REDUCING LITTER POLLUTION IN VIRGINIA'S WATERWAYS

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INTRODUCTION

The health of Virginia's rivers and streams is vital to a strong economy. For example, a healthy Chesapeake Bay Watershed has an economic value of $129.7 billion to the region.[1] The Commonwealth has a storied history of responsible water conservation and boasts renowned natural aquatic wonders such as the Shenandoah and Clinch Rivers, the bountiful Chesapeake Bay, and our beautiful beaches. Nonetheless, litter pollution in our watershed remains a substantial unresolved issue. New research detailing the financial impacts and consequences of unchecked plastic pollution on waterways, wildlife, and human health has made this issue urgent.

BACKGROUND

The most common types of litter found in our waterways are cigarette butts, plastic bottles, plastic bags, food wrappers, balloons, and fast-food cutlery such as straws, cups, plates, forks, knives, and spoons. Plastic litter is particularly problematic – it can last indefinitely. After it breaks down, it persists as micro particles which can have harmful but largely unstudied effects on human health.

Deliberate littering and illegal dumping in streets and parks is a problem, but more often littering is unintentional. Discarded trash escaping from unsecured trash and recycling receptacles used by homes and businesses contributes to a substantial portion of litter debris. Currently, municipalities are given inadequate tools to control this kind of litter. Consequently, the litter makes its way into waterways through the local stormwater system. During a rain event, uncontrolled debris is swept from streets into drains that flow directly into out-of-sight streams. From there, the litter either ends up in local tributaries or is swept into larger bodies of water such as the Chesapeake Bay or Atlantic Ocean. According to the EPA, 80% of marine debris originates as land-based trash.[2]

Litter is not just an eyesore – it has wide ranging impacts on wildlife and water infrastructure. Ingestion or entanglement often proves fatal for wildlife. Turtles, birds, fish, mammals, and important filtering bivalves like oysters and mussels mistake plastic items for food.[3] This is particularly prevalent in the use of plastic balloons – one of the most harmful and deadly litter items to wildlife. Most latex balloons released into the atmosphere burst before returning to the ground. Burst balloons closely resemble jelly fish – a favorite food of sea turtles and other marine animals. Balloon ribbons also easily entangle birds and cause lasting damage[4]. However, many balloon releases are currently exempt from Virginia code as being considered litter.

Regarding water infrastructure, flooding from storm drain blockages due to litter is a common problem. In addition, litter has economic impacts on communities, reducing property values and tourism spending.

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The direct cost of litter clean-up is substantial. Keep America Beautiful estimates that businesses pay about 80% of the costs of cleanup – over $9 billion per year. Cities, counties, and states pay much of the remaining cost, often putting an undue burden on the community. Much of this cost comes from unreported work by employees, often at the expense of other work requirements, and volunteers.[4] The Virginia Department of Transportation estimates that it spends $6 million a year picking up litter on roadways (not including its Adopt-A-Highway program, which contributes an estimated $1.35 million in pickup costs by volunteers).[5]

Waste collection costs around the country continue to rise, putting a premium on reducing the overall presence of plastic bags in circulation and reducing the complications that occur when they are mixed into the process. Plastic bags cause an estimated $9,500 per month in additional labor at a single recycling facility due to entanglement in, and subsequent maintenance on, sorting machinery[6]. Localities that have instituted plastic bag legislation have less litter overall and when plastic bags are not contaminating true recyclable materials, the process operates more efficiently[7].

Virginia is the first state on the east coast with a plan in place to reduce marine debris: The Virginia Marine Debris Reduction Plan.[8] While the plan outlines goals and priorities for local governments and nonprofits working on this issue, legislators are in a unique position to contribute to water quality improvements. Neighboring lawmakers are steps ahead, making significant strides with commonsense policy – Washington DC and Maryland have both implemented a polystyrene ban. Washington D.C. has instituted a 5-cent fee on plastic bags to address the Anacostia River's pollution problem. City officials reported a 50-70% decrease in household plastic bag usage, and the Alice Ferguson Foundation reported similar decreases during recent cleanup inventories. Revenues from the bag fee (more than $2 million annually) are used to implement education, trash capture, and stream restoration projects throughout the Anacostia Watershed. Additionally, funds are used to distribute reusable bags to low-income and aging populations throughout the District.[9]

CONCLUSION

The state legislature must take a leadership role on this issue and carefully consider plastic's significant prevalence in our local waterways. Virginia should encourage businesses as well as citizens to reduce waste generation. China's ban on US trash and recyclables is a clear indication that there should be an expanded emphasis on waste prevention.

POLICY RECOMMENDATIONS

Adjust the Litter Tax (58.1-1707), an annual $10-25 fee (established in 1977) on retailers that sell commonly littered products to account for 42 years of inflation.

Allow local jurisdictions to establish fees or bans on commonly littered items such as single-use plastics. Localities should be given legislative latitude to choose different ways to address the problem and provide examples for others to follow. Any legislation with a possible fee-based structure should consider diverting said funds towards cleanup programs or education that helps reduce waste.

Remove the section in the Virginia code (29.1-101.1) exempting balloon releases from being considered litter in light of the devastating impacts of balloon litter on birds and marine animals. Impose the same fines for violation as are applicable to all other forms of litter in Virginia.

AN EGRET WADES THROUGH LITTER IN THE POTOMAC RIVER OUTSIDE OF REAGAN NATIONAL AIRPORT ON THE BORDER OF VIRGINIA AND WASHINGTON, D.C.
Image credit: Damien Ossi, DC Department of Energy and Environment