

AFS Policy Statement #11:
Beverage Container Legislation
(Full Text)

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A. Issue Definition

Everyone has at one time observed an empty can floating in a favorite lake or stream. This refuse does not pose any immediate harm to the aquatic environment, but it violates our aesthetic senses; somehow you really didn't quite "get away from it all." Aesthetics contribute a major part of what we find desirable about the sport fishing experience. While aesthetic impacts cannot be quantified as rigorously as toxic wastes, these impacts are certainly real even if less tangible.

We live in a consumer oriented society and one of the drawbacks of this society is the problem of disposing of the residues of that consumption. Litter and solid waste issues have received heightened public visibility in recent years because of the increase in litter, rapid filling of landfills and accompanied surface and ground water pollution, and difficulties in siting new landfills.

One solution, although somewhat controversial, has been container deposit legislation. This legislation encourages recycling and reducing litter by requiring a deposit, usually \$.05 or \$.10 on each beverage container sold to consumers, which is refunded upon return of the container. Enactment of container deposit legislation requires a decision to penalize those who carelessly dispose of empty beverage containers. Legislation of this type allows the individual to retain freedom of choice and is aimed only at those who choose to pollute. Incentives of this nature have an immediate and direct effect on individuals and require a minimum of governmental intervention.

Container deposit legislation has met staunch opposition from affected industries because of purported cost increases, job loss or dislocation, and differing opinion as to the amount of litter reduction to be experienced. There are many different types of litter found along our streams, lakes, rivers, and roadsides. Beverage containers, primarily for soft drinks and beer, compose a large percentage and are the types of litter usually controlled by container deposit legislation. Materials used to produce such containers include glass, plastic, and metal (primarily aluminum or steel).

Beverage container legislation has been enacted in both the U.S. and Canada. Presently, five Canadian provinces (Alberta, Quebec, Nova Scotia, New Brunswick, British Columbia) have container deposit legislation. In the U.S., container deposit laws are currently in force in nine states (Connecticut, Delaware, Iowa, Maine, Massachusetts, Michigan, New York, Oregon, and Vermont); additional states are currently considering similar legislation. Many referenda have been voted on regarding the promulgation of container deposit laws. In 1981, legislation was introduced in the U.S. Congress to enact a National Container Deposit Law (U.S. Congress 1981).

Container deposit legislation has been proposed as a means of reducing the one way flow of materials that starts with extraction of resources from the earth and ends with burial in a landfill. The presumed benefits of introducing recycling into this process is the reduction in pollution and energy usage associated with the extraction and manufacturing processes as well as reduction of the rate at which waste is placed in landfills (Sullivan 1978). Recycling will reduce the overall need for natural resources. But, recycling will incur additional costs.

Several states have monitored the effects of container deposit laws. Prior to enactment of container legislation, Michigan observed that the number of beverage cans found along roadsides increased from 69 cans per mile in 1968 to 176.5 cans per mile in 1978. Since enactment of their beverage container law, Michigan has experienced an 83% decrease in the number of regulated containers in litter counts (Special Joint Committee to Study the Impact of the Beverage Container Deposit Law 1980). Vermont has monitored litter since passing a container law in 1973. They report a 35% reduction in total litter and a 76% reduction in beverage container litter. Oregon found a 39% reduction in total litter, and an 83% reduction in beverage container litter since their law went into effect in 1972. Overall, the states report a reduction of 35% to 56% in total litter, and 76% to 83% in beverage container litter. These data are in agreement with a 1980 General Accounting Office (GAO) estimate that 80% to 90% of beverage containers are returned when container laws are in effect (U.S. General Accounting Office 1980). A number of sources have indicated container legislation results in a 6% reduction by volume in solid waste disposal in landfills. Reduced need for landfills lessens problems commonly associated with these sites, such as run off and leachate generation and also preserves options for land use, which include maintenance for fish and wildlife.

It is difficult to estimate directly the effects of container legislation on the manufacturing needs and requirements for raw materials used in producing containers and the resultant decrease in pollutants released into the environment as a result of decreased quantities of manufactured containers. New York estimates a 47% to 70% reduction in airborne pollutants and a 44% to 69% reduction in waterborne pollutants attributable to the beverage industry once deposit laws were in effect (Office of Development Planning 1982). It is obvious that iron, aluminum, and asbestos (and to a lesser extent copper, nickel, zinc, cobalt, chromium, and mercury) contamination will be reduced as a result of the reduction in mining operations needed to secure iron and aluminum for cans (U.S. Environmental Protection Agency 1982), but the degree of ecological improvement resulting from recycling is difficult to evaluate.

The need to conserve energy and natural resources in the U.S. and Canada has been used as support for arguments, both pro and con, in debates on container deposit legislation. The beverage and disposable container industry claims that refillable containers will increase fuel consumption of vehicles used to distribute beverages because of more frequent two way trips as well as the need for more vehicles; refillables are heavier and require more storage space. In addition, it is claimed that emptying and refilling operations would be slow and lead to increased energy and water consumption. The GAO

looked at consumption through all manufacturing stages, from mineral raw materials to final product distribution. They found that recycled aluminum cans and 10-trip refillable bottles required about one-half the amount of water as that of one-way bottles.

Energy-generating facilities and fossil fuel mining continue to be among the largest industrial users of our fresh water supplies. The aluminum industry has frequently advertised that recycling aluminum cans saves 95% of the energy needed to manufacture a new can, starting with the extraction of aluminum ore. New York and Michigan estimate energy savings at 11 to 26 trillion and 9 trillion BTU's. Regardless of the absolute amount of energy saved, it is widely accepted that lowered energy usage provides economic as well as environmental benefits.

Most conflict surrounding container deposit legislation involves pricing, jobs, and capital costs. The beverage industry has maintained that considerable capital cost would be incurred by an increase in the use of refillable beverage containers. For example, bottling lines and bottle washers would have to be purchased and housed, requiring capital and additional space. Actual capital costs depend on the final container mix chosen by the beverage distributors as a result of legislation (refillable bottles, recyclable cans, nonreturnable containers). New York estimates that capital costs approached \$286 to \$354 million for the changeover to refillables. Initially it was claimed that the changeover in New York also would result in significant job loss. Although some specific jobs were eliminated, New York estimates a net gain of 5,000 to 6,000 jobs. In Michigan there were job losses in the can and glass manufacturing industries and job gains in the bottling, distribution, and recycling industry, resulting in an overall gain of approximately 4,500 jobs.

The most controversial aspect of container deposit legislation is the immediate increased consumer cost and consumer acceptance. Cost analysis of container deposit legislation is made difficult by the myriad other factors that indirectly affect price. Michigan and New York both felt industry-conducted cost surveys inadequately detailed actual costs to consumers resulting from container deposit legislation. Costs from production to retail sales must be analyzed separately to determine actual increased costs to consumers. Potential increases of 9% to 10% above the inflation rate were expected in Michigan. The New York City Department of Consumer Affairs, for the 16-week period following implementation of their law, found average price increases of \$0.58/case of soft drinks and \$2.50/case of beer or an increased estimated cost to consumers of \$500 million. It is apparent that container deposit legislation will cost consumers additional money. In spite of these increased costs consumers have consistently demonstrated support for container deposit laws through public opinion polls conducted in several states (Michigan, Oregon, Massachusetts, Connecticut, and Iowa). Voters and legislators in forty-one states have rejected deposit legislation, in some cases after fiercely contested (and expensive) campaigns waged by industry and environmental organizations.

Additional costs incurred with container deposit legislation also are borne by retailers. None of the states with container legislation have identical regulations, but the tasks demanded of the retailer remain essentially the same. Retailers must supply additional

space, collect and inventory returnables, absorb increased labor costs, and maintain sanitation (American Iron and Steel Institute 1981). However, retailers recognize that returnables guarantee increased customer traffic because customers claiming refunds means more frequent customer visits.

There are alternatives to container deposit legislation that some states have initiated to control litter. Industry in general finds these alternatives more palatable. The first and most commonly cited example of such alternative legislation is Washington's Model Litter Control Act of 1971. The Act has several elements designed to control litter: mandatory fines for those caught littering, a broadly-based tax levied on a variety of items including food and groceries (taxes collected are redirected to litter collection and recycling activities), a litter education program, and a litter collection program that provides jobs to a summer youth corps. Aside from the tax, the program is voluntary. New Jersey took a slightly different approach by charging a landfill tax, which is turned back to communities that participate in the recycling program.

The main drawback recognized in these programs is lack of monetary incentive to consumers to return containers. Program effectiveness depends on voluntary efforts. Also, the taxes are non-specific and regressive. The Washington litter tax is levied on food, groceries, and other products, yet these products contribute to a minor portion of litter. Recycling centers accept only specific kinds of recyclables. And, finally, everyone pays for the pollution control program, not just the polluter. Nine other states have adopted litter tax laws; in five of those states the laws have been abandoned.

One other approach is source separation used on the community level; it has yet to be attempted statewide. The rationale of source separation is to entice the consumer to divide solid waste into a recyclable portion, which will be collected and taken to an appropriate processing center, and a non-recyclable portion which will be placed in landfills. An advantage of this system is that "curbside service" is possible. Source separation probably would be met with acceptance by both sides of the container deposit issue. But source separation and container deposit laws can be developed as complementary programs, providing a means for strong litter control.

B. Needed Action

Although the American Fisheries Society professes no specific expertise in solid waste management, we believe the following recommendations are in good standing with the Society's record of promoting the conservation of natural resources and maintaining the "quality of life" associated with the use of fisheries resources:

1. The Society membership is urged to become more aware of present programs for solid waste control.
2. The Society is urged to support in group, and practice as individuals, recycling efforts, recognizing that such practices promote resource conservation and reduce environmental effects due to litter.

3. The Society encourages industry and environmental organizations alike to search for effective inducements to the general public to reduce litter and would support new initiatives to encourage resource conservation including, for example, all aluminum containers.

4. We recognize that voluntary efforts alone to control litter have been insufficient. Many states which passed litter tax laws in an effort to avoid the high cost of container deposit legislation have abandoned these programs because they were ineffective. At this time the Society endorses the concept of national container deposit legislation. Such legislation would create country-wide uniformity that would guarantee stability to the affected industries, as well as prevent potential border problems occurring between states or provinces with and without container deposit laws. Container deposit laws, where passed, have worked and have gained public support.

5. The Society encourages the establishment of source separation programs because they will reduce the filling rate of landfills and ensure greater recycling of material.

6. The Society encourages subunits to become involved at the state and local levels to implement the Society's recommendations on beverage container legislation and source separation programs.

Literature Cited

American Iron and Steel Institute, Committee of Tin Mill Products Producers. 1981. Restrictive container legislation-legislative backgrounder 1981. TN-048-281-5M-Mp. Washington, D.C. 21 pp.

Office of Development and Planning. 1982. Mandatory deposit legislation: benefits and costs for New York, New York State. 25 pp.

Special Joint Committee to Study the Impact of the Beverage Container Deposit Law. 1980. Michigan's deposit law: second year. Final report. State of Michigan, Lansing. 40 pp.

Sullivan, Mark. 1978. The ABCs about beverage containers. National Wildlife Federation, Washington, D.C. 11 pp.

U.S. Congress. Senate. 1981. Beverage container reuse and recycling act 97th Cong., 1st sess. S. 709.

U.S. Environmental Protection Agency, Effluent Guide-lines Division. 1982. Ore mining and dressing-final development document for effluent limitation guidelines and standards. EPA 440/1-82/061b: Washington, D.C.

U.S. General Accounting Office. 1980. States experiences with beverage container deposit laws shows positive benefits. Report by the Comptroller General of the United States PAD-81-08. Washington, D.C. 67 pp.

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