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### **Control of Plastics from Coastal Watersheds - Benefits of Regulation Under the U.S. Clean Water Act**

Robert Summers

Johns Hopkins University, USA. University of Maryland Center for Environmental Sciences, USA

#### **Abstract**

Waterborne debris, including plastics and micro-plastics is a world-wide problem that is growing rapidly. Plastic debris is accumulating in all of the world's oceans in gyres resulting from natural ocean currents and is having profound effects on ecosystem and human health. It has been estimated that 80% of the debris is coming from runoff from the land. In some parts of the U.S., waterborne trash from coastal watersheds is being classified as a pollutant and is being regulated under provisions of the federal Clean Water Act. The US States of California and Maryland and the District of Columbia have developed regulatory limits to control the flow of plastics and other debris using the Total Maximum Daily Load (TMDL) section of the Clean Water Act. TMDLs have been in force in Los Angeles, California, Washington, D.C. and Baltimore, Maryland for several years now and the affected cities and surrounding county governments have been required to develop debris control plans and take various actions such as: installation of debris collection devices to capture trash within public storm system; enhance mechanical street sweeping, preventive stormdrain inlet cleaning, and routine waterway cleaning; and encourage litter reduction and increased recycling. A very visible and popular example in Baltimore's debris collection effort is the Water Wheel Trash Interceptor -- "Mr. Trash Wheel". The large amount and types of trash collected by the wheel and reported to the public provides valuable information that is being used to help focus trash intervention actions in Baltimore. This presentation will cover ongoing trash reduction efforts in these three cities and recommended actions that can be widely implemented to address trash and marine debris and quantitatively document progress on controlling water-borne debris that may be valuable to many other cities that are beginning to address this significant global issue.

#### **Keywords**

Plastic pollution, regulation of plastic debris, Clean Water Act, Chesapeake Bay