

# New Bedford School District Case Study: Reusables & Food Waste Reduction

Comprised of 19 elementary schools, three middle schools, and one high school servicing over 12,500 students, New Bedford supports the needs of a diverse and expansive student community. One of the largest districts in the Commonwealth, New Bedford Public School District is focused on positive change and sustainability. In this wonderfully diverse community, nearly 20% of New Bedford residents were born outside of the United States and over 37% speak a language other than English in their home. Students at New Bedford Public Schools speak English, Portuguese, Spanish, Haitian Creole, Cape Verdean, and K'iche, among other languages. This vibrant and diverse community is a local hub of industry and innovation. Of the 100,000 residents that call New Bedford home, 80% live in environmental justice neighborhoods.



## Reusable Serviceware Initiative

In an effort to better serve this vast and diverse student body, New Bedford Public Schools received a School Recycling Assistance Grant in 2019 through the Massachusetts Department of Environmental Protection Sustainable Materials Recovery Program (SMRP) to assist with the purchase and installation of 10 school dishwasher systems. They tracked direct and indirect costs of the project to demonstrate financial benefits of implementing reusable serveware systems. Each dishwasher cost approximately \$9,500 in 2019, for a total of \$100,000. Plumbing and electrical disconnection of old equipment and reconnection of new equipment cost approximately \$25,000.



Director of Food and Nutrition Services, Robert Shaheen believed the transition to dishwashers and reusable trays was not only a more environmentally sustainable solution, but it could also save the district money on hauling and disposal fees. Before transitioning to reusable trays, the district spent over \$48,000 on disposable polystyrene trays - 1.6 million of them, or 50 tons of trays each year. The New Bedford Public Schools Food and Nutrition Services team had a vision to replace disposable Styrofoam trays with reusable trays throughout their cafeterias. New Bedford Public Schools initially procured 4,000 trays through COMMBUYS, the State's online procurement system for public facilities, at a cost of approximately \$2 per tray for an investment of \$8,000. Shaheen plans to purchase more trays that could be air dried, when needed, to avoid the use of back-up paper trays. "There will always be naysayers, but I'm always looking for solutions...asking people what they need to make it happen" said Shaheen. While it is still necessary to use disposable trays in some schools without dishwashing capabilities, the district shifted to paper-only and decreased their use of foam trays by more than 99% between 2018 and 2022.

School Year	Number of Styrofoam Trays Purchased
2018-2019	1,627,980
2019-2020	1,240,000
2020-2021	263,000
2021-2022	16,250
2022-2023	0



To prepare for dishwasher installation, Robert Shaheen oversaw necessary plumbing adjustments, updating grease trap systems, and upgrading electrical systems on school sites.

Installing dishwashers was an important step, but other challenges still persist. Staffing and logistical bottlenecks occur during the washing process. If the trays are not washed and ready in time for all students, dining staff uses paper-based trays to serve the meal. New Bedford High School currently has enough reusable trays to serve one of three lunch blocks. To increase overall cafeteria efficiency, they added 12 people for a total of thirty staff members on the food services team to simultaneously serve all four cafeterias.

Their goal is to have at least two full time dedicated staff working in the dish room. They also have student volunteers working in one of the dining rooms to collect trays, with the hopes of expanding them into all the dining areas. By fully committing to reusable trays and procuring enough to meet the needs of all students through all lunch blocks, the high school will have officially transitioned away from single-use trays. Additionally, the Food and Nutrition Services team is researching options for reusable silverware, condiment dispensers, and bulk milk dispensers to be served with reusable cups to cut down on remaining single-use items found in the cafeteria.



## Food Waste Reduction Initiative

Understanding the breadth of different cultures that exist in the district, New Bedford Public Schools implemented a meal planning approach that was student-centered and inclusive. Student Engagement Coordinator, Isa Fernandes formed a focus group of New Bedford High School students to share their meal preferences with dining services. “We want to educate students on food, where it comes from, how it is grown, not just nutrition” shared Ms. Fernandes. With the support of translation services, caregivers of students are encouraged to share family recipes with the head chef who recreates the meal for students to have a taste of home. Through this initiative, students sitting down at the lunch table may be enjoying the comforts of favorite recipes or they may be trying a new food or flavor for the first time.

To obtain feedback from students, Ms. Fernandes also created a QR code for various meals served in the cafeteria. Students use their own smartphones to scan the QR code that brings them to a uniform survey where students can share their feedback and suggestions for the meal. She asks the students “What did you like? What can we change? How can we help?” Ms. Fernandes compiles data from these surveys into a single spreadsheet to track feedback as the dining services team adjusts seasoning, texture, and portion size over time. Compiling this feedback into a single spreadsheet documents if students ate more and threw away less food once their preferences were reflected in the new version of the meal.



Sophomore class president, Elliot is a strong voice for the student community. He is eager to make positive changes for the school and feels empowered by the opportunity to share ideas in the student dining services focus group.



Students at New Bedford High School also benefit from an investment the administration made to create a more comfortable dining environment. LCD monitors were installed upon entry to the serving station for students to review menu options while waiting in line. Surrounded by freshly-painted walls, students sit in chairs around tables that can be moved more freely to accommodate different groups. The design is intended to reflect a college lounge, rather than a traditional high school cafeteria. This allows for less time in line and more time eating and enjoying the company of peers. Decades-old windows that were nearly opaque after years of winter weather were replaced with brand new windows that let in sunlight and a view of the courtyards. Weather permitting, students have the choice of eating inside or outside at picnic tables. The freedom of choice and increased comfort for students has led to higher satisfaction in the student dining experience.

## Next Steps

Shaheen and his team are looking to implement share tables and donation of excess edible food from the share area and cafeterias. Since there are four cafeterias in the High School all serving simultaneously, there are extra meals left over on a daily basis that could be diverted from disposal. The school also plans to revitalize their school garden and expand the burgeoning food scrap separation and composting systems in the kitchen and throughout the school.

## At A Glance

- The New Bedford Public School District is comprised of 19 elementary schools, three middle schools, and one high school, serving over 12,500 students representing multiple cultures and languages in a state-recognized environmental justice community.
- District-wide, New Bedford Public Schools used 1,627,980 fewer Styrofoam trays this school year by purchasing and implementing a reusable tray program.
- A student-centered approach to meal preference guided food ordering and reduced waste at lunchtime.



THE GREEN TEAM is an environmental club for Massachusetts students, grades kindergarten through twelve, presented by the Commonwealth of Massachusetts Department of Environmental Protection. It is an interactive educational program that empowers students and teachers to help the environment through waste reduction, reuse, recycling, composting, energy conservation and pollution prevention.

If your class, school, or district is interested in joining THE GREEN TEAM, please submit a GREEN TEAM registration by fax, mail, or online. If you have further questions, please visit the [GREEN TEAM website](#) or [reach out via email](#).



June 2023

