West Michigan Sustainable Business Forum and Grand Valley State University worked with Michigan recyclers and waste companies to analyze the composition of municipal solid waste currently landfilled and incinerated in Michigan and Muskegon County, and the economic value of this material.

We found that most Muskegon material currently being disposed of in landfills could be recycled or composted without great difficulty where such services are available:

- 42% Standard Recycling: Numbered Plastic, Glass, Paper, Metal
- 32% Compostable: Food and Yard Waste, Compostable Paper, etc.
- 13% Recyclable with effort: Textiles, Bulk Items, E-waste, Soil, Hazardous
- 13% Not Recyclable: Miscellaneous Inorganic Waste, Foam Plastic

### Waste Sort Host Sites
- South Kent Landfill
- North Kent Transfer Station
- Kent Co.Waste to Energy Facility
- Elk Run Landfill
- Central Sanitary Landfill
- Muskegon County Landfill
- Oakland Heights Development
- Ottawa County Farms

### Top Materials in Muskegon MSW Composition
(mean % by weight - 5% or greater)

<table>
<thead>
<tr>
<th>Material</th>
<th>% of Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Waste</td>
<td>12.3%</td>
</tr>
<tr>
<td>Inorganics</td>
<td>11.8%</td>
</tr>
<tr>
<td>Mixed Paper</td>
<td>10.5%</td>
</tr>
<tr>
<td>Other Organics</td>
<td>9.7%</td>
</tr>
<tr>
<td>Corrugated</td>
<td>8.9%</td>
</tr>
<tr>
<td>Wood</td>
<td>6.8%</td>
</tr>
<tr>
<td>Electronics</td>
<td>5.2%</td>
</tr>
<tr>
<td>Textiles</td>
<td>5.1%</td>
</tr>
<tr>
<td>Other Plastic</td>
<td>4.7%</td>
</tr>
<tr>
<td>Plastic Packaging</td>
<td>4.7%</td>
</tr>
</tbody>
</table>

Total material value of MICHIGAN MSW disposed in landfills and incinerators: $368 MILLION

Total material value of MUSKEGON MSW disposed in landfills and incinerators: $7.2 MILLION

Potential Economic Value: $7.8 MILLION  Potential Employment Value: 51 JOBS
Recommendations
Efforts to increase the recycling rate in Michigan or Muskegon should first focus on the 42% of materials that have market value, which would include all standard recyclable commodities but glass, plus textiles.

1. Aggressively promote efforts to increase recovery of corrugated cardboard, prioritizing commercial audiences.
2. Support efforts to increase availability and usage of conventional recycling programs with a goal to increase recovery of non-corrugated paper products, metal, and high-value plastic resins HDPE and PET.
3. Through recovery or source reduction, decrease quantity of electronic waste disposed in Michigan landfills by half.
4. Promote source reduction and diversion of food waste.
5. Promote source reduction of low-value plastic resins.
6. Initiate efforts to increase recycling channels for textiles and promote availability of textile recycling.
7. Educate the public on the financial difficulties of recycling and waste diversion.
8. Pursue opportunities for further study highlighted in the study.

View the full report at wmsbf.org/msw