

Solid Waste Reduction at Boston Scientific – Maple Grove

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UNIVERSITY OF MINNESOTA

Driven to DiscoverSM

Company Background

- Located in Maple Grove, MN
- Develops and manufactures medical intervention devices
- Total of 5,634 employees with ~ 3,000 employees working onsite
- Over 1,600 tons of solid waste generated in 2022 – 51.3% is diverted from landfills and incinerators

Boston Scientific

Advancing science for life™



Incentives to Change

Global Environmental, Health, and Safety committed to all sites being TRUE Certified by 2030.

- 4 pilot sites were chosen to determine how close they were to achieving certification.
- Due to Maple Grove's size and production amount, they wanted to start early.



TRUE[®] Certification

TRUE (Total Resource and Usage Efficiency) is a zero-waste certification program.

The **goal** is to **divert** all solid waste from incinerators, landfills, and the environment.

Facilities must:

1. **Attain at least 31 points**
2. **Divert 90% of their waste from landfills and incinerators**
3. **Have less than 10% contamination in their waste streams.**

Requirements	Current
At Least 31 Credits	38 Credits
90% Diversion Rate	51.3%
10% Contamination Rate	32.6%

Certification Levels

Certified: 31-37 points **Silver:** 38-45 points **Gold:** 46-63 points **Platinum:** 64-81 points

Overview of Categories & Points

Redesign	4	Leadership	6
Reduce	7	Training	8
Reuse	7	Zero Waste Analysis	5
Compost (Re-earth)	7	Upstream Management	4
Recycle	3	Hazardous Waste Prevention	5
Zero Waste Reporting	4	Closed Loop System	4
Diversion (Min 90%)	5	Innovation	3
Zero Waste Purchasing	9	Total Points	81

Solid Waste Generation

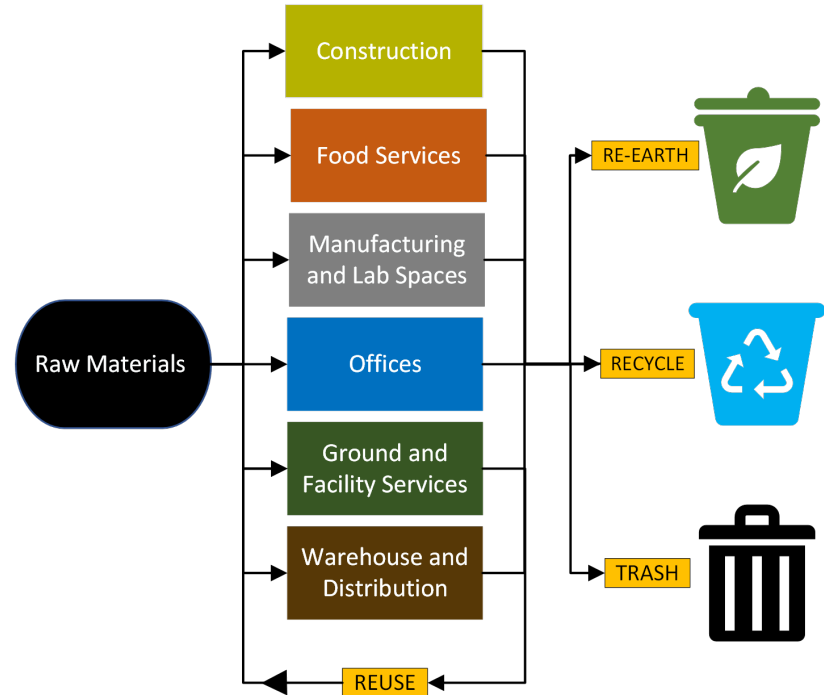
Waste Stream Analysis

1. Stakeholder interviews
2. Waste Audits
3. Data Review

Points of Generation

The largest points contributing to waste were:

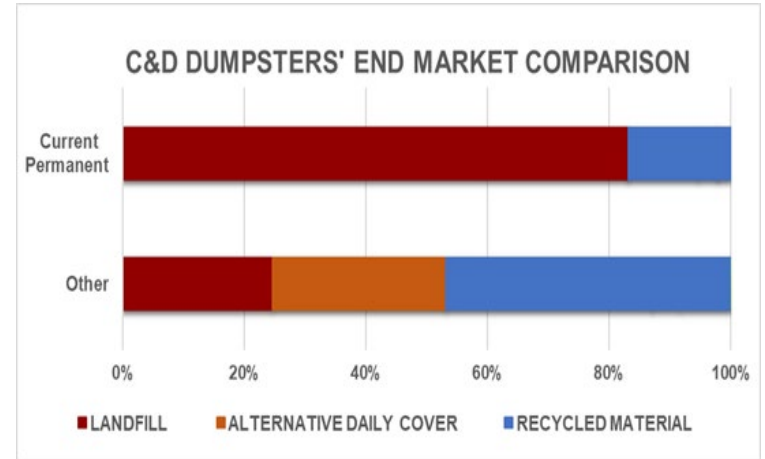
1. Manufacturing
2. Construction
3. Food Services



Construction Waste Recycling

Current Situation

- 1/8 of Boston's nonhazardous waste from ongoing construction due to continuous expansion
- 272 tons of waste generated – 198 tons went to landfill in 2022
- Two types of dumpsters:
 1. Permanent dumpster purchased by facilities
 2. Dumpsters rented by contractors
- No restrictions for choosing construction and demolition (C&D) haulers



Construction Waste Recycling

Recommendation

Establish a company-approved list of C&D haulers that have historically higher recycling rates



Waste Diverted: 83 tons per year
Diversion Rate Change: + 5.2%



Solutions

Recommendation	Annual Reduction / Diversion	Diversion / Reduction Rate Change	Total Cost	Annual Savings	Status
C&D Recycling	166,000 lbs	5.2% Diverted	TBD		Implementing
Proper education and signage	49,200 lbs	1.5% Diverted	\$5,000	TBD	Implementing
Recycling Polyethylene	10,500 lbs	0.3% Diverted	TBD	\$ 250	Recommended
Reusable Dishware	38,000 lbs	1.2% Reduced	\$85,000	\$79,000	Recommended
Recycling Disposable PPE	66,000 lbs	2.0% Diverted	\$28,600 yearly	\$2,000	Recommended

Personal Benefits

- Learning how investigate problems and brainstorming feasible solutions
- Working with individuals with like-minded goals
- Gaining my TRUE Advisor and First Aid/CPR certifications! 😊

