



Presentation to the Solid Waste
Management Committee of the Connecticut
Department of Environmental Protection

Impact of Single Stream Recycling in the City of New Britain



Mark Moriarty, PE
Director of Public Works
City of New Britain



- The City of New Britain implemented a Single Stream Recycling Program (SSR)
 - Curbside pick-up started in October 2010
- You're probably thinking:
 - Many Connecticut municipalities have SSR now
 - This is old news
 - What's the big deal?

Welcome



Old Program



New Program



Not sure where it ranks on the scale of big deals, but we did take a *different approach* and I have some interesting things to share with you today

Welcome



- Of interest...
 - Our program involved more *extensive and focused public outreach* than most communities



Welcome



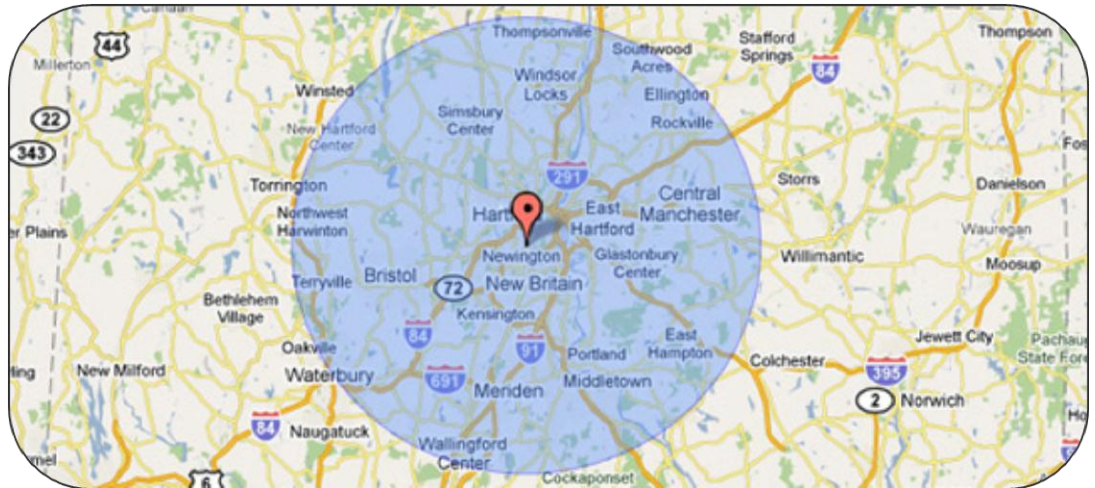
- Of interest...
 - We tracked very specific data to measure the *impact of SSR* on properties in the City

SONY T678						NINTENDO T7574					
	Close	Trading Vol	Daily Last Asked Price	Daily Last Bid Price	Close						
	STOCKCLOSE	STOCKVOLUME	STOCKASK	STOCKBID	STOCKCLOSE						
	yen	share(s)		yen							
2009/07/21	2315	5051500		2305	2570						
2009/07/22	2295	3490900		2300	2295	26010					
2009/07/23	2330	5425000		2330	2320	25190					
2009/07/24	2370	4987900		2385	2370	26430					
2009/07/27	2385	7914400		2385	2355	26670					
2009/07/28	2325	4659100		2330	2325	26520					
2009/07/29	2345	6038800		2350	2345	26020					
2009/07/30	2505	11915300		2510	2505	26330					
2009/07/31	2675	14395400		2680	2670	25300					
2009/08/03	2690	5751600		2690	2675	25690					
2009/08/04	2650	6824000		2655	2645	25920					
2009/08/05	2655	7257000		2655	2650	25410					
2009/08/06	2705	5799000		2710	2705	25460					
2009/08/07	2695	6306000		2695	2685	25420					
2009/08/10	2780	10810300		2780	2775	25600					
2009/08/11	2770	3588300		2780	2765	25420					
2009/08/12	2715	4590600		2720	2715	25320					
2009/08/13	2795	3344600		2715	2705	25360					
2009/08/14	2715	4549000		2715	2705	25420					
2009/08/17	2605	6736800		2605	2600	24720					
2009/08/18	2600	5401500		2600	2595	24480					
2009/08/19	2500	7711100		2500	2495	24700					
2009/08/20	2480	9560200		2485	2480	24500					
2009/08/21	2445	7782900		2445	2440	23750					

Welcome



- Of interest...
 - We implemented a *real-time, web-based tracking* system for recycling and cart management



Welcome



- Of interest...
 - New Britain's SSR program has been *unusually successful*



Welcome



- Today's discussion will **NOT** discuss
 - Contractor selection
 - Cart bidding and sizing
 - Decisions on weekly vs. bi-weekly collection schedule
 - Pay-as-you-throw



Outline



- Today's discussion will discuss
 - Motivation
 - Program
 - Funding
 - Benchmarking
 - Public Outreach
 - Enforcement
 - Results



Outline



Motivation

so why are we doing this?



**We all know that
CDEP set a goal of**

58%

by 2024



Motivation





Yes, I like trees...

Motivation





I also like frogs.

Motivation





I love fresh, clean air.

Motivation





I love crisp, clean water.

Motivation



- As a Public Works Director, I consider myself fortunate to be in a position to *positively impact* all of these things through my work:
 - I&I projects
 - Illicit discharge elimination
 - Storm water quality
 - Related projects



Motivation



Yet none of these
environmental reasons were
motivating factors for me,
personally, to increase
recycling in New Britain

Motivation



**So... what was my
motivation?**

Motivation



The Almighty Dollar \$\$\$

- In an economically challenged community with little economic growth, you need to come up with new ways to:
 - Save money
 - Keep taxes down



Motivation



- You should also know that I'm a very competitive person
- New Britain's recycling rates, when compared to other TROC municipalities, were very, very low

Mark Moriarty
Competitive by Nature/
Overall Fan of Recycling



Motivation





TUNXIS RECYCLING OPERATING COMMITTEE

43 Enterprise Drive
Bristol, Connecticut 06010
www.brifoc.org

(860) 585-0419
(860) 225-9811
Fax (860) 585-9875

MEMO TO: TROC Members

Town	Jul - Mar FY 2009	Jul - Mar FY 2010
BERLIN	1,310	1,141
BRISTOL	2,765	2,550
BURLING.	548	534
MERIDEN	1,341	1,366
MORRIS	120	139
N. BRITAIN	2,027	1,661
PLAINVILLE	1,243	764
PLYMOUTH	336	334
PROSPECT	403	388
SOUTH.	1,898	2,297
WARREN	82	69
WASH.	344	343
WOLCOTT	475	460
TOTAL	12,892	12,046



Bristol's showing us up!



**Embarrassing =
MOTIVATING!**

Motivation



Recycling is a habit!

- Personally, I like to recycle
- And it drives me nuts to see people throwing out recyclable items



Real-Life Moriarty Household Recyclables

Motivation



Recycling is a habit!

- Like anything, once you start recycling, it becomes a habit
- *How do you motivate change?*
- How do you make recycling a habit for the 39% of the properties in New Britain that weren't recycling before we implemented the SSR program?

Motivation

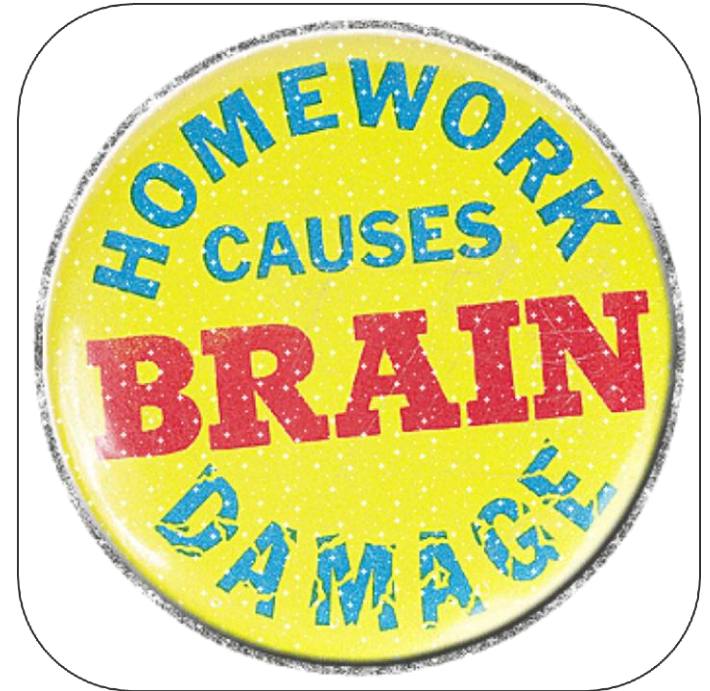


Program

taking a different approach in New Britain



- We went through the steps of evaluating what type of program to put in place
 - Pay-as-you-throw
 - Switching existing 95 gallon MSW cart to recycling carts, and purchasing new smaller MSW carts
 - Weekly vs. bi-weekly collection
 - And so on...
- We definitely did our homework



Program



- In the end, we went with what appears to be a very vanilla program for curbside recycling and MSW pickup



Program



- Weekly MSW curbside collection
 - Primarily used 95 gallon red containers
- Bi-weekly recycling collections
 - Primarily used 95 gallon blue containers
- Serving residential properties up to six family



Program



- Despite the vanilla curbside collection program for MSW and recycling, our approach was not cookie cutter
- We believe it had several unique attributes that made it work in our City



Program



- **A Unique Approach**
 - Funding
 - Benchmarking
 - Public Outreach
 - Enforcement
 - Results
- And in terms of results, I am talking about tracking more than just the overall recycling rate



Program



Funding

aka: “finding the cash”



- The biggest hurdle to implementing New Britain's SSR Program was the cart purchase
 - **21,000 recycling carts**
 - **Cost \$1,014,022**
- How do we fund this purchase?



Funding



- When I first accepted the position of Public Works Director in the City of New Britain, I didn't need to handle solid waste management with such a hands-on approach...



Funding



- Because I had Marilyn Cruz-Aponte on my staff!
- She has earned a name for herself in the solid waste management world
- And then...

Marilyn Cruz-Aponte
aka Solid Waste
Management Guru



Funding



January 8, 2008

SHE'S LEAVING!

THE HERALD

Mayor of New Britain Timothy Stewart, left and Director of New Britain Public Works, Mark Moriarty say goodbye to Marilyn Cruz-Aponte the former Administrative Services Officer for the New Britain Public Works after 17 1/2 years.



Funding



- Marilyn gave me the initial idea about funding the cart purchase using a direct Department of Energy (DOE) Energy Efficient Community Block Grant (EECBG) totaling **\$653,500**
- Most municipalities were using their direct grant money on building energy efficient projects



Funding



- I convinced the Mayor to let me use the money for the SSR program
- And the City self-funded the remainder of the purchase...
- So we started the project well-funded
- **Money provides more options...**



\$\$\$

Funding



Benchmarking

aka: “knowing where you’re starting from”



- We strongly believed that a public education component would be the key to our success and would make recycling a habit for the people of New Britain
- **We needed to find out who recycled... and who didn't**
- We needed data – beyond just an overall recycling rate – to find out what we were really dealing with
- Not to mention, the DOE/EECBG has some pretty specific benchmarking requirements...

Benchmarking



2010 City-Wide Recycling Survey

Conducted in
February 2010

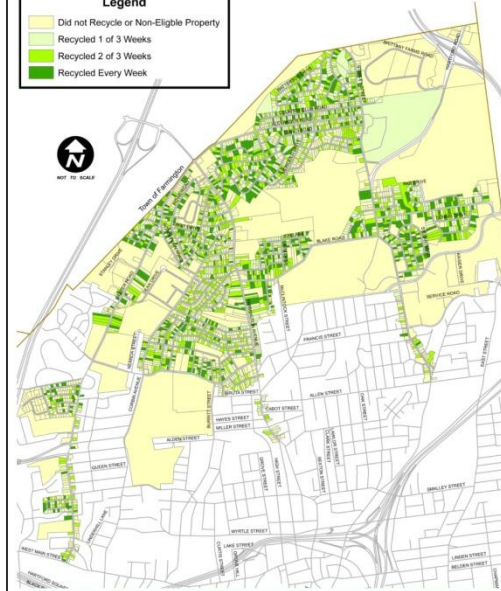
Benchmarking



City of New Britain | Department of Public Works

FEBRUARY 2010

CITY-WIDE RECYCLING SURVEY



PREPARED BY:

Mark E. Moriarty, PE
Director of Public Works
City of New Britain
Department of Public Works
27 West Main Street
New Britain, CT

DATE PREPARED:

August 2010



Timing is everything!

- We had a staff of inspectors with minimal construction activity over the winter
- They followed CWPM's recycling collection trucks for the entire month of February 2010



NBDPW staff aka "the people behind the scenes"

Benchmarking



- This allowed us to document which properties recycled, and which did not
- **We developed a GIS database with this information**
- We designed a specific public education campaign based on recycling results – ie: *did you recycle or did you not* – rather than develop a cookie cutter program

Benchmarking



**So... what did
we find???**

Benchmarking



- **8,929 out of 14,400 (61%)** eligible properties in our city-wide survey recycled at least one time during our February 2010 survey
- Recycling participation was highest in single family homes at **67%**, and then dropped off for multi-family homes
- The highest per property recycling rate occurred in our Tuesday recycling route for two family homes, at **74%**

Benchmarking



Recycling Percentages – by property type

Type of Property	Total Number of Properties	Total Number of Properties Recycling	Percentage of Properties Recycling
Single Family	8,961	6,400	67%
Two Family	2,721	1,701	64%
Three Family	1,583	840	50%
Four to Six Family	410	151	41%
TOTAL	14,400	8,929	61%

Benchmarking



Recycling Percentages – for single family properties

Recycling Collection Day	% of Single Family Properties	Per Property Recycling Rate (%)
Monday	85%	68%
Tuesday	70%	69%
Wednesday	45%	57%
Thursday	43%	55%
Friday	60%	59%

Benchmarking



Public Outreach

aka: “educate and motivate”



Public outreach had two primary components:

1. Information Overload
2. Targeted Mailings

- **Information Overload**
 - Can't get away from seeing SSR educational materials
 - If people didn't get it – it wouldn't be because we didn't try
- **Targeted Mailings**
 - Based on February 2010 Recycling Study
 - Sent to all residents and property owners
 - Letter for if you did recycle
 - Letter for if you didn't recycle
 - Included recycling magnet

Public Outreach



Information Overload

• Media Blitz

- Newspaper articles about upcoming SSR program
- Full page color ads with information about the project
- Focusing on major daily publications (ie: New Britain Herald) as well as Polish and Spanish publications

City rolling out single-stream recycling

By LISA BACKUS
STAFF WRITER

NEW BRITAIN — Residents are in the process of receiving their new blue recycling carts, which will ultimately save the city money while helping the environment.

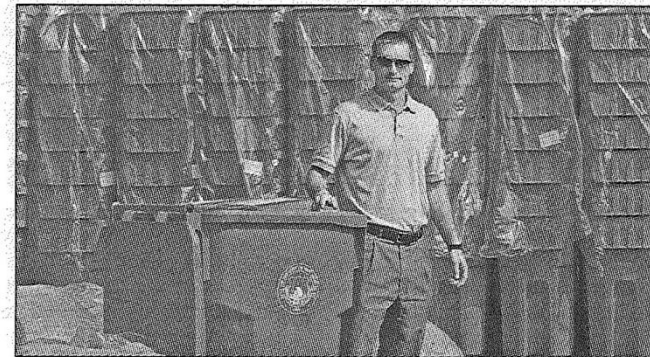
The blue carts provide for “single-stream” recycling, which allows residents to recycle more items without separating them.

The blue carts replace the yellow recycling bins that residents put out each week.

“This is going to change things considerably,” said Mayor Timothy Stewart Wednesday as workers were preparing to haul out another load of blue carts to be dropped off throughout the city. “This is the last piece of our clean city initiative that we’ve been working on for about seven years.”

The switch to the blue carts will save the city money by reducing the amount of trash the city must pay to pick up, Stewart said. “This will pay for the new system in less than two years,” Stewart said.

The new system will allow residents and businesses to recycle more types of plastic, unfolded cereal boxes, newspapers, magazines, junk mail, all types of glass except for light bulbs, windows and mirrors, and all types of metal cans and foil.



Chris Richie | Staff

Mark Moriarty, director of public works, shows the new recycling bins.

Residents cannot put aerosol cans, paint cans, scrap metal, pots and pans or appliances in the new carts.

Residents should read the list of acceptable recycling items carefully, said Public Works Director Mark Moriarty. “If it’s not on a yes list, then it’s a no,” he said.

The bulk of the cost of converting to the single stream carts was paid through a federal stimulus grant. Under the new system streets will be broken into “A” weeks and “B” weeks. Residents will receive a schedule with their new blue cart or can check the city’s website or call Public Works if they have a question.

The first pickup of the blue carts will start with the “A” streets the

week of Oct. 18. Residents can look on the blue carts to determine which items can be recycled. The instructions are in English, Polish and Spanish and include drawings that are easily read. Residents who speak other languages can have the instructions translated by the city, Stewart said.

Moriarty is also cautioning residents that they cannot put regular trash in the new blue carts because it could contaminate the entire recycling load.

Residents can keep their yellow recycling bins or return them to the city landfill. The recycling carts should go out with residents’ maroon trash carts the night before their scheduled trash pickup.

Public Outreach



Information Overload

- **Reaching the Children**

- Participated in City's "Discover the Environment" Day
- Hired Environmental Learning Centers to host recycling game which every 6th grader in the City was required to play
- Personally worked with Lincoln School's "Green Team" who spent a year focusing on recycling



Public Outreach



Information Overload

- **Direct Outreach**

- Established a brand for SSR program based on TROC materials
- Devoted a special section of the annual Environmental Services Calendar to SSR
- Informational brochures informing people about
 - Program changes
 - What you can and cannot recycle
 - General do's and don'ts
- Placed Variable Message Signs (VMS) strategically in locations throughout the City
- Provided informational displays at locations throughout the City (ie: libraries, schools, etc.)

Public Outreach



Information Overload

2010-2011 Environmental Services Calendar – Special Section

SINGLE STREAM RECYCLING COMING EARLY FALL 2010



We are pleased to announce the arrival of automated SINGLE STREAM RECYCLING collection to New Britain. The new curbside program is anticipated to begin early fall 2010.

Single Stream is an easier process that requires no sorting and allows more materials to be recycled.

PROGRAM CHANGES

Recycling collection will be EVERY OTHER WEEK
Everything goes into larger 95-gallon containers.
NO SORTING
Additional materials can be recycled
Plastics 1-7
Boxboard (i.e. cereal & gift boxes)

BENEFITS

Save money: it is less expensive to dispose of recyclables than trash
Cleanliness of the City of New Britain
Help the environment

WATCH YOUR MAIL FOR MORE INFORMATION

STATE LAW REQUIRES RECYCLING
LOCAL FINES FOR NOT RECYCLING WILL BE ENFORCED.
First offense: written warning. Second Offense \$25. Subsequent offenses: \$100.

RECYCLING GUIDE



YES

CLEAN FOOD & BEVERAGE CONTAINERS
Must be cleaned and rinsed
Including laundry detergent and shampoo bottles



PAPER

- Newspapers
- Magazines
- Catalogs
- Junk mail
- Office paper
- Cereal boxes



GLASS AND METAL FOOD & BEVERAGE CONTAINERS
Must be cleaned and rinsed



PLASTIC CONTAINERS

- Must be cleaned and rinsed
- #1-7



CORRUGATED CARDBOARD
Folded flat to 2'x3'



NO

TRASH

- Ceramics
- Appliances
- Household rubbish



AEROSOL CANS



PRESCRIPTION DRUG CONTAINERS



SHARPS

- Knives
- Light Bulbs
- Syringes/Needles (Regular special handling)
- Mirrors
- Window Glass



PLASTIC BAGS

Recycle at Supermarket



TOXIC FLUIDS

- Antifreeze
- Pesticides
- Motor Oil
- Paint Cans
- Household Cleaners



WHY RECYCLE?

- Saves Money
- Conserves Natural Resources
- Reduces Greenhouse Gas Emissions
- Reduces Carbon Footprint

Your 18 gallon recycling bin will no longer be used. Each property will be supplied with a new blue recycling container similar to your maroon trash container.

You may keep your old recycling bin. If you wish to dispose of your bin, you may place it in your MAROON container. DO NOT put it in your new BLUE recycling container. You may also drop it off at the New Britain Landfill, Deming Road, Berlin.

Your collection day will remain the same as your current day, BUT recycling collection will occur EVERY OTHER WEEK instead of every week. A collection schedule will be provided before the start of the program.

With Single-Stream Recycling ALL recyclable materials will be put into the blue recycling cart. No more bagging, tying, or bundling and no need to sort or separate different types of metal, glass and plastic containers from paper, junk mail, boxboard and cardboard – simply mix all recyclable materials together in the cart, close the lid and wheel it to the curb for collection.

DISPOSAL ITEM | SPECIAL RULES & FEES | WHERE TO TAKE IT

DISPOSAL ITEM	SPECIAL RULES & FEES	WHERE TO TAKE IT
Propane Tank	\$10 fee for disposal	New Britain Landfill
Car Batteries	Free disposal	New Britain Landfill
Motor Oil	Free disposal (\$5 gallon limit)	New Britain Landfill
Tires	\$5 each up to 19"; \$10 ea for 20"-24"; \$60 each for 25" & above.	New Britain Landfill
Appliances:	Free disposal (\$15 for Freon appliances)	New Britain Landfill. See on-call collection
Metal Recreational Equipment/ Yard Equipment	Swing sets, exercise equipment, grills, no tanks, lawn mowers, clippers etc. Free disposal.	New Britain Landfill. See on-call collection
Metal Bedframes	Free disposal	New Britain Landfill. See on-call collection
Metal Doors	Free disposal	New Britain Landfill. See on-call collection
Metal Furniture	Free disposal	New Britain Landfill. See on-call collection
Metal Shelves & Closets	Free disposal	New Britain Landfill. See on-call collection
Toilets, Tubs & Sinks	Landfill fees apply. See below.	New Britain Landfill. See on-call collection
Oil Tanks, Hot Water Heaters & Radiators	Oil tanks dry & cut in half. free disposal	New Britain Landfill. See on-call collection
Home Building Debris	Bricks, rocks, cement, shingles, sheetrock, treated wood. See landfill fees below.	New Britain Landfill. See on-call collection
Rugs/Carpeting	Roll & tie to 5' length. Burnable items can be placed on curb call for appointment.	Call Trash-Away: 225-1206
Couches, Chairs & Recliners	Burnable items can be placed on curb. Call for appointment.	Call Trash-Away: 225-1206
Mattresses & Box Springs	Burnable items can be placed on curb. Call for appointment.	Call Trash-Away: 225-1206
Loose Wood	Cut to 4' & bundle into manageable piles. Call for appointment.	Call Trash-Away: 225-1206
Yard Clippings	Cut to 4' & bundle into manageable piles. Call for appointment.	Call Trash-Away: 225-1206
Wooden Furniture	Burnable items can be placed on curb. Call for appointment.	Call Trash-Away: 225-1206
Wooden Framed Windows	Burnable items can be placed on curb. Call for appointment.	Call Trash-Away: 225-1206
Wooden Fences	Cut to 4' & bundle into manageable piles. Call for appointment.	Call Trash-Away: 225-1206
Household Plastic Lawn Furniture & Toys	Burnable items can be placed on curb. Call for appointment.	Call Trash-Away: 225-1206
Leaves	Must be recycled. Look for details in October/November calendar	New Britain Landfill
Grass	No bagging! Clippings are not collected by hauler. It's the law	Compost in backyard or cut and leave on lawn
Books	Burnable in with trash or given to community agency	Curbside or Community Organizations
Clothing	Burnable in with trash or given to community agency	Curbside or Community Organizations
Electronics	All computer components, TVs, VCRs, DVDs, cameras, cell phones, stereos, radios, etc. Free disposal.	New Britain Landfill. See on-call schedule
Household Hazardous Waste	Residents must deliver in their own vehicle. No charge.	Sept 18 Southington; Sept 25 Wolcott; Oct 2 Bristol; Oct 23 New Britain/Berlin

LANDFILL RESIDENT FEES

First 5 cubic yards are \$5 for each cubic yard
Next 5 cubic yards are \$10 for each cubic yard
Next 10 cubic yards are \$20 for each cubic yard

Public Outreach



Targeted Mailings

If you recycled...

- EDUCATE
- Involved 61% of properties

If you didn't recycle...

- MOTIVATE
- Involved 39% of properties

- **Speaking to Every Resident**
 - Key to the program's success
 - People largely ignore mass mailings, even though we did do some of this as part of the program
- **Letters based on:**
 - Did you recycle?
 - Did you NOT recycle?

Public Outreach



Targeted Mailings

We developed customized messages based on recipient

- Single Family Home – RECYCLING
- Single Family Home – NOT RECYCLING
- Property Owner, Multi-Family – RECYCLING
- Property Owner, Multi-Family – NOT RECYCLING
- Tenant, Multi-Family – RECYCLING
- Tenant, Multi-Family – NOT RECYCLING

Public Outreach





OFFICE OF THE MAYOR

TIMOTHY T. STEWART
MAYOR

27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT 06051
TEL: (860) 826-3303
FAX: (860) 826-3308
www.new-britain.net

SINGLE STREAM RECYCLING COMING OCTOBER 2010

Dear Property Owner:

A city-wide residential Single Stream Recycling Program is scheduled to begin mid-October. The program targets 1 – 6 family residential properties. Single Stream Recycling simplifies the recycling process by allowing residents to mix all paper and containers (newspaper, cardboard, plastic, glass, etc.) together in their recycling container without having to sort each item separately. Some of the changes and benefits of this program include:

- All recycling goes unsorted into **larger 95-gallon containers** which will be provided by the City at no charge. Multi-family properties will be provided two 95-gallon containers.
- Additional materials can be recycled
 - Plastics 1 – 7 (see triangle with number at bottom of container)
 - Boxboard (i.e. cereal & gift boxes)
- Recycling collection will be **every other week**. The day of the week recycling is collected will not change. Information about the start dates for Single Stream Recycling in your neighborhood will be provided with the container.
- Cost savings: disposal costs for recyclables are less than half of what they are for rubbish. The more material that is recycled instead of going into the trash saves the City and taxpayers money.

In February 2010, the City conducted a month-long recycling survey of recycling participation city-wide. Results from this survey provided valuable information for the City including the fact that only 61% of residential properties recycle.

The recycling survey revealed your tenants at this property were recycling. Congratulations and keep up the good work!

More information will be provided before the start of the program, including information on an upcoming recycling incentive program currently being developed by the City. Call Public Works at 860-826-3350 with your questions.

Timothy T. Stewart
Mayor



O proшение tego listu w języku Polskim proszę dzwonić (860) 826-3350
Para solicitar esta carta en español, favor de llamar (860) 826-3350.

Targeted Mailings



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In February 2010, the City conducted a month-long recycling survey of recycling participation city-wide. Results from this survey provided valuable information for the City, including the fact that only 61% of residential properties recycle.

The recycling survey revealed that this property was not recycling.

State Law mandates recycling and these new recycling containers are equipped with technology for tracking recycling practices of each property. Local fines for not recycling will be enforced and warnings and fines will be issued to property owners if necessary. The first offense for non-compliance with recycling laws will be addressed with a written warning. If there is a second offense, there will a \$25 fine levied and each subsequent violation will be punishable by a \$100 fine for each offense.

We hope you will place the enclosed magnet where it is easily accessible and can be used as a quick reference for what does or does not go into the recycling cart. More information will be provided before the start of the program, including information on an upcoming recycling incentive program currently being developed by the City. Call Public Works at 860-826-3350 with your questions.

Timothy T. Stewart
Mayor



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RECYCLING?
Congratulations
and keep up the
good work

NOT
RECYCLING?
Ordinance
information and
enforcement action
described

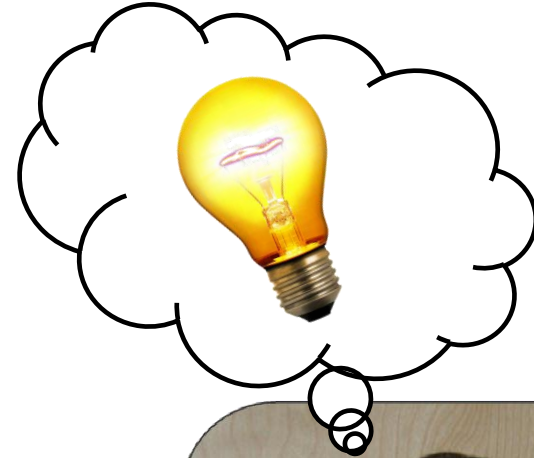
Public Outreach



Targeted Mailings

But we still needed people to open up those letters...

Bill's so good at promotion, he actually got Stanley Golf Course to win The Hartford Advocate's *Best Golf Course* award that year



Bill DiMeo
aka The Guy with the
Magnetic Personality



Public Outreach



Targeted Mailings

- Bill suggested refrigerator magnets to accompany the targeted mailings
- And people love free stuff!
 - It peaked their interest
 - It gave them a reason to open the targeted mailing
 - It served as a daily reminder of SSR do's and don'ts in the busiest room of the house
- I was able to convince TROC to fund the purchase for **\$12,000**

Public Outreach



Targeted Mailings

Refrigerator Magnet with Information on SSR Program
English, Spanish and Polish

YES / SÍ / TAK
Place in Curbside Cart

CLEAN FOOD & BEVERAGE CONTAINERS

ENVASES LIMPIOS DE ALIMENTOS Y BEBIDOS / CZYSTE POJEMNIKI PO NAPOJACH I ŻYWNOSCI



PAPER

PAPEL / PAPIER

- Newspapers
- Magazines
- Catalogs
- Junk Mail
- Office Paper
- Cereal Boxes



GLASS AND METAL FOOD & BEVERAGE CONTAINERS

ENVASES DE ALIMENTOS Y BEBIDAS DE VIDRIO Y METAL / POJEMNIKI SZKLANE I METALOWE PO NAPOJACH I ŻYWNOSCI



PLASTIC CONTAINERS

ENVASES DE PLÁSTICO / POJEMNIKI PLASTIKOWE



CORRUGATED CARDBOARD

CARTON CORRUGADO / TEKSTURA FALISTA

Folded flat to 2'x3'



CURBSIDE RECYCLING GUIDE

WHY RECYCLE?

- Saves the City Money \$
- Conserves Natural Resources
- Reduces Greenhouse Gas Emissions
- Reduces Carbon Footprint
- IT'S THE LAW!

SINGLE STREAM RECYCLING ALL IN ONE!

¡TODO EN UNO!
WSZYSTKOW JEDNYM!



CITY OF NEW BRITAIN
Department of Public Works
860-826-3350

TRASH

BASURA / ŚMIECI



PLASTIC BAGS

BOLSAS DE PLÁSTICO / TORBY PLASTIKOWE



AEROSOL CANS

LATAS DE AEROSOL / PUSZKI PO AEROSOLACH



PRESCRIPTION DRUG CONTAINERS

ENVASES DE MEDICINAS CON RECETA / POJEMNIKI PO LEKACH NA RECEPTĘ



SHARPS

ELEMENTOS PUNZANTES / OSTRE PRZEDMIOTY

- Knives
- Light Bulbs
- Mirrors
- Syringes/Needles
- Window Glass



TOXIC FLUID CONTAINERS

LÍQUIDOS TÓXICOS / TOKSYCZNE PŁYNY

- Antifreeze
- Motor Oil
- Household Cleaners
- Pesticides
- Paint Cans



NO / NO / NIE

Public Outreach



Enforcement

aka: “following the rules”



- It's my personal belief that you catch more bees with honey than vinegar
- Even so...



Enforcement



- After we evaluated options to incentivize SSR, we ultimately never implemented any personal rewards programs
- But we did implement an *enforcement program*



Enforcement



Recycle or be Fined

Survey shows who recycled

By Robin Vinci
EDITOR

As new single stream recycling goes into effect Oct. 18, be aware that not complying with recycling rules will cost you.

Last February the public works department completed a "City-Wide Recycling Survey" to see how many New Britain homes did recycle. According to Mark Moriarty, public works director, the overall results of the city's recycling survey showed that 8,929 out of 14,400 (61 percent) eligible properties in the city-wide survey recycled.

According to the study, the data collected also verified the

expected results that recycling participation was highest in single family homes at 67 percent, and then dropped off for multi-family homes. One surprising finding was that the highest per property recycling rate occurred in the Tuesday recycling route for two family homes. For these properties, the (per property) recycling rate was found to be 74 percent. In general, though, these properties have a high percentage of owner occupancy.

The city's current curbside recycle rate is approximately 10.9 percent based on weight.

As the city pushes for a higher recycling rate the new

see Recycle on page 14



September 24, 2010

**RECYCLE
OR PAY
THE PRICE!**

**(not quite the message
we wanted to send...)**

Enforcement



- **New Britain Recycling Ordinance:**

Any resident or occupant of a residential building who fails to source separate designated recyclables from other solid waste: for a first offense, a written warning; for a second offense, twenty-five dollars (\$25.00); for subsequent offenses, a fine not to exceed one hundred dollars (\$100.00) for each violation.



Enforcement



- Didn't want to deliver an empty threat, but when we rolled out SSR in October, the enforcement program was not quite thought out yet...
- We needed a simple process with as few steps as possible to accomplish the desired results and make sure we stick with the program



Enforcement



- We also wanted something that required minimal staff time to implement and track recycling compliance



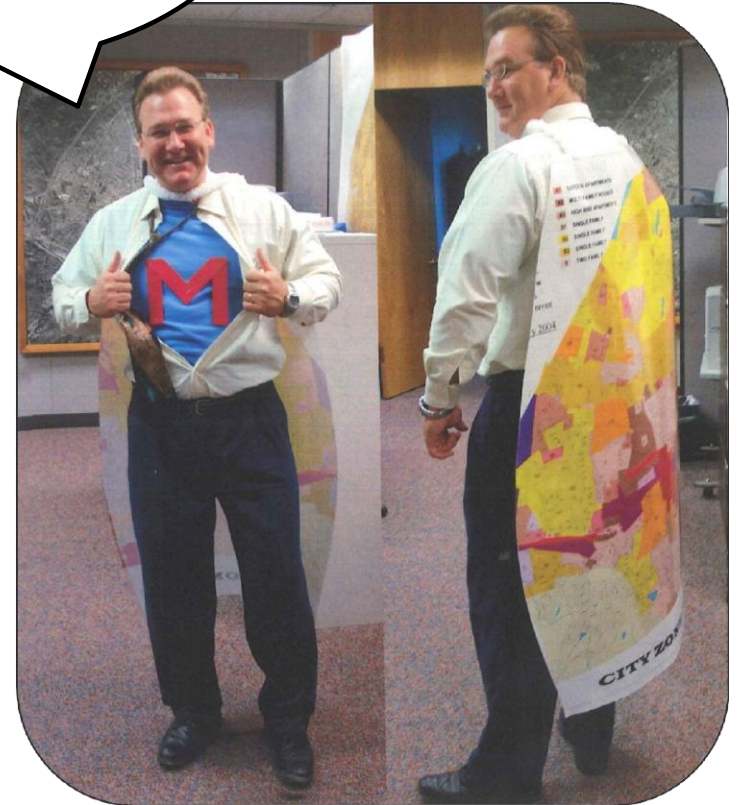
Enforcement



- Little do you know that I have a superhero on staff who handles the recycling enforcement program with enthusiasm!

Area, address info or design... Mapman can do it all!

Chas LaVoie
aka Mapman



Enforcement



- Otto won low bid to provide recycling carts
 - The bid included a requirement for web-based real-time cart tracking software
 - ContainerMTR is Otto's software of choice
- We didn't necessarily evaluate other options, but have been happy with the software to date



Enforcement



ContainerMTR Office

Pickup Data

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Reads By Date

Truck: (all)

Activity Type: (all)

Begin Date: Jun 23 2011 Time: 12 : 00 AM

End Date: Jun 23 2011 Time: 11 : 59 PM

Reads By Address

Building Number: (optional)

Apartment Number: (optional)

Street:

Date Range: Jun 23 2011 - Jun 23 2011

Reads By Account

Account ID:

Web-Based Tracking System - ContainerMTR

Enforcement



ContainerMTR Office

Map Plot

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CONCEPT2
SOLUTION

<http://nb.ottocmtr.com/cmtofficenbct/Map.aspx>

6/23/2011

Enforcement

Web-Based Tracking System - ContainerMTR



- **5 Simple Steps to Recycling Enforcement**

- 1. Identify Properties**
- 2. Field Verify**
- 3. Issue Written Warning**
- 4. Issue First Violation (\$25)**
- 5. Issue Second Violation (\$100)**



Enforcement



- **Step 1: Identify Properties**
 - Tracked one collection day per month, starting in January 2011 through May 2011
 - January – Tracked MONDAY
 - February – Tracked TUESDAY
 - And so on...
 - Identified properties that failed to recycle on each of the test days for the test month
 - Started with **20 non-recycling** properties for each collection day (**100 TOTAL to date**)



Enforcement



- Step 2: Field Verify
 - Physically verified the property
 - Are they at least putting trash curbside?
 - Is the property vacant?
 - **Eliminated about 40% of the 100 non-recycling properties** through this process



Enforcement



- Step 3: Issue Written Warning
 - Mailed to non-recycling resident or property owner
 - To date, we have had approximately 100 total warnings issued...
 - **And all but 3 properties began recycling after being issued the written warning!**



Enforcement



- Step 4: Issue First Violation
 - Those 3 properties have been issued \$25 violations per the City ordinance
 - **You can't say we didn't warn you!**
 - All properties paid their fines
 - All properties are currently recycling



Enforcement



- **Step 5: Issue Second Violation**
 - Hasn't been required to date...
 - And we hope we won't have to in the future!



Enforcement



- Current Enforcement Efforts
 - Presently, there are 768 of 14,178 properties that haven't tipped yet (approximately 5%)
- Next Steps
 - **Can we streamline this tried and true enforcement process, and get the same positive results?**
 - Sending the 768 properties a generic letter would technically serve as a written warning...
 - We can likely assume that approximately 40% of these properties have a valid excuse (ie: vacant, snow birds, etc.)

Enforcement



THE STEPS ARE IN PLACE

**We will continue to evolve and monitor the
process with a goal of**

100% participation!

Enforcement



Results

aka: “look what we did!”



- Curbside collection began in mid-October 2010, so November 2010 was technically the first valid month of data



Results



- **Setting Expectations**
 - Based on results from area communities with similar demographics and of comparable size, we set a high-end goal for a **50%** increase in curbside recycling
 - Realistically, we were expecting an increase of approximately **35%**
- So how did we do?

Results



NOVEMBER

2009:

179.77 tons

recycled

VS.

NOVEMBER

2010:

334.13 tons

recycled

**An increase of:
154.36 tons and 85.9%!**

Results



And subsequent months followed the same trend...

Month	2009 tons	2001 tons	% Increase
December 2010	201.15	377.58	87.7%
January 2011	159.26	291.53	83.0%
February 2011	162.06	287.73	77.5%
March 2011	190.56	407.23	113.7%
April 2011	189.02	356.59	88.7%
May 2011	190.94	372.65	95.2%

Results



Property-Based Increase Data: 2010 vs. 2011

2011 Recycling City Wide Survey

Total Eligible for Curbside Recycling				Single Family Homes				Two Family Homes				Three Family Homes				Four to Six Family Homes			
Day of Week	Number of Homes/Other	Number Recycling	Percent Recycling	Number of Homes	Number Recycling	Percent Recycling	Percent of Style of Homes per Route	Number of Homes	Number Recycling	Percent Recycling	Percent of Style of Homes per Route	Number of Homes	Number Recycling	Percent Recycling	Percent of Style of Homes per Route	Number of Homes	Number Recycling	Percent Recycling	Percent of Style of Homes per Route
Monday	3341	3213	96%	2849	2732	96%	85%	422	413	98%	13%	24	24	100%	1%	10	8	80%	0%
Tuesday	2925	2781	95%	2100	1990	95%	72%	446	424	95%	15%	258	246	95%	9%	22	22	100%	1%
Wednesday	2590	2444	94%	1169	1091	93%	45%	619	578	93%	24%	404	389	96%	16%	228	216	95%	9%
Thursday	2483	2378	96%	1104	1063	96%	44%	606	567	94%	24%	527	509	97%	21%	89	82	92%	4%
Friday	2782	2667	96%	1678	1597	95%	60%	602	580	96%	22%	348	339	97%	13%	51	48	94%	2%
TOTALS	14121	13483	95%	8900	8473	95%	61%	2695	2562	95%	20%	1561	1507	97%	12%	400	376	92%	3%

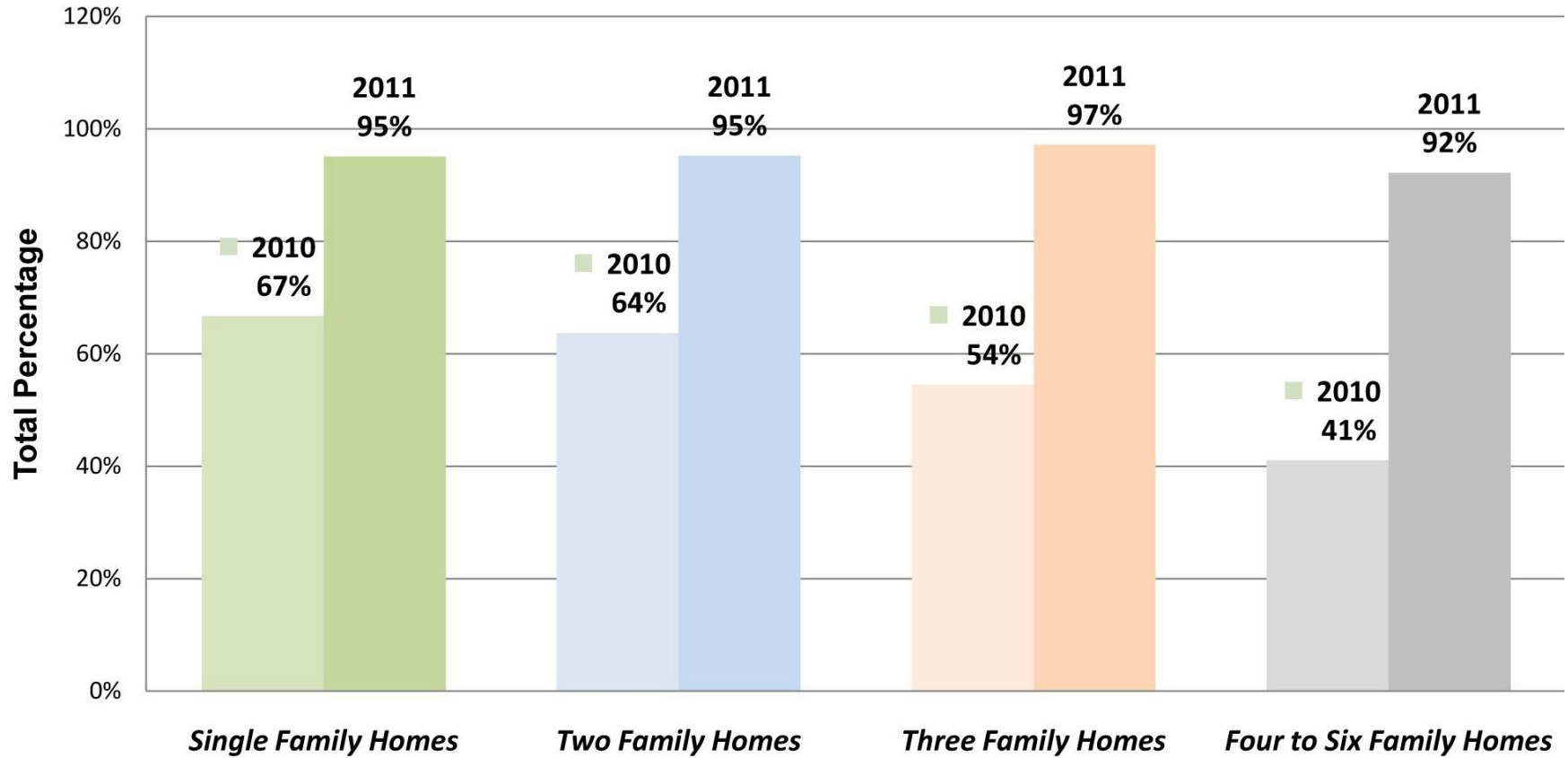
2010 Recycling City Wide Survey

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Monday	3355	2269	68%	2860	1902	67%	85%	422	311	74%	13%	25	14	56%	1%	11	6	55%	0%
Tuesday	3026	2098	69%	2123	1537	72%	70%	452	324	72%	15%	260	166	64%	9%	23	13	57%	1%
Wednesday	2615	1482	57%	1174	744	63%	45%	626	356	57%	24%	406	210	52%	16%	234	94	40%	9%
Thursday	2588	1430	55%	1106	757	68%	43%	615	337	55%	24%	538	272	51%	21%	88	23	26%	3%
Friday	2816	1650	59%	1698	1064	63%	60%	606	373	62%	22%	354	178	50%	13%	54	15	28%	2%
TOTALS	14400	8929	61%	8961	6004	67%	61%	2721	1701	64%	19%	1583	840	54%	12%	410	151	41%	3%

Results



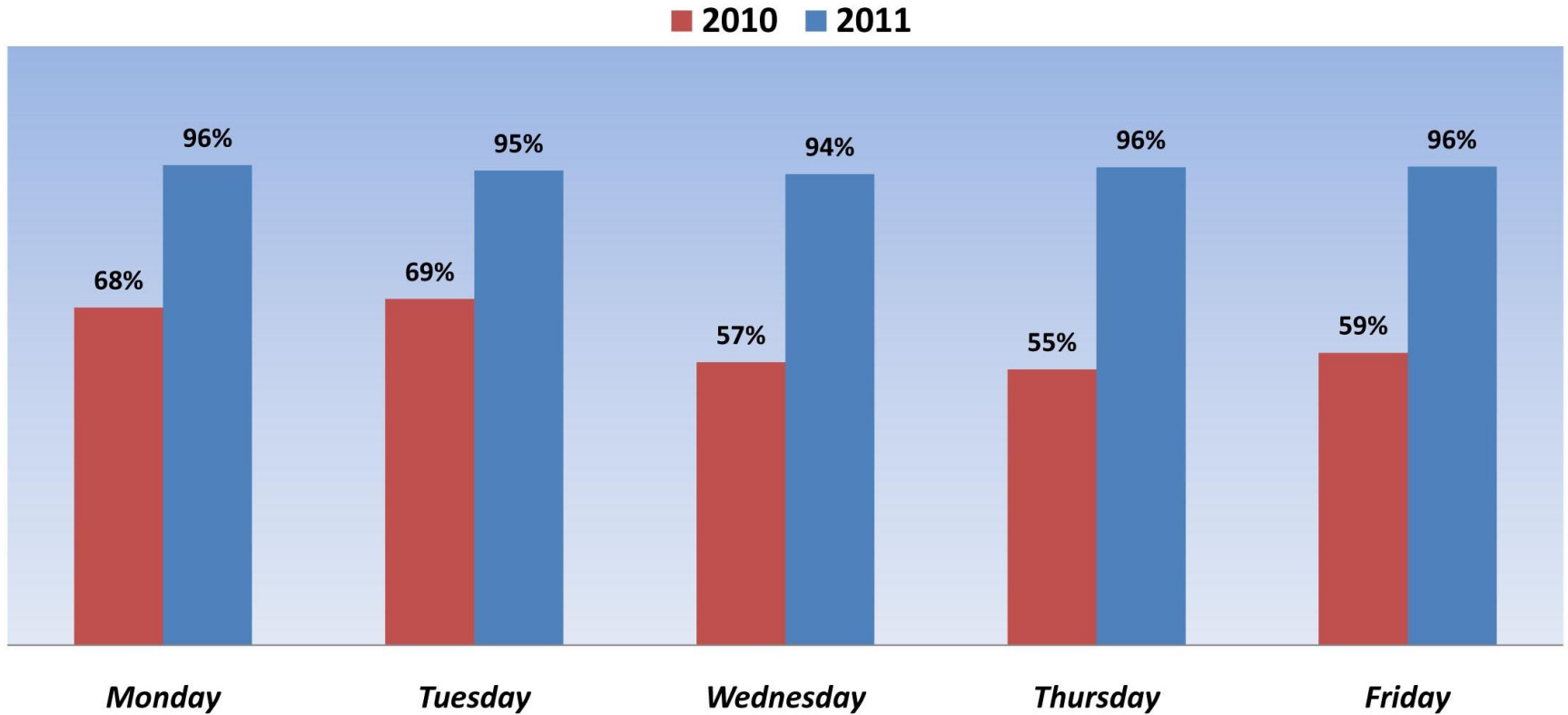
Property-Based Increase Data: 2010 vs. 2011



Results



Collection Day Increase Data: 2010 vs. 2011



Results



**Overall
increase:**

**61% to
95%**

Results



**Did I mention
to you that
I'm super
competitive?**



Results





TUNXIS RECYCLING OPERATING COMMITTEE

43 Enterprise Drive
Bristol, Connecticut 06010
www.brroc.org

(860) 585-0419
(860) 225-9811
Fax (860) 585-9875

TROC Recycling Tonnages by Municipality MAY 2011 RESULTS

MEMO TO: TROC Members

Town	Jul-Oct FY2010	July-Oct FY2011	% Change from FY2010
BERLIN	1,258	1,113	-11.5
BRISTOL	2,839	3,016	
BURLINGTON	603	597	-1.1
MERIDEN	1,517	2,025	33.5
MORRIS	149	151	1.9
NEW BRITAIN	1,850	2,781	
PLAINVILLE	836	893	6.8
PLYMOUTH	370	393	6.2
PROSPECT	427	414	-3.1
SOUTHINGTON	2,619	2,822	7.7
WARREN	77	120	54.9
WASHINGTON	378	373	-1.2
WOLCOTT	511	479	-6.3
TOTAL	13,434	15,176	13.0

Almost caught up with Bristol in FY2011... plan to in FY2012!

Results



Summary

aka: “wrap it up!”



- High recycling rates can be achieved in any community
- It helps to have money to fund your ideas
- Track useful information
- Tailor public outreach efforts to your specific audience
- Keep it simple
- **It's nice to see hard work pay off**



Summary



Questions

Mark Moriarty, PE
Director of Public Works
City of New Britain
mmoriarty@newbritainct.gov
860-826-3374

and answers

