



Boston Scientific - Maple Grove



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Organization Background

Boston Scientific (BSC) is a biomedical engineering and medical device manufacturing company with facilities located in 40 countries around the world. The Maple Grove, MN location is home to both engineering and manufacturing operations for devices such as balloon catheters and stent delivery systems. The site consists of four buildings that house a variety of processes and functions, which include extrusion and braiding, metal laser cutting and finishing, plastic welding, as well as laboratory, office and cafeteria spaces.



“My MnTAP internship allowed me to apply my knowledge from my environmental engineering studies to help a business find pollution prevention and diversion solutions. MnTAP and Boston Scientific were extremely supportive the entire way through!” ~ EC

Project Background

In 2019, an initiative was announced by Boston Scientific’s global Environmental, Health, and Safety (EHS) team, committing all facilities to become Total Resource and Usage Efficiency or TRUE® certified by 2030. The TRUE® certification program’s goal is to credit businesses for activities that help divert all the facility’s solid waste from landfill, incineration, and the environment. To work towards certification, the Maple Grove site set out to take a deeper look at solid waste generation and management. The 2023 MnTAP Intern Project involved a broad assessment of facility processes to determine what best practices are already in place and to identify waste reduction and diversion opportunities.

Incentives to Change

In 2022, four Boston Scientific facilities were chosen as pilot sites to conduct TRUE® certification gap assessments. Gap assessments are used to establish how many credits each site has already achieved, current waste diversion and contamination rates, as well as credit opportunities that help meet TRUE® certification. The Maple Grove facility was not selected as a pilot site, but committed to starting their assessment process early and voluntarily. The facility produced a total of 1,617 tons of non-hazardous waste in 2022 - 51% of which was diverted from landfills and incinerators. Given a target diversion rate of 90% for certification, this project aimed to close the site’s gap in

diversion rate by accounting for current waste reduction and diversion practices and identifying new solutions. Not only does this work contribute to the TRUE® certification process, it aligns with the company’s mission of being a leader when it comes to environmental, social, and governance standards.

SOLUTIONS

Construction and Demolition Recycling Improvements

Analysis of the construction and demolition (C&D) waste stream revealed some differences across waste haulers in terms of how waste was being managed. To ensure more C&D waste is diverted from landfill, it is recommended to implement a company-approved list of hauling companies that facility teams and contractors will be required to choose from when planning construction and demolition projects. This change has the potential to divert 166,000 lbs of solid waste from landfill annually.

Education and Signage Improvements

Standardizing signage and disposal bin placement has the potential to minimize contamination of waste at the facility. Additionally, education resources have been developed

Solutions

through an online portal for Boston Scientific employees to better educate on waste management practices and procedures. Improving signage, bins and educational materials has the potential to divert 34,800 tons of waste.

Reusable Dishware

Compostable dishware is currently provided for employee meals on-site. Given that the facility has some infrastructure in place to handle dishwashing, it is recommended to convert dishware to reusable options, starting with reusable clamshell containers. This first phase of reusable dishware implementation can reduce approximately 38,000 lbs of waste annually.

PPE Reduction and Recycling

Personal protective equipment (PPE) such as hair covers, beard covers, and face masks from manufacturing and lab spaces are currently disposed of as trash. Launderable bouffant caps can replace disposable hair covers and additional PPE can be recycled by coordinating with one of three potential vendors. These changes can reduce waste by up to 30,200 lbs.

Polyethylene Recycling

Polyethylene waste from plastic bags and other films is a consistent waste stream at the Maple Grove site. This waste stream is currently sent to landfill and can be diverted and recycled locally. If implemented, this recommendation could divert 14,700 lbs of waste from landfill.

“We greatly appreciated the opportunity to partner with MnTAP to support our business in identifying environmental improvement related to solid waste lifecycle. The benefits are great on both sides, where the interns come in and get professional and personal experience in an industry setting, and the business sees the environmental sustainability improvements and potential cost savings on operations. Our intern was great and set us on the right path to success for our long-term goal for TRUE® Zero Waste certification.”

*~ Derek Stark, Sr. EHS Specialist
Boston Scientific*



Recommendation	Annual Reduction	Annual Savings	Status
C&D Recycling	166,000 lbs	TBD	Implementing
Education and Signage Improvements	34,800 lbs	\$2,000	Implementing
Reusable Dishware	38,000 lbs	\$101,400	Recommended
PPE Reduction and Recycling	30,200 lbs	\$103,000	Recommended
Polyethylene Recycling	14,700 lbs	\$800	Recommended

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