



UNIVERSITY OF MICHIGAN – ANN ARBOR

SUSTAINABILITY GOAL REPORTING GUIDELINES

GOAL #3

REDUCE WASTE TONNAGE DIVERTED TO DISPOSAL FACILITIES BY 40%

SECTION 1: Introduction

The University of Michigan generates more than 19,000 tons of waste annually. Approximately 35% of which is diverted from landfill through recycling and compost efforts. The remainder is shipped off site to landfill and waste disposal facilities. Programs initiated by the University designed to reduce waste tonnage sent to landfills include a Student Move Out program that has sent more than 140 tons of items to local charities, and a Stadium Recycling Program during home football games.

As announced in Fall 2011, the University of Michigan aims to reduce the amount of waste that is sent to disposal facilities by 40% by 2025. This goal is one of U-M's six sustainability goals for 2025, as announced by President Mary Sue Coleman in 2011. The goals fall under one of four themes: climate action, waste prevention, healthy environments, and community awareness. Each goal will be reevaluated periodically and may be adjusted based on variables such as changes in technology and peer university goals.

SECTION 2: Waste Overview

Responsibility for collection of waste is shared between three organizations. Waste Management Services (WMS) is an enterprise within the Plant Operations Building and Grounds Services department. WMS collects and disposes of non-hazardous waste and recyclable materials for the University of Michigan's academic and outlying properties including general fund buildings and athletics. The WMS fleet includes four 40-yard compactor trucks, two 25 cubic yard compactor trucks, a compost collection truck, a roll off truck, and a variety of other utility and transport vehicles. WMS collects more than 10,000 tons of waste annually.

The U-M Health System (UMHS) accounts for approximately 7,000 additional tons of waste per year. The hospital system operates its own independent recycling program allowing for the redistribution of unused medication, and the reuse of cell phones, eyeglasses, hearing aids, and even pacemakers.

The Occupational Safety and Environmental Health Department (OSEH) Hazardous Materials program is responsible for collection and disposal of all regulated materials on campus such as chemical and radiological waste. OSEH also collects non-hazardous regulated materials such batteries, lamp ballasts, consumer electronics, fluorescent bulbs, and oil filters.

Recycling is not the only waste prevention strategy being used at the University of Michigan. Since 1998, residence halls have been composting pre-consumer food waste and in FY2019, \$5.4 million worth of used

equipment was donated to the Property Disposition Office, where it was resold. Recent efforts to expand composting on campus have diverted in more than 1000 tons of material annually to a local composting facility. There is also a chemical redistribution program managed by the Office of Campus Sustainability (OCS) where unused chemicals can be donated to other departments.

SECTION 3: Goal Calculations

Waste diverted to disposal facilities is defined as (total waste – total recycled) as reported in the U-M Annual Sustainability Report. Total waste is defined as the sum of all waste streams (refuse and recycling) collected by WMS, UMHS, and OSEH. Total recycled is defined as the sum of all recycling waste streams.

Table 1: Refuse Waste Streams

U-M Campus Trash	Roll-off Trash	Roll-off Other	UHS Total Refuse
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Table 2: WMS Recycling Waste Streams

Campus Paper Recycled	Mixed Container Recycled	Single Stream Recycling	Food Waste Compost	Reuse Secondary Materials
Recycled Secondary Materials	Roll-off Recycled	Roll-off Wood Recycled	Roll-off Metal Recycled	Mulch

Table 3: UMHS Recycling Waste Streams

Paper Recycled	Recycled Wood	Plastic Recycled
Cardboard Recycled	Scrap Metal Recycled	Linens
Yellow Kitchen Grease Recycled	Medical Equipment	Toner Cartridges

Table 4: OSEH Recycling Waste Streams

Regulated Recycling- Batteries	Regulated Recycling- Lamp Ballasts	Regulated Recycling- Consumer Electronics
Regulated Recycling- Fluorescent Bulbs	Regulated Recycling- Oil Filters	

SECTION 4: Goal Reporting

The 2006 baseline for this 2025 goal is 13,170 tons. Calculations were completed using the equation outlined in section 3: (total waste – total recycled)

FY2006 baseline:

$$(17,867 - 4,697) = 13,170 \text{ tons}$$

FY2007:

$$(18,542 - 4,622) = 13,920 \text{ tons}$$

FY2008:

$$(19,182 - 5,129) = 14,053 \text{ tons}$$

FY2009:

$$(19,284 - 5,657) = 13,626 \text{ tons}$$

FY2010:

$$(17,682 - 5,035) = 12,647 \text{ tons}$$

FY2011:

$$(17,181 - 4,847) = 12,335 \text{ tons}$$

FY2012:

$$(17,867 - 4,806) = 13,061 \text{ tons}$$

FY2013:

$$(17,434 - 5,542) = 11,892 \text{ tons}$$

FY2014:

$$(16,962 - 4,902) = 12,060 \text{ tons}$$

FY2015:

$$(18,404 - 5,464) = 12,940 \text{ tons}$$

FY2016:

$$(19,777 - 5,698) = 14,079 \text{ tons}$$

FY2017:

$$(19,311 - 6,531) = 12,780 \text{ tons}$$

FY2018:

$$(19,922 - 7,526) = 12,396 \text{ tons}$$

FY2019:

$$(20,166 - 7,365) = 12,801 \text{ tons}$$

To achieve this goal U-M must reduce the amount of waste shipped to disposal facilities to 7,900 tons/year.

Continued monitoring of the goal status will be conducted annually and reported through the University of Michigan Annual Sustainability Report and will be available to the public via the Office of Campus Sustainability web site: <http://sustainability.umich.edu/ocs/goals/waste>.