

## #13: SOLID WASTE

### OPTIONAL METRIC FOR CATEGORY A & B & C CITIES

**Bold, green font indicates data elements that are eligible to be recognized at Step 5 if improvement is demonstrated.**

#### DATA ELEMENTS

- 13.1 Residential solid waste generated per city resident per day (lbs.)
- 13.2 Commercial solid waste generated per job per day (lbs.)
- 13.3 Percent of waste recycled
- 13.4 Percent of waste composted
- 13.5 City operations solid waste generated per year (tons)
- 13.6 City operations construction & demolition waste per year (tons)
  - Percent of construction & demolition waste reused, recycled, landfilled

#### DEFINITIONS

- **Residential** includes collection from single-family dwellings, duplexes, triplexes and four-plexes. (Element 13.1)
- **Commercial** includes multi-unit housing larger than four-plexes, retail stores, businesses other than industries, offices (including government offices), and institutions such as hospitals. (Element 13.2)
- **City operations** includes waste from city buildings and facilities including parks and drinking water plants. (Elements 13.5 and 13.6)
- **Recycled** material includes fibers (newspaper, office paper, cardboard) and containers (glass, plastic, metal). (Element 13.3)
- **Composted** material includes organic waste (kitchen/restaurant scraps) and yard waste. It also includes food to livestock programs and food donation programs, both preferable to higher-cost, higher energy composting. (Element 13.4)
- **Construction and demolition (C&D) waste** includes soil, plant material and structural debris from lot-clearing operations. (Element 13.6)
- **Reused C&D** includes deconstructed building materials such furnishings and flooring, and fill, reused in mostly their original form. (Element 13.6)
- **Recycled C&D** includes soil, asphalt and concrete processed for another use, and does not include material used as alternative daily cover (ADC) at a landfill. Note that some C&D businesses include ADC in their calculation of percent recycled C&D. (Element 13.6)
- **Excluded in these waste amounts** are household hazardous wastes and industrial wastes. (Elements 13.1-13.6)

#### DATA SOURCES

- Waste hauler reports required by city license
- County solid waste officers for county-level data in greater Minnesota
- Regional Indicators data at <http://www.regionalindicatorsmn.com/waste-chart>
- After January 2017: county solid waste officers will have data for city-level data in the 7-county metro area

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- Jobs data from North American Industry Classification System (NAICS) and the Quarterly Census of Employment Wages (QCEW) - <http://www.positivelyminnesota.com/apps/lmi/qcew/ResultsDisp.aspx> Use "Total of All Ownerships" and "Total, All Industries" and Quarter 2 data (tends to be least affected by seasonal fluctuation)

### CALCULATION AND PUBLIC REPORTING

- **Annual measurement and reporting** for these elements is based upon one calendar year's data prior to the GreenStep reporting year. It will be normalized in various ways – by person, by day, by job – and split into proportions based upon the management method used. (Elements 13.1-13.6)
- **Cities in the 7-county metro area** will begin to have this data available to them through their county solid waste officer beginning in early 2017. (Elements 13.1-13.6)
- **Cities in greater Minnesota** may choose to do what the Regional Indicators Initiative did for select cities, which is to take total county wide data and apportion waste quantities to your city based upon the city's proportion of total county population. (Elements 13.1-13.6)

### RATIONALE

The dominant model for our society's use of materials is a linear "take, make, waste" one made possible by a half-century of plentiful, inexpensive energy and the assumption that throwing stuff "away" would have no ecological or financial consequences. The "waste" part, however, is larger than we think. As a rule of thumb, every ton of garbage at the consumer end of the materials management stream has also required the production of 5 tons of waste at the manufacturing stage and 20 tons of waste at the site of initial resource extraction (mining, pumping, logging, and farming).

During the 20<sup>th</sup> century the "taking and making" part (including food) increasingly happened outside city boundaries, but when accounted for in a city consumption-based inventory, city greenhouse gases can grow 40% larger.

A more energy- and resource-efficient, pollution-reducing urban metabolism model resulting in lower GHG emissions seeks first to prevent the generation of waste and then moves to a cyclical, biological approach whereby product and waste reuse and recycling is maximized and disposal (landfilling) is minimized. In this emerging model, products and wastes are designed to be reused, and either composted or recycled. The State of Minnesota's legislatively adopted waste management hierarchy mirrors this emerging model.

City measurement and reporting of solid waste generation and management method is thus essential to generating community understanding of the need and benefits of taking actions to reduce waste generation and to manage wastes higher up on the hierarchy.

### STEP 5 TARGETS

Individual cities are best equipped to set realistic goals for improvement, and any improvement in the metrics is good.

That said, the 2014 Legislature set 2030 recycling goals as follows: (1) 35% (by weight of total solid waste generation) for a county outside of the Twin Cities metro area, and (2) 75% (60% recycling and 15% organics) for a metropolitan county. Each county will develop and implement or require political subdivisions within the county to develop and implement programs, practices, or methods designed to meet its recycling goal.

Owners of commercial property in the seven-county metro area need to make sure their buildings have recycling services along with garbage collection. This 2014 law applies to most commercial buildings that have service for 4 cubic yards (or more) of trash per week, and requires that a minimum of three material types be collected for recycling.

### NEED HELP? CONTACT

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