MICHIGAN SOLID WASTE POLICY

2007



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Message From the Director _____

This 2007 update to Michigan's Solid Waste Policy is intended to guide Michigan in making wise choices for managing solid wastes. Citizens, businesses, government agencies, institutions, universities, and political leaders all have to make decisions on how best to address solid waste management in the state, and this Solid Waste Policy provides the framework for making those decisions.

Much has changed since Michigan adopted its first Solid Waste Policy in 1988. The Solid Waste Policy was adopted when Michigan was fearful of running out of landfill space; today we have different solid waste management challenges. Laws and regulations have changed. Technology has changed. Michigan's economy has changed. All of these changes and the desire to improve how we manage solid wastes prompted stakeholders to recommend that the Michigan Department of Environmental Quality (MDEQ) revisit the Solid Waste Policy and update it for the challenges we face today and in the foreseeable future.

Michigan's updated Solid Waste Policy for 2007 presents a fundamentally different approach to making solid waste management decisions. It promotes the bold perspective of viewing solid waste as a resource in a global economy and, rather than prescribing our choices, challenges us to make decisions based on the three principles of sustainability:

- Economic vitality
- > Ecological integrity
- > Improved quality of life



This updated Solid Waste Policy further develops these principles and relates them directly to our challenges of today and the foreseeable future:

- > Encouraging choices consistent with solid waste management preferences defined in the Solid Waste Policy.
- > Developing and maintaining facilities and markets for solid wastes.
- > Clearly defining the roles of individual units of government in solid waste management.
- > Adequately funding solid waste management programs at the state and local levels.
- > Monitoring, evaluating, and continuously improving implementation of Michigan's Solid Waste Policy.

Most importantly, when addressing these challenges, we need to ensure that all impacted parties are involved in the decision-making process and that the issues are evaluated within the context of the entire Solid Waste Policy to minimize unintended consequences, especially as the Solid Waste Policy is translated into action. The entire Solid Waste Policy must be read as a whole, where the overarching statement sets the vision from which all of the succeeding policy statements flow.

The members of the Solid Waste Policy Advisory Committee are listed in Attachment 1, and the MDEQ staff who facilitated the meetings and transformed the Committee's ideas into policy language is listed in Attachment 2. Michigan is indebted to the members of the Committee, whose thorough and thoughtful deliberations starting in March 2006 led to the development of, and consensus with, this updated Solid Waste Policy.

Sincerely,

Steven E. Chester, Director

Michigan Department of Environmental Quality

Michigan recognizes solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability.



This overarching statement sets the vision from which all of the succeeding policy statements flow. The entire Solid Waste Policy must be read as a whole, taking into consideration the above statement. This statement guides solid waste management decisions to consider impacts on economic vitality, ecological integrity, and improved quality of life. Economic vitality improves the quality and function of an organization's commercial or social outputs in a profitable manner. Ecological integrity recognizes the interdependence and promotes the healthy functioning of biological organisms within their ecosystem. Social equity involves the identification of issues, the development of standards, and the implementation of programs that address an organization's responsibility for the ethical treatment of individuals, communities, and other stakeholders. All three of these concepts must be considered when making solid waste management decisions, and none should be given more weight than the other. Decisions made in this way will foster sustainability and take into account true costs and benefits. Additionally, the interplay of these three concepts cannot be ignored; they are integral to a sustainable society.

Everyone makes decisions about how to manage solid waste. Individuals, organizations, institutions, businesses, and local and state government all make daily choices to generate or not generate waste and to reuse, recycle, or dispose of waste. This Solid Waste Policy is meant to guide all solid waste management decisions, from those impacting policy on a state level, all the way down to individual choices about solid waste management options. The word "Michigan" is frequently used throughout the Solid Waste Policy and includes everyone: citizens, businesses, other organizations, and government.

By recognizing solid waste as a resource, Michigan can more fully realize the economic, environmental, and social benefits of utilizing materials that may be thought of as waste but that still have inherent value. By thinking about the long-term costs and benefits of our decisions and creating systems to reduce waste generation and utilize waste that is generated, Michigan will better capitalize on economic opportunities. These opportunities include job creation, energy savings and production, and a healthier environment.



GUIDING PRINCIPLES _____

- A. Michigan's preference is first to avoid waste generation, then to utilize generated waste for beneficial purposes and, finally, to properly dispose of what remains. Michigan will facilitate the selection of waste management options according to this preference.
- B. Michigan will make solid waste management decisions recognizing the interrelationship among global, national, and regional systems of resource use and disposal.
- C. Michigan recognizes the distinct roles and responsibilities of public institutions (including various levels of government), the private sector, and individuals in encouraging and making choices related to solid waste management.
- D. Michigan recognizes that solid waste management choices have short- and long-term economic, environmental, and social costs and benefits.



Making a solid waste management decision requires an evaluation of the decision's economic, environmental, and social impacts. Thus, the best management option must be considered in the context of specific circumstances, and this Solid Waste Policy's preferences are a framework for evaluating those circumstances.

By making choices not to generate waste in the first place through changing business, manufacturing, or household practices, or by producing or buying products that generate less waste, Michigan will reduce the need to expend financial, social, and environmental resources to manage waste. Michigan will facilitate waste management options according to this preference by educating its citizenry about the options available to avoid waste generation, furthering the development of infrastructure to reuse and recycle wastes, and ensuring Michigan citizens have access to appropriately priced processing and disposal options. Additionally, sufficient data and information will be provided so that individuals can make proper choices.

Michigan's solid waste systems that allow for utilization of resources and safe disposal of residuals are intricately connected. They are also dependent upon regional, national, and global systems of resource use and disposal. Just as Michigan-made products are distributed around the globe, we buy products and resources manufactured around the world. It is important that Michigan develop the infrastructure necessary to utilize wastes by converting them into resources. These activities create economic benefits and jobs, conserve natural resources, conserve and produce energy, and generally result in a cleaner environment. All Michigan residents, businesses, institutions, universities, and units of government have a role to play in encouraging wise choices related to solid waste management. Cooperation is necessary to ensure roles and responsibilities are appropriate and effective.



DECREASING WASTE GENERATION AND INCREASING WASTE UTILIZATION _____

To reduce waste generation, Michigan should:

- 1. Provide incentives for, and remove barriers to, pollution prevention practices that reduce waste generation.
- 2. Collaborate in regional and national efforts to encourage product design to produce less waste.
- 3. Encourage research and development to share and commercialize technologies and practices that generate less waste.
- 4. Provide information to citizens, businesses, governments, and other organizations on why and how to reduce waste generation.



By decreasing waste generation, natural, capital, and energy resources are saved so that they can be utilized more efficiently and effectively for other purposes. By increasing waste utilization, generated wastes are put to their best, most sustainable use.

Incentives to facilitate pollution prevention practices that reduce waste generation include regulatory benefits, technical and financial assistance, residential Pay-As-You-Throw disposal pricing, and publicly recognizing those who adopt appropriate practices. One strategy to reduce waste generation is to encourage product design that produces less waste. Technologies and practices that generate less waste must be shared among businesses and commercialized if their benefits are to be realized.



DECREASING WASTE GENERATION AND INCREASING WASTE UTILIZATION (CONTINUED)

To encourage more waste utilization, Michigan should:

- 1. Strive to make continuous improvement toward full utilization of all solid waste streams, and as a step toward that end, establish a goal of utilizing 50 percent of Michigan's municipal solid waste (MSW) stream by 2015.
- 2. Identify and remedy regulatory barriers to waste utilization.
- 3. Ensure that all Michigan citizens have convenient access to residential recycling programs by 2012.
- 4. Collaborate in regional and national efforts to encourage manufacturing and distribution systems to facilitate waste utilization.
- 5. Support the development of markets for recycled materials.
- 6. Provide information and technical assistance to citizens, businesses, governments, and other organizations on why and how to utilize waste.
- 7. Have a state government that leads by example.
- 8. Support the beneficial reuse of utility, commercial, and industrial by-products.
- 9. Facilitate and expand opportunities for collection and management of household hazardous wastes, construction and demolition wastes, organics, pharmaceuticals, and other special wastes.



The goal of utilizing 50 percent of Michigan's MSW by 2015 is established to guide policy decisions toward an aggressive yet achievable goal. It includes all forms of utilizing waste as a resource. MSW - otherwise known as trash or garbage - consists of everyday items such as product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, appliances, and batteries. Not included are materials that also may be disposed of in landfills but are not generally considered MSW, such as construction and demolition debris, municipal wastewater treatment sludges, and nonhazardous industrial wastes (U.S. Environmental Protection Agency, Municipal Solid Waste in the United States: 2005 Facts and Figures, Executive Summary, October 18, 2006).

It is important to note that MSW includes residentially and commercially generated wastes. The inclusion of a goal for MSW should in no way be interpreted to mean that utilization of industrially generated wastes is not of critical importance to Michigan. It is generally understood that Michigan industries have a long tradition of waste utilization due to inherent economic benefits. In fact, while data is currently not available to identify how significant industrial activities are, it is certain that utilization of industrially generated wastes far exceeds that of MSW utilization. The need for data to inform policy decisions and establish future goals, such as that on MSW and industrial recycling efforts, is discussed further in this Solid Waste Policy.

Within its Resource Conservation Challenge, the U.S. Environmental Protection Agency has set a recycling goal of 35 percent. The most recent measurement of Michigan's MSW recycling rate estimated a 20 percent recycling rate. The utilization goal of 50 percent of MSW by 2015 includes the MSW recycling rate and any other waste utilization practices. Examples of waste reduction and waste utilization technologies and practices include on-site resource management practices to optimize reducing waste at its source and reusing waste without further processing, returnable/recyclable/biodegradable packaging innovations, and beneficial waste utilization technologies such as composting, energy recovery, and bio-gasification.

The goal of ensuring Michigan citizens have convenient and cost-effective access to residential recycling programs by 2012 is also aggressive yet achievable. "Convenient" does not necessarily mean curbside recycling for all residents. Convenient may mean drop-off recycling in some areas or centralized recycling areas for multifamily housing.

All goals must be measurable, and baseline data must exist to measure progress. Little reliable data currently exists to evaluate progress toward these goals. Lack of data, along with conflicting regulatory requirements, are barriers to pollution prevention and other management practices that increase waste utilization. Ensuring that Michigan citizens, businesses, governments, and other organizations have information on why reducing waste generation is important and how to reduce their waste is essential if waste reduction options are to be chosen. Residents, businesses, and all levels of government play a role in sharing this information.

Ensuring appropriate capacity to utilize and dispose of Michigan waste ___

To provide appropriate capacity and capability to utilize solid waste, Michigan should:

- 1. Use partnerships to utilize the individual strengths of the public and private sectors.
- 2. Identify and remedy regulatory inconsistencies and barriers to the development of a waste utilization infrastructure.
- 3. Identify local and statewide opportunities for improvement in waste utilization capacity and promote the development of infrastructure and Michigan markets to meet those needs.
- 4. Use the solid waste management planning process to establish criteria for evaluating waste utilization needs and establishing the necessary infrastructure.
- 5. Take advantage of the economic opportunities that come from utilizing waste as a resource in a global economy.
- 6. Encourage coordinated actions by groups of communities or industries in researching, developing, and sharing technologies in order to take advantage of economies of scale and utilize their unique contributions.
- 7. Explore opportunities through Solid Waste Management Plans to allow for utilization capacity in lieu of mandatory disposal capacity siting.

To ensure appropriate disposal capacity, Michigan should:

- 1. Develop a mechanism(s) through the solid waste planning process to ensure adequate and accessible yet not excessive disposal capacity to meet Michigan's needs without creating a system that attracts out-of-state waste.
- 2. Encourage the continual development of technology and practices that reduce waste generation, improve waste utilization practices, and reduce environmental impacts from waste.
- 3. Work within the context of national and international laws and agreements to manage the transboundary movement of solid waste.
- 4. Encourage jurisdictions to provide appropriate solid waste management options to meet their needs.



To increase participation in waste utilization programs, Michigan should develop and promote incentive systems such as residential "Pay As You Throw" variable rate disposal pricing, Recycle Bank™-type recycling reward systems, investment tax credits/deductions, technical assistance grants, market development matching grants, program development matching grants, and business recognition systems.

The issue of the quantity of solid waste imported from other states and Canada (out-of-state waste) has become more predominant in the past several years. While Michigan counties are required to plan for disposal of their own solid wastes, the Interstate Commerce Clause of the United States Constitution prevents state and local governments from limiting imports of out-of-state waste. There are many reasons, economic and legal, for this situation. The resolution of this matter is currently being considered by the Michigan Legislature and the United States Congress.

Ensuring that the roles of individual units of government are clearly defined and adequately funded and their actions are consistent with one another

To ensure that the roles of individual units of government are clearly defined, Michigan should:

- 1. Identify the tasks and duties necessary to sustain a comprehensive solid waste management strategy.
- 2. Assign roles for the development and implementation of Solid Waste Management Plans according to the following principles:

The state undertakes actions that cannot be handled at the local level.

- Ensure statewide standards are met
- · Ensure accountability
- · Set goals and minimum criteria
- · Facilitate information sharing among local units of government
- Provide tools
- Facilitate solutions to conflicting roles
- Ensure that the format, criteria, and guidance for developing Solid Waste Management Plans are flexible and consider the needs and resources of individual planning areas
- Serve as an information clearinghouse for emerging technologies, practices, and funding opportunities

The local (regional, county, and municipal) units of government are primarily responsible for the delivery of services to citizens.

- Determine how best to select from among available alternatives
- Determine how best to collaborate with other entities (public/private)
- Enforce and administer county Solid Waste Management Plans and related solid waste programs
- Ensure appropriate disposal and utilization capacity through the solid waste management planning process

To ensure that various units of government are equitably able to financially fulfill their responsibilities, Michigan should:

- 1. Identify and implement a sustainable and equitable funding mechanism(s) to provide for a minimum level of solid waste management activities identified by the state.
- 2. Develop and encourage the use of effective local funding mechanisms.
- 3. Encourage development of financial and other incentives to promote collaboration.



Individual units of government, including municipal, township, county, and state government, play an important role in facilitating the sustainable management of solid waste in Michigan. Clearly defining each governmental unit's responsibilities will aid the development of sustainable solid waste management practices. Furthermore, adequately funding the roles of all levels of government is crucial to ensuring that the different responsibilities are accepted and fulfilled. Collaboration and cooperation will help to ensure that the actions of all levels of government are consistent with one another.

A sustainable and equitable funding mechanism is one that is implemented in consideration of its economic, environmental, and social impacts and in accordance with Michigan law and related court decisions. A variety of funding mechanisms are needed to ensure Michigan has the ability to sustainably manage our solid waste. Each community should have access to a variety of equitable funding mechanisms and then be able to determine the best options for funding solid waste management activities that meet or exceed established standards. Those responsible for solid waste management are accountable for expenditures and for otherwise achieving cost-effective objectives.

Only through collaboration will communities be able to capitalize on global recycling markets that often depend on large, steady volumes of clean recyclable material. Economies of scale are realized when communities work together to develop the infrastructure necessary to collect and process recyclable material. Developing strategies and plans and educating citizens collaboratively improves efficiency and wise resource use.



REGULATING SOLID WASTE ACTIVITIES _____

To ensure solid waste policies and laws minimize unintended consequences and are predictable enough to encourage decisions consistent with the preferences yet flexible enough to provide for individual and changing circumstances, Michigan should:

- 1. Implement and maintain a system that provides for input from all affected parties in the development of, revisions to, and administration of policies, laws, and regulations. This system should utilize necessary and available data and information regarding economic vitality, ecological integrity, and quality of life consistent with this Solid Waste Policy.
- 2. Establish a standing Solid Waste Policy Advisory Committee to advise the MDEQ and help guide implementation of this Solid Waste Policy.



It is important that all stakeholders who are impacted by solid waste management policies, laws, and regulations be provided the opportunity to offer input.

The Solid Waste Policy Advisory Committee will meet regularly to advise the MDEQ on implementation of the Solid Waste Policy and facilitation of sustainable waste management practices. The Solid Waste Policy Advisory Committee may create subcommittees with additional members having needed expertise to help advise the Committee on technical-related issues.

APPROPRIATELY USING REGULATORY REQUIREMENTS, EDUCATION, AND FINANCIAL INCENTIVES TO ENCOURAGE CHOICES CONSISTENT WITH THE MANAGEMENT PREFERENCES

To encourage choices consistent with the management preferences, Michigan should:

- 1. Facilitate access to accurate and easy-to-use information about the consequences of alternative choices.
- 2. Develop and promote incentive systems to increase participation in waste utilization programs.
- 3. Consider a disposal ban for a material that presents significant and avoidable harm if there are acceptable alternatives such that the ban would not result in an unacceptable increase in illegal disposal.
- 4. Consider a disposal ban for a large volume, easily recycled material that has high resource potential, provided there is a well-developed market and collection infrastructure.
- 5. Consider deposit systems or equivalent for high risk or large volume products only if they would create an efficient, effective, and equitable collection and utilization infrastructure.
- 6. Facilitate waste utilization in recreational and other public settings.
- 7. Prohibit within an implementable time frame the on-site burning or burying of household refuse.
- 8. Consider a product ban if Michigan cannot effectively prevent significant threats to public health and the environment associated with its management as a solid waste.
- 9. Expand and improve information and education programs by:
 - a. Developing and making available a statewide message on waste utilization that can be appropriately tailored and presented to different audiences.
 - b. Including information on the economic development potential of waste utilization.
 - c. Using a variety of tools and media.
 - d. Developing a means to evaluate effectiveness.
 - e. Addressing key audiences such as local decision-makers, industry, retailers, residents, and students.
 - f. Supporting coordinated and collaborative efforts at the local level.

Making proper choices regarding solid waste management options is important if Michigan is to sustainably manage its solid waste. Encouraging choices consistent with the management preferences can be accomplished through regulatory requirements, education, and financial incentives.

In order to encourage choices consistent with the management preferences, Michigan residents, businesses, organizations, and government bodies must have accurate and easy-to-use information about the consequences of alternative choices. Each choice may have both positive and negative consequences. Each must be evaluated for its impact on economic, environmental, and social resources. All residents, businesses, organizations, and government bodies play a role in sharing information to help encourage proper choices.

It is important to recognize the appropriate circumstances under which the strong steps of disposal bans should be considered, especially given the risks of illegal disposal to Michigan's environment. A disposal ban for a material that presents significant and avoidable harm should be considered only when alternative management options limit the potential for an unacceptable increase in illegal disposal or unsafe storage. A disposal ban for large volume, easily recycled materials that have high resource potential should be considered only if sufficient markets and collection infrastructure exist that are convenient throughout the state.

Regarding deposit systems, the administration costs, the efficacy of voluntary vs. mandatory deposit systems, and comparisons to alternative recycling systems should be addressed. A deposit system for a high risk or large volume product should be considered only if it would create an efficient, effective, and equitable collection and utilization infrastructure. The on-site burning or burial of household refuse is a common practice that is unnecessary once a community's residents have convenient access to safer more sustainable disposal or utilization options. Prior to implementation of the ban, enough time is needed to be able to inform Michigan residents of alternative utilization or disposal options. This Solid Waste Policy recognizes that "convenient" may have different meanings throughout the state.

Under circumstances where a solid waste cannot be managed in a way that effectively prevents significant threats to public health and the environment, a product ban should be considered. As with all solid waste management decisions, the impacts to economic, environmental, and social resources must be evaluated.



DEVELOPING AND IMPLEMENTING AN EFFECTIVE SYSTEM TO COMMUNICATE, MONITOR, EVALUATE, AND MODIFY THE SOLID WASTE POLICY AND ITS IMPLEMENTATION

To identify improvements in solid waste management as well as evaluate progress toward achieving solid waste management goals, Michigan should:

- 1. Develop and implement an effective and efficient data collection system for measuring solid waste generation, reduction, utilization, and disposal. The system should:
 - · Consist of data collected locally and aggregated statewide
 - · Analyze and evaluate data to benchmark achievement of sustainability standards
 - · Characterize waste streams at time of disposal
 - Measure and track trends on the magnitude and percentage of solid waste generated, reduced, utilized, and disposed
 - · Protect proprietary information
 - Avoid double-counting
 - Be consistent with national programs and standards
- 2. Evaluate the implementation of this Solid Waste Policy every five years and recommend appropriate changes through a report prepared by the MDEQ Director. The report should be based upon the work of the Solid Waste Policy Advisory Committee with input from other interested parties.



It is important that this Solid Waste Policy be continually communicated, monitored, evaluated, and modified. Measuring and benchmarking the actions toward more sustainable management of solid waste in Michigan is important in evaluating the Solid Waste Policy's effectiveness. Also, developing a system to periodically modify the Solid Waste Policy will keep it a current and useful document.

ATTACHMENT 1 SOLID WASTE POLICY ADVISORY COMMITTEE MEMBERS

Affiliation	<u>Name</u>
Butzel Long	Ms. Susan Johnson
Delta Solid Waste Management Authority/Upper Peninsula Recycling Coalition	Mr. Don Pyle
Kent County Department of Public Works	Mr. Doug Wood and Mr. Bill Allen
Michigan Association of Counties	Mr. Tom Hickson and Mr. Ben Bodkin
Michigan Chamber of Commerce	Mr. Doug Roberts, Jr.
Michigan Manufacturers Association	Mr. Michael Johnston
Michigan Recycling Coalition and Clinton County	Ms. Cara Clore
Michigan Recycling Partnership	Ms. Mary Dechow and Mr. Bill Lobenherz
Michigan Townships Association	Mr. Tom Frazier and Ms. Catherine Mullhaupt
Michigan United Conservation Clubs	Mr. Paul Zugger
Michigan Waste Industries Association	Mr. Dan Batts, Mr. Terry Guerin, Mr. Tom Horton, Mr. Steve Essling, and Ms. Stephanie Glysson
Northeast Michigan Council of Governments	Ms. Diane Rekowski
Northwest Michigan Council of Governments	Ms. Patty O'Donnell
Resource Recovery and Recycling Authority of Southwest Oakland County	Mr. Michael Csapo
Resource Recycling Systems, Inc.	Mr. James Frey
Small Business Association of Michigan	Mr. Barry Cargill (formerly of) and Mr. Mark Cleavy
Sustainable Research Group	Mr. William A. Stough and Mr. Clinton Boyd



ATTACHMENT 2 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY STAFF

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