

**SAV Resurgence after Dredging:
A Case Study of Five Waterways in Baltimore County, Maryland
Presentation Proposal for the 2nd Annual Conference on
Coastal and Estuarine Habitat Restoration**

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This presentation will summarize the resurgence of submerged aquatic vegetation (SAV) in Baltimore County, Maryland waterways after dredging. Results from five waterways will be presented over a 5-year period utilizing pre- and post-dredging SAV surveys. Comparison to five reference sites and overall SAV trends will also be presented.

The Baltimore County Department of Environmental Protection (DEPRM) has an ongoing program to restore navigation channels for recreational boating access while protecting and enhancing aquatic habitat of the Chesapeake Bay and its tributaries. The DEPRM waterway improvement program has evolved over the past decade to significantly increase emphasis on natural resource conservation and, wherever possible, expansion of SAV beds.

As part of the DEPRM program extensive field-run SAV surveys of 28 Baltimore County waterways were conducted. Surveys followed current U.S. Fish and Wildlife Service guidelines and included annual SAV peak growth periods in both spring and summer. SAV beds were field mapped with species and densities recorded based on the Virginia Institute of Marine Sciences (VIMS) Annual Distribution Studies for Chesapeake Bay.

SAV field maps were recently electronically digitized and a GIS database was compiled. Twelve parameters for each bed were recorded into the database to properly document the SAV location, species, density, and depth. Limits of dredged areas were also input to the GIS from construction plans and post dredge bathymetric surveys.

Five waterways were chosen for this study that range from 6 acres to more than 200 acres of water surface area. These waterways were dredged between 2000 and 2003. All five case study waterways are typical of Baltimore County waterways that require dredging of accumulated sediment runoff to restore active recreational boating access and to help minimize sediment re-suspension from prop wash.

The presentation will consist of a series of maps, aerial photographs, charts, tables and graphs. The maps will show the location, density, and species of SAV beds in relation to the dredged channels for each year surveyed. The presentation will focus on both negative and positive impacts in the dredged areas and buffers as well as overall gains or losses within the waterway. Changes in SAV as mapped for pre- and post dredge surveys will be evaluated for relationships to dredging. SAV surveys from undisturbed waterways will also be presented and general SAV trends will be correlated to the case study data.