



# CORNELL WASTE MANAGEMENT INSTITUTE

Center for the Environment

Rice Hall

Ithaca, NY 14853-3501

(607) 255-1187

## OPTIONS FOR WASTE PREVENTION

*Ellen Z. Harrison*

*Associate Director, Cornell Waste Management Institute*

Whether you call it source reduction or waste prevention, making less trash and less toxic trash is on the top of everyone's hierarchy, but few people or programs seem to be taking action. There is a tendency to pass the buck, with local governments calling for state action and states calling for federal initiatives. The buck is also being passed down to consumers, and through their purchasing power they are exerting influence on manufacturers which is resulting in "green" marketing. While there has been some progress at the state level, on the retail shelves and in individual homes and businesses, these actions are not enough. Governments, citizens and businesses faced with growing bills for disposal need to find ways to produce less trash. This paper focuses on the actions governments might consider to encourage prevention.

### **Financial Incentives and Disincentives**

Ideally, the true costs of disposal would be taken into account in the market place. Products difficult to dispose of would cost more than similar products without the disposal problem. In reality, no one has come up with a means to accomplish this ideal. Some of the financial approaches which have been proposed or enacted are discussed below.

**Volume based disposal fees** (charging people according to the

amount of waste they generate) are one means of giving people an incentive to produce less trash. Generally implemented at the local level, they have been used since 1981 in Seattle and are gaining rapid acceptance elsewhere in the United States. One benefit of such a system is that it places a strong incentive on the waste producer to reduce and recycle their wastes. In many programs there is no charge for wastes put out for recycling or composting. Seattle has the longest track record and believes this is a key to their successful waste reduction program. One drawback to such an approach is the potential increase in illegal dumping or backyard burning. Administrative problems in applying the charges and the burden on the poor are other concerns.

**Taxes and tax incentives** which might be relevant to waste prevention are another technique that is generally applied at the state or national level. One question in establishing a tax is at what level it should be imposed. While ultimately it is the consumer who will pay, should the manufacturer, distributor or retailer be the one to pay the government?

In New York and other states "packaging" taxes have been proposed. These generally

Waste prevention = source reduction = *reducing the quantity or toxicity of the solid waste which enters the collection and disposal management system.* For a discussion of the methods, techniques and issues surrounding waste prevention, see the accompanying fact sheet.

seek to promote recycling (rather than prevention) through application of taxes on packaging that is not recyclable or not composed of recycled materials. Specific taxes have also been proposed on various items including "disposables", "litter" (items likely to end up as litter) and "hard to dispose of items". There is considerable support for such approaches, but there are also concerns. Major concerns raised are that the amount of tax imposed would be too small to have a significant impact on purchasing habits and the administrative problems of determining the application of such taxes would be a problem.

Legislation proposed in Minnesota in 1991 attempts to discour-

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### Residents Favor Container-Based Disposal Fees

Recent research conducted by the Cornell Waste Management Institute in cooperation with Tompkins County Division of Solid Waste and the Department of Consumer Economics and Housing at Cornell have shown *strong public support for volume based fees* as a means for equitably covering the costs for disposal. A survey of residents following the adoption in March 1990 of volume based disposal fees - known locally as "trash tags", evaluated the changes in the behavior of Tompkins County residents and their attitudes towards the trash tag program. The survey showed that over 60% favored the trash tag program while only 27% were opposed. Similarly, a majority of those answering a question regarding how to pay for future higher disposal costs favored increasing trash tag fees rather than flat fees or property taxes.

Another notable finding was the *increase in recycling and backyard composting in response to the volume based fees* in Tompkins County. An increased number of people are recycling and composting and they are including more items. The program has also encouraged waste prevention through purchasing decisions. Half of the residents say they are recycling more since the program started and 50% of the respondents report that they are composting in their backyards, up from 43% before the trash tag program was implemented. Over 75% of the residents reported that the implementation of trash tags has led them to try and buy products with less packaging.

age toxics in products and packaging by proposing a fee of fifty cents for each pound of toxic included in any product sold in the state.

Tax incentives are used by governments to encourage desired actions. In the waste management field they are being used to promote recycling by providing incentives to use secondary materials. It is less obvious to see how they could be used to encourage waste prevention.

**Deposits** on particular products are another financial technique for waste management. While not particularly applicable to waste prevention, their primary purpose is to ensure that particular wastes get returned. Initially a litter control effort, deposits on beverage containers in many states have encouraged recycling. Deposits have also been enacted in some states on special wastes that are a hazard if improperly handled, such as automobile batteries. Tires and un-

wanted appliances which are difficult to manage are sometimes banned from disposal facilities and may end up illegally dumped along roadsides. Deposits have been proposed to ensure that these items find their way back into the managed waste stream.

### Regulations/Bans/ Requirements

**Bans and restrictions** can be implemented through laws and regulations. While it may be desirable to have national laws addressing some of these waste prevention issues, even a local law can have a large impact since manufacturers are likely to find it impractical to market different items in different locales depending upon their regulations. Manufacturers are likely to mount legal challenges and state governments have also stepped in to preempt local laws in several cases including Minnesota

and Washington. While thus subject to challenges, laws at the local level can have a strong influence on the waste management agenda.

Some examples include ordinances and bans targeted at specific materials or contaminants. A number of states (including NY), for example, have passed legislation developed by the Coalition of Northeast Governors which over several years progressively lowers the amount of six toxic heavy metals which packaging may contain. While passage of such a measure by the federal government would be desirable, it seems likely that the impact of its passage by a number of states will have a similar impact. Manufacturers will develop packaging that meets these requirements in order to market in the states with this law and they are likely to sell the same product/package nationwide.

A number of communities, including Portland, Oregon, have passed ordinances addressed at plastics. These laws may ban the use or sale of "non-biodegradable" packaging or specifically polystyrene foam and usually target packaging of food items. The stated goals for such laws usually have to do with concern over the potential use of blowing agents that harm the ozone layer and general concern over degradability and recyclability. In Portland, where a significant portion of the mixed municipal waste stream will be composted, biodegradability is a very valid concern. Elsewhere, substitution of disposable paper products for disposable plastics may not have a beneficial impact on waste management.

Bans on specific products have also been instituted, such as the ban of "aseptic packaging" (e.g. juice boxes) by the state of Maine. This type of packaging is not practically recyclable, hence the ban. The complexity of environmental

choices is evident, however, if one looks at the broader implications. Aseptic packaging has certain advantages in terms of energy usage and packaging of items such as milk.

The laws discussed above generally are applied at the point of sale meaning that they prohibit retailers from selling certain items. Another approach is to ban the disposal of certain items. Yard wastes or certain recyclables have been banned from landfills and incinerators in some states and communities. These laws promote recycling and composting and may not impact on waste prevention unless they result in home composting.

**Required labeling** has been proposed for a number of products. Such proposals would require certain products, disposable diapers for example, to carry a label stating the impact they have on the waste problem. Similarly, labels could be required on products like batteries, which contain toxics that may pose a problem in disposal. The effectiveness of such labels is questioned by some, and the imposition of labels is opposed by most manufacturers.

A more direct approach would be **product design requirements**. The limitations of heavy metals in packaging discussed above may be seen as such a design requirement. Other possibilities would include a requirement that certain durable products come with a specific manufacturer's or retailer's warranty which would presumably enhance both the durability and repairability of the product. Standardization of products might also be addressed since interchangeable parts can promote repair.

Governments and businesses can use their **procurement requirements** and guidelines to address some of these same issues. Specifying that disposal im-

pacts are among the items to be considered in procurement and taking a long-term view of costs in procuring items would tend to promote durable and repairable items. Similarly, a presumption in favor of buying items that are compatible with other items already purchased for ease of repair and replacing parts would enhance waste prevention.

Finally, communities and states may require **waste plans** that address waste prevention. New York State, for example, requires that waste prevention be part of community solid waste plans. Just how stringently this requirement is enforced is a question. To be effective, the plans should be specific about the methods to be employed and the funds that will be required to implement the plans. Similarly, a state or community may require that businesses develop waste plans that include prevention. The State of Rhode Island has adopted a requirement that businesses employing over 100 persons sub-

mit waste plans that address recycling and waste prevention.

### Education and Facilitation

Ensuring that residents and businesses are aware of the impacts of solid waste and the opportunities for waste prevention can be an effective means of promoting waste prevention. **Awareness campaigns** have been implemented in many communities with Seattle serving as a good example. Information fliers, posters, media spots, supermarket displays are among the techniques used. These may promote waste prevention techniques such as buying in bulk or using substitutes for toxic products, or they may promote repair and reuse by informing people about where repair, rental and exchange shops are located.

Community groups, as well as governments, use these techniques. The Pennsylvania Resources Council, for example, has promoted "environmental shopping" for a num-



ber of years. A program in place in Champaign-Urbana Illinois is promoting waste reduction by working with selected businesses and institutions to serve as models of responsible waste management.

Private efforts are also underway. Some supermarkets are voluntarily adopting labeling programs directed at environmental shopping. Unfortunately, some are not making public their criteria for labeling, making it hard to assess the legitimacy of their programs.

Marketing surveys have found that a large majority of respondents report having changed their purchasing decisions based on environmental concerns, with solid waste being the top issue. Many companies are responding to this consumer demand for more "environmentally friendly" products. While some of these claims reflect true benefits, others may be misleading. Concern with the potential for false advertising has led the Attorney General of a number of states to investigate a number of claims. And even if claims are true, consumers may not know what choices are best for the environment. The popular support for "degradable" plastics is an example of a product that sounded good to consumers (in part because of marketing promotion), but one that environmentalists agree is not an environmental benefit.

**Educating youth** about waste management is seen as a key component of many programs. Not only do they represent a large portion of the population, but they often exhibit particular concern about the environment they will inherit and influence the behavior of their families.

**Technical assistance** is an effective technique. Working with householders to promote backyard composting by providing not only information, but actually supplying composting bins is being tried in a number of communities. Demonstration sites showing how backyard composting works have been developed in a number of locations (including many sites developed by Cornell Cooperative Extension in New York State) and "Master Composter" programs have been established to answer people's questions.

Businesses can profit from waste prevention programs, but may require technical assistance to help them develop these efforts. Waste audits to identify sources of waste and the potential to reduce them are a first step. Working with "insiders" - the people who generate the wastes and know the business - is necessary both to identify productive and practical reduction steps and to ensure that there is follow-through implementation. As the costs of waste disposal escalate,

waste prevention will rise on the agenda of business.

The passion for garage sales attests to the fact that one person's waste is another's treasure. **Exchange programs** can be promoted. Some communities have established exchange centers at their transfer stations or landfills for items ranging from magazines to bicycles to unwanted paint. Others have established waste exchange programs that develop a computer inventory of available wastes that one business wants to get rid of and advertise these to others that might use them.

### The Future

Waste Prevention programs are new and growing. The Cornell Waste Management Institute is compiling information and developing answers to some of the issues which may arise in order to provide technical assistance to those establishing waste prevention programs. A bibliography and examples of some innovative programs are available from the Institute. Please contact us (607/255-7535) to share any programs you may know about or to obtain the information we have in hand.

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VIEWPOINT is a series of opinion pieces on selected topics in the field of municipal solid waste. Each VIEWPOINT is accompanied by a FACT SHEET on a related topic. We encourage you to use the information in the VIEWPOINT series for community education, and to stimulate thinking and debate among citizens, environmental groups and policy makers.

FACT SHEET 4 is titled "Waste Prevention: What, Why and How".

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