

TOOLS AND TECHNOLOGIES FOR REGIONAL SEDIMENT MANAGEMENT

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Abstract

Goals of Regional Sediment Management (RSM) are to improve the management and use of sediments through a systems-based approach, manage sediments as a regional resource, and collaborate with partnering organizations, governments, and stakeholders to identify and implement improved sediment management practices. Benefits of this approach are improved partnerships with stakeholders, improved sediment and project management, improved environmental stewardship, and reduced lifecycle costs. Through RSM, we apply tools and technologies, with integrated data, to develop a better understanding of the regional and local sediment systems which improves our knowledge of the regional and local processes, understand and share demands for sediment, and identify, evaluate, and implement RSM strategies to improve the use of sediments. The US Army Corps of Engineers (USACE) National RSM Program collaborates with the USACE Engineer Research and Development Center's (ERDC) Research, Development, and Technology (RD&T) programs, the Institute for Water Resources (IWR) Hydrologic Engineering Center (HEC), USACE Districts and Divisions, stakeholders, partners, and academia to enhance or develop tools and technologies for data collection, management, and analysis; numerical modeling; web-based tools; and communication. These capabilities are applied to understand the sediment system and evaluate strategies for more efficient and effective management of sediments in coastal, estuary, and inland systems. This presentation will discuss the common tools and technologies available to successfully implement RSM for coastal systems.

Bio: Linda Lillycrop is a Coastal Engineer with the USACE Coastal and Hydraulics Laboratory, Engineer Research and Development Center, and is Program Manager, National Regional Sediment Management Program, and a Principal Investigator in ERDC's Dredging Operations and Environmental Research Program and Coastal Ocean Data Systems Program. Linda's experience is multi-disciplinary including numerical modeling, coastal field data collection and analysis, shore protection design studies, navigation and dredging, beneficial use and wetland creation, and oversight for tools to manage and visualize sediment management, dredging information, and data. Linda also spent ten years working for the Mobile District's Operations Division and Engineering Division, and was the Program Manager for the Mobile District's RSM Program.