About EREF

The mission of the Environmental Research & Education Foundation (EREF) is to fund and direct scientific research and educational initiatives for waste management practices to benefit industry participants and the communities they serve.

EREF’s Data & Policy Program

EREF’s Data & Policy Program was developed as part of the foundation’s effort to expand its mission to advance knowledge and education for sustainable solid waste management. The primary objective of the Data & Policy Program is to aggregate and analyze solid waste data. The program also provides valuable experience to undergraduate and graduate students who assist in data gathering and analysis. Fees charged for this report are used to support internships to college students who assist in data gathering and analysis efforts.
ACKNOWLEDGEMENTS

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James Wallace

The countless state agency personnel and facility owners and operators who provided key data necessary for this project.
EXECUTIVE SUMMARY

Each year, a significant amount of municipal solid waste (MSW) is generated in the United States and subsequently managed via various strategies and endpoints (e.g. landfilling, incineration, recycling, composting). To estimate the total tonnage of MSW managed in the U.S., in 2010 and 2013, the Environmental Research & Education Foundation (EREF) implemented a facility-based methodology. As part of this effort, MSW management facilities were documented and data were aggregated into state, regional, and national statistics, totaling 342.6 million tons of MSW managed in 2010 and 347.0 million tons of MSW in 2013. To identify facilities and quantify tonnage, MSW was defined according to the U.S. EPA definition; details are available in the *MSW Management in the U.S.: 2010 & 2013* report (EREF, 2016).

The lists of facilities provided here were identified as actively managing MSW in 2010 and/or 2013. All efforts were made to collect accurate information, including: federal, state, and private facility databases, telephone and e-mail contact, and facility websites. Information presented represent the state of facility operation in 2010 and 2013 to the best available historical information, and in many cases may change over time.

For 2013 a total of 9,028 facilities managed MSW, comprised of: 3,913 recycling facilities, 3,494 composting facilities, 1,540 MSW landfills, and 81 waste-to-energy (WTE) plants. Ownership trends varied by facility type, with over two-thirds (65%) of MSW landfills being publicly-owned while the majority of recycling, composting, and WTE facilities were privately-owned.

Note: The published facility lists are provided without warranty of any kind, either expressed or implied, and are presented “as is”. EREF is not liable in the event of any damages in connection with or arising from provision or use of these Facility Lists. Note that these lists are routinely updated and may not match exactly information provided in EREF’s “Municipal Solid Waste Management in the U.S.: 2010 & 2013” since additional information may have become available since that report’s initial publication.
Facility Information. These facility lists provide the following publicly-available information for the 9,028 facilities identified (Table ES-1):

- **State**: State in which the facility is located
- **Facility Name**: Name of the facility
- **Owner/Operator Name**: Name of the owner or operator, when available, *recycling only*
- **City**: City in which the facility is located
- **Ownership**: Facility ownership (public or private)
- **Operator**: Facility operator (public or private), *waste-to-energy only,*
- **Facility Type**: Type of facility (RDF or mass burn), *waste-to-energy only,* or (MRF or non-MRF), *recycling only*
- **MSW Materials Accepted**: Type(s) of MSW accepted at the facility, *composting only*
- **Non-MSW Materials Accepted**: Type(s) of non-MSW accepted at the facility, *composting only*

**Table ES-1. Facility Count Comparison to Previous Industry Estimates**

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>EREF (2013 data year)</th>
<th>Previous Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Facility Count</td>
<td>Data Year</td>
</tr>
<tr>
<td>Recycling</td>
<td>3,913</td>
<td>1,652&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>MRFs</td>
<td>799</td>
<td>590&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Composting</td>
<td>3,494</td>
<td>3,285&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Landfills</td>
<td>1,540</td>
<td>1,802&lt;sup&gt;a,d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Waste-to-Energy</td>
<td>81</td>
<td>94&lt;sup&gt;e&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,028</strong></td>
<td><strong>6,833</strong></td>
</tr>
</tbody>
</table>

<sup>a</sup>From Waste Business Journal (2014)
<sup>b</sup>From Berenyi (2007).
<sup>c</sup>From ILSR (2014)
<sup>d</sup>Includes C&D landfills
<sup>e</sup>Includes non-MSW incinerators such as medical waste incinerators

Facility information was collected from a variety of sources, including:

- Federal facility databases (e.g. LMOP, GHG reporting database)
- State agency databases and websites
- Membership and organization directories (e.g. ERC directories)
- Facility permit information
- Company and/or Facility websites
- Online mapping (e.g. Google maps)
- Newspapers and online articles regarding facility planning, operations, and closures
- Direct contact with facilities via email and phone

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Landfill
Information is presented for 1,615 landfills: 1,572 accepting MSW in 2010 and 1,540 accepting MSW in 2013. Facilities that did not accept MSW during a specific year are denoted by footnote.

Waste-to-Energy
Information is presented for 86 waste-to-energy (WTE) incinerators: all 86 managed MSW in 2010. Five became inactive by 2013, resulting in 81 active facilities for 2013. Facilities that became inactive for 2013 are denoted by a footnote.

Composting
Information is presented for 3,514 composting operations with an estimated 3,340 accepting MSW in 2010 and 3,494 in 2013. When available, information on the types of MSW and non-MSW materials accepted is provided by checkboxes and/or footnotes. Composting facilities are generally subject to less stringent data tracking and reporting requirements, if any, versus landfills and WTE facilities. For this reason, MSW materials acceptance information is presented for only 2,356 composting facilities however all listed facilities are confirmed or highly suspected to have processed MSW as part of all of the feedstock during 2010 and/or 2013 based on permit type or other sources of information.

Recycling
Information is presented for 3,913 recycling facilities believed to have accepted MSW in 2013. Recycling facilities are subject to less stringent data tracking and reporting requirements, if any, and therefore facility data were unavailable from the vast majority of state agencies. Therefore, potential MSW recycling facilities were identified primarily through contact with recycling associations and by performing targeted online business searches. Once identified, facility personnel were contacted via phone and/or email to confirm if the facility processes MSW recycling. As a result, most recycling data were collected from facilities via direct contact and online survey.

Two distinct types of recycling facilities were identified in the study: (1) traditional material recovery facilities (MRFs) with highly automated sorting and baling lines; and (2) smaller material aggregators (termed “non-MRFs”) which typically perform minimal sorting, may only accept specific material types (e.g. steel and aluminum cans exclusively), and typically have limited automation of the processing line, if it is present at all. All facilities were classified as MRFs or non-MRFs to distinguish between processing facilities (i.e. MRFs) and material aggregator facilities (i.e. non-MRFs).

Classifications were made based upon publicly-available data, and ambiguities were resolved by contacting the facilities directly via telephone. Several factors were taken into account to distinguish between MRFs and non-MRFs including: types of materials accepted, quantities processed, sophistication of technologies used (e.g. manual sorting, semi-automatic, fully automatic), and the degree of source separation (e.g. single-stream, dual-stream, multiple-stream).
Table ES-2. Example Facility Types Used in Recycling Estimates

<table>
<thead>
<tr>
<th>Material Recovery Facility (MRF)</th>
<th>Non-MRF Facilities</th>
<th>Not Included in Study</th>
</tr>
</thead>
</table>
| Highly automated recycling facilities that process:  
  • Dual stream recycling  
  • Single stream recycling  
  • Mixed MSW  
  • Fiber-only or container-only recycling | Minimally automated aggregator facilities, such as:  
  • County facility with baler for source-separated recyclables  
  • Document destruction facilities  
  • Mill or remanufacture-owned sorting facilities  
  • Hauler taking source-separated recyclables directly to end user. | Drop-off dumpster locations with no on-site processing |

References


