Beneficial Use of Dredged Material in the Great Lakes

Why Dredge?
Maritime transportation on the Great Lakes system generates more than $14.6 billion in revenue each year and moves an average of 300 million tons of cargo, making it an important economic driver and job creator for the region. Recreational boating—a $3.8 billion industry—also brings in revenue each year and moves an average of 300 million tons of cargo, making it an important economic driver and job creator for the region.

Dredged Material Placement
- Slightly more than half of the dredged sediment includes enough contamination from past industrial discharge, agricultural runoff, and other activities to require confined disposal, typically in specifically designed “confined disposal facilities” or CDFs.
- Clean sandy material is often used for beach nourishment, making dredged material a desirable commodity in sand-starved areas.
- Open lake placement is a common practice (and often the least expensive) for managing clean dredged sediment. This practice does present some political challenges and is not universally accepted as the most desirable placement option in the Great Lakes region.
- In many cases, dredged material is clean enough to be managed not as a burden but as a sustainable resource.

Community Involvement
- Community involvement is important in identifying local projects that are able to use dredged material instead of an original source material. Potential projects may include road construction, park improvements, brownfield reclamation, habitat restoration; and many other uses.
- Pooling resources to promote dredged material recycling can be accomplished by forming a committee, task force, or subgroup within existing local government entities and through public-private partnerships.

Examples of Beneficial Use Applications

Cat Island Restoration Project
Green Bay, WI

Lorain Harbor CDF
Lorain, OH

Brownfield Redevelopment
Cleveland, OH

Cleveland Lakefront Nature Preserve (formerly Dike 14)
Cleveland, OH

Examples of Beneficial Use Projects include:
- 21st Ave West, Duluth, MN: Placement of dredged material into four areas within the 21st Ave West embayment to reduce water depths to help promote vegetation growth in support of aquatic habitat.
- Golf Course Turf Restoration, Duluth, MN: Reclaimed soils from the Duluth-Superior CDFs were used for turf restoration at a local golf course in Duluth, MN.
- Cleveland Lakefront Nature Preserve, Cleveland, OH: After closing a CDF that reached its capacity, the peninsula was converted into a publicly accessible nature preserve and is home to hundreds of species of birds, butterflies, and mammals.
- Cat Island, Green Bay, WI: A 2.5 mile wave barrier was built atop the remnant shoals of the original chain of the Cat Islands which were eroded away during periods of high water levels in support of aquatic habitat.

Beneﬁcial Use as a Management Strategy
- Beneﬁcial use of dredged material can help create capacity and extend the life of CDFs by removing suitable material from the sites.
- State and local beneﬁcial use programs help identify ways to maximize the use of dredged material as a sustainable resource.
- Dredged material may contain soils that can be used for beach nourishment, capping, land creation and improvement, habitat creation or restoration, replacement RFL, construction RFL, and for topsoil enhancement.
- Beneﬁcial use includes the use of recently dredged sediment as well as productive reuse of CDFs for habitat creation, public access, and economic development.

About the Great Lakes Dredging Team
The Great Lakes Dredging Team (GLDT) serves as a forum for both governmental and non-governmental Great Lakes dredging interests to discuss the region’s dredging needs. In collaboration with its partners, the team supports timely, cost-effective and environmentally sustainable dredging practices at U.S. harbors and channels throughout the Great Lakes, connecting channels and tributaries. It is a partnership of federal and state agencies created to assure that the region’s environmental, economic and navigation needs are met in a timely and cost-effective manner while meeting environmental protection, recreation, and enhancement goals. The team is co-chaired by one federal and one state representative. The Great Lakes Commission serves as the secretariat.

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