Northwest Product Stewardship Council Policymakers' Bulletin

The Northwest Product Stewardship Council endeavors to integrate product stewardship principles into the policy and economic structures of the Pacific Northwest. This is one of a series of bulletins to brief you about policy issues of importance to policymakers, business leaders, and citizens. For more information, please visit our website www.product stewardship.net.

Product Stewardship

is an environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product's environmental impact throughout all stages of the product's life cycle. More information about product stewardship is available at www.product stewardship.net.





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Beverage Container Deposit-Refund Programs The Original Product Stewardship Program

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Introduction

Container deposit-refund programs are the original product stewardship program. In a product stewardship program, the cost of the disposal or recycling of a product is included in the price of the product. Through state legislation, a cash value in the form of a deposit is placed on the glass, aluminum or plastic beverage container. With a cash value on each container, consumers have an incentive to return their containers for the redemption value regardless of where they are when they finish their beverages. If the containers are not returned then the cost of wasting has been paid by the consumer and can be used to cover the costs of proper collection and disposal of the container rather than passing this cost on to the public as a whole.

In fact, deposit-refund laws are the most effective public or private recycling policy adopted over the past 30 years. The 11 states with bottle bills recycle more bottles and cans than the other 39 states combined and account for over 90% of the container recycling that occurs. Glass and other materials collected through deposit systems, unlike those collected through curbside recycling programs are of a higher quality and are more marketable. The amount of the deposit also has an impact on the recovery rate. Michigan, the only state with a 10 cent deposit, also has the highest recovery rate over 90%. Just a coincidence?

Beverage Container Waste is a Problem

In 2002, Americans failed to recycle an estimated 140 billion aluminum, glass, and plastic beverage containers. This is 33% more containers than were disposed a decade ago. The problems associated with the disposal of these beverage containers are many:

- Glass, aluminum and plastic containers disposed in landfills and incinerators represent a loss of valuable resources and reduce employment opportunities in the domestic recycling industry.
- Disposal of these containers leads to increased greenhouse gas emissions and other forms of pollution when replacement containers are manufactured.
- Manufacturing alumimum cans from used cans requires only 4% of the energy compared to making new cans from bauxite ore. The wasting of energy and natural resources is a national tragedy.
- The most recent Washington State litter composition study shows that containers account for 40% of the total volume of litter on our roads and highways. The litter tax is not the solution to the wasting of containers or litter control.
- Glass can be a contaminant in curbside collection programs due to the conversion to commingled or single stream recycling by many curbside programs. The broken glass causes the sorting equipment to deteriorate prematurely at material recovery facilities and paper mills that must screen the glass from the paper. Replacing these expensive screens adds significant costs to the operation of these facilities.
- Mixed glass, even if separated from other recyclables, currently has a negative value. In other words, curbside programs must pay to recycle the glass. A few jurisdictions in Washington and Oregon already have or are considering dropping glass from curbside collection programs.

What Are the Current Recovery Rates?

Container recovery is down nationwide for aluminum and plastic containers even though the number of households with access to curbside recycling has increased 600% since the early 1990's.

- Aluminum recovery is down from a high of 65% in 1992 to 48% in 2002.
- Plastic bottle recovery is down from a high of 40% in 1995 to less than 20% in 2002.

Steering Committee Members

- City of Tacoma, Washington
- King County, Department of Natural Resources and Parks, Washington
- Kitsap County, Washington
- Local Hazardous Waste Management Program in King County, Washington
- Metro Waste Reduction, Planning and Outreach Division, Oregon
- Seattle Public Utilities, Washington
- Snohomish County Public Works Solid Waste Management Division, Washington
- Thurston County Department of Water and Waste Management
- Thurston County Public Health and Social Services
- United States Environmental Protection Agency, Region X
- Washington State Department of Ecology

What is Causing This Decline?

- More beverages are being consumed away from home where consumers are less likely and less able to recycle.
- New types of beverages including bottled waters and designer drinks have been introduced into the market and are not accepted in some curbside or bottle bill programs. Of the 11 states with container deposits, only 3 states cover these new types of drinks and containers.

Comparing Oregon and Washington States' Container Disposal Tonnages

In 1971, Oregon was the first State in the nation to pass a bottle bill. Oregon's bill requires that all beer, carbonated soft drink, and malt-based glass and aluminum beverage containers be returnable and have a minimum refund value. Oregon's 5 cent deposit begins with the distributor and is refunded to the customer when the empty container is returned. A current effort is underway in Oregon to raise the deposit to a dime to provide a better incentive to return the containers and to add the new drinks in plastic bottles to the deposit system.

A comparison was made between Washington and Oregon to see if there was a difference in the quantities of containers appearing in the garbage. The following data clearly shows the impact of container deposits.

	Washington		Oregon	
Waste Composition	% disposed	Tons Disposed	% disposed	Tons Disposed
Aluminum Cans	.5%	24,761	.12%	3,300
Plastic Bottles	.78%	36,961	.69%	18,861
Glass Bottles	2.8%	131,531	1.07%	29,364

Disposal Rates for Beverage Containers in Washington and Oregon

As a percentage of the waste stream, Washington disposed of four times more aluminum cans and 2.5 times more glass bottles than Oregon. The percentage of plastic bottles are almost the same. Since only plastic soda bottles are a part of the Oregon system, it makes sense that they are similar to Washington numbers. The data shows that Oregon residents throw away far fewer glass bottles and aluminum cans than Washingtonians.

Actions for Governments

- Read the recently completed report entitled "Economic and Environmental Benefits of a Deposit System for Beverage Containers in the State of Washington" developed by the City of Tacoma in consultation with the Northwest Product Stewardship Council. The report concludes that it is cost effective to use container deposits to encourage the return of glass, aluminum and plastic containers and container deposit programs can be compatible with existing curbside container collection programs. The report is on the Northwest Product Stewardship.net/PDFs/ productsContainerDepositReport.pdf
- Review the pros and cons of bottle bill legislation. The Container Recycling Institute at http://www.bottlebill.org/ has many resources on their Web site.
- Stay tuned for Part Two of this Bulletin which will discuss the positive environmental and economic impacts that a container deposit system would bring to the State of Washington and the benefits of an expanded system in the State of Oregon.





