

Department of Environmental Quality
Waste and Hazardous Materials Division

Response to Questions Raised at the June 16, 2003,
Beverage Container and Recycling Task Force Meeting

Introduction

Recycling in Michigan lags behind most states and all Great Lakes States. There are many things the state of Michigan can do to improve recycling opportunities and participation. Strong statewide support for increased recycling and waste prevention is a first step toward better resource management and improved recycling of materials currently being disposed. Support for expansion of the current beverage container deposit system to include additional beverage containers will increase overall beverage container recycling rates and bring the current law up to date with current products on the market. In addition, creation of a broad dialog on recycling issues among stakeholders in communities, recycling and waste industries, and state government will assist in the creation of a vision for recycling in Michigan.

Recycling creates jobs, generates revenues, and encourages capital investments, all of which stimulate the economy. At the same time, recycling sustains the environment by decreasing pollution, saving energy, conserving natural resources, and reducing greenhouse gas emissions.

The following questions and answers are just some of the issues and ideas that could be incorporated into broadening recycling opportunities and participation. With strong support, Michigan could once again be a leader in recycling.

What opportunities do Michigan residents have to recycle?

According to the most recent data collected in 1999 through the Michigan Recycling Measurement Study conducted by the Michigan Recycling Coalition, only 37 percent of Michigan residents have access to curbside recycling and only 55 percent have access to recycling drop-offs. In addition, every Michigan resident has the opportunity to return deposit beverage containers that normally get recycled.

The Michigan Recycling Coalition study referenced above was performed by a nonprofit trade organization using federal funds. While the study contains valuable information used to evaluate recycling in Michigan, it is merely a snapshot in time unable to show trends. An additional study is not planned because of lack of adequate funds and staff available to perform the study.

Are these opportunities to recycle enough?

The Department of Environmental Quality (DEQ) does not believe Michigan citizens have enough opportunities to recycle. The Great Lakes States' recycling rate average

is estimated to be 27 percent. At an estimated 20 percent, Michigan's municipal recycling rate is the lowest in the region.

Michigan lags behind in its recycling rate and in efforts to improve recycling. Resources and potential revenues from recycling industries are being wasted as a result of inadequate recycling opportunities. The 2001 Recycling Economic Information Study funded by states and performed by the National Recycling Coalition and the U.S. Environmental Protection Agency (Michigan did not participate) found that the recycling and reuse industry consists of approximately 56,000 establishments that employ over 1.1 million people, generate an annual payroll of nearly \$37 billion, and gross over \$236 billion in annual revenues. This represents a significant force in the U.S. economy and makes a vital contribution to job creation and economic development.

Michigan will not have adequate residential recycling opportunities until most residents have the opportunity to recycle paper, plastic, glass, metal, and organics at curbside or recycling drop-offs.

How can recycling opportunities be expanded, if needed?

Residential recycling systems are complex and multilayered. They are traditionally divided into four main divisions: a collection of recyclable material via curbside or drop-off, processing of material collected, manufacturing products from recycled material, and the purchase of products made from recycled material. Expansion of recycling opportunities is available at each of the steps in the recycling process.

How can participation in recycling programs be encouraged?

There are many ways to improve participation; however, recycling opportunities must be made available to residents before encouraging the use of recycling systems can be most effective. Statewide recycling education and advertising programs have been successful in California, Ohio, and Pennsylvania.

It is important to determine what population(s) will be targeted. Rural or urban areas, children, young adults or adults, and ethnic communities all lend themselves to different approaches to getting the word out about the benefits of participating in municipal recycling programs. With proper funding and state support, the state of Michigan could evaluate successful recycling and litter prevention and education programs and create something appropriate for Michigan. A handful of communities around Michigan (Lansing, Ann Arbor, Southern Oakland County Resource Recovery Authority, and Mackinac Island) have extensive recycling education and promotion programs. They will likely serve as a resource to aid in the development of a statewide program.

Litter prevention education could also be incorporated into the recycling education campaign as an integrated campaign to educate Michigan residents on the benefits of waste reduction, reuse, recycling, and litter prevention.

How can participation be made easy and convenient for residents to voluntarily recycle?

Simple, easy-to-use systems are the most successful. The easier a system is to use, the better the participation. The best systems are as easy as, or easier to use than, trash pickup. One of the most simple and easy to understand systems is the Bottle Deposit Law. This may partially account for the high return rate of deposit beverage containers. (For detailed information on beverage container return rates see Appendix A, Michigan Bottle Deposit Law Frequently Asked Questions.) Additional systems could be created to include a financial incentive to recycle, along with expanding the Bottle Deposit Law to include all beverage containers.

What incentives can be offered?

Financial incentives are successful. Deposit systems like Michigan's Bottle Deposit Law successfully add an artificial value to a product increasing the propensity for the consumer to recycle/return the product. Additional methods to add incentives, providing appropriate funding availability, include the following ideas: unit based pricing or Pay-As-You-Throw Programs, creation of tax free "recycling corridors" or Recycling Market Development Zones, low interest economic development loans for the construction and purchase of recycling technology, and incentive grants for counties. Additionally, with appropriate staff and funding, a task force of DEQ staff, industry representatives, and county and municipal recycling coordinators could be formed in order to research and recommend the best options to support incentives to improve recycling.

Can the state play a role in increasing participation in recycling programs? What is that role?

Yes, the state can play a role in increasing participation in recycling programs provided there is appropriate funding available. In order to design easy-to-use efficient recycling systems, the state could provide technical assistance to counties and communities. Additionally, the state could create an education and outreach clearinghouse to provide publications and recycling promotional campaigns to schools, communities, and local organizations. Participation could be increased by institutionalizing recycling through focused education and outreach efforts directed at segments of the population (or areas within the state) with low recycling rates.

What are the established recycling markets in the state?

The Recycled Materials Market Directory (Directory) produced by the DEQ contains contacts for many recyclable material markets in Michigan. It also lists markets outside the state that serve Michigan generators including companies, institutions, and communities. The purpose of the Directory is to provide this information in a convenient form for DEQ staff, local communities, and businesses to find markets. DEQ staff has been using this tool for over ten years to support recycling in the state. It is now

available online at: http://www.michigan.gov/deq/1,1607,7-135-6132_6828-12387--,00.html. DEQ staff often provides a specific material list for generators of markets for items such as electronics, tires, office paper recycling services, and others.

How many companies?

The Directory, a resource for businesses generating large quantities of recyclable material, contains 329 companies (227 are in Michigan; 102 are outside Michigan) accepting a total of 68 different commodities. These numbers change constantly as new markets are developed. DEQ staff is continually updating the Directory information and providing assistance through the Michigan Materials Exchange Service and other resources to help companies and communities find recycling markets.

What is the capacity?

The overall capacity of recycling markets for all materials is unknown and constantly changing due to changes in technology and the economy.

Is there potential to expand these markets? What is the limiting factor--the recyclable material or the demand for product with recyclable content?

There is potential to expand some recycling markets and not others. Clear glass, corrugated cardboard, white office paper, and #1 and #2 plastic (in increasing market elasticity) all could accommodate increased collection. Markets for metal are relatively stable and could also accommodate greater diversions from landfills. Colored glass markets are generally the least stable and are being dropped from collections around Michigan. Because Michigan's Bottle Deposit Law generates a clean source of green, brown, and clear glass there is a higher probability that the glass collected in Michigan will be recycled. The potential for expansion relies heavily on demand that can increase with development of technology to collect, sort, or process recyclables. Other factors include demand created by external sources such as ISO standards, recycled product purchasing mandates, and internal efficiency demands such as that of needing a minimum amount of recycled content to create specific products. Examples of this are production systems created specifically to incorporate recycled materials in steel-making, corrugated container manufacture, glass, etc.

The limiting factor, the recyclable material or the demand for products made with recyclable content, depends on the material being recycled. Some markets are flooded with material because there is not a demand for products made with that material. One example is plastic other than #1 (PET) and #2 (HDPE). Many programs do not collect these plastics (#3-#7) because of inadequate markets. There are not enough products currently manufactured and purchased that utilize these plastics. As the demand for recycled plastic lumber increases and arsenic treated lumber is phased out, increased demand will be felt for these plastics and market price may increase leading more communities to collect them. On the other hand, PET and HDPE markets are in need of additional material. The current market for these materials could sustain a large increase in the amount of clean material collected.

If the beverage container deposit program was expanded to include more beverage containers, where would the additional recyclable material go?

The additional recyclable material collected through an expanded Bottle Deposit Law would likely be absorbed into the recyclable material collected through the current Bottle Deposit Law. Markets are in existence and would not differentiate between a PET soda beverage container and a PET water beverage container. However, a detailed market analysis may be required in order to determine the full impact of an expanded container law on existing recycling markets.

Does market capacity for these materials need to be expanded?

For most expanded beverage containers, market capacity would not need to be expanded but would likely expand as the volume of clean, sorted material expands. Some beverage containers made from mixed materials or difficult to recycle materials like the blue plastic PET bottles will be slower to develop recycling markets. One of the benefits of the Bottle Deposit Law is the producer responsibility aspect of the law. For example, if a manufacturer is not able to recycle the beverage containers collected because they are difficult to recycle, market forces will lead the manufacturer to change the packaging to a more recyclable one or pay the costs of disposing of the material. There is a higher value to consistent, large volume clean materials than those that are collected through curbside and drop-off programs that are often contaminated and need extra sorting and processing. The Bottle Deposit Law provides a more attractive material to a recycler because a large amount of consistent material that has a lower amount of contamination is generated. By expanding the Bottle Deposit Law to include more PET, glass, and metal, this creates a more attractive recycling stream. Companies do not want to invest in infrastructure to handle a recycled material if they cannot rely on having an adequate supply to cover the cost of their investment and be assured that the product they create will be saleable.

What can the state do to expand market capacity?

Market capacity can be expanded by actively drawing manufacturers to Michigan that produce products with recycled content and providing incentives to existing manufacturers to use recycled feedstock in their products. In addition, the state can expand its purchasing policies for buying recycled materials and supplies. By using its purchasing power and promoting the joint purchasing power it can provide to schools and other units of government in the state, it can bolster markets for recycled products created in the state.

If the beverage container deposit program was eliminated, would the volume of recyclable material collected through other means meet current demand?

Due to the regional nature of recycling markets, the effect of eliminating the Bottle Deposit Law is difficult to predict. What may happen if the Bottle Deposit Law is eliminated is the volume of clean, sorted material that is currently destined for the metal, plastic, and glass markets would decrease. This would lead to an increase in price paid

to communities for curbside and drop-off recycled material and over time an increase in the number of communities collecting that material. However, if the manufacturers are not able to obtain enough volume of clean material similar to that collected through the current Bottle Deposit Law, the manufacturer may switch to virgin material. Because of the Bottle Deposit Law Michigan currently recycles more of its municipally generated beverage container glass, plastic, and aluminum than any other state and receives a higher price for the material because it is clean, sorted, and centrally collected. Many states without deposit laws recycle a fraction of the green glass generated. Because Michigan has a Bottle Deposit Law and collects clean, consistently colored glass it has a higher demand, and this material is more likely to be recycled.

If not, how could residents be encouraged to continue collecting and recycling beverage containers?

No matter how much effort Michigan puts into improving recycling infrastructure and participation, Michigan would not achieve a beverage container recycling rate even close to what is achieved through the Bottle Deposit Law if that law did not exist. With only 37 percent of Michigan residents having access to curbside recycling and only 55 percent having access to recycling drop-offs, it can be expected that the majority of beverage containers would be landfilled or incinerated. No amount of encouragement would result in a resident recycling their beverage containers at the same rate if they have a limited opportunity to do so.

Most states without deposit laws have better overall recycling rates than Michigan but still are only able to collect less than 50 percent of the beverage containers generated in the state.

What can the state do to increase the capacity for collecting recyclable materials?

A number of steps can be taken to increase the capacity for collecting recyclable materials and improve municipal recycling in Michigan, should appropriate funding become available. These include:

- Expansion of the Bottle Deposit Law,
- Provide for a consistent funding mechanism for municipalities to use to fund recycling programs,
- Support for producer responsibility initiatives,
- Promotion of pay-as-you-throw programs,
- Implement a solid waste surcharge,
- Expansion of household hazardous waste programs,
- Require waste haulers to offer recycling services,
- Require counties to have adequate recycling capacity
- Create tax incentives for manufacturers that produce products or process recycled material,
- Improve recycling data collection, and
- Develop a comprehensive solid waste strategy.