

Styrofoam Recycling

Middletown first municipality in New Jersey to purchase machine

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n December 2019, the Township of Middletown announced that it was the first municipality in the State to purchase a Styrofoam recycling machine and provide collection sites for residents of Monmouth County.

"I am proud that Middletown is leading the charge on recycling Styrofoam in New Jersey," said Mayor Tony Perry. "We launched the Styrofoam recycling campaign around the holidays so our community could easily dispose of packaging materials from large gifts received, such as TVs, appliances, and furniture in an environmentally safe way."

Before purchasing the Styrofoam recycling machine, Township officials analyzed the financial and ecological benefits. They determined if it would be more cost-effective to purchase a machine or use the Monmouth County Landfill.

The Township partnered with the Foam Cycle System after soliciting bids. Foam Cycle was the only respondent.

Middletown purchased the larger of the two systems for \$67,500

using funds from the Municipal Recycling Tonnage Grant. The grant is allotted to the town on an annual basis for the amount of materials documented as being recycled in the township. The larger machine, which processes 200 pounds of loose foam per hour, can keep up with the demands of the entire county.

Saving space in landfills

Recycling clean EPS (Expanded Polystyrene) foam packaging materials is expected to save a significant amount of space in our county landfill. This, in turn, extends the life of the public landfill, which is at a premium. Conserving that space will prevent the landfill from reaching capacity and closing down, forcing municipalities to find new ways to dispose of its solid waste.

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"This would increase transportation costs and potentially increase tipping fees," said Public Works Director and Middletown Green Team member Ted Maloney. "It is projected that the Foam Cycle system will save approximately 2,250 cubic yards of space in the county landfill annually."

Since Styrofoam/EPS doesn't break down in landfills, it is our goal to ensure that we keep it out of our garbage stream to help reduce our ecological footprint.

Since December, Middletown Township has prevented 375 cubic yards, or four tractor trailers worth, of Styrofoam/EPS from our landfills.

"Additionally, the Foam Cycle Styrofoam recycling machine processes Styrofoam/EPS to create an end product that can be sold and reused, so it's very practical," said Township Administrator Tony Mercantante.

Repurposing Styrofoam/EPS benefits the environment. About 80% of EPS pollutant ends up in landfills, while the other 20% will pollute our waterways, according to the Recycling Expanded Polystyrene and the Sussex County Municipal Utilities Authority-Foam Cycle Partnership.

In fact, EPS is responsible for 71% of all plastic waste items retrieved from our oceans.

Middletown's recycling education program

The Styrofoam Recycling Program is the beginning of the second phase of the Township's "Strive for Five" Recycling Education & Enforcement Campaign. Launched in advance of Earth Day last year, it was identified as a model recycling education campaign by Sustainable Jersey.

A Second Life for Styrofoam

The Foam Cycle machine reduces the Styrofoam to a densified foam material. It can then be sold and turned into products such as picture frames, crown molding, and even roof and deck materials.

The Township and Foam Cycle have already had success selling its end-product to Princeton Moulding. The company transforms recycled Styrofoam into durable picture frames. Foam Cycle has recently partnered with Revere Picture Framing in Middletown to sell Better Frame picture frames made from 100% recycled foam packaging waste.

"This type of partnership provides an opportunity for Middletown to create a closed-loop recycling process for a material that was once thought of as a pollutant," said Mayor Perry. "It is an innovative way to keep waste material out of our landfills and waterways while providing a durable and environmentally friendly product for consumers."

Both Better Frame and Revere Picture Framing plan to promote and sell these frames at zero profit and will instead donate the proceeds to a local environmental group. Additionally, if a Better Frame breaks, Revere Framing will have it recycled into a new frame for the customer.

The purpose of the campaign has been to help residents understand what can and cannot be recycled at the curb and how to do so properly in our single stream recycling system. We are making strides towards increasing sustainability within our community.

In an "Oops!" tag program, residents receive a brightly colored warning stickers on their recycling cart. The explanation of what they are doing incorrectly has been an effective way to help educate the public about reducing contamination in our single stream recycling.

Other recycling initiatives include a Plastic Bag Collection Bin in partnership with ShopRite that was placed at the Middletown Recycling Center for residents to properly recycle plastic bags. The Township also teamed up with non-profit Second Chance Toys to offer a Plastic Toy Collection Bin for gently-used plastic toys that will be given to underprivileged children.

In June 2018, the Township launched Recycle Coach, a free customized mobile and web application that contains garbage, bulk, and recycling information. Residents can access collection schedules, events, and search acceptable recyclable materials. Alerts and reminders are also available via the app.

The Township also conducts direct public outreach about the "Strive for Five" campaign at community and Township-sponsored events.

Where to Recycle Your Styrofoam in Monmouth County

Middletown's Styrofoam collection bins are the only ones in Monmouth County. Three collection bins and the recycling machine itself are located at the Middletown Recycling Center. Three collection bins can be found at the Middletown Train Station.

The Middletown Recycling Center is located at 52 Kanes Lane and is open Thursday through Monday between 8:30 a.m. and 4:30 p.m. The Middletown Train Station's collection bin is always available. It is located toward the back of the train station's parking lot on Church Street. There will be additional drop off points in the near future.

FOAM CYCLE / THINKING OUTSIDE THE BIN



Started in 2016 by an 18-year veteran of both the waste and recycling industries here in New Jersey, the founder was asked by a customer why they were not able to recycle foam packaging waste at their municipal recycling drop-off center. The "Amazon Effect" had resulted in an extraordinary amount of packaging waste being dropped off at their outdoor recycling center, which included a large amount of foam coolers, TV, furniture and electronic packaging.

The request lead to an idea, a prototype, and the placement of the first Foam Cycle system at their site. What followed was two years of testing, and documented landfill cost avoidance metrics that were verified by a local university. We have now built an accomplished business around this system with trade, customer, and state recognition.

Welcome to Foam Cycle, the first and patent pending

foam packaging recycling system designed to be installed at municipal, county and university outdoor recycling drop off centers. The concept was born, the custom container manufactured and the equipment all came from New Jersey based companies. The recycled foam that is collected and recycled in towns like Middletown are turned into picture frames, not in China or India, but made right here in New Jersey! At the cost of a new pickup truck this turnkey recycling system is dropped, plugged in and ready to go. Email or call us at info@FoamCycle.com and we will send you a brochure, including pricing.



FSAMCYCL The Foam to Frame Process: Step 1 Step 2 Step 3 Step 4 Step 5 Collect Densify Extrude **Better Frame** Aggregate Foam Densifier Machine Foam Collection Bin Tum ingots into Molding boards Compile densified "ingots" Reduces foam at a 90:1 ratio molding boards created into picture frames & sold to the marketplace Foam Cycle Recycling Container First patent-pending foam collection, densifying and recycling system designed to be placed at outdoor municipal recycling drop off centers www.FoamCycle.com "They say it can't be recycled, we're here to prove them wrong"