



WILLIMANTIC
WASTE PAPER CO., INC.

Tackling Contamination in Recycling

Methods of working together to reduce contamination:

- Curbside
- Transfer Station
- Multifamily Housing

About WWP



- Willimantic Waste Paper Co., Inc. is a multi-faceted waste recycling enterprise.
- Operating 6 waste processing facilities
- Flagship material recovery facility uses a state-of-the-art recyclable sorting system handling over 400 tons per day.
- 2007 we switched 4 facilities from dual stream processing to one large single stream sorting system

Dual Stream vs. Single Stream



- Dual stream recycling always had contamination
- The same problems that we are having today, we had with dual stream
- Plastic bags and broken mixed glass have always been major components of contamination
- Dual stream fiber contamination was roughly 2%
- Dual stream bottles and cans contamination was roughly 10%
- Single Stream Recyclables contamination hovers between 15 to 25%

A Guide to Recycling 

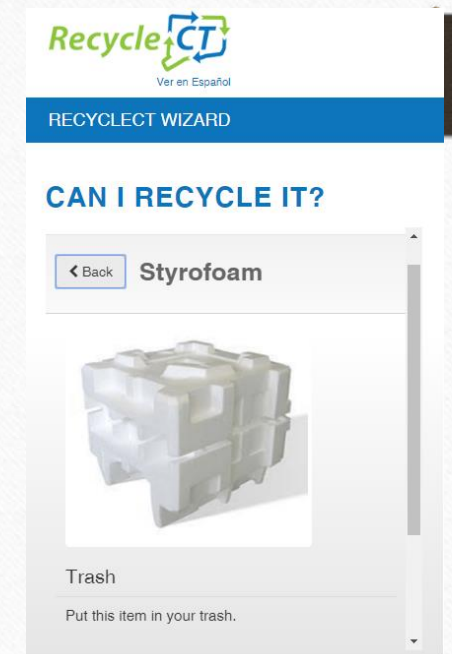
All items should be empty, rinsed, clean and open. Do not shred, box, bag or bundle.

	PAPER	GLASS	METAL	PLASTIC	
What's OUT?	Gift wrap & gift bags Shredded paper Take-out food containers Paper cups (hot & cold) Tissue paper	Ceramic mugs & plates Drinking glasses	Aerosol containers (deodorants, perfumes, etc.) Foil tops from yogurt containers Paint cans	Plastic bags & wrap Plastic plates, bowls & utensils Prescription bottles	Single-use coffee containers & containers Styrofoam cups & containers Water filters
What's IN?	Cardboard & cardboard Food & beverage cartons Junk mail Magazines & newspaper inserts Newsprint Office paper Pizza boxes	Beverage bottles & jugs Food bottles & jugs Pizza boxes	Aerosol containers (food grade only) Aluminum foil Cans & bottles	Foil containers Metal lids from cans & bottles	Plastic one-use cups & lids (no straws)

To learn more, go to RecycleCT.com

Partnerships & Standardizing the Message

- Worked with CT DEEP, Recycle CT and other recovery facilities
- Generate a universal list of acceptable items
- Also worked with two regions that serve our facility, Southeastern Regional Resource Recovery Authority and Mid Northeast Recycling Committee
- Worked along side public works departments to help them understand the issues with contamination
- Recycle CT developed a search box that people can type in an item and it tells if it's recyclable and why or why not
- This is a very useful tool to point people in the right direction



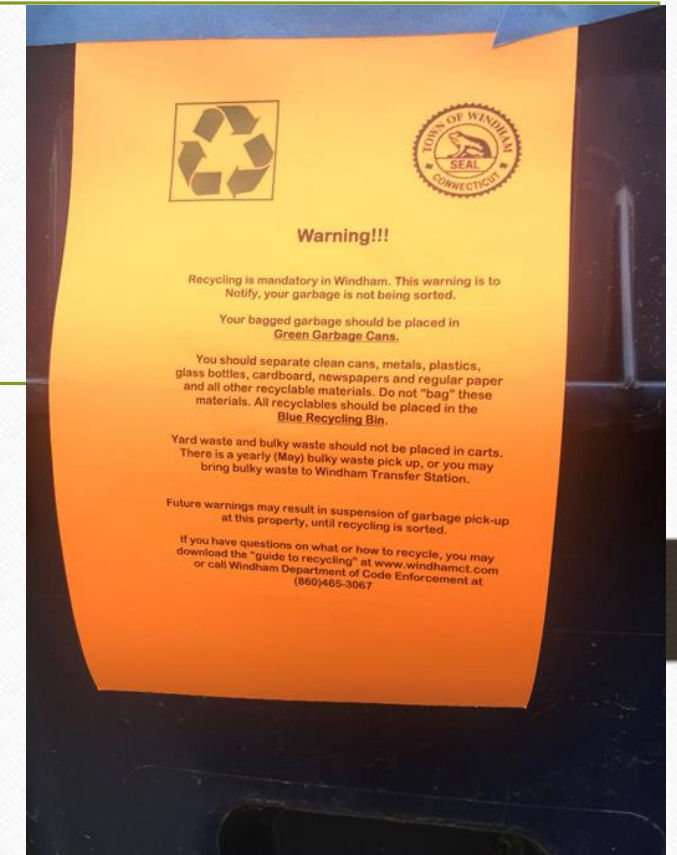
Changing Perceptions About Recycling

- Single Stream is an industry term
- Mixed recyclables portrays a clearer message to general public
- A lot of items are recyclable - just not on the curbside



Our Views and Simple Correction Action

- We feel it is more important to show what is not acceptable
- Keep the message simple of what's acceptable
- What's in, What's out is useful reference for universal list of acceptable recyclables
- Trash and plastic bags go hand in hand
- Getting the word out that plastic bags are recyclable, just not in curbside



- Adding stickers onto bins, carts, and dumpsters
- Updating websites and utilizing flyers
- Posting warning tags onto carts

Our Response to Contamination

- Trying to use clear examples of what plastics are acceptable
- The numbers on plastics create confusion, people end up throwing into recycling due to just having a number
- Revamped our messages to our customers to make them aware of these issues
- Pictures are helpful
- Working on creating a sticker that is standardized and universal



How We Handle the Load Inspection Process

- Photograph every load that comes in
- The photographer rates and inspects the load
- Immediately transferred to recycling inspector to analyze and give appropriate contamination rating
- Extremely effective process IF communities cooperate
- Must be receptive to new ideas



LOAD INSPECTION DATA SHEET

DATE - TIME

6/4/2018 17:28:59

BILL OF LADING

HAULER

WILLIMANTIC WASTE PAPER CO.

ORIGIN

TOLLAND - RESIDENTIAL

MATERIAL

SINGLE STREAM RECYCLING

CONTAMINATION %

15%

CONTAMINATION DESCRIPTION

Yard waste, metal fencing, dog bed, black mesh and helium tank

BAG COUNT

EXCESSIVE

LOAD PICTURES

https://drive.google.com/open?id=1NLEONen_qSZSeSxunbafk2Vf5VWd8PFs,
https://drive.google.com/open?id=1lrEEoO_KPslpn9EFGHW3-NzIY_-FumH,
https://drive.google.com/open?id=13x5zyKlj3p7cEbN4s2Z_XKi0lvkHkr68,
https://drive.google.com/open?id=1cErL0Pz2yRkhHngQOFVSOAlwdYfB_3Eu,
https://drive.google.com/open?id=1HA4R7AnJ_hrXsc-qzmsajYoEsMk0_2gg,
<https://drive.google.com/open?id=1uljwY6AsPLccoxkYK3vnrwB6aayCgr3pR>,

Working with Towns, the Residential Response

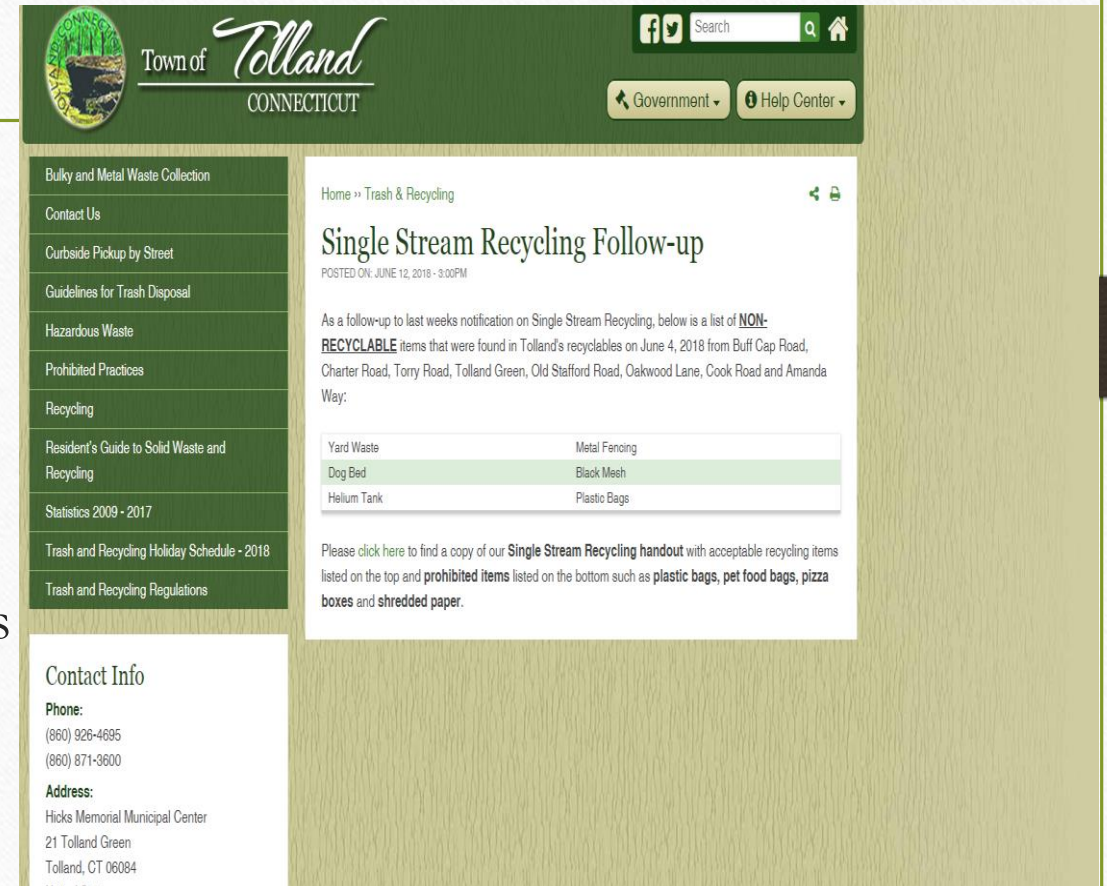
- Tolland is a prime example for proactive response
- We service 5200 households residentially
- Started sending notifications
- Also sent the routes for the days serviced by using GPS in our vehicles

Tolland Dirty Load



Tolland Results

- Several months later contamination rate has decreased significantly
- Still continue to monitor loads
- Tolland sent email blasts, put a message they received from us on their website
- Informed the residents on appropriate recyclables
- Overall Tolland is a perfect example of how information and being proactive is beneficial



The screenshot shows the Town of Tolland website with a green header. The header includes the town logo, the name 'Town of Tolland CONNECTICUT', a search bar, and navigation buttons for 'Government' and 'Help Center'. A left sidebar contains a menu with items like 'Bulky and Metal Waste Collection', 'Contact Us', 'Curbside Pickup by Street', 'Guidelines for Trash Disposal', 'Hazardous Waste', 'Prohibited Practices', 'Recycling', 'Resident's Guide to Solid Waste and Recycling', 'Statistics 2009 - 2017', 'Trash and Recycling Holiday Schedule - 2018', and 'Trash and Recycling Regulations'. The main content area features a 'Single Stream Recycling Follow-up' article posted on June 12, 2018. The article text states: 'As a follow-up to last weeks notification on Single Stream Recycling, below is a list of **NON-RECYCLABLE** items that were found in Tolland's recyclables on June 4, 2018 from Buff Cap Road, Charter Road, Torry Road, Tolland Green, Old Stafford Road, Oakwood Lane, Cook Road and Amanda Way:'. Below the text is a table with two columns of items. The first column lists 'Yard Waste', 'Dog Bed', and 'Helium Tank'. The second column lists 'Metal Fencing', 'Black Mesh', and 'Plastic Bags'. The table has a light green background. Below the table, there is a link: 'Please click here to find a copy of our Single Stream Recycling handout with acceptable recycling items listed on the top and prohibited items listed on the bottom such as plastic bags, pet food bags, pizza boxes and shredded paper.'

Yard Waste	Metal Fencing
Dog Bed	Black Mesh
Helium Tank	Plastic Bags

Tolland After Inspection



- As you can see the number of bags has significantly decreased

Transfer Stations

- The same type of messages were sent to operators of transfer stations
- They previously lacked basic signs on where materials should be dropped off
- Operators of the transfer station didn't monitor the materials thoroughly
- Average contamination rate for transfer stations was around 20%

Transfer station bad loads



Transfer Station Results

- WWP worked with transfer stations to make better signs in front of containers
- Discussed with operators on items to look for that aren't recyclable
- Also a trash barrel is next to recycling bins for items that are not recyclable
- On the door there is a sheet that says what is and what is not acceptable to recycle there to reduce confusion
- After several months, their contamination rate is significantly down
- Still continue to monitor

Should I put it in Recycling?	
YES	NO
PAPER	
Cardboard & Boxboard Food & Beverage Containers Junk Mail Magazines & Newspaper Inserts Paper Egg Cartons	Gift Wraps & Gift Bags Ice Cream Containers Paper Cups (Hot & Cold)
GLASS	
Beverage Bottles & Jars Food Bottles & Jars	Ceramic Mugs & Plates Drinking Glasses
METAL	
Aerosol Containers (Food Grade Only) Aluminum Foil Cans & Bottles Foil Containers Metal Lids from Cans & Bottles	Aerosol Containers (Deodorants, Cleaners, Pesticides, Etc.) Foil Tops from Yogurt Containers Paint Cans Pots & Pans Small Pieces of Scrap Metal Spiral Wound Containers
PLASTIC	
Plastic Bottles (With or Without Caps attached) Plastic Containers, Tubs & Lids Plastic One-Use Cups (No Lids, No Straws) Plastic Toys Plastic Hangers Plastic Buckets Plastic Crates	Plastic Bags & Wrap (Take Bags to Participating Grocer) Plastic Plates, Bowls & Utensils Prescription Bottles Single-Use Coffee Containers Styrofoam Cups, Containers & Packaging Peanuts Water Filters
All Items Should be Empty, Rinsed, Clean, and Open. Don't Box, Bag, or Bundle.	



Visible Difference



Working with Multifamily Housing

- We provide services and processing for Mansfield's numerous multifamily apartment complexes
- Previously the recycling container was the same size and color as the trash container, only difference was the label
- Mansfield worked very much with us to find solutions

Sample Loads for Multifamily



Multifamily Results

- Different color containers, with yellow lids, and a large sticker identifying acceptable recyclables
- Mansfield also does their own inspections and notifies us what containers not to service if it's too contaminated
- Most importantly the apartment complex is notified that their container is not serviceable



Importance of Knowledge

- One of the largest contributors to improve recycling is making sure the residents know what to put into the correct containers
- What's in what's out is very beneficial
- Tolland showing what is unacceptable on their website, and sending emails informs residents exactly what cannot go in
- Getting a clear message to the general public through education, advertising, and flyers should all be apart of the campaign



Cooperation



- When towns and haulers are working together to resolve the issue the results are outstanding
- Mansfield is a great example of working with the generator to improve their recycling quality
- Working to have a universal list of acceptable and unacceptable items has been a large contributing factor to the success of our program

Thank you for your time

