chesapeake Bay or its tidal tributaries, **including Baltimore Harbor**:

- (i) The restoration of underwater grasses;
- (ii) The restoration of islands;
- (iii) The stabilization of eroding shorelines;
- (iv) The creation or restoration of wetlands; and
- (v) The creation, restoration, or enhancement of fish or shellfish habitats.”



Habitat Development



Alternative Daily Landfill Cover



Engineered Fill



Construction Material

Guidance Document

Establishes 4 categories for management (including dredged material) of engineered fill or soil, including as a soil amendment:

- **Category 1 – Residential, Unrestricted**
- **Category 2 – Non-Residential, Restricted Use**
- **Category 3 – Restricted Use, Cap Required**
- **Category 4 – Ineligible for Reuse**



Maryland
Department of
the Environment

Maryland Department of the Environment
in collaboration with
Maryland Department of Transportation
Maryland Port Administration

Innovative Reuse and Beneficial Use of Dredged Material Guidance Document

December 2019

Maryland Department of the Environment
1800 Washington Boulevard | Baltimore, MD 21230 | www.mde.maryland.gov | 410-537-3000

Harbor Channel Maintenance DM

WHAT'S IN IT?

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Physical Characteristics

Fine-grained Silts and Clays

Estuarine sediments (salinity ranges 1-15 ppt)

Initial moisture content: 70-80% water by weight before dewatering



Chemical Characteristics

Metals – majority are not at levels of concern

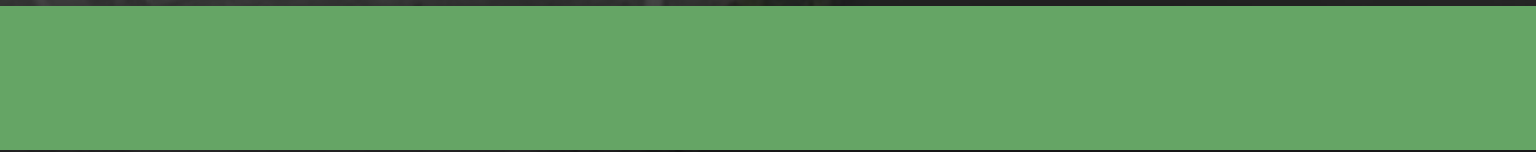
Organics – infrequently detected

Bay & Harbor material contain Sulfides





Ridgley's Cove Demonstration Project





Material Blending Study



Material Hauling: Cox Creek



Material Hauling: Ridgley's Cove



Material Placement Ridgley's Cove

Partner and Inter-Agency
Coordination

Development of
Site Attainment
Goals

Material
Blending Study

Material Hauling
to Ridgley's Cove

Collection and
Analysis of
Confirmation
Samples



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Questions



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