

PROBLEM

- USACE dredged material management facilities have reached or are approaching their respective capacities
- Few new dredge-management facilities are being proposed or likely to be developed
- USACE needs to recover capacity and extend operational life

SOLUTION

- Identify beneficial sediment uses using CDF materials
- Create and reserve capacity for permanent contaminated sediment disposal
- Perform Life-Cycle Analysis (LCA) and Cost Benefit Analysis (CBA) for value creation by recovering CDF capacity through sediment beneficial use approaches

IMPACT

- LCA/CBA model provides a means of developing beneficial use cost estimates for future dredge material management options
- Value based model can facilitate the creation of new markets for dredged sediment
- LCA/CBA can identify opportunities for shared costs and distributing cost burdens among stakeholders

Application of LCA and CBA to Facilitate Beneficial Use of Sediments from CDFs

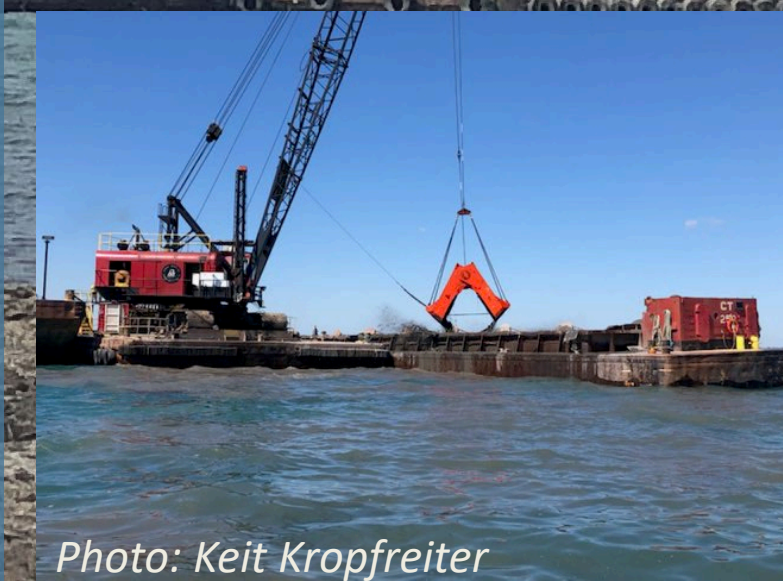


Photo: Keit Kropfreiter



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Application of LCA and CBA to Facilitate Beneficial Use of Sediments from CDFs

WHAT'S NEXT

With additional resources, we will analyze existing CDF uses, develop costs for dredge management and beneficial use, and complete the life-cycle analysis and project reporting

APPLICATIONS

- Potential solution to increasing space limitations for current and future dredge material management
- Results can lead to more efficient and cost-effective management of dredge material and dredge-material management facilities
- Supports USACE dredge operations mission, including achieving 70% beneficial use of dredged material by 2030 (70/30 goal)

STATUS

- Developed major execution milestones and delivery schedule
- Data collection phase

BENEFITS

- Contributes to Chief Engineers Beneficial Use 70/30 Goal
- Model will couple sediment supply and beneficial use opportunities
- Supports sustainable sediment management decisions
- Approach can facilitate cost sharing agreements