

Recycling makes dollars and sense for Michigan Industry



Automobile bumpers are stored in bales. The plastic components are removed and ground into feedstock for new bumpers. American Commodities Incorporated, Flint, MI.



Steel automobile bodies are crushed, stacked, and shipped off to a recycler. Steel Recycling Institute.



A scarab turner manages a windrow of compost from biosolids. Eagle Ottawa Newago Farms, Walkerville, Michigan.



Haworth makes close to \$1 M from sales of recyclables and avoided disposal. Haworth Inc., Holland, MI.



Pallets are collected for refurbishment, reuse, or recycling into new products. Eagle Ottawa Leather Company, Grand Haven, Michigan.

Michigan industries have a long record of recycling. That's because recycling can generate revenue while lowering disposal costs. Business and industry recycle internally, as well as generate large volumes of solid and liquid wastes that are taken off-site for re-use and recycling. Data does not exist yet that measures exactly how much metal fines, plastic regrind, sludge, solvents, slurries as well as paper, glass, steel, aluminum and organic residuals are recycled by Michigan industry. Yet it is certain that recycling of these wastes substantially contributes to Michigan's economy and environment. In fact, recycling of industrial wastes - like construction and demolition debris, manufacturing waste and old automobiles - represents the majority of materials recycled each year in Michigan.



For additional information, please contact:

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For more information about recycling in Michigan and the work of the MRC, or for the complete Michigan Recycling Measurement Project report, please visit: www.michiganrecycles.org

Generous assistance and data provided by the Michigan Department of Environmental Quality, <http://www.michigan.gov/deq>.

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Recycling in Michigan

An industry that sustains the economy and environment

Waste paper is sorted and baled for transportation to end-users. Louis Padnos Iron & Metal, Grand Rapids, Michigan.

Michigan's recycling industry is a diverse network of public and private sector entities. These companies range from traditional businesses such as recyclable material haulers, metal scrap yards and paper mills to innovative enterprises such as plastic lumber manufacturers and waste electronic and electrical equipment demanufacturers. Working together, Michigan's recycling industry recovers and transforms discarded materials and wastes into diverse and valuable products. These activities spark benefits that nourish Michigan. Recycling creates jobs, generates revenues, and encourages capital investments, all of which stimulates the economy. At the same time, recycling sustains the environment by decreasing pollution, saving energy, conserving natural resources, and reducing greenhouse gas emissions.

The Michigan Recycling Measurement Project conducted by the Michigan Recycling Coalition (MRC) in partnership with the U.S. Environmental Protection Agency, clearly demonstrates the value of the recycling industry to this Great Lakes State. The project included the first comprehensive study of the amounts and types of municipal solid waste handled annually by recyclers and also focused on quantifying the economic contributions made by recycling processors. The following is a snapshot of information that can be found in the full report on the Internet at: www.michiganrecycles.org.

Diverting resources from disposal into manufacturing of new products makes recycling a **CLEAN** and **GREEN** industry

The State's recycling industry is an integrated system of businesses that collect, process, and manufacture with recycled commodities. These valuable materials are gathered from Michigan residents, commercial businesses, and institutional and industrial operations. Local governments, non-profit groups and private businesses collect recyclables from residential, commercial and institutional sources. Waste from these sources is referred to as municipal solid waste or MSW.

Statewide, Michiganders have access to 725 curbside and drop-off recycling programs for MSW. Residents are also able to subscribe to curbside service with private haulers in more populated regions of the state. Cumulatively, these programs divert more than 2.5 million tons of waste from disposal into landfills or incinerators each year. This amounts to 20% of all of municipal solid waste generated annually statewide.



Residential drop-off for magazine collection. Granger III & Assoc., LLC, Lansing, Michigan.



A bale of PET beverage containers. American Plastics Council.



Newspaper sort line. Great Lakes International Recycling, Roseville, MI.

Recycling fuels the economy and generates revenues



Michigan's recycling industry creates a substantial positive impact on the State's economy. Recyclable materials processing, a component of the recycling industry, generates nearly \$2 billion dollars in revenue from the sale of recycled commodities each year. Processors employ more than 5,000 people with a total annual payroll of over \$137 million.

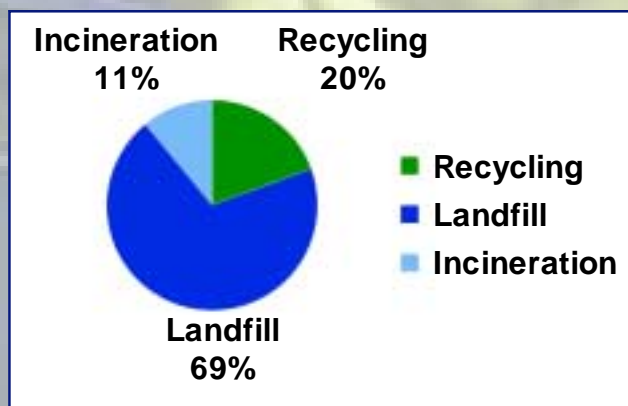
And this is just the beginning!

The Recycling Measurement Project examined the activities of recycled material processors. Yet this is only one of three sectors within the industry.

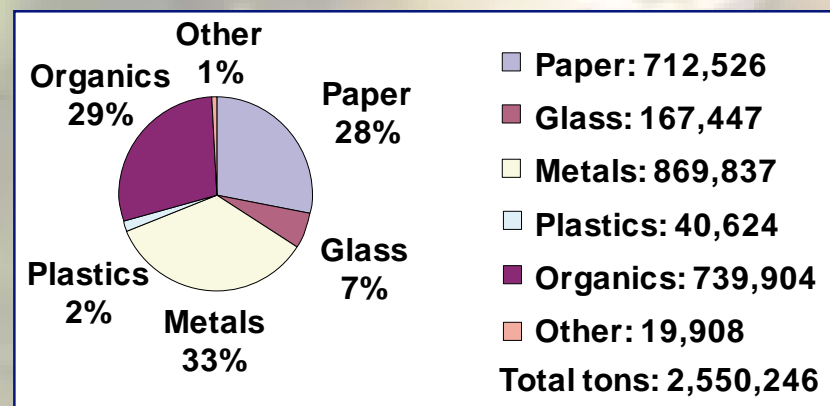
*Collection: Curbside collection in Southfield, Michigan. Regional Resource Recovery Authority of Southwest Oakland County (RRRASOC).
Processing: Operator moving paper to be baled. RRRASOC.
Manufacturing: A reel of finished paper, weighing 2.5 tons, will be cut to customer specifications. Manistique Papers, Manistique, Michigan.*

Material collectors and manufactures that use recycled feedstocks work closely with processors to make recycling work. The activities of these two sectors generate jobs and revenues that contribute to Michigan's economy. The flow of goods and services to and from secondary industries that support recyclers further generates economic benefits. The Measurement Project indicates that for each job created by recycling processors, an additional job is created in other industries. Recyclers further sustain the State's economic health, when acting as consumers, they purchase goods, services, and make investments. When all of these factors are taken into account, it is clear that recycling is a vital and growing part of Michigan's economy!

Where Michigan's waste stream flows:

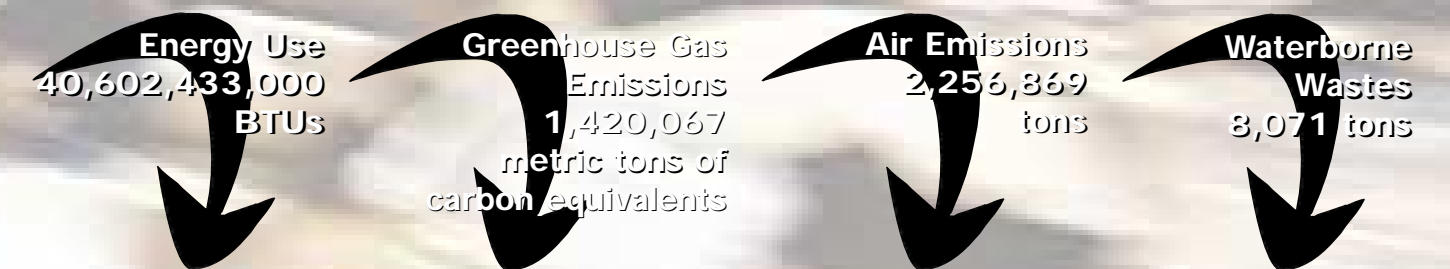


Michigan municipal solid waste management overview (1999/2000 figures)



Michigan municipal solid waste recycled annually (1999/2000 figures, in tons)

Michigan recycling annually reduces:



Sources: "Greenhouse Gas Emissions from Management of Select Materials in Municipal Solid Waste," USEPA, September 1998. U.S. Census Bureau. USEPA revised WARM model, June 1999. National Recycling Coalition calculator, 2001.

Picture inset: Cardboard sort line. Waste Management Recycle America, Grand Rapids, Michigan.