

ERDC Researchers Conduct Fourth Workshop to Identify Construction Practice Needs and Innovations for Beneficial Use of Dredged Material (BUDM)

Impact Statement: Researchers from the Environmental Laboratory (EL), and from the Coastal Hydraulics Laboratory (CHL), conducted a fourth regional workshop to identify limitations and research needs to facilitate Beneficial Use of Dredged Material (BUDM).

A team of researchers from the ERDC Environmental Laboratory (EL) (Susan Bailey, Paul Schroeder, and Jesyca Jarabica), and from the ERDC Coastal and Hydraulics Laboratory (CHL) (Zachary Tyler), conducted a workshop 14-15 March 2024 in Cleveland, OH, with USACE, industry, and consultants to gain insight into the state of the practice of construction techniques for Beneficial Use of Dredged Material (BUDM). The workshop was the fourth in a series of regional workshops funded through the USACE Dredging Operations and Environmental Research (DOER) Program (RT22-04) and was held in conjunction with the Western Dredging Association (WEDA) Eastern, Pacific, Gulf Coast, and Midwest regional chapter meetings. This last workshop included approximately 25 participants representing USACE, Ohio Environmental Protection Agency (Ohio EPA), industry, and consultants (Figure 1). A range of beneficial use projects were shared by Vanessa Steigerwald-Dick (Ohio EPA); Don Hayes (former ERDC and dredging professor); Paul Machajewski, USACE St. Paul District (MVP), and Zachary Tyler (CHL). Discussions centered around different types of beneficial use categories and associated limitations. A unique topic of this regional workshop, not discussed in the previous workshops, was confined disposal facilities being operated to rehandle dredged material for upland beneficial use, as well as management of sand dredged from inland waterways.



Figure 1. Beneficial Use of Dredged Material (BUDM) Workshop attendees discuss beneficial use limitations during a break.

While most of the challenges identified have not been related to construction, the discussions thus far have identified a range of constraints on implementing beneficial use and hampering the USACE goal of 70% beneficial use by the year 2030. Some regional differences that drive beneficial use practices have been noted such as diversity among state regulatory agencies, sediment types, and availability of disposal area capacity. Some common themes also emerged such as funding constraints, the need for collaboration among agencies, potential for

industry, days to optimize construction techniques, better access to ERDC tools, and the need for scientific justification to push back against regulatory constraints such as dredging windows.

The discussions from all four workshops will be summarized in a report outlining the current state of the practice, constraints, and a potential research path to improve BUDM. A summary will also be presented at the WEDA Dredging Summit & Expo '24 in June 2024.

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