



# Sediment Budgets and Sediment Budget Analysis System (SBAS) Training Workshop

## ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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### Response Summary:

The purpose of the training was to provide knowledge of Sediment Budgets and the Sediment Budget Analysis System (SBAS) that will be implemented in their ongoing and upcoming projects around the Great Lakes for the Coastal Resiliency Study.

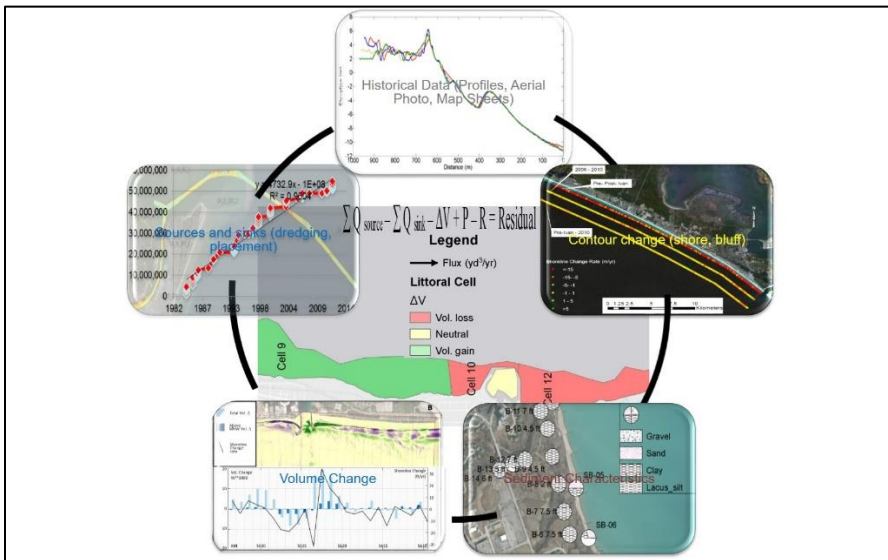


Figure 1. Sediment budgets provide an understanding of the regions sediment sources, project needs, processes, data gaps, engineering actions, and ecological considerations. Data, such as elevation data from profiles or lidar along with sediment characteristics, and dredging and placement information, are used to understand sediment pathways and develop sediment budgets for a region. An operation budget is used in regional planning and initial design of site-specific projects.

### Period of Performance:

13-14 February 2018.

### Benefits of the Response to the USACE Dredging/Navigation Program:

Reviewed the data, tools, and models available to develop sediment budgets. Sediment budgets are an accounting of inputs, outputs, and change in sand volume for a defined area for a specific time period. SBAS provides a framework for formulating, documenting, and calculating sediment budgets, including estimation of uncertainty. SBAS also provides viewing of sediment budgets which allows USACE to better communicate with stakeholders in order to more effectively manage sediment resources.

### Deliverable:

On 13-14 February 2018, Lauren Dunkin, Dr. Katie Brutsche, Michael Hartman, and Rusty Permenter, all of ERDC Coastal and Hydraulics Laboratory (CHL), and Rose Dopsovic from the Mobile District Spatial Data Branch traveled to Detroit, MI, to conduct DOTS and RSM training for the USACE Detroit District (LRE), Buffalo District (LRB), and Chicago District (LRC) staff. The Lake Erie and Lake Ontario sediment budgets are being developed in collaboration with the National RSM Program. The training was carried out through a series of lectures, demonstrations, and hands-on instruction. Twelve LRE, LRB, and LRC participants attended the training.



Providing environmental and engineering technical support to the U.S. Army Corps of Engineers Operations and Maintenance navigation and dredging missions