

# Update

May 2008

2006 and 2007 Solid Waste Update

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### The City of Midland Landfill

4311 E. Ashman St.  
989.839.9577

**Open Weekdays**  
8 a.m. – 4 p.m.

**Saturdays**  
8:30 a.m. – noon  
(March – November only)

Household refuse, yard waste, construction and demolition waste can be brought directly to the City of Midland Landfill. With a valid Midland County driver's license, each resident is allowed to bring one free load per month of up to three cubic yards of refuse.

## Waste Management is Vital to Our Community

Refuse collection at the curb may seem the same, but the methods of final burial will be changing over the next few years due to cutting-edge technology. The changes are paramount in working toward the goals developed by the Midland County Solid Waste Management Committee (MCSWMC) in the County's Solid Waste Plan to promote safe, healthy, regulatory-complaint and cost-effective disposal of waste.

The primary focus of the Solid Waste Plan is resource and energy recovery, maintaining a high-quality environment, and addressing public health concerns through education, expanded recycling programs and long-term waste management planning. Waste diversion and segregation are fundamental to reducing the environmental impact of waste disposal. Finding ways to recycle unwanted materials can result in new products and even revenue, as is the case with paper, plastic, metal, and yard waste.

But beyond that, how can the way we dispose of waste be made beneficial?

How can we turn a liability into an asset? For nearly a year, the disposal site for Midland County residential and industrial waste - the City of Midland Landfill - has been working toward wet cell technology and a landfill gas-to-energy process. These two programs will add to an already positive outlook for managing waste in Midland County, where roughly 50 years of disposal space remain using current practices.

**Wet cell technology:** This technology involves reintroducing waste liquid - called leachate - into the waste previously buried in the landfill cell rather than sending it to the Wastewater Treatment Plant. Leachate is generated from waste decomposition and rain water, and is collected at the bottom of landfill cells. Leachate helps decompose the waste faster, and allows it to settle and compress, making more space available for disposal. The logic is simple: consider a dry newspaper sealed in a Ziploc bag versus the same kept moist in open air. Clearly, the dry newspaper will take much longer to decompose.

**Gas-To-Energy:** Wet cell technology is directly linked to the landfill gas-to-energy process, because faster decomposition generates landfill gas more quickly. Before leachate is reintroduced, a gas vacuum collection system must be in place to collect the increased amount of landfill gas. The collection system serves two important functions:

- 1) The collected gas is destroyed prior to leaving the site so odor concerns are controlled.
- 2) The collected landfill gas is approximately 50 percent methane, which can be used to generate electricity or stripped from the waste gas stream,



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which also includes nearly 50 percent carbon dioxide and less than one percent of odorous impurities. The electricity or purified gas can be used or sold to local companies and/or energy providers.

One more project that will extend the life of Midland's current landfill site is a Type III waste cell, which would accept non-decomposing wastes such as building materials, concrete, treated lumber, and other items. By diverting these materials to a separate cell, additional efficiency can be achieved within the wet cell and gas-to-energy projects.

As you read on, you will see that recycling continues to be an important part of Midland's waste collection system. Composting, metals recycling, concrete and asphalt reuse continue as part of the landfill's operations. And, with continued support, the household hazardous waste collection and tire disposal program conducted by the County and City will continue next year.

The Solid Waste Plan was written in accordance with Michigan Department of Environmental Quality-Waste and Hazardous Materials Division (MDEQ-WHMD) guidelines, with input from City, County, industrial and residential representatives, and has been approved by all City and Township boards in Midland County. The Solid Waste Plan is being updated to include the programs discussed above: wet cell technology, gas-to-energy, and a Type III waste cell. You can review a complete copy of Midland County's current Solid Waste Plan at the Grace A. Dow Memorial Library. If you should have questions or need further information after reading this newsletter, please visit the City website at [www.midland-mi.org](http://www.midland-mi.org) or contact the City at the number below.

Sincerely,

Noel Bush

Midland County Solid Waste  
Management Committee  
(989) 839-9577



# Taking a Look at the Landfill's History

The City of Midland has operated a sanitary landfill since the 1960s. Prior to 1980, the City-operated landfill only accepted refuse collected from city residents; Midland County refuse was disposed of in small dumps around the county. In an effort to minimize the number of landfill sites and maximize efficiency, Midland County and the City of Midland agreed to a plan that would allow the County's waste to be deposited in the City's landfill.

Operating a "closed county" landfill, the City of Midland landfill accepts non-hazardous solid waste generated by Midland city and county residents and businesses only. Waste collected outside of Midland County is disposed of at other landfill locations outside of Midland.



## Waste Disposal Options

### ...in the City of Midland

Within the city of Midland, the City's Department of Public Services (DPS) is responsible for the weekly collection of all household refuse, brush, leaves and grass left at the curb. Recyclables such as newspapers, cardboard, glass, plastics and metal containers are collected curbside every other week by a private contractor. Heavy items such as refrigerators or mattresses are collected curbside once per month in each of the city's four collection zones. DPS produces a handy refrigerator magnet that identifies your zone's recycling week. To obtain a recycling magnet or for information on refuse or recycling collection dates and proper curbside placement in each zone, please

contact DPS at (989) 837-6900 or refer to the City's website at [www.midland-mi.org](http://www.midland-mi.org). In addition, a map of the City's four collection zones can be found online.

### ...for Township Residents

For each township in Midland County, waste collection is competitively bid by contractors to ensure that township residents receive responsive and cost-effective service. Each township's contract determines whether curbside recycling, heavy item, brush, grass and leaves collection will be included.

Please contact your local township office for specific information on waste disposal within your township.



# Recycling Drop-Off Centers

In addition to curbside collection of recyclables throughout the county, residents also have access to direct drop-off sites...

## **The Midland Area Recycling Center (MARC)**

4305 E. Ashman St.  
(located at the Sanitary Landfill)  
(989) 631-1668  
[www.midlandrecyclers.com](http://www.midlandrecyclers.com)

### **Hours of Operation:**

Monday – Friday . . . . . 8 a.m. until 4 p.m.  
Wednesdays . . . . . 8 a.m. until 6 p.m.  
Saturdays . . . . . 9 a.m. until 1 p.m.

The Midland Area Recycling Center (MARC) is a non-profit organization run by the Midland Volunteers for Recycling (MVFR). MARC offers residential drop-off and programs for commercial / industrial recycling. MARC also sponsors scrap tire collections each year. In both 2006 and 2007 MARC collected nearly 3,000 tires to be reused as fuel in Michigan industry.

For more information about MARC or MVFR, or for an appointment for scrap tire collection, call (989) 631-1668 or visit the following website at [www.midlandrecyclers.com](http://www.midlandrecyclers.com).

MARC Recycles: Paper (corrugated cardboard, cereal and boxboard, office paper and mail, magazines and catalogs, newspapers, newspaper inserts, phone books); Plastic (#1 bottles, # 2 bottles, Plastic Bags, beverage loop carriers, vinyl siding, polystyrene foam); Metal (steel or tin cans, aluminum); Glass (clear and lightly tinted green containers); Ni-cad, rechargeable, and auto and marine batteries; ink jet cartridges; returnable cans and bottles.

## **Brady News and Recycling**

3240 Schuette Rd.  
(989) 496-9900

### **Hours of Operation:**

Monday – Friday . . . . . 8 a.m. until 5 p.m.

Brady offers residential drop-off and programs for commercial/industrial recycling. Brady Recycles: Plastics (#1 and #2 containers excluding used oil and anti-freeze containers); Metals (steel, aluminum, and others – call ahead to verify); newspapers; corrugated cardboard; office paper; mail; magazines; phone books; and catalogs.

# Educate to Eliminate



With the goal of maintaining a high-quality environment, Midland County's Solid Waste Plan emphasizes education and environmental monitoring.

We appreciate and support the efforts of local recycling centers like Brady News and MARC, which advertise their operations to encourage public participation in recycling opportunities.

MARC is supported through volunteers. MARC coordinates free educational tours of the recycling center and landfill for students from preschool to college. The tours focus on recycling as a low-cost and environmentally responsible alternative to disposing of waste in landfills. Students bring recyclables from home and do hands-on sorting at the recycle center.

Visiting the sanitary landfill teaches students about the waste disposal process and points out opportunities that are available daily to reduce, reuse and recycle. The students receive a 'compost kit' consisting of informational brochures and a small cup of compost that was once grass and leaves destined for a landfill.

During these tours, as many as 600 students each year see the direct benefits of recycling.



# Hazardous Material Disposal Information & Collection Dates

Renew your personal commitment to the environment by calling the Midland County Health Department, (989) 832-6681, for a Household Hazardous Material drop-off appointment. Or visit the County's website at [www.co.midland.mi.us](http://www.co.midland.mi.us) for more information about this environment-friendly program. Contact the Midland County Health Department for this year's schedule of collection dates.

Some household hazardous materials can lead to contamination of groundwater, well water or other water sources when spilled on the ground, poured down the drain or placed in trash containers. To prevent this, The Dow Chemical Company's Michigan Operations will coordinate proper and safe disposal of materials in a licensed hazardous waste incinerator. This is your opportunity to safely and properly dispose of most hazardous materials you may have in your home including:

## Automotive Products

Spray paint  
Auto polishes  
Battery acid  
Transmission fluid

## Cleaning Products

Drain cleaners  
Floor waxes  
Furniture polishes  
Bleach and ammonia products  
Oven cleaners  
Solvent and degreasers

## Personal and Health Care Products

Hair sprays  
Dyes  
Shoe polish  
Aerosols  
Nail polishes and removers  
Outdated or unused liquid medications

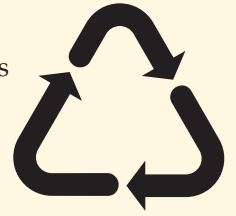
## Paint Products

Paint thinner  
Oil-based paints

Brush cleaners  
Paint strippers  
Spray cans  
Lacquers and varnishes

## Garden Products

Bug sprays  
Ant poisons  
Insecticide powders  
Fertilizers  
Weed killers  
Poisoned baits



# Resource and Energy Recovery

Recycling and reusing are two great ways to reduce the amount of landfill space taken up with what can turn out to be useful "trash". To encourage these practices, Midland County participates in various resource recovery efforts...

...City curbside waste collection includes recyclables collection. Every second week, residents can place various recyclables including metal, plastic and paper products in a specially marked container at their curb on the same day as their weekly refuse collection. The recyclables are separated at a sorting facility that sells the materials to industry for reuse. Nearly 10,000 cubic yards of recyclables are collected county-wide each year.

...recycling centers such as the Midland Area Recycling Center and Brady News and Recycling recycle a combined total of over 10,000 cubic yards of goods annually.

...within the City Landfill, metal goods have a separate unloading area where the material is collected for recycling. Customers are encouraged to separate their loads when feasible to reduce waste volumes entering the landfill. During 2006 and 2007, 1,800 cubic yards of metals were diverted from the landfill.

...vehicles containing loads of clean, unpainted and dirt-free concrete or asphalt waste also have a separate area for disposal. The concrete is later crushed into recycled concrete gravel for road building and repair. The asphalt is used to help maintain haul roads inside the active landfill. Because of this recycling process, each year, 3,000 cubic yards of concrete and 1,000 yards of asphalt are diverted from the landfill.

...a large-scale composting operation is located at the landfill. Brush, leaves and grass clippings brought to the landfill in

kraft paper bags are shredded and mixed into piles that break down over time into a humus-like product. This product is used to improve drainage and vegetation growth on City land. Compost has been used for projects such as erosion control, the final cover for closure of landfill cells 1-13 and replenishing top soil stripped from the site for other jobs. Roughly 40,000 loose cubic yards of material are diverted from the landfill each year through the composting operation.

...gases are part of the landfill's energy and resource recovery plan. Freon gas is removed from appliances such as refrigerators, air conditioners and dehumidifiers by a certified contractor and reused to recharge active compressor systems. Freon gas is removed from hundreds of appliances annually.

...the annual compacted waste generated in Midland County was 343,000 cubic yards in 2006 and 341,000 cubic yards in 2007, compared with 291,000 cubic yards in 2005. The increase in volume over the past two years was primarily the result of contaminated soil disposal, most of which results from gas stations and oil field remediation projects. The landfill is authorized by the MDEQ to handle contaminated soils. These soils, while contaminated with petroleum products, are not harmful to our landfill. The result of abnormal soil disposal was a reduction from thirty down to twenty-seven percent of Midland County's waste being either reused or recycled in 2006 and 2007. The reuse and recycling includes spent foundry sand used as daily landfill cover in addition to the volumes mentioned previously for MARC, Brady, City recycling, concrete and asphalt rubble, and compost and scrap metal recovery at the landfill.

