

The Long Island Coastal Planning Project: Institutionalizing Regional Sediment Management

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Over the years, storm protection, habitat and recreation on the south shore of Long Island have been substantially altered by natural sediment transport processes, significant weather events, and human interference. All too often coordination and collaboration to address these issues lacks a regional, system-based approach. Managing sediment to benefit a region potentially saves money, allows use of natural processes to solve engineering problems, and improves the environment.



The purpose of the Long Island Coastal Planning Project (LICPP) is to undertake studies to institutionalize Regional Sediment Management (RSM), and make more effective uses of sediment from inlets and other sources, enhance environmental habitat, improve the collection and dissemination of data about the movement of sediment, facilitate cooperation among federal and non-federal interests, and assure the most effective use of taxpayer funds. In the end, the Project will lead to a regional water resource strategy for Long Island, developed by communities and state agencies in cooperation with the Corps of Engineers. The LICPP was initiated in 2008 and is planned to be a five year study.

The LICPP will address RSM issues on a three-pronged approach: consolidation of existing sediment data in formats that are usable to all stakeholders, innovation of techniques to analyze and manage sediment resources, and stakeholder outreach, communication and input to RSM decisions.

There are numerous, ongoing activities on the Atlantic Coast of Long Island that will benefit from this study. This activity will leverage these initiatives, as well as ongoing national initiatives. It is expected upon completion of this effort that regional plans would be developed for the management of existing inlets, channels, beaches, borrow areas, and related coastal environmental resources, that would contain elements that can be implemented by both federal and non-federal interests, with the ultimate goal of reducing shoreline erosion and coastal storm damages, provide for environmental restoration and protection, increase natural sediment supply to the coast, restore and preserve beaches, improve water quality along coastal beaches, and optimize the beneficial use of material dredged from inlets, ports, harbors, and other opportunistic sediment sources.

This presentation will focus on four tasks that have been initiated and completed this fiscal year. The tasks include (1) Investigations on the Development of a Sediment Budget for the Long Island Back-Bay Region, (2) Fully Develop GENCADE and Alternatives Analysis for the Shoreline Adjacent to Jones Inlet, (3) Sediment Transport and Navigation Channels and their Correlation with Submerged Aquatic Vegetation (SAV) Beds in the Bays and (4) Documentation of Federal and Non-Federal Environmental Windows.

Using RSM concepts will significantly improve the Corps' mission accomplishment. The Corps' engineers and scientists develop new technologies through research to make management decisions more accurate and efficient. Simultaneously, projects like the LI Coastal Planning Study will enable the Corps and its partners to evaluate RSM concepts through projects that highlight and improve sediment management activities.

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Bio: Donald E. Cresitello received his B.S. and M.S. in Ocean Engineering from Florida Institute of Technology. He has worked for the U.S. Army Corps of Engineers, New York District for 7 years as a Project Planner where his primary experience is with coastal storm damage reduction projects in New Jersey and New York. Donald is also involved in a number of national efforts including Regional Sediment Management (RSM), Shore Protection Systems (SPS), and Shore Protection Assessment (SPA). Additionally, he manages the New York State Hurricane Evacuation Study and Hurricane Planning and Preparedness Study for New York City.