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CONNECTICUT ANNUAL REPORT

SUBMITTED BY

Mattress Recycling Council Connecticut, LLC 501 Wythe Street Alexandria, VA 22314

SUBMITTED TO

Connecticut Department of Energy & Environmental Protection 79 Elm Street Hartford, CT 06106

SUBMITTED ON

October 15, 2021





This year, MRC's Connecticut Bye Bye Mattress program collected **213,543** mattresses and diverted **3,813** tons of material from disposal.

TABLE OF CONTENTS

Executive Summary & Definitions	pg. 1
Overview of Mattress Recycling Council Connecticut, LLC	pg. 2
Program Objectives	pg. 3
Program Performance Highlights	pg. 3
Report Overview	pg. 3
Definitions	pg. 4
Education & Outreach	pg. 7
Introduction	pg. 8
Consumer Education	pg. 9
Industry Communication	pg. 18
Performance Goals & Evaluation	pg. 25
Connecticut's Mattress Collection Network	pg. 26
Evaluation of Performance Goals & Methods	pg. 27
Research and Sustainability	pg. 37
Recommendations for Change	pg. 43
Conclusion	pg. 45
APPENDIX A ● 2020-2021 Fiscal Year (covering July 1, 2020 - June 30, 2021)	pg. 49
APPENDIX B • Collection Participants	pg. 56
APPENDIX C ● Stakeholder Outreach	pg. 58
APPENDIX D ● Registered Producers	pg. 60
APPENDIX E ● Education and Outreach Materials	pg. 64



The mattress industry created the Mattress Recycling Council (MRC), a nonprofit organization, to develop and administer the Bye Bye Mattress program.

EXECUTIVE SUMMARY & DEFINITIONS

EXECUTIVE SUMMARY & DEFINITIONS

Pursuant to Section 2(j) of Connecticut Public Act 13-42, as amended (the Act), as codified at Sections 22a-905a, et seq. of the Connecticut General Statutes, the Mattress Recycling Council Connecticut, LLC (MRC) submits to the Connecticut Department of Energy and Environmental Protection (DEEP) this annual report. The report provides the requested data on the results that MRC achieved in administering the Connecticut mattress stewardship program (the program) during the state's 2021 Fiscal Year (July 1, 2020 to June 30, 2021) (the reporting period).

OVERVIEW OF MATTRESS RECYCLING COUNCIL CONNECTICUT, LLC

The law requires that mattress producers form a "council" to develop a statewide program to collect mattresses and box springs (collectively units) discarded in Connecticut. The law also provides that the program be funded through a visible fee collected from consumers and other purchasers on all mattresses and box springs sold in the state.

The International Sleep Products Association created the Mattress Recycling Council (the Council), a nonprofit organization under Section 501(c)(3) of the Internal Revenue Code of 1986, to develop and administer the program. On July 1, 2014, the Council submitted a plan to DEEP outlining how the program would meet the law's requirements and proposed initial performance goals. DEEP approved this plan on December 31, 2014, and the program officially began operating on May 1, 2015. The Council proposed revised performance goals in September 2016 based on the program's performance during its initial year, which DEEP accepted on November 2, 2017.

In addition to Connecticut, the Council administers statewide mattress recycling programs in two other states - California and Rhode Island. In each of these states, the Council has developed a statewide network of mattress collection and recycling locations, increased the number of units recycled and educated consumers, retailers and other stakeholders about that state's mattress recycling program.

Effective July 1, 2017, the Council created for each state program a limited liability company in which the Council is the sole member. The Council transferred all functions related to the Connecticut program to the Mattress Recycling Council Connecticut, LLC (MRC).

In promoting the program to consumers, MRC has branded itself as "Bye Bye Mattress."

PROGRAM OBJECTIVES

MRC has designed and implemented the program to accomplish the following:

- Collect a mattress stewardship fee that funds the cost of operating and administering the program.
- Provide for free and accessible statewide opportunities for residents to discard their used mattresses.
- Provide for free collection of discarded mattresses from municipal transfer stations.
- Provide transfer stations with suitable storage containers and transportation of discarded mattresses.
- Provide for MRC-financed end-of-life recycling of mattresses.
- Minimize public sector involvement in the management of discarded mattresses.

PROGRAM PERFORMANCE HIGHLIGHTS

The law required MRC to establish goals to measure the program's performance. During the reporting period, MRC achieved or is on pace to achieve most of these goals. Highlights of the program's sixth year include:

- Collected 213,543 mattresses and recycled 3,813 tons of material, a 12.7% increase in units and 12.0% increase in tons of material from the previous reporting period.
- Expanded the program from 136 to 140 municipalities and continued to enroll in the program other entities, such as mattress retailers, hotels, universities and hospitals.
 Overall, nearly 300 other entities use MRC's program to recycle discarded mattresses.
- Collected 37,777 mattresses from retailers, surpassing the annual goal by 25.9%.
- Recycled 3,606 units from educational facilities. Thirty-one campuses are registered to participate in the program.
- Collected nearly 6,000 mattresses from small solid waste haulers, diverting these units to recycling and away from volume reduction facilities and waste-to-energy facilities, surpassing the goal by 62%.

REPORT OVERVIEW

Pursuant to Section 2(j) of the Act, this annual report contains the following information:

- The tonnage of mattresses collected pursuant to the program from municipal transfer stations, retailers and all other covered entities.
- The tonnage of mattresses diverted for recycling.

- The weight of mattress materials recycled, as indicated by the weight of each of the commodities sold to secondary markets.
- The weight of mattress materials sent for disposal at each of the following: waste-to-energy facilities, landfills and any other facilities.
- A summary of the public education that supports the program.
- An evaluation of the effectiveness of methods and processes used to achieve performance goals of the program.
- Recommendations for any changes to the program.

DEFINITIONS

The following terms defined in Section 1 of the law are relevant to the Report:

"Covered Entity" means any political subdivision of the state, any mattress retailer, any permitted transfer station, any waste-to-energy facility, any healthcare facility, any educational facility, any correctional facility, any military base or any commercial or nonprofit lodging establishment that possesses a discarded mattress that was discarded in this state.

"Covered Entity" does not include any renovator, refurbisher or any person who transports a discarded mattress.

"Foundation" means any ticking-covered structure that is used to support a mattress and that is composed of one or more of the following: constructed frame, foam or box spring.

"Foundation" does not include any bed frame or base made of wood, metal or other material that rests upon the floor and that serves as a brace for a mattress.

"Mattress" means any resilient material or combination of materials that is enclosed by ticking, used alone or in combination with other products, that is intended for or promoted for sleeping upon.

"Mattress" includes any foundation and any renovated mattress.

"Mattress" does not include any of the following:

(A) An unattached mattress pad or unattached mattress topper, including any item with resilient filling, with or without ticking, that is intended to be used with or on top of a mattress;

- (B) A sleeping bag or pillow;
- (C) Car bed;
- (D) Juvenile products including: a carriage, basket, dressing table, stroller, playpen, infant carrier, lounge pad, crib bumper or the pads for those juvenile products;
- (E) A product that contains liquid- or gaseous-filled ticking including any water bed or air mattress that does not contain upholstery material between the ticking and the mattress core:
- (F) Any upholstered furniture that does not contain a detachable mattress
- "Mattress Stewardship Program" or "program" means the statewide program described in Section 2 of the Act and implemented pursuant to the mattress stewardship plan.
- **"Producer"** means any person who manufactures or renovates a mattress that is sold, offered for sale or distributed in the state under the manufacturer's own name or brand. "Producer" includes:
 - (A) The owner of a trademark or brand under which a mattress is sold, offered for sale or distributed in this state, whether or not such trademark or brand is registered in this state; and
 - (B) Any person who imports a mattress into the United States that is sold or offered for sale in this state and that is manufactured or renovated by a person who does not have a presence in the United States;
- "Recycling" means any process in which discarded mattresses, components and by-products may lose their original identity or form as they are transformed into new, usable or marketable materials. "Recycling" does not include as a primary process the use of incineration for energy recovery or energy generation by means of combustion.
- "Renovate" or "renovation" means altering a mattress for the purpose of resale and includes any one or a combination of the following: replacing the ticking or filling, adding additional filling, rebuilding a mattress or replacing components with new or recycled materials.

"Renovate" or "renovation" does not include the:

(A) Stripping of a mattress of its ticking or filling without adding new material;

- (B) Sanitization or sterilization of a mattress without otherwise altering the mattress; or
 - (C) Altering of a mattress by a renovator when a person retains the altered mattress for personal use, in accordance with regulations of the department of business regulation

"Renovator" means a person who renovates discarded mattresses for the purpose of reselling such mattresses to consumers.

"Retailer" means any person who sells mattresses in this state or offers mattresses in this state to a consumer.



MRC's education and outreach efforts are designed to inform consumers, mattress retailers and other stakeholders about the **Bye Bye Mattress program,** that the fee is mandated by state law, why the fee is needed, what the fee funds, how to recycle through the program and that some parties have obligations.

EDUCATION & OUTREACH

EDUCATION & OUTREACH

MRC's education and outreach efforts are designed to inform consumers, mattress retailers, producers and other stakeholders about mattress recycling in Connecticut and to explain more specifically:

- How MRC operates, what it has accomplished and the impact it is making in the state.
- How and where to recycle discarded mattresses and why recycling is beneficial.
- Why the recycling fee is needed and what it funds.
- The legal obligations the mattress industry must fulfill.

To reach these audiences and disseminate this information, MRC uses a wide array of communications and marketing methods, including targeted direct mail and printed collateral, advertising and media relations, digital marketing and social media. MRC also makes site visits and participates in community and industry events. MRC has trademarked the names "Mattress Recycling Council" and "MRC" for use with industry and non-consumer stakeholder audiences, and "Bye Bye Mattress" as its consumer-facing identity.

This approach aligns with MRC's Connecticut program education and outreach performance goals:

- Distribute point-of-sale materials that explain the purpose of the recycling fee to consumers.
- Identify non-compliant Connecticut mattress retailers, require them to register with MRC and collect and remit the fee.
- Continue to conduct stakeholder meetings for each covered entity subgroup and other interested parties.
- Contact and visit stakeholders to educate them about the benefits and obligations of program participation.

An evaluation of MRC's achievement of these goals is discussed in further detail in the **Goals & Methods Evaluation** section.

This section is to provide a full description of all the methods MRC uses to communicate to consumers and the industry.

CONSUMER EDUCATION

To maintain awareness of Bye Bye Mattress in Connecticut, MRC provided consumer education materials to retailers to use with their customers, promoted the program through a public service announcement and media opportunities, assisted collection sites and events with communicating to their residents, and maintained a presence on social media. Each of these tactics encouraged consumers to visit ByeByeMattress.com to learn how to recycle in their area.

In addition to these efforts, in April 2021, MRC launched a lesson plan for youth and young adults on ByeByeMattress.com that explores the benefits of recycling, the impact of waste on the environment and how to mitigate illegal dumping. See below for further details.

To monitor the effectiveness of its consumer education and outreach, MRC monitors website and social media analytics and ordinarily conducts an annual consumer awareness survey. The 2020 survey, however, was canceled due to COVID-19 disruptions. MRC will conduct the 2021 survey later this year.

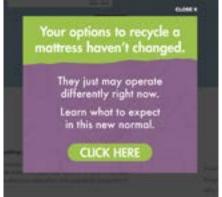
BYEBYEMATTRESS.COM

On ByeByeMattress.com, consumers easily can find information about participating drop-off locations and municipalities that offer at least one free curbside collection each year. Consumers are also reminded to ask their retailer about picking up a discarded unit when a new mattress is delivered. Businesses and organizations that meet the definition of covered entity can find information on how MRC works with their industry and how to contact MRC to recycle mattresses.

In addition to helping consumers and covered entities learn what to do with their old mattress, ByeByeMattress.com also contains updates about the program's performance and MRC's efforts to expand recycling in the state. In addition, the site educates visitors about the mattress recycling process and its environmental benefits.

MRC modified the site slightly in 2020 in response to the pandemic. MRC activated a COVID-19 pop up box and banner on the homepage. These alerted consumers to expect a different experience during the pandemic and the types of changes to anticipate. For example, many retailers, drop-off locations and curbside collection programs suspended or reduced their used mattress collection activities to comply with local restrictions and health department guidance. MRC encouraged consumers to discuss the take back process with their retailer in advance of purchasing a new bed, and to contact a collection site before dropping off their old mattress or a hauler before setting the mattress at the curb for pick up.



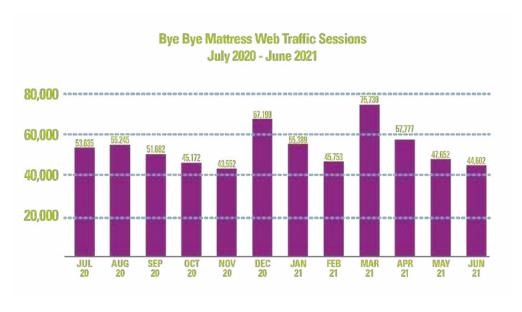


BYEBYEMATTRESS.COM



BYEBYEMATTRESS.COM

Overall website performance remained strong. Users increased 4.1% and sessions increased 2.5% from the previous reporting period. MRC will continue to monitor website analytics to optimize the user experience and gauge performance of our outreach methods.



CONSUMER EDUCATION MATERIALS

MRC provides retailers with free point-of-sale materials to help them explain the program and the fee to their customers. These include:

Bilingual Informational Card: This card can accompany the consumer's invoice or receipt. In its standard format, English is on one side and Spanish on the other. Chinese, Korean, Tagalog and Vietnamese versions are available on request.

In-Store Posters:

MRC offers posters in two sizes to provide retailers flexibility in how and where they display them in-store. Versions in Spanish, Chinese, Korean, Tagalog and Vietnamese are available on request.





Consumer FAQs: Consumer FAQs are provided in English and Spanish to assist retailers with sales associate training. Chinese, Korean, Tagalog and Vietnamese versions also are available on request.



MRC uses a monthly e-newsletter, email notifications, industry publications and events to regularly inform retailers that these materials are available from MRC and that reorders are also free. In December 2020, in coordination with the fee change communication plan, all retailers received new materials.

MRC's Marketing & Communications department also works closely with mattress retailers and producers to assist them with explaining the law, fee and program to the companies or customers they serve. MRC offers to create notices, review company memos for accuracy or provide documents that can be shared throughout the sales channel.

Given the rapid rise of online sales and accelerated adoption of boxed bedding among consumers due to the COVID-19 pandemic, MRC created a digital badge for retailers which launched in February 2021. The badge is an image retailers can incorporate on their websites, in social media content or in other digital communications to raise the consumer's awareness of the fee and program before they purchase a mattress. The badge can also be used to remind the consumer of the program during and after purchasing, such as displayed on purchase review and payment confirmation pages or incorporated in emailed receipts. MRC requests retailers link the image to ByeByeMattress.com so that the retailer's customers are directed to information about the program and fee.



PUBLIC SERVICE ANNOUNCEMENT CAMPAIGN

MRC's "Stop Illegal Dumping" PSA campaign consists of TV, radio, print and outdoor ads and is used across all three of MRC's program states. To date, the PSA has received more than 4.5 million cumulative impressions in all three state programs. In Connecticut, television networks in Hartford and New Haven have collectively aired the PSA more than 100 times. MRC also encourages cities and towns to use the PSA in their communications with residents. Campaign materials are available in the Bye Bye Mattress media center.

MRC is currently updating the campaign and determining how to increase usage in Connecticut.



View Stop Illegal Dumping. Click to watch:



TV ENGLISH

https://dl.orangedox.com/IllegalDumpingEnglish



TV SPANISH

https://dl.orangedox.com/IllegalDumpingSpanish

Hear Stop Illegal Dumping. Click to listen:



RADIO ENGLISH

https://dl.orangedox.com/wtYyQnhTPsZ8pWYJxT



RADIO SPANISH

https://dl.orangedox.com/5rVASIpHtA2IPCyAps

LESSON PLAN

MRC collaborated with a teacher and environmental justice advocate to develop a comprehensive illegal dumping lesson plan for youth and young adults. This five-task lesson plan explores the benefits of recycling, the impact of waste on the environment and how to mitigate illegal dumping. The last lesson offers facts and statistics about mattress recycling and how mattress components can be broken down into useful materials.

MRC published the lesson plan on ByeByeMattress.com in May 2021 and it has already received interest from the city of Middletown and town of North Branford. MRC is currently encouraging teachers, afterschool programs, youth-based organizations and similar groups to use it.









MEDIA RELATIONS

During the reporting period, MRC respond to reporter's inquiries and proactively contacted media regarding the program's collection events, growth and achievements. This proactive outreach generated local media coverage across television, radio, print and digital media. These news stories received nearly 400,000 views. Notable placements included WFSB (CBS), WTNH (ABC) WTIC 1080's morning show, *Hartford Courant, New Haven Independent, the CT Mirror* and *Only in Bridgeport*. MRC also received national coverage on Yahoo!, MSN Lifestyle, Martha Stewart and the National Association of Realtor's consumer advice blog.





















COMMUNITY EVENTS

MRC engages with the public through collection events and public appearances. Collection events provide a way for MRC to service an area that might not have a facility capable of or willing to be a permanent collection site or targets a specific need (such as neighborhood cleanup, move out day at a university, etc.). Meanwhile, public appearances help MRC boost awareness of the program and educate residents about the benefits of mattress recycling and how to access sites in their area.

COLLECTION EVENTS: This reporting period, MRC worked with nine communities holding pre-established collection events focused on recycling a variety of items. By adding mattresses to the list of eligible items, MRC expanded service to several new towns – Goshen, Westport and Woodbridge. See Appendix B for a full list of MRC's collection events.

PUBLIC APPEARANCES: Pandemic-related restrictions on large in-person gatherings remained in place for the reporting period. As a substitute for public appearances, MRC focused on leveraging media opportunities and increasing social media engagement during America Recycles Day (Nov. 20, 2020) and Earth Day (April 22, 2021). MRC also encouraged cities and towns to promote recycling during these observances and asked public service directors to run our PSA.

MRC is monitoring Connecticut's COVID-19 response and reopening closely. When restrictions on large in-person gatherings lift, MRC will resume conversations with event organizers and determine how to proceed.

COLLECTION SITE AND EVENT TOOLKITS

To promote collection sites, MRC provides a template news release and suggested content that municipalities can use to publicize their participation in the program through online outlets and social media platforms. The template allows municipalities to customize community messaging by including hours of operations, directions and residency restrictions. They may also use the suggested content on their city websites, community newsletters and social media. Event hosts are provided similar materials, including a media alert template, flyer template, event day signage kit and suggested social/online content.

MRC also makes these materials available to nonprofits, civic groups, city council members or others that will distribute MRC's information to residents.

Click Below To View



COLLECTION SITE PROMOTION TOOLKIT

https://dl.orangedox.com/dnwt2vQtYvCvO5Bmq2





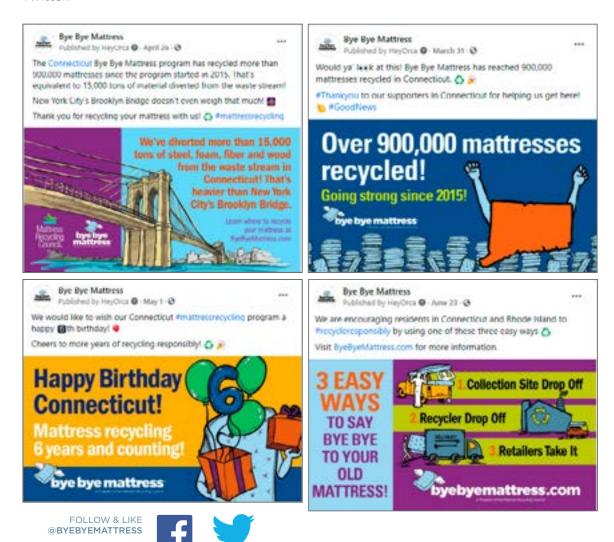


SOCIAL MEDIA

MRC created Twitter and Facebook profiles for Bye Bye Mattress to connect with consumers. Currently, over 1,700 people follow Bye Bye Mattress on these platforms.

MRC has found Bye Bye Mattress' social media most useful in announcing community collection events, promoting new collection sites and pointing visitors to ByeByeMattress.com for additional information. To maintain a regular rhythm of publishing content, Bye Bye Mattress likes and shares stories related to recycling, other recyclable household items, sustainable living topics and environmentally friendly a ctivities

During the reporting period, Bye Bye Mattress' national social media audience and engagement continued to grow, surpassing 4.2 million impressions on Facebook and Twitter.



INDUSTRY COMMUNICATIONS

To inform retailers, producers and other industry stakeholders about Connecticut's mattress recycling law and their legal obligations, as well as to encourage participation in the program, MRC uses direct mail, phone calls, websites (MattressRecyclingCouncil.org and MRCreporting.org), industry events, industry media relations and social media.

See the **Goals & Methods** section for further details on MRC's efforts to communicate with the industry and stakeholders about the program and its benefits.

COMPLIANCE OUTREACH

MRC uses established protocols to consistently communicate with registered and potential participants and provide non-compliant parties with information to take corrective action.

MRC continually monitors the sources it used to create the initial outreach list of mattress retailers and producers to identify new entrants into the mattress segment and non-compliant parties that may be required to register with the program. The sources

MRC monitors include holders of Connecticut Bedding & Upholstered Furniture Licenses, ReferenceUSA, Dun & Bradstreet, industry publication subscriber list, industry event attendee lists, Yellow Pages, Chambers of Commerce, the Better Business Bureau and online searches. It also receives leads for potential registrants from MRC staff as they travel the state or are contacted by retailers interested in utilizing recycling services.

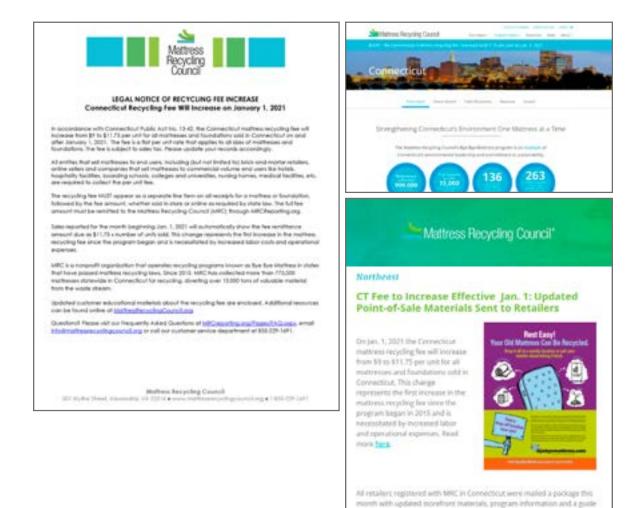
When MRC identifies such a party that may need to register with the program, MRC contacts the party, informs it of its potential obligations and follows up with a phone call or email. If the party is unresponsive after various attempts, MRC requests legal counsel or DEEP to contact the party.

MRC also monitors whether retailers and other mattress sellers submit monthly reports and remit the recycling charges they collect by the deadlines. When parties miss a deadline, MRC contacts them by email, phone and certified mail. MRC escalates unresponsive parties to a collections agency and legal counsel.

MRC also has the authority to collect late fees and impose fines for non-compliance and may report non-compliant parties to Connecticut authorities for further action.

As required by the Law, **Appendix D** contains a complete list of registered producers. The list is current as of June 30, 2021.

Fee Change Communications: On January 1, 2021, the recycling fee changed from \$9.00 to \$11.75. In the three months leading up to the start of the new fee, MRC communicated details through email notifications, a mailed legal notice and phone calls, as well as ISPA newsletters and publications. MRC also published the information on its industry-facing websites (described below) and mailed new point-of-sale material to retailers.



Retailer Survey: In 2020, MRC launched a process to contact all registered retailers across its program states annually. The objective of this outreach is to confirm accurate account and contact information, gauge satisfaction with MRC's program and resources and understand retailers' awareness of their obligations and current program details. From October to December 2020, MRC called and emailed retailers registered with the Connecticut program and received a 19% response rate. Overall, MRC found account and contact information accurate (95%), a complete awareness of the Connecticut fee increase (100%) and a large portion of the retailers were highly satisfied with the program (50%) and resources (57%) (ranking satisfaction at an 8, 9 or 10 on a scale of 0 to 10).

to sustamer FAQs. Please be on the lookout for this package and update

WEBSITES

MattressRecyclingCouncil.org: Designed for use by the mattress industry, regulators and non-consumer stakeholders, this website attracted 124,294 users generating 143,723 sessions between July 1, 2020 and June 30, 2021. This level of website traffic represents a 165% growth in users and 148.5% growth in sessions from the previous reporting period. These increases are attributed to the announcement of Connecticut's fee increase, major program announcements for other program states, interest in MRC's research awards and reports, the availability of new resources and the launch of the Sleep Products Sustainability Program.

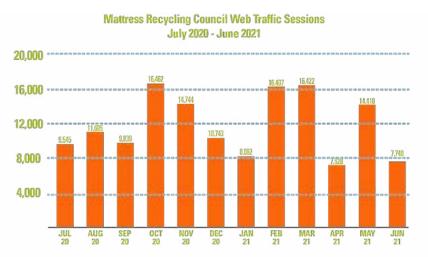
Based on feedback collected from the 2019 communications audit and stakeholder survey, MRC updated the website in 2020 to improve the user experience, make the most sought information and resources easier to find and more prominently highlight the results of the state programs.

To evaluate the success of the redesigned website, MRC is monitoring various analytics, such as the bounce rate, clicks to ByeByeMattress.com and MRCreporting.org, the amount of time a visitor remains on the website and resource library downloads.

MRCreporting.org: Through this website, parties register with MRC and retailers and other parties that sell mattresses to end-users in Connecticut report and remit to MRC the recycling fees that they have collected.

To encourage participants to remit their fees on time, the site emails automatic reminders. The site also emails announcements to all registrants and MRC cross-posts on this website notices and information that also appear on MattressRecyclingCouncil.org.

During the reporting period, MRC distributed and posted information regarding Connecticut's fee increase and how mattress retailers could access recycling in Connecticut.



VIDEO SERIES

MRC wants participants (and potential participants) to understand the program and the mechanics of registering with MRC, submitting monthly reports and remitting fees. To inform target audiences about the program, MRC actively encourages participants to view the following short videos, which are accessible on MattressRecyclingCouncil.org and on MRC's YouTube channel:

About the Mattress Recycling Council: Provides an overview of state recycling laws, the recycling fees, what the fees pay for and encourages stakeholders to recycle with MRC.

How to Register on MRCReporting.org: Provides a step-by-step guide to help retailers, producers and others understand if they must register with MRC, and if so, how to complete that process.

Reporting & Remitting Your Recycling Fees: Explains how mattress retailers and producers can use the online portal to report and remit to MRC the recycling fees they have collected.

MRC also uses these videos, which it updates annually, in presentations to industry groups and in MRC's tradeshow booths.

Click Below To View



https://youtube.com/playlist?list=PLpqkGz2KocuPnl5p9ymD0Dukfqy1Ng0yA





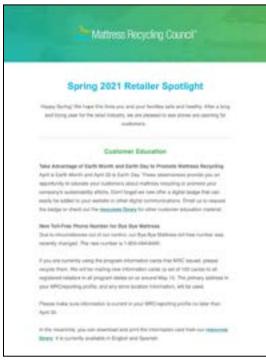


E-NEWSLETTERS



MRC Highlights reaches more than 5,000 recipients and continues to see above average industry open rates (above 20%). The mailing list includes all registered retailers, manufacturers, collection site hosts, renovators and other stakeholders.

Monthly content includes upcoming reporting deadlines, the availability of consumer education materials and where to recycle mattresses. Other content focuses on how to help collection sites improve their stacking, loading and storage of mattresses; notification of updated or new resources; program results; efforts to expand the program and combat illegal dumping; and research findings and opportunities.



In 2021, MRC launched Retailer Spotlight, a quarterly e-newsletter sent to all registered retailers across MRC's program states. The content addresses the topics and issues that customer service is frequently addressing, such as tips for using MRCreporting.org, how to help customers understand the fee and program, the types of products that require fee collection and are eligible for recycling, how to access recycling and more.

INDUSTRY EVENTS

During the reporting period, the events that MRC typically attends were either canceled or were scaled down virtual experiences due to the COVID-19 pandemic. As event directors shift towards offering hybrid experiences and reimagine their major conferences and tradeshows, MRC is considering how to best remain relevant and visible to event attendees. We do not foresee eliminating our participation at industry events despite the prolonged inability to hold large in-person gatherings.

MEDIA RELATIONS

MRC keeps the furniture and bedding industries, as well as the solid waste and recycling sector, aware of its latest accomplishments and program developments. During this reporting period, MRC garnered attention in trade media for its fifth anniversary, COVID-19 response and research activities.





























SOCIAL MEDIA

MRC uses Twitter, Facebook, LinkedIn and YouTube. Collectively, MRC has more than 1,236 followers on social media, comprised of a mix of individuals, civic/environmental groups, retailers, local and state government, waste haulers and recyclers.

In addition to sharing Bye Bye Mattress content, MRC uses its social media accounts to announce program developments, promote MRC's presence at industry events, distribute marketing collateral, interact with industry stakeholders and monitor industry news. #FAQFriday also draws attention to frequently asked questions about recycling and registration, as well as fee collection, reporting and remitting.

During the reporting period, MRC's social media received more than 182,793 impressions.

MRC will continue to use social media and evaluate its effectiveness in keeping stakeholders informed and driving traffic to MRCreporting.org, MattressRecyclingCouncil.org and ByeByeMattress.com.













MRC collects mattresses
from **140** communities and **297** public and private entities
that dispose of large volumes of

PERFORMANCE GOALS & EVALUATION

PERFORMANCE GOALS & EVALUATION

CONNECTICUT'S MATTRESS COLLECTION NETWORK

The program continues to increase the number of mattresses and box springs (together referred to as "units") received annually, with 213,543 units collected this reporting period, a 12.7% increase from the previous reporting period. The success of Connecticut's program relies largely on MRC obtaining discarded units from the existing statewide network of "covered entities" that collect discarded mattresses as part of their ongoing operations. The law defines covered entities to include any political subdivision of the state, mattress retailer, permitted transfer station, waste-to-energy facility, healthcare facility, educational facility, correctional facility, military base or commercial or nonprofit lodging establishment that possesses a mattress discarded in the state, as well as other entities that may be eligible to participate in the program. Of these entities, town municipal transfer stations handle the largest volume of discarded mattresses.

During this reporting period, residents in 140 cities and towns had no-cost drop-off options to recycle discarded units at collection sites or collection events. Additionally, residents in four municipalities could access mattress recycling through their curbside bulky item collection program. While many collection sites limit access to their city's or town's residents and curbside collection is restricted to the waste hauler's service area, all state residents may drop-off discarded mattresses for recycling at Park City Green in Bridgeport or the Salvation Army stores in Newington and Hartford. In the previous reporting period, MRC determined that 97.7% of Connecticut residents have access to our mattress recycling collection network.¹

In addition to these residential collection options, 297 other entities that dispose of large volumes of discarded mattresses are also recycling their used units through the program. Thirty-four new entities joined the program this reporting period, representing a 9% increase over the previous reporting period.

Finally, 42 retailers that sell mattresses to Connecticut residents throughout the state are registered to participate in the program and sending the discarded units that they collect from customers at the time they deliver a new mattress to the consumers' homes to MRC's recyclers.

¹In May 2020, MRC conducted an analysis to determine the percent of the population with access to the program. For these purposes, we included residents that live:

- · In a municipality with a participating collection site or curbside collection program,
- In a municipality adjacent to a municipality with a participating collection site that is available to residents of the neighboring community,
- Within 15 miles of a participating collection site open to all state residents, or
- Within 15 miles of an MRC collection event open to any state resident.

If there are substantial changes in the collection network, MRC will repeat the convenience analysis to determine the impact of the changes.

MRC continues to bring new municipalities and other entities into the program. They may contact MRC to host a collection site or one-day event, drop-off at a recycling facility, or request no-cost transportation services if they have collected the minimum number of units.



EVALUATION OF PERFORMANCE GOALS & METHODS

As required by Connecticut General Statutes §22a-905a(f)(2), MRC submitted updated performance goals based on its experience administering the program following the first year of the program's operations. DEEP accepted the updated goals on November 2, 2017. Below is an evaluation of the goals and the methods used to achieve them.

MUNICIPALITIES

GOAL: MRC to secure participation from 111 municipal transfer stations by Fiscal Year 2019. MRC will also increase access for Connecticut residents through special collection events and other programs.

ACHIEVED - MRC exceeded the municipal transfer station participation goal by the end of Fiscal Year 2019 and added two more transfer stations this reporting period, bringing the total to 120. In addition, eight municipalities held annual or bi-annual collection events during this reporting period. Through these sites and events, residents in 140 Connecticut cities and towns have access to the program.

METHODS: In the six years of administering this program, MRC has recruited a large majority of the state's municipal transfer stations and recycling centers to participate in the program (83%). To continually achieve this goal, MRC focuses on retaining the current participants as well as persuading the remaining non-participating transfer stations and waste haulers to participate.

Our outreach to non-participants consisted of phone calls, emails, individual site visits and discussions during Connecticut Recyclers Coalition and Connecticut Coalition for Sustainable Materials Management meetings. We also took steps to address concerns voiced by these non-participants. These efforts included:

- Offering to host collection events at facilities that lacked space for a collection container or other resources to handle mattresses. MRC offered to pay for all event costs, including staffing the event, transporting and recycling the collected mattresses and assisting with event publicity and signage.
- Overcoming facilities' concerns about bedbugs by offering resources and
 educational opportunities. MRC hosted an informational session in collaboration
 with the Connecticut Coalition Against Bed Bugs (CCABB), which dispels
 health-related myths, describes how to identify bedbugs and discusses best
 practices for protecting facility staff from bedbugs. MRC recorded the
 presentation and posted it on the resources area of
 MattressRecyclingCouncil.org, where it remains available to all program
 participants to watch on demand at no cost. MRC also integrated CCABB's
 information into MRC's Collection Site Guidelines.

This outreach resulted in adding two municipal transfer stations and three new municipal events to the collection network this reporting period.

Retaining the currently participating transfer stations and waste haulers is also critical for maintaining the achievement of this performance goal. MRC provides support through in-person meetings, phone calls and emails. During the reporting period, MRC's Northeast Program Coordinator conducted site visits at over half of the participating municipalities to discuss the program and compliance with participation requirements. Topics covered in these meetings included identifying non-program material, screening mattresses for excessive damage or contamination, informing residents about the program and addressing illegal dumping concerns. In addition to in-person meetings, MRC sent updated Collection Site Guidelines to all participants to reinforce product acceptance and contamination criteria. These contacts also received MRC's monthly newsletter and seasonal reminders throughout the year that encouraged proper screening, handling, storing and loading of mattresses to improve quality and collection efficiency.

To assist in onboarding new collection sites and training new staff, MRC began developing a six-part video series. At the time this report was submitted, three of these videos are complete. Topics include bedbug identification and best practices, efficient mattress stacking and loading, and effective collection site operations. These are available in English and Spanish with an accompanying one-page reference document. MRC expects to complete the three remaining videos (identifying program and non-program products, promoting collection events and promoting collection sites) in the next reporting period.

VOLUME REDUCTION FACILITIES

GOAL: Volume reduction facilities (VRFs) are permitted facilities that process construction and demolition materials, oversized municipal solid waste, clean wood and recyclables. MRC will continue to work with VRFs not in the program to evaluate their mattresses for recycling and work with upstream sources to divert them for recycling before they are processed by VRFs and can become contaminated.



ACHIEVED - MRC collected 18,265 units from VRFs for recycling and registered two new VRFs with the program this reporting period. MRC also coordinated with upstream sources to divert mattresses to recycling.

METHODS: MRC collects mattresses from 19 VRFs, two of which began participating with the program this reporting period. We encourage these facilities to collect and divert their units in a manner which maintains their recyclability. MRC also encourages VRFs to educate their customers that rent disposal containers for household cleanouts to stack or store mattresses in containers properly to avoid damaging or contaminating the units. Through these efforts, MRC collected 18,265 units from VRFs for recycling this reporting period.

MRC also focused on collecting mattresses from upstream sources such as small commercial haulers before they were collected by a VRF. This reporting period, MRC increased the number of "other entities" participating in the program by 10.5%. In total, these upstream sources delivered over 5,600 units directly to recyclers, and not VRFs.

MRC will continue to work with VRFs and haulers on educational opportunities to increase the recyclability and diversion of incoming units and encourage their customers to discard mattresses at an MRC collection site or recycler (as opposed to dumpsters provided by VRFs).

RETAILERS

GOAL: Recycle approximately 30,000 mattresses from retail sources annually.



ACHIEVED - Retailers recycled 37,777 units during this reporting period.

METHODS: MRC provides no-cost recycling to retailers that comply with the program and make delivery and scheduling arrangements with MRC's Northeast Program Coordinator. The retailer may self-haul or use a third-party to deliver discarded mattresses directly to an MRC recycler. MRC provides no-cost transportation to retailers that collect a minimum of 50 units.

Five retailers joined the program during the reporting period, bringing the total number of retailers that provide units for recycling to 42. The program surpassed its 30,000 unit goal, collecting 14% more units from retailers than the preceding reporting period. Much of this increase can be attributed to additional retailer participation in the program and increased sales.

However, several long-term market trends could contribute to future decreases in the number of discarded units that traditional brick-and-mortar retailers collect from consumers. For example, the market share captured by boxed beds sold over the Internet is growing at the expense of units sold by traditional retailers. Furthermore, sales of new box springs have been falling for a number of years. This is resulting in fewer box springs being discarded for recycling. Both of these factors reduce the number of discarded units being collected by traditional brick-and-mortar retailers. In addition, MRC understands that a number of retailers provide the discarded mattresses they collect to renovators and do not make them available for recycling through the program.

Although the exact number of units collected for recycling from retailers annually will fluctuate, MRC anticipates that the combined impact of these trends will result in traditional retailers' share of recycled mattresses gradually declining over the long term.

The following table demonstrates the number of units collected from retailers year over year.

TABLE 1: UNITS COLLECTED FROM RETAILERS DURING REPORTING PERIOD

REPORTING PERIOD (JULY 1 - JUNE 30)	UNITS COLLECTED
2018-2019	37,577
2019-2020	33,061
2020-2021	37,777

MRC promotes recycling to the mattress industry through its website (MattressRecyclingCouncil.org), online portal notifications (MRCreporting.org), monthly and quarterly newsletters, articles and advertisements in industry publications, presentations at industry conferences and bedding retailer and manufacturer sales meetings. MRC staff also visit regional and national retailers' warehouses to discuss recycling solutions tailored to solve their logistical and operational challenges.

Marketing collateral, such as a retailer information sheet and brochure, explain the benefits of recycling, assistance that MRC provides retailers and how to contact the Northeast Program Coordinator. MRC increased communications with Connecticut retailers during this reporting period due to the need to inform them of the fee change. See **Education & Outreach** for more information on MRC's industry communications.

LODGING

GOAL: MRC will continue to promote the benefits of the program among Connecticut lodging establishments and recycle approximately 5,000 mattresses annually from lodging establishments.



PARTIALLY ACHIEVED - Ten lodging facilities joined the program this reporting period bringing the total number of hotels participating in the program to 69. Twelve hotels used the program this reporting period recycling 1,651 units, which achieves 33% of this goal.

METHODS: MRC provides no-cost recycling to lodging establishments that make delivery and scheduling arrangements with MRC's Northeast Program Coordinator. The lodging establishment may self-haul or use a third-party to deliver discarded mattresses directly to an MRC recycler. MRC provides no-cost transportation to lodging establishments that collect a minimum of 50 units.

To communicate with the lodging industry, MRC is an Allied Member of the Connecticut Lodging Association (CLA). CLA represents all segments of the lodging industry, including hotels, motels, inns, bed & breakfasts, attractions and service providers. We distributed our information sheet to area properties through a direct mailer to all CLA members.

MRC also continues to communicate with establishments that have received Connecticut's Green Lodging certification from DEEP. This reporting period, MRC's information was shared in an email to Green Lodging members.

The 1,651 units collected by MRC from the lodging sector this reporting period represents a 65% decrease from the previous period. Although ten additional lodging establishments began sending their units to program recyclers this period, many lodging facilities were either unable or unwilling to make substantial investments into their establishments due to the effects on the tourism and lodging industry from the COVID-19 pandemic.

MRC's ability to meet this goal each year is contingent on several factors: the number of lodging establishments replacing their mattresses, the number of units being discarded during that period and whether those discards are sent to MRC recyclers. As a result, the total number of units the program obtains from lodging establishments will fluctuate from year to year as indicated in the table below.

MRC does not anticipate this category to increase substantially in the future. The uncertainty of the sector's recovery from the pandemic adds a level of unpredictability to the number of discarded units that lodging facilities will generate. Furthermore, MRC has learned from experience that some hotels sell many units that they discard to renovators and does not anticipate that practice will stop.

TABLE 2: UNITS COLLECTED FROM LODGING FACILITIES DURING REPORTING PERIOD

REPORTING PERIOD (JULY 1 - JUNE 30)	UNITS COLLECTED
2018-2019	3,719
2019-2020	4,752
2020-2021	1,651

MRC will continue focused outreach to the lodging industry through stakeholder meetings and by directly contacting lodging establishments.

HEALTHCARE FACILITIES

GOAL: Continue education and outreach efforts while evaluating the recyclability of units discarded by Connecticut healthcare facilities on a case-by-case basis.



METHODS: MRC provides no-cost recycling to healthcare facilities that make delivery and scheduling arrangements with MRC's Northeast Program Coordinator. The healthcare facility may self-haul or use a third-party to deliver discarded mattresses directly to an MRC recycler. MRC provides no-cost transportation to healthcare facilities that collect a minimum of 50 units.

To encourage healthcare facilities to participate in the program, MRC emailed an information sheet to EPA Region 1 (whose jurisdiction includes Connecticut) that was used in an online newsletter distributed to the agency's Healthcare and Social Assistance Sector contacts. In addition, our information sheet was shared with two state nursing home trade associations. MRC continues to respond to inquiries from healthcare facilities regarding mattress recycling. However, many healthcare facilities have been hesitant to recycle discarded mattresses due to the COVID-19 pandemic.

MRC will continue to focus on reaching the healthcare industry through healthcare industry association meetings and targeted messaging to their members and assist those interested in participating.

PRISON MATTRESSES

GOAL: MRC will evaluate the units on a case-by-case basis for recycling. MRC is researching alternative end markets and uses for mattress materials that can be removed from prison mattresses to increase the recyclability of those products.



ACHIEVED - MRC is researching alternative end markets and uses for mattress materials to increase the recyclability of products from all sources.

METHODS: MRC remains in contact with the Department of Corrections. This reporting period, the department did not discard any mattresses. The current units used by the Department are not recyclable because they are made primarily of polyester batting and no demand exists at this time for post-consumer polyester batting. MRC continues to explore recycling options for mattress materials with companies that buy recycled fiber or textiles. See Research and Sustainability for more information on these efforts.

EDUCATIONAL FACILITIES

GOAL: MRC will recruit 25 educational facilities to participate in the program by Fiscal Year 2019.



ACHIEVED - This goal was previously achieved in Fiscal Year 2019. Continued outreach resulted in an additional two new facilities joining the program this reporting period, bringing the total number of participants to 31. Twelve educational facilities used the program this reporting period, recycling 3,606 units.

METHODS: MRC provides no-cost recycling to educational facilities that make delivery and scheduling arrangements with MRC's Northeast Program Coordinator. The educational facility may self-haul or use a third-party to deliver discarded mattresses directly to an MRC recycler. MRC provides no-cost transportation to educational facilities that collect a minimum of 50 units.

Twelve educational facilities recycled 3,606 units this reporting period. Of the educational facilities that used the program this reporting period, nine were colleges and universities, one was a boarding school and two were training academies.

MRC continues seasonal outreach to boarding schools, colleges and universities to encourage the facility and its student population to use the program. In future reports, we will continue to report on our progress in this sector.

MILITARY BASES

GOAL: MRC will continue to recycle mattresses from the Naval Submarine Base New London on an as-needed basis. MRC will reach out to other military facilities in Connecticut, such as military training camps and Army National Guard, to determine if they have mattresses that are eligible for recycling.



ACHIEVED - The Naval Submarine Base continues to use the program to recycle mattresses and MRC remains in contact with the Army National Guard.

METHODS: The Naval Submarine Base used the program two times this reporting period, recycling 158 units. Since joining the program in 2015 it has recycled 2,358 mattresses.

MRC remains in contact with the National Guard regarding units discarded by field hospitals. In a previous reporting period, National Guard personnel confirmed that they do not generate units to recycle from their own permanent facilities.

WASTE-TO-ENERGY FACILITIES

GOAL: MRC will work with waste-to-energy (WTE) facilities not in the program to evaluate their mattresses for recycling and work with upstream sources to divert them for recycling before they become contaminated.



ACHIEVED - During the reporting period, no WTE facilities requested recycling of mattresses or box springs through the program. Additionally, MRC registered 38 new entities with the program to recycle their mattresses and divert them from the waste stream.

METHODS: MRC has learned from experience that mattresses received by WTE facilities are not recyclable because the trucks that transport discarded units to them also collect putrescible solid waste, which contaminates the discarded units and renders them unfit for recycling.

Therefore, MRC's primary focus has been to divert units collected by sources upstream from WTE facilities (such as municipalities) to recyclers before they can reach a WTE facility. As a result of these efforts, two new municipal transfer stations, two VRFs and six small commercial haulers joined the program this reporting period. The units from these sources are diverted directly to recyclers and not delivered to WTE facilities.

MRC continues to contact non-participating municipalities, transfer stations and waste haulers to encourage them to participate in these diversion efforts.

OTHER ENTITIES

GOAL: MRC proposes to recycle 3,500 mattresses annually from other entities and to document their participation in the annual report. MRC will continue to respond to other entities interested in participating in the program.



ACHIEVED - MRC is now providing no-cost mattress recycling to 116 other entities. Those that used the program this reporting period recycled 5,664 units, surpassing the goal by 62%.

METHODS: MRC provides no-cost recycling to other entities that make delivery and scheduling arrangements with MRC's Northeast Program Coordinator. The entity may self-haul or use a third-party to deliver discarded mattresses directly to an MRC recycler. MRC provides no-cost transportation to other entities that collect a minimum of 50 units.

During the reporting period, MRC's Northeast Program Coordinator received requests from nonprofit organizations, apartment complex property managers, moving and storage companies, small/independent junk haulers, clean out services and real estate agents that wanted to recycle discarded mattresses through the program.

MRC is now providing no-cost recycling to 116 other entities, of which 11 joined during this reporting period. MRC will continue to collect information from other entities that desire to use the program and develop other sector-specific outreach.

STAKEHOLDER OUTREACH

GOAL: Distribute point-of-sale materials that explain the purpose of the recycling fee to consumers.



ACHIEVED - See **Education & Outreach** for details regarding MRC's point-of-sale materials and **Appendix E** for examples.

GOAL: Identify non-compliant Connecticut mattress retailers, require them to register with MRC, and collect and remit the fee.



ACHIEVED - See **Education & Outreach** for details regarding MRC's communication with the mattress industry.

GOAL: Continue to conduct stakeholder meetings for each covered entity subgroup and other interested parties.



ACHIEVED - Stakeholder outreach is discussed above. **Appendix C** provides a list of meetings, site visits and other stakeholder interactions.

GOAL: Contact and visit stakeholders to educate them about the benefits and obligations of program participation.



ACHIEVED - Stakeholder outreach is discussed above. **Appendix C** provides a full list of meetings, site visits and other stakeholder interactions.

METHODS: As described in the **Education & Outreach** section, MRC uses a wide array of communications and marketing methods to reach consumers, the mattress industry, other covered entities and stakeholders. To evaluate the effectiveness of its education and outreach, MRC monitors website and social media analytics and ordinarily conducts an annual consumer awareness survey. The performance goals established for each of the covered entity types also indicate whether MRC's methods were effective at persuading entities to join or use the program.

The increased website traffic on MRC's industry and consumer sites and the growth in social media impressions, as well as the achievement of nearly all of the covered entity-focused performance goals signal that MRC's communications and outreach materials are generating awareness and interest in the program from among all of its target audiences. Once consumer awareness surveying resumes, we will have additional data to guide us in targeting and refining our outreach.

RECYCLING MATTRESS COMPONENTS

GOAL: MRC will strive to recycle 75% (by weight) of the recyclable materials generated from dismantling collected mattress units.



NEARLY ACHIEVED - MRC recyclers maintained the same high level of recycling from the previous reporting period (73%) and MRC's research activities are working to increase the recycling rate and recyclability of a mattress.

TABLE 3: RECYCLING RATE PER REPORTING PERIOD

REPORTING PERIOD (JULY 1 - JUNE 30)	RECYCLING RATE
2016-2017	61%
2017-2018	62%
2018-2019	67%
2019-2020	73%
2020-2021	73%

METHODS: Once discarded mattresses arrive at a recycling facility, the recycler unloads the container and evaluates the condition of the mattresses. Units contaminated with bedbugs or putrescible solid waste cannot be recycled and are separated for disposal to minimize facility contamination and worker exposure.

The disassembly process varies from one recycler to the next, but most use a combination of manual and mechanical processes. The steel wire found in most mattresses and box springs is usually the most valuable and readily recyclable commodity. The recycler will separate the steel manually or mechanically from other mattress materials. Depending on the requirements of the parties purchasing this material, the recycler may transport loose loads of the steel wire to a metal recycler, or shred or compress it prior to shipment. The recycler will then separate the foam, fiber, wood and other commodities for sale in secondary markets, if possible.

For those materials that cannot be sold in scrap markets for use in making new products, MRC encourages its contracted recyclers to explore alternative uses to minimize the amount of material landfilled or incinerated. For example, although composting or mulching wood reclaimed from dismantled box springs is a potential end use, nails and staples used to fabricate mattress box springs may render the wood unusable for these applications if they cannot be thoroughly and efficiently removed. The next best use for foundation wood is biomass fuel used in generating electric power.

Currently, recyclers sell foam and quilt panels from mattresses to companies that manufacture carpet padding. In this reporting period our recyclers sustained consistent end markets for these materials which maintained their recycling rates.

In addition to fiber in the quilt panel, mattresses may contain shoddy pads and other non-woven materials made of fiber. The composition of these layers varies by mattress type and may be made from cotton, coconut husk, other natural fiber, rayon, polyester or other synthetic fibers. These mixed fiber materials have few viable secondary markets. Cotton has a limited market as an insulation product, but during the reporting period, the primary buyer of cotton stopped accepting this material due to excessive transportation costs.

The condition of units and the lack of markets for some post-consumer mattress components contributed to a recycling rate lower than the 75% goal set in the plan. This metric is highly dependent on buyers for the recycled materials that can be particular about product quality and volume. For example, many scrap metal recyclers have stopped accepting pocketed coils because they consider the polypropylene fiber encasing the coils (amounting to 8% to 10% of the component's weight) to be an unacceptable contaminant. As a result, both recyclers disposed of their pocketed coils because they could not find steel scrap recyclers willing to accept the coils.

MRC is taking meaningful steps to increase the recycling rate and recyclability of a mattress. The following describes research activities and projects that may benefit Connecticut.

RESEARCH AND SUSTAINABILITY

MRC is taking steps to increase the recycling rate and recyclability of a mattress by investing in research activities and projects that may benefit Connecticut by:

- 1. Identifying and promoting best practices for mattress dismantling and recycling
- 2. Identifying new and better uses for the recycled components
- Fostering innovation, cooperation and communication between suppliers, manufacturers, collectors, dismantlers and end-market commodity buyers to increase mattress recycling rates

MRC's goal is to identify projects that have the potential to achieve both short-term, high-impact results, as well as longer-term projects with multi-year horizons. A summary of current projects and longer-range proposals are discussed in this section.

MRC is encouraged by its initial efforts, but is realistic, recognizing that by their nature, research outcomes are unpredictable, with some projects producing useful results and others failing. Moreover, many factors influence market acceptance of new technologies. Therefore, research is necessary to improve long-term industry performance, but should not be tied to short-term results.

Research projects may be accelerated (or stopped entirely) if it appears the work is likely to produce valuable (or inconclusive) results.

POCKETED COIL SEPARATION PROJECT

Pocketed coils are mattress springs that are individually wrapped in a fabric sleeve or pocket (typically made with polypropylene fiber) and then assembled into rectangular units using ultrasonic welding, stitching or adhesives. MRC estimates that approximately 20% of mattresses discarded today contain pocketed coils and that this percentage will gradually increase, given the growing popularity of this component over the past 20 years.

When recyclers dismantle a mattress, the rectangular pocketed coil unit is easily separated from other layers of material. In theory, both the steel and the polypropylene fiber are recyclable. But at present, it is impractical for individual recyclers to separate the individual coils from the fabric pocket. Furthermore, under current market conditions, most metal scrap dealers will not buy unopened pocketed coil units because they consider the fabric to be a contaminant.

MRC completed a sponsored research project with Wisconsin-based Knoble Design LLC to explore a novel approach for recycling pocketed coils, resulting in the successful construction of a small-scale prototype machine demonstrating the approach. Project findings are detailed in a final non-confidential **report** and **demonstration video.**

The project concluded in 2020. Knoble Design is seeking a partner to bring the machine to commercial scale. Toward that end, MRC helped Knoble Design publicize its project among major equipment producers and others engaged in the mattress industry that attended the Interzum 2021 furniture production and interior design trade fair held virtually in May 2021.

FOUNDATION WOOD RECYCLING

MRC continues to explore whether foundation wood can be used to make (in order of likelihood of success) particle board, medium density fiberboard, wood pellets, fire logs, pallets, animal bedding and oriented strand board. MRC is considering whether to conduct one or more pilot studies to test whether particle board can be made from shredded foundation wood. MRC may also investigate the technical feasibility of using foundation wood feedstock to make wood pellets and composite pallets.

ENZYMATIC DEPOLYMERIZATION TECHNOLOGIES

In 2020, MRC collaborated with several research teams to evaluate biologically driven processes to convert synthetic and natural polymers back into building block chemicals. This technology is an interesting emerging field, particularly for the textile recycling

industry. Recent studies indicate that enzymatic depolymerization processes could produce chemicals with more than 50% energy savings compared to manufacturing from virgin feedstocks. Another advantage is that the enzymes are tailored to specific materials. This allows for the separation of mixed materials to selectively generate useful chemicals with fewer byproducts. This is of interest to MRC because the fabric surface layer of mattress, called ticking, is often constructed of polyester, but may also contain blends of cotton, rayon, silk, wool, polypropylene or nylon fiber. In their concept, enzymes specifically designed to depolymerize cellulosic polymers, such as cotton, would react with the textile blends and convert the cellulosic fiber to biogas, a mixture of methane and carbon dioxide which is a useful fuel. For example, if the material to be recycled consisted of a blend of polyester and cellulosic fiber, the remaining pure polyester fiber would be a suitable product for the established PET recycling industry once the cellulosic fiber is reacted with the enzymes.

This technology could also be used to depolymerize polyurethane into useful polyols and amines or to convert PET into ethylene terephthalate and ethylene glycol. Following conversion, the remaining cotton would be enzymatically reduced to glucose.

VITRIMERIZATION OF POLYURETHANE FOAM

In early 2021, MRC awarded a research contract to explore whether mattress foam can be converted into valuable reformable polymers. The main objective of the study is to assess the feasibility of creating new components for various consumer and industrial products like shoe soles, conveyor belts, tool grips and other applications.

Recent work conducted by leading university material science laboratories found that urethane foams can be thermo-chemically converted into meltable pellets that can be reshaped and more easily recycled into useful products. Initial studies will be focused on MDI (methylene diphenyl diisocyanate) based memory foams where the chemistry is expected to be most favorable to this technology.

POLYURETHANES IN ZEOLITE CEMENTS

In 2020, MRC entered into a research agreement to explore the feasibility of making cements using mixtures of zeolites and chemically recycled polyurethane foam. Zeolites are naturally occurring microporous, aluminosilicate minerals commonly used as commercial adsorbents and catalysts. The project builds on a previous research project funded by the U.S. Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) exploring zeolite-based cements. Researchers believe the addition of recycled urethane foam will improve product strength and ductility, possibly making it an appropriate substitute for more energy intensive conventional cements and concrete-based products used today to make a wide variety of building products. Initial results are promising.

MANUFACTURING BATTERY ELECTRODES FROM RECYCLED MATTRESS MATERIALS

MRC awarded a research contract to explore whether recycled mattress materials could be chemically modified to produce battery and supercapacitor components. The research completed a phase 1 study which successfully produced and evaluated electrodes made from a variety of recycled mattress materials including polyurethane foam, polyester, cotton and coconut fiber.

The results were very encouraging. Preliminary data indicated that several materials had significant performance advantages over common electrode materials such as carbon, graphene and carbon nanotubes. As a result, MRC sponsored a follow up research project to construct and test actual batteries using the developed components and evaluate their performance. The follow up study will conclude in 2022.

CIRCULAR ECONOMY FOR THE MATTRESS INDUSTRY

As MRC manages its own efforts to improve mattress recycling and to find new and better markets for reclaimed mattress materials, we regularly communicate with other mattress recycling organizations around the world and stay abreast of broader efforts bring pursued to work toward a more circular economy for mattresses.

In the past year, global interest in creating greater circularity in the mattress industry accelerated. Stakeholders across the value chain cite the need for interdisciplinary collaboration to build infrastructure that can implement full and partial closed loop product use cycles. Industry leaders around the world are working with public authorities to develop legislation to establish circularity requirements and incentives specifically for mattresses.

Due to regional preferences, business model differences and regulatory priorities, it will take considerable time to build a homogeneous global circular economy for mattresses. Developing better mattresses designs is a common thread in discussions among manufacturers interested in sharing best practices. However, end-of-life management priorities and strategies diverge significantly from region to region. In tandem with these developments, some entities are pushing to develop alternative bio-based feedstocks to reduce dependency on fossil fuels. This latter initiative is somewhat controversial because bio-based sourcing can be disrupted by weather variation and competes with food supply resources. Further debate is anticipated.

Data presented at a virtual circular economy event organized by Interzum in May 2021 shows that in Europe, 40% of mattresses are incinerated. Most of the remaining 60% is sent to landfill. Rather than invest in conventional recycling infrastructure, which is mostly downcycling, some countries are interested in moving directly to technologies that would upcycle polymeric materials (such as the foam and some fibers) through chemical recycling and pyrolysis. These technologies will take time to develop.

Early-stage research by the Wuppertal Institute in Germany supports the conclusion that thermo-chemical recycling has a much more favorable long-term overall environmental impact than incineration or landfilling. Polyurethane material suppliers Dow, Covestro and BASF have all established EU-backed pilot programs to convert urethane foam and/or polyester fabrics back to building block chemicals. They believe this is essential to attain closed loop circularity. MRC is actively engaged with these organizations to understand findings as the technologies evolve.

In the United States, MRC continues its focus first on developing better and new markets for our recycled materials. Although this approach does not create completely closed loop circularity, we believe this approach will be an important part of the overall circularity strategy because it typically has the most favorable environmental impact according to LCA studies in other industries, compared to more energy-intensive approaches like thermo-chemical recycling. Second, MRC thinks that building operational efficiency from post-consumer disposal through recycling processes is equally important. In these two areas, MRC is taking a leading role and sharing findings with other regions.

Finally, among stakeholders, consensus is building that circularity is an ideal that will take considerable time and investment to attain. Moving forward, several industry trade organizations in Europe, the United States, Asia and Australia have committed to playing a lead role to encourage investment and to facilitate communication and collaboration in pursuit of this goal. Global collaborative networks have already formed to explore and address capability gaps systematically with the following initial priorities:

- 1. Develop better designs
- 2. Develop the means to increase recycled content in raw materials
- 3. Build a sustainable logistics and recycling infrastructure
- 4. Establish a science-based, peer-reviewed forum to advance meaningful innovation
- 5. Establish a more informative material labeling system
- 6. Develop an effective, easy-to-understand communication plan for consumers

LIFE CYCLE ASSESSMENT

In October 2020, MRC released an RFP to conduct a Life Cycle Analysis (LCA) of our California recycling operations to assess the baseline performance of our current processes. After reviewing submitted proposals, MRC entered into an agreement with Scope 3 Consulting to perform the LCA.

This project will take approximately 18 months to complete and will systematically determine the environmental impacts of our program from point of collection to recycling end markets or landfill. While environmental impacts are typically measured in terms of environmental indicators such as CO2 emissions, energy use and landfill

While environmental impacts are typically measured in terms of environmental indicators such as CO2 emissions, energy use and landfill avoidance, MRC's objective is to evaluate the baseline performance of current recycling operations using these and other environmental performance metrics. We hope the LCA will inform policy development, guide future decisions and provide tools that can be used to evaluate the relative impacts of our current program.

GASIFICATION AND PYROLYSIS

MRC's 2019-20 annual report provided an overview of technology, financial viability, environmental impacts and market drivers pertaining to pyrolysis and gasification of mixed product waste. To recap, The Alliance Against Plastics Waste, https://endplasticwaste.org/, funded pilot programs exploring the conversion of mixed plastic waste to fuels and chemicals, but the industry faced formidable economic headwinds to these processes becoming economically viable due to low oil prices and soft demand for some of the outputs. Financial industry views on the long-term viability of the industry were mixed. Although MRC at that time saw long-term potential for these process technologies, particularly for difficult to recycle materials, it decided not to fund research in this area until technical risks, environmental impacts and economic viability were more clearly understood.

In the past year, technology development in this area has continued to advance. In particular, small-scale pyrolysis liquification, where the post-reactor products are condensed to fuels and chemicals, was demonstrated on an industrial scale for mixed plastics and rubber. New facilities were designed to meet European emission standards and generate products such as basic chemicals, jet fuel and fuel oil. Spainex Ecosystems (Netherlands) and Beston (China), for example, offer small scale production facilities with capacities as low as 6 tons/day, which may help address reverse logistics costs and challenges of supplying a central pyrolysis facility with material provided by multiple small volume recyclers.



MRC remains committed to creating a program that is convenient and accessible for all Connecticut residents and businesses.

RECOMMENDATIONS FOR CHANGE

RECOMMENDATIONS FOR CHANGE

Based on MRC's experience through the program's six years of operations, MRC proposes no changes to the program or performance goals.



MRC has achieved or exceeded many goals from the program plan and is making progress towards updated performance goals.

CONCLUSION

CONCLUSION

Connecticut's mattress recycling program is an excellent example of a public-private partnership making a difference in addressing a persistent problem: What to do with a bulky and worn-out mattress at the end of its useful life. In 2021, MRC celebrated the sixth year of this landmark program, which has collected more than 1 million mattresses in Connecticut and diverted more than 18,000 tons of material from the waste stream.

To get to this point, MRC has achieved numerous performance goals, implemented comprehensive outreach and education efforts to inform both consumers and industry audiences about mattress recycling in Connecticut and diligently increased the number of covered entities that participate in the program.

Working collaboratively with DEEP, the waste industry, local leaders, nonprofits and others, MRC administers a collection network with an impressive footprint – we have established a collection site in nearly every municipality and collect discarded units through curbside bulky item programs, collection events and hundreds of commercial volume sources (such as retailers, hotels and schools). MRC contracts with local businesses and nonprofits to transport and recycle these units.

In addition to making it easier for consumers, businesses and local governments to recycle these products, this program provides significant environmental benefits. In six years:

MRC recyclers deconstructed over 1 million units and sold the reclaimed materials to entities that make new consumer and industrial products such as filters, insulation, carpet padding or steel rebar. To put this metric into perspective, if each mattress were stacked on top of the other, it would tower more than 200 miles. That's high enough to reach the International Space Station.

1,183

MRC recyclers salvaged more than 18,000 tons of material that has been used to reduce the need to consume new raw materials. Absent such beneficial recycling, Connecticut's waste-to-energy facilities and landfills would have been burdened by 1,183 truckloads of additional waste.

MRC and the mattress industry are committed to improving the program further by investing in important research to create new end markets for mattress materials, encouraging manufacturers to consider recycling challenges when designing new products and promoting circular economy goals. By continuing to work with DEEP and other Connecticut stakeholders, MRC intends to further enhance the scope and efficiency of this already successful public-private partnership.



APPENDICES

APPENDIX A: 2020 - 2021 FISCAL YEAR



Connecticut Mattress Stewardship Program - Annual Report

Appendix A - Tonnages of CT Mattresses Managed through the CT Mattress Stewardship Program

Report Submitted by: Mattress Recycling Council (MRC)

Reporting Period: Fiscal Year (FY) 21 July 1 2020 thru June 30 2021

Table 1 Summary of CT Mattresses Management through the MRC CT Program

	FY Tonnage
MRC CT Mattresses Delivered to an MRC Contracted Mattress Recycling Facility for Processing	5,849.5
MRC CT Mattress Material Recovered (from MRC mattresses processed) & Sent Out for Recycling by MRC Contracted Recycling Facilities	3,813.5
MRC CT Mattress Processing Residue (from MRC mattresses processed) Sent Out for Disposal by MRC Contracted Recycling Facilities	1,377.4

Table 2 - Sources of CT Mattresses Managed through the MRC CT Program

Source or Aggregation Site	FY Tonnages Collected & Managed through the MRC CT Program
CT Municipal Transfer Stations (report details in Table 6)	3,886.4
CT Regional Solid Waste Facilities (e.g. Resource Recovery Facilities, Volume Reduction Plants, Regional Transfer Stations, Recycling Facilities, etc.)	532.9
CT Correctional Facilities	0
CT Hospitals	1.7
CT Hotels	47.6
CT Military Base	2.1
CT Retailers	1,137.5
CT Schools/Universities	88.1
CT Other: Other	153.1
CT Other:	7
TOTAL	5,849.5

Table 3 - Recycling Facilities which Received & Processed CT Mattresses Managed through the MRC CT Program

Facility- Name and Address	Fiscal Year Tonnage MRC CT Mattresses Received	FY Tonnage MRC CT Mattresses Processed
Park City Green, 459 Iranistan Avenue, Bridgeport, CT	1,760.9	1,703.5
Willimantic Waste, 185 Recycling Way, Willimantic, CT	4,088.6	4,068.6
TOTAL	5.849.5	5.792.0

Table 4 - Tonnages & Types of CT Mattress Material Managed and Recycled through the MRC CT Program (Please note: material, other than waste oil, incinerated with or without energy production is not considered recycled)

Type of Material Recycled	Type of Recycling Destination	FY Tonnage Recycled
Scrap Metal	Recycling Processing Facility Other -Specify:	1,746.9
Foam	Manufacturer-End User Other -Specify:	435.4
Cotton	Manufacturer-End User	0

APPENDIX A: 2020 - 2021 FISCAL YEAR

Type of Material Recycled	Type of Recycling Destination	FY Tonnage Recycled
	Other-Specify:	
Wood	Manufacturer-End User Other Specify:	204.5
Other – Specify type: Quilts & Toppers	Manufacturer-End User Other Specify:	181.4
Other – Specify type: Felt/Shoddy	Recycling Processing Facility Other - Specify:	0
Other – Specify type: Cardboard	Recycling Processing Facility Other - Specify:	63.2
Other – Specify type: Plastic	Recycling Processing Facility Other – Specify:	99.9
Other - Specify type: Biomass (wood)	Other-Specify Other-Specify: Biomass	1,082.2
Other - Specify type:	Other-Specify Other-Specify: End User	
Other – Specify type:	Other-Specify Other-Specify:	
TOTAL CT Mattress Material Managed and RECYCLED	through the MRC CT Program	3,813.5

Table 5 - Tonnages & Types of CT Mattress Material Managed and Disposed through the MRC CT Program

Type of Material Disposed	Disposal Management	FY Tonnage
Residue	Incineration with Energy Production	1,377.4
Residue	Buried in a Landfill	0
ameton.	Other	
	Choose from Dropdown	
	Choose from Dropdown	
	Choose from Dropdown	
TOTAL CT Mattress Material Managed and Dis	POSED through the MRC CT Program	1,377.4

Table 6 - Detail Regarding Mattress Tonnage Aggregated at CT Municipal TSs or Other CT Municipally Owned and/or Operated Site and Managed through the CT MRC Program

Municipal Transfer Station or Other Municipal Property where Mattresses were Aggregated through the CT MRC Program	Fiscal Year Tonnage
See attached.	
	<u>'</u>
	-

APPENDIX A: 2020 - 2021 FISCAL YEAR

Municipal Transfer Station or Other Municipal Property where Mattresses were Aggregated through the CT MRC Program	Fiscal Year Tonnage
Mil (9/10/4/19) 4/10/3/13/6/14/24/3/4 (19/24/3) 10/4/4	
	1

Add additional lines if needed

Part 2 - CERTIFICATION and SIGNATURE

This document, which is required to be submitted by the Mattress Recycling Council (pursuant to CGS Sec 22a-905a(j)), to the Commissioner of the Department of Energy Environmental Protection , shall be signed by the chief executive officer or a duly authorized representative of such officer as those terms are defined in §22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual(s) responsible for actually preparing such document, and each such individual shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law."

Signature of the CEO or duly authorized representative of CEO: Sea True Date: 10/12/2021

Printed name: Ryan Trainer

Signature of person responsible for preparing report:

Printed name: Dan McGowan

Rev May 23, 2016

APPENDIX A: NOTES

MRC provides the following notes to clarify its interpretation of certain terms used on the form provided by the Connecticut Department of Energy and Environmental Protection (DEEP) and to elaborate on certain other information MRC has provided on that form. These notes are to be considered an integral part of the information MRC has provided on the DEEP form that is included in this Appendix.

- **1. "Mattresses"** refers collectively to mattresses and box springs. Together, mattresses and box springs are also referred to as **"units."**
- 2. Tonnage: All tonnage figures reported on this form are based on data provided to MRC by unrelated third parties under contract with MRC. Prior to one MRC recycler's installation of a scale during the reporting period, MRC converted the number of units received into tonnage using an average weight of 55 pounds per unit. After which time, actual weights were used. Another MRC recycler submitted actual weights throughout the reporting period therefore estimating at 55 pounds per unit was not necessary. Most MRC recyclers provide to MRC actual weights for the amount of recyclable material, biomass and residue that their operations generate. MRC estimated the outbound weights specific to Connecticut for one recycler that works with MRC's programs in both Connecticut and Rhode Island, because their reporting method necessitated that estimation.

3. In Table 1:

- **a.** Mattresses "Delivered to an MRC Contracted Mattress Recycling Facility for Processing" refers to discarded mattresses and box springs received by MRC recyclers for dismantling and recycling.
- **b.** Material "Sent Out for Recycling" refers to recyclable commodities obtained from dismantled mattresses and box springs that MRC recyclers sell or transfer to third parties for use in manufacturing new products or as biomass fuel.
- **c.** Residue "Sent Out for Disposal" refers to the weight of mattresses and box springs (in whole or in part) that are not recyclable (e.g. because the material is too soiled or contaminated or there are no viable secondary markets, etc.) and has been transferred for disposal at a waste-to-energy facility or landfilled as municipal solid waste.
- **d.** Outbound shipments of materials recycled do not include unprocessed units or recyclable material still in inventory. MRC is currently working with recyclers on standard operating procedures and internal controls for the collection and reporting of inbound and outbound weight data.

4. In Table 2:

- **a.** The "Consumer Incentive Mattress" category was removed because MRC has no data to report for this topic this reporting period.
- **b.** "Other" refers to miscellaneous sources not specifically defined in the law, (e.g. property managers, junk haulers or storage facilities).

5. In Table 4:

a. "Biomass" refers to wood reclaimed from dismantled box springs that is converted into biomass fuel for use in generating electric power. An MRC recycler processes wood to create a final product for biomass fuel. Since the recycler sells this product to an end user for energy production, MRC classifies it as recycled wood.

6. In Table 5:

a. "Residue" refers to non-recyclable material removed from discarded mattresses and box springs processed by MRC recyclers that is sent for disposal at a waste-to-energy facility or landfill. Residual material includes contaminated or unrecyclable mattress components for which there are no viable secondary markets.

APPENDIX A: TABLE 6

PERMANENT COLLECTION SITES 2020-2021

COLLECTION LOCATION	FY2021 TONS	COLLECTION LOCATION	FY2021 TONS
Andover Transfer Station	7.6	Haddam Transfer Station	25.5
Ansonia Transfer Station	41.4	Hamden Transfer Station	39.4
Ashford Transfer Station	19.5	Hampton Transfer Station	10.5
Avon Landfill Transfer Station	23.6	Hartford Bulky Waste and Recycling Center	425.0
Beacon Falls Public Works	2.6	Harwinton Collection Event	1.9
Berlin Transfer Station	30.7	Hebron Transfer Station	21.7
Bethany Recycling Center	9.2	Kent Transfer Station	3.2
Bethel Transfer Station	11.0	Killingly Transfer Station	16.0
Bethlehem Transfer Station	12.0	Lebanon Transfer Station	17.9
Bolton Transfer Station	3.3	Ledyard Transfer Station	25.9
Bozrah Transfer Station	1.5	Litchfield Recycling Center	19.1
Branford Transfer Station	48.3	Lyme Bulky Waste Transfer Station	3.3
Bridgeport Transfer Station	94.5	Manchester Transfer Station	161.2
Bridgewater Transfer Station	3.9	Mansfield Transfer Station	19.4
Bristol Transfer Station	87.4	Marlborough Transfer Station	15.0
Brooklyn Resource and Recovery Station	26.2	Meriden Transfer Station	52.3
Burlington Transfer Station	20.0	Middletown Recycling Center	99.5
Canaan Transfer Station	5.4	Milford Transfer Station	38.5
Canterbury Transfer Station	19.0	Montville Transfer Station	52.4
Canton Transfer Station	18.2	Morris Transfer Station	7.8
Chaplin Transfer Station	4.8	Naugatuck Transfer Station	45.5
Cheshire Collection Event	18.8	New Britain Transfer Station	45.9
Clinton Transfer Station	19.8	New Fairfield Drop Off Center	18.1
Colchester Transfer Station	28.7	New Haven Transfer Station & Collection	52.1
Columbia Transfer Station	4.8	Event	
Cornwall Transfer Station	5.1	New London Transfer Station	83.9
Coventry Transfer Station	26.5	New Milford Transfer Station	35.3
Cromwell Transfer Station	22.4	Newington Transfer Station	2.3
Danbury Mom & Pop Transfer Station	19.6	Newtown Transfer Station	38.5
Darien Transfer Station	28.4	Norfolk Transfer Station	6.4
Durham-Middlefield Transfer Station	29.5	North Branford Collection Event	2.0
East Granby Transfer Station	12.2	North Canaan Transfer Station	9.6
East Haddam Transfer Station	30.2	North Stonington Transfer Station	16.1
East Hampton Transfer Station	16.2	Norwich Transfer Station	114.2
East Hartford Transfer Station	114.1	Old Lyme Transfer Station	34.8
East Haven Landfill	4.6	Old Saybrook Transfer Station	39.4
East Lyme Transfer Station	52.4	Orange Collection Event	2.4
East Windsor Recycling Center	12.5	Oxford Transfer Station	21.0
Eastford Transfer Station	8.9	Plainville Transfer Station	9.7
Essex Transfer Station	16.3	Plymouth Transfer Station	24.9
Farmington Department of Public Works	29.8	Pomfret Transfer Station	5.0
Franklin Transfer Station	2.9	Portland Transfer Station	17.1
Glastonbury Transfer Station/Recycling Fac		Preston Transfer Station	12.4
Goshen Collection Event	3.3	Prospect Recycling Center	17.6
Granby Transfer Station	27.0	Putnam Transfer Station	27.1
Greenwich - Holly Hill Transfer Station	3.3	Redding Transfer Recycling Center	5.9
Griswold Transfer Station	19.1	Regional Refuse District #1	55.2
Groton Transfer Station	62.3	Ridgefield Transfer Station	38.6
Guilford Transfer Station	75.6	Rocky Hill Transfer Station	48.7
Jumpiu Italisiel StatiOII	73.0	Salem Transfer Station	10.7
		Saletti Italistet StatiOH	10./

APPENDIX A: TABLE 6

COLLECTION LOCATION	FY2021 TONS
Salisbury-Sharon Transfer Station	22.9
Seymour Transfer Station	12.1
Shelton Transfer Station	4.2
Simsbury Transfer Station	53.7
Somers Transfer Station	31.7
Southbury Transfer Station	33.6
Southington Bulky Waste Transfer Station	72.8
Sprague Transfer Station	8.9
Stonington Solid Waste Facility	51.5
Stratford Transfer Station	13.5
Suffield Landfill	24.3
Thomaston Transfer Station	8.1
Thompson Transfer Station	31.3
Union Transfer Station	2.6
Voluntown Transfer Station	10.5
Waterford Transfer Station	40.7
Watertown Transfer Station	28.7
West Hartford Recycling Center	51.8
West Haven Public Works	1.1
Westbrook Transfer Station	25.1
Westport Collection Event	2.0
Wethersfield Transfer Station	40.5
Willington Transfer Station	16.1
Windham Transfer Station	59.1
Windsor Transfer Station	49.0
Wolcott Transfer Station	25.9
Woodbridge Collection Event	0.3
Woodbury Transfer/Recycling Center	15.5
Woodstock Transfer Station	15.0

TOTAL 3,886.4 **TONS**

APPENDIX B: COLLECTION PARTICIPANTS

AS OF JUNE 30, 2021

COLLECTION SITES

MUNICIPAL COLLECTION SITES (120 sites & 132 served) Site limits access to its city or town residents.

Andover Glastonbury Oxford Public Works

Ansonia Granby Plainfield** also serves Lisbon

Plainville Ashford Greenwich Avon Griswold Plymouth Beacon Falls Groton Pomfret Portland Berlin Guilford** Preston Bethany also serves Madison Bethel Haddam Prospect Bethlehem Hamden Putnam Bolton Hampton** Reddina

Bozrah also serves Scotland Regional Refuse - Barkhamsted**

Branford Hartford* also serves Winsted. New Hartford

Bridgeport Hebron Ridgefield
Bridgewater Kent Rocky Hill
Bristol Killingly Salem

Brooklyn Lebanon Salisbury** also serves Sharon

Seymour Burlington Ledyard Shelton Canaan Litchfield Simsbury Canterbury Lyme Somers Canton Manchester* Southbury Chaplin Mansfield Southington Clinton** Marlborough Meriden Sprague also serves Killingworth Colchester Middletown Stonington Columbia Milford Stratford Cornwall Montville Suffield Coventry Morris Thomaston Thompson Cromwell Naugatuck Danbury Mom & Pop New Britain Union

Darien New Fairfield Voluntown** also serves Sterling

Waterford Durham** New Haven Watertown also serves Middlefield New London West Hartford East Granby New Milford** West Haven East Haddam also serves Sherman, Brookfield Westbrook East Hampton Newington East Hartford* Wethersfield Newtown East Haven Norfolk Willington East Lyme North Canaan Windham

East Windsor North Stonington Windsor** also serves Bloomfield

EastfordNorwichWolcottEssexOld LymeWoodburyFranklinOld SaybrookWoodstock

^{*} curbside collection program

^{**} serve surrounding areas as noted

APPENDIX B: COLLECTION PARTICIPANTS

SPECIAL COLLECTIONS

SITE

Cheshire Spring and Fall drop off event
Farmington Spring and Fall curbside collection
Goshen Spring and Fall drop off event
Harwinton Spring and Fall drop off event
Orange Spring and Fall drop off event

New Haven Fall drop off event

North Branford Spring and Fall drop off event

Westport Spring drop off event Woodbridge Spring drop off event

STATEWIDE ACCESS

SITE

Salvation Army Newington Salvation Army Hartford Park City Green (Bridgeport)

APPENDIX C: STAKEHOLDER OUTREACH

JULY 1, 2020 - JUNE 30, 2021

DATE	EVENT	LOCATION	STAKEHOLDER GROUP
8/19/20-8/21/20	Furniture Today Bedding Conference	Virtual	Mattress Industry
9/11/20	CCSMM Kickoff Meeting	Virtual	Municipalities, Waste & Recycling Industry
9/24/20	SEED Essex EPR Discussion	Virtual	Municipalities, Environmental
9/25/20	CT Product Stewardship Council Meeting	Virtual	Municipalities, Environmental
10/6/20	Connecticut Recyclers Coalition Annual Conference	Virtual	Waste & Recycling Industry
10/8/20	CCSMM EPR Working Group	Virtual	Municipalities, Waste & Recycling Industry
10/20/20-10/22/20	Northeast Recyclers Coalition Fall Conference	Virtual	Waste & Recycling Industry
10/20/20-10/22/20	AASHE Conference	Virtual	Educational Facilities
10/22/20	EPR Working Group	Virtual	Municipalities, Waste & Recycling Industry
11/4/20 - 11/5/20	Polyurethane Foam Association Annual Meeting	Virtual	Mattress Industry & Research Stakeholders
11/5/20	HRRA Operator Meeting	Virtual	Waste & Recycling Industry, Municipalities
11/5/20	EPR Working Group	Virtual	Waste & Recycling Industry
11/6/20	CT Product Stewardship Council Meeting	Virtual	Municipalities, Environmental
11/20/20	EPR Working Group	Virtual	Municipalities, Waste & Recycling Industry
12/1/20 - 12/3/20	National Recycling Coalition Zero Waste Conference	Virtual	Waste & Recycling Industry
12/4/20	EPR Working Group	Virtual	Municipalities, Waste & Recycling Industry
12/16/20	CCSMM Report Meeting	Virtual	Waste & Recycling Industry
1/13/21	Connecticut Conference of Small Towns	Virtual	Municipalities, Waste & Recycling Industry
1/26/21	DEEP SWAC Meeting	Virtual	Municipalities, Waste & Recycling Industry
1/28/21	CT Product Stewardship Council Meeting	Virtual	Municipalities, Environmental
2/3/21	CT Product Stewardship Council Meeting	Virtual	Municipalities, Environmental
2/17/21	CT Product Stewardship Council Meeting	Virtual	Municipalities, Environmental
2/25/21	CT Recycling Conference	Virtual	Waste & Recycling Industry
3/30/21 - 3/31/21	Northeast Recyclers Coalition Spring Conference	Virtual	Waste & Recycling Industry
4/1/21	CCSMM Meeting	Virtual	Municipalities, Waste & Recycling Industry

DATE	EVENT	LOCATION	STAKEHOLDER GROUP			
4/8/21	Rockfall Foundation: WASTED -	Virtual	Municipalities, Environmental			
	Where Are We Headed?					
5/4/21 - 5/5/21	Interzum At Home	Virtual	Mattress Industry			
5/4/21	Lodging Industry Virtual Meeting	Virtual	Lodging Facilities			
6/23/21	PSI Webinar:EPR Masterclass 2021	Virtual	Waste & Recycling Industry, Environmental			
	The Role of the Waste Management Sector					
	in EPR Systems Perspectives from Waste					
	Managers and Recyclers					
6/29/21	DEEP SWAC Meeting	Virtual	Municipalities, Waste & Recycling Industry			

AS OF SEPTEMBER 1, 2021

ACCOUNT

AC Pacific Corporation

Airweave, LLC Alessanderx SpA Allied Aerofoam, LLC

American Pacific Plastic Fabricators Inc. Apartment Furnishings Company Inc. Artaban Therapedic SA De CV

Ascion, LLC

Ashley Furniture Industries Inc.

Avatar Enterprises Inc.

Barnhardt Manufacturing Company

Bestar Inc. Bigolbed Inc.

Bio Sleep Concept Inc.
Blue Bell Mattress Co., LLC
Bob Barker Company Inc.
Bourdon's Institutional Sales Inc.

Boyd Flotation Inc.
Brentwood Home, LLC

Brick Church Manufacturing, LLC

Carico International Inc.

Carpenter Co.

CCB Hope Ventures, LLC Children's Products, LLC Classic Brands, LLC

COA Inc.

Columbia Mattress & Upholstery Company Inc.

Comfort Bedding of the USA, LLC

Comfort Revolution, LLC Comfort Sleep Systems Inc. Corsicana Bedding, LLC

CVB Inc.

Denver Mattress Company, LLC

Dorel Home Products
DUX Interiors Inc.
E&E Bedding Co. Inc.
E.S. Kluft & Company, LLC
Eastern Sleep Products Co. Inc.
Eco Bedroom Solutions, LLC

Elite Foam Inc. Engineered Sleep, LLC Ergomotion Inc. DBA NAME

AC Pacific Corporation

Airweave, LLC Alessanderx SpA Allied Aerofoam, LLC Sterling Sleep Systems

Apartment Furnishings Company Inc.

Artaban Bedding

Reverie

Ashley Furniture Industries Inc.

Comfortex
BedInABox
Bestar Inc.
Bigolbed

Bio Sleep Concept
King Koil Northeast
Bob Barker Company Inc.
Bourdon's Institutional Sales Inc.

Boyd Specialty Sleep Silver Rest Sleep Products Brick Church Mfg.

Carico

Carpenter Co. Hope Mattress

Simmons Juvenile Furniture

Classic Brands

Coaster Company of America

Columbia Mattress & Upholstery Company

Comfort Bedding of the USA, LLC

Comfort Revolution, LLC Comfort Sleep Systems Corsicana Mattress Company

LUCID® MATTRESS, WELLSVILLE®, LINENSPA®

Denver Mattress Company Ameriwood Industreis Inc.

DUX Interiors Inc.

Spring Air

Aireloom Mattress Symbol Mattress

Ergovea Natural Mattress

Elite Foam Inc.

Engineered Sleep, LLC

Ergomotion Inc.

AS OF SEPTEMBER 1, 2021

ACCOUNT

Ezine Inc.

Factory Direct Inc.

Fibre Processing Corporation

Flex-A-Bed Inc.

Flotation Innovations Inc. Foam Sweet Foam Inc.

Friendship Upholstery Company Inc.

Future Foam Inc. Future Foam Inc.

FXI Inc. FXI Inc.

GF Health Products Inc.

Gruppo Industriale Buoninfante SPA

Hammer Bedding Corp. Health Care Co. LTD

Hickory Springs Manufacturing Company

Hickory Springs of California, LLC

Hill-Rom Inc.
Idle Sleep
IKEA Supply AG

Illinois Sleep Products Inc.

Inncor Inc.

Innovative Bedding Solutions Inc.

Invacare Corporation
James McGrath
Jeffco Fibres Inc.

Jiaxing Taien Springs Co. LTD Joerns Healthcare, LLC

Jussi Beds Keetsa Inc. Kingsdown Inc.

Klaussner Home Furnishings Inc.

Kuka (HK) Trade Co. LTD Lakewood Candies, LLC Latex Foam International, LLC Leggett & Platt Components Co. Inc.

Leggett & Platt Incorporated
Linon Home Decor Products Inc.
Lippert Components Inc.

Live and Sleep, LLC

Made Rite Bedding Company

Magniflex USA LTD

Mantua Manufacturing Company

DBA NAME

Eastern Accents Lady Americana SW

Fibre Processing Corporation

Flex-A-Bed Innovations Foam Sweet Foam

Glideaway Sleep Products

Friendship Upholstery Company Inc.

Foam Craft
Future Foam Inc.

FXI FXI Inc.

GF Health Products Inc.

Gruppo Industriale Buoninfante SPA

Shifman Mattress Health Care Co. LTD

HSM HSM

Hill-Rom Company, Inc.; Hill-Rom Holdings, Inc.; Hill-Rom DTC, Inc.

Idle Group, LLC

IKEA ISP

Sleep Innovations Inc.

IBS

Invacare Corporation
James McGrath
Jeffco Fibres Inc.

Jiaxing Taien Springs Co. LTD

Joerns Healthcare

Colet & Scandinavian Bed Company & Carpe Diem

Keetsa Kingsdown Inc. Enso Sleep Systems

Gaim Regiomontana, S.A. De C.V.

Milliard Bedding Talalay Global

Leggett & Platt Bedding Leggett & Platt Incorporated Linon Home Decor Products Inc.

Lippert Components Inc.

Live and Sleep Made Rite Bedding Magniflex USA LTD

Rize

AS OF SEPTEMBER 1, 2021

ACCOUNT

Matelas Martin Inc.

McNeillys Inc.

Medical Depot Inc.

Medline Industries Inc.

Mellow Inc.

Michael Thomas Furniture Inc. Moonlight Slumber, LLC Naturally Beds Inc. Nature Sleep System, LLC

Neiser Mattress and Furniture Corp.

Nipponflex, LLC
Nitori USA Inc.
Norix Group Inc.
Northeast Mattress, LLC
Norwalk Mattress Co. Inc.
Oddello Industries, LLC
Organic Mattresses Inc.

Paramount Industrial Cos. Inc.

PPJ, LLC

Pragma Coroporation
PranaSleep, LLC

Pacific Urethanes, LLC

Prestige Fabricators Inc.
Progressive Products Inc.
PT. Graha Seribusatujaya

Puffy, LLC

Purple Innovation, LLC Quality Sleep Shop

Reliatex of Connecticut LTD

Rest Easy, LLC

Rest-Medic Sleep Products

Restmore, LLC
Restopedic Inc.
Restwell Mattress Co.
Safavieh International, LLC
Safe For Home Products, LLC

SBL, LLC

Seahawk Designs Inc.

Sealy Mattress Manufacturing Company, LLC

Select Comfort Retail Corporation Serta Simmons Bedding, LLC DBA NAME

Literie Laurier McNeilly Furniture

Drive Medical Design and Manufacturing Medical Device Manufacturer and Distributor

Mellow Inc. MFL Inc.

The MT Company

Nipponflex, LLC

University Sleep Products Arizona Premium Mattress

Jazvin

Neiser Mattress and Furniture Corp.

Aki Home Norix Group Inc. Northeast Mattress, LLC Norwalk Mattress Co. Inc. Oddello Industries, LLC Organic Mattresses Inc.

Pacific Urethanes Paramount Sleep

Customatic Adjustable Bedz

Pragma Corporation

PranaSleep

Prestige Fabricators Inc.
Progressive Products Inc.
PT. Graha Seribusatujaya

Puffy Mattress

Purple

My Green Mattress

Reliatex of Connecticut LTD

Pacific Mattress Co.

Rest-Medic Sleep Products/Luen Tai Global LTD

Restmore
Restopedic Inc.

Restwell Mattress Factory

Safavieh Naturepedic SBI, LLC

Seahawk Designs Inc.

Sealy Mattress Manufacturing Company

Sleep Number Serta and Simmons

AS OF SEPTEMBER 1, 2021

ACCOUNT

Shanghai Shenbao Mattress Factory Shen Zhen L&T Industrial Co. LTD

ShenZhen Yun Lee Sponge Products Co. LTD

Shevick Sales Corp.
Sinomax USA Inc.
Sleep Studio, LLC
Sleeping Pure, LLC
Sleeptek MFG Limited

Somnium Inc.

South Bay International Inc.

Southerland Inc.

Span America Medical Systems Inc.

Spring Coil of the USA, LLC

Suite Sleep Inc. Technogel US Inc.

Tempur Sealy International Inc.

Thanepohn Corp.
The Bedding Group Inc.

The Original Mattress Factory Inc.

The Standard Mattress Co.
Therapedic of New England, LLC

Therapedic Sleep Products Inc. Tudor House Furniture Co. Inc. University Loft Company

Ureblock S.A. DE C.V. Venture Products, LLC Vinyl Products Mfg. Inc. Vispring Limited

Vi-Spring Limited Washabelle, LLC

Werner Media Partners, LLC White Dove Mattress LTD Woodhaven Furniture Industries

Yaasa Studios Inc.

Yankee Mattress Factory Inc.

Zhejiang Alright Home Textiles Co. LTD

Zinus Inc. Zoma Sleep, LLC

DBA NAME

Shanghai Shenbao Mattress Factory

Luen Tai Global LTD Luen Tai Global LTD Sleep on Latex Sinomax USA Inc. Authentic Comfort Sleeping Pure

Sleeptek MFG Limited

Somnium Inc.

South Bay International Inc.

Southerland Inc.

Span America Medical Systems Comfort Bedding of the USA, LLC

Suite Sleep Technogel US

Tempur-Pedic, Tempur, Sealy, Stearns & Foster, Sherwood

Mattress Mill

The Bedding Group Inc.
The Original Mattress Factory

Gold Bond

Therapedic of New England

Therapedic, Eclipse, Eastman House

Tudor House

University Loft Company

Ureblock

Venture Products, LLC Vinyl Products Mfg. Inc. Vispring Limited

Vispring

Washabelle, LLC

Ghostbed

White Dove Mattress LTD Woodhaven Furniture Industries

Yaasa Studios Inc.

Yankee Mattress Factory Inc.

Zhejiang Alright Home Textiles Co. LTD

Zinus Inc. Zoma Sleep

APPENDIX E: EDUCATION & OUTREACH MATERIALS

IN-STORE INFO CARDS





COMMUNITY EVENT INFO CARD







CUSTOMER QUESTIONS ABOUT THE MATTRESS RECYCLING FEE

This list of frequently asked questions (FAQs) is here to help. Please share with your staff.

1. Why do I have to pay the recycling fee and what is it for?

State law requires retailers to collect a recycling fee on each mattress and box spring that is sold. The fee funds the state's mattress recycling program and provides for collection, transportation and recycling of old mattresses and box springs. The amount of the fee is the same statewide and is not controlled by individual retailers. More than 50,000 mattresses a day are discarded in the United States and more than 75 percent of a mattress can be recycled into new consumer and industrial products. The recycling program diverts valuable materials from landfill and helps keep bulky waste like mattresses and box springs out of the waste stream.

2. Who is the Mattress Recycling Council?

The Mattress Recycling Council (MRC) is a nonprofit organization that operates recycling programs known as Bye Bye Mattress in states that have passed mattress recycling laws. MRC was founded by the bedding industry and recycles more than 1.7 million mattresses each year. For more information about MRC, go to www.mattressRecyclingCouncil.org. To learn how to recycle your mattress or to find a collection location or event near you, visit www.ByeByeMattress.com.

3. If I don't plan to discard a mattress now, why do I have to pay this fee?

Even if you aren't discarding a mattress right now, mattresses don't last forever and will eventually be discarded. State law requires retailers to collect this fee on any mattress or box spring sale to fund the state's mattress recycling program. This program provides a network of participating cities, towns, retailers, recyclers and other organizations where old mattresses are collected for recycling at no additional cost to you. The fee also supports efforts to combat illegal dumping of mattresses and help keep our community clean.

4. If I decide to take my old mattress to a recycler myself, do I still pay the fee?

Yes, state law requires retailers to collect this fee on any mattress and box spring sale at the time of purchase to fund the mattress recycling program. You may receive a modest financial incentive if you drop off your used mattress or box spring at a designated recycling location. Visit www.ByeByeMattress.com to find the location nearest you.

5. I didn't pay this fee when I bought my old mattress, so will it be accepted for recycling?

Yes, the Bye Bye Mattress program will accept your old mattress through our collection network no matter when it was originally purchased. To be recycled, units must be clean and dry. Normal wear and tear is expected. We cannot recycle units infested with bed bugs or that are heavily soiled or damaged.

MORE FAQS ON NEXT PAGE -

PAGE 2 (MATTRESS RECYCLING FEE FAQs)

6. My old mattress was "unacceptable" for recycling. Can you refund my recycling fee?

No, state law requires retailers to collect this fee on any mattress and box spring sale to fund the mattress recycling program. The law does not force retailers to accept every mattress for recycling out of concern for employee health and safety. Store policy, in addition to the guidelines of the recycling program, determine what we will and won't accept. If your mattress is unacceptable for recycling, contact your city or town to learn what disposal options are available.

7. What are the benefits of mattress recycling?

Mattress recycling programs offer many benefits for the community, state and environment, including:

- Less reliance on incinerators and landfills by diverting mattresses from the waste stream
- Reduces the number of illegally dumped mattresses
- · Conserves resources by making used steel, foam and other materials available for use in new products
- Creates recycling jobs

8. What happens to my old mattress or box spring when it gets recycled?

Recycled mattresses are cut open and the layers are separated and organized by type. Wood is recycled and used as a fuel source or shredded to produce landscaping mulch. Foam, fiber and other soft commodities are compressed and turned into carpet underlayment or animal bed padding. Metal and box springs are extracted, sent to recyclers and used to make new appliances and building materials.

9. Will the Mattress Recycling Council or Bye Bye Mattress program pick up my old mattress from my home?

If your store takes back old mattresses:

No, but our store offers this service at time of delivery of your new mattress. (If your store recycles with the program, please let the customer know. Otherwise direct them to drop off their mattress at one of our free collection points listed on www.ByeByeMattress.com.)

If your store does not take back old mattresses, your response should be:

Mattresses are collected from a vast network of free collection sites throughout the state. These are typically public works yards or transfer stations. Your city/town may also collect bulky items at curbside as part of your trash service. Visit www.ByeByeMattress.com to see what options are available. The Mattress Recycling Council does not pick up mattresses from customer's homes.

FYI - In California, mattress retailers are required by law to offer to take back old mattresses when delivering new ones. Retailers can work with MRC to have the used mattresses collected from customers recycled for free as part of our program.

NEED MORE INFORMATION? Please contact info@mattressrecyclingcouncil.org or call 1-855-229-1691.

THANK YOU FOR SUPPORTING THE MATTRESS RECYCLING COUNCIL'S BYE BYE MATTRESS PROGRAM.